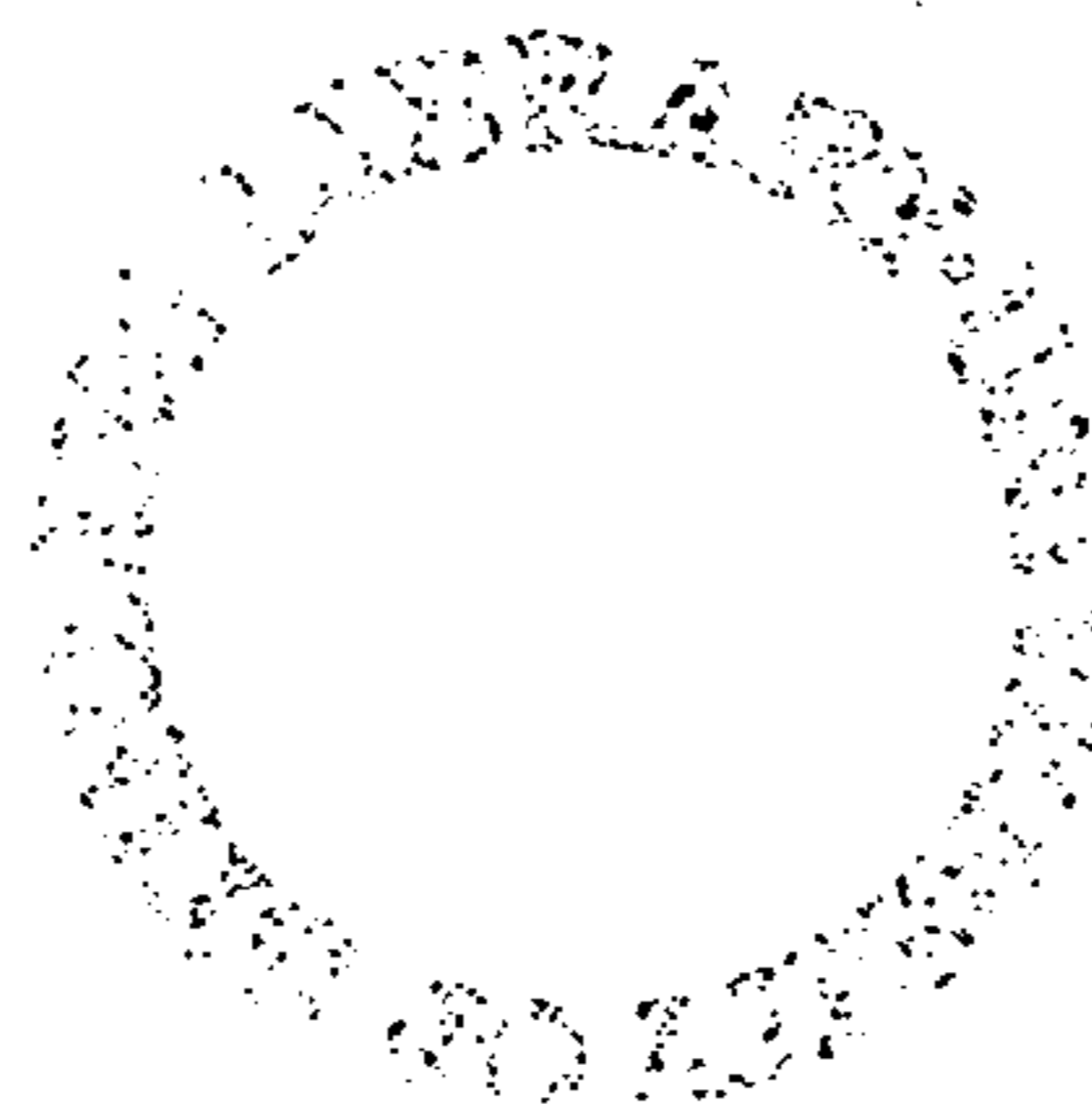


Thesis  
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THE INFLUENCE OF HEDONISM ON THE FORMATION OF ECONOMIC THEORY

by

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"ἡδονῆς γε νοῦς εἶη μακροῦ βέλτιον τε  
καὶ ἄμεινον τῶ τῶν ἀνθρώπων βίῳ."

Plato

"Man does not strive after happiness;  
only the Englishman does that."

F. Nietzsche

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## ABSTRACT

The prime objective of this thesis is to show that contrary to the common belief of historians of economic thought, hedonism has played a central and a continuous role in the development of economic theory. In the process of showing this, the thesis starts with a brief examination of the origins of hedonistic ideas in the works of ancient Greeks. The next chapter is concerned with the reappearance (after a long break of several centuries) of the basic hedonistic ideas mainly in the thought of Gassendi, Helvetius and Hobbes, and their subsequent introduction to the field of economics with the work of Bentham, Mill, Senior and Cairnes. The main elements of hedonism (although somewhat modified) were also observed in the economic thought of leading marginalist theorists, the subject matter of the fourth chapter. With the marginalist school, hedonistically based terms became central to economic theory and generally economic theory was characterized by an explicit hedonistic orientation. The fifth chapter discusses the attempts to downplay hedonism as found in the work of Wicksteed, Pareto and Fisher. The reasons for these attempts were the heterodox criticism and the increasing influence of positivist scientific philosophies. The discussion supports the view that in essence hedonism did not disappear but was pushed into the background. The sixth chapter assesses the modern attempts towards a neutral economic science without psychological or philosophical connotations. The works of Robbins, Hicks, Samuelson as well as the current developments are examined. As a further indication of the hedonistic influence on economic theory, chapter seven deals with a discussion of alternative economic approaches which stem from non-hedonistic paradigms. Adam Smith, Marx and Keynes are mentioned as examples of non-hedonistically oriented economists, and lexicographic choice and non-maximizing theories of the firm are suggested as examples of theories which are independent of the hedonistic framework.

The general conclusion of the thesis states that in spite of the neutralization attempts and contrary to the common belief of many theorists, hedonism is still an important underlying conceptual framework of economic theory.

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## CHAPTER 1

### 1.1 GENERAL INTRODUCTION

Hedonism is the view that the maximization of pleasure is the good, and the aim of life. This is a broad definition which covers both the normative and the positive nature of hedonism. More analytically, it can be maintained that there are two distinctive kinds of hedonism. The first, sometimes termed philosophical or ethical hedonism, states that people ought to maximize pleasure and to minimize pain. The second, known as psychological hedonism, states that pleasure seeking and pain avoidance are the motives of man's actions; or part of his nature. Various writers -philosophers and economists- have used both kinds of hedonism in their works. But while economics generally started more with philosophical hedonism, gradually it was replaced by psychological hedonism. It should be emphasized at this point however, that in this work references to hedonism will include both kinds unless it is otherwise specified. (Some notes on the distinction between philosophical and psychological hedonism are set out in an Appendix to this chapter.)

The first origins of hedonism appeared in the writings of the ancient Greeks. The most important hedonist philosophers were the members of the Cyrenaic School -mainly Aristippus- and later on the followers of the Epicurean philosophy. After a retreat from hedonistic ideas during the Middle Ages, hedonism was revitalized in the materialist theories of the Renaissance and of subsequent periods. Although somewhat modified, the modern hedonistic approach has influenced many areas of intellectual activity.

J. Bentham (who was influenced by the ideas of Gassendi, Helvetius and Hobbes) systematically introduced the hedonistic framework in the younger field of economics during the eighteenth century. The key point in Bentham's utilitarianism was that men are governed by two sovereign masters, pleasure and pain, and that men always seek their pleasure and avoid their pain. Bentham thought that his ideas were a description of actual behaviour and thus they were

closer to the psychological kind of hedonism. These ideas were very important for the formation of the later classical and neoclassical economic thought. The first well-known classical economist after Bentham to adopt the utilitarian theory was N. Senior. Like Bentham, Senior held that the dominant motive of human behaviour was to maximize pleasure and to minimize pain. However, the first systematic development and application to economics of hedonistic ideas was made by the influential philosopher and classical economist J.S. Mill. (It should be mentioned though, that Mill did not regard hedonism as a complete theory.) Mill conceived an "economic man" whose main characteristics were pleasure maximization and selfish behaviour. Mill, however, by making a distinction between his "economic man" and the real man, departed from Bentham and Senior who held that the hedonistic psychology is the dominant psychology of real man (this distinction can be found in his economic writings). Despite the above differences, classical economic theory after Bentham was heavily influenced by the hedonistic framework. (The selfish maximization of pleasure was seen as the main motive of economic agents.)

The hedonistic approach was even more developed by the marginalists who emphasized individual rather than group or class behaviour. The establishment of utility theory as the basic building block of economic theory and the intensification of the use of a hedonistic, selfish economic agent as the main tool in economic analysis are clear signs of the prevailing influence of the hedonistic approach. More analytically, Jevons based his value theory upon the "calculus of pleasure and pain" and stated that the object of economics is the maximization of happiness at the least cost of pain. In the same spirit, Walras' writings show an economic man in "his most rigorously abstract state: selfish, rational and well-informed" (Paul, 1979, p. 129). Moreover, the growth of formalization of economic theory, which was a manifestation of the mechanistic-positivist approach, assisted the establishment of the hedonistic calculus of pleasure and pain in orthodox economics. Edgeworth, Fisher, Wicksteed and Pareto were in the same climate although the old controversy of fictional or real economic man continued. Today this controversy is not so strong because most mainstream economists tend to accept that

economic man is an abstraction but a very useful and basic one for economics (Machlup, 1978, pp. 113, 117 and Bensusan-Butt, 1978, p. 145). In general, it can be maintained that during the marginalist period, the hedonistic influence, assisted by the increasing formalization, reached its peak. The shift of emphasis from a supply-based explanation of economic phenomena to a demand-based explanation required a standard and predictable economic behaviour. The formalized hedonistically oriented behaviour seemed to be the appropriate basis. Thus, the selfish maximization of utility (a term synonymous to pleasure for many theorists) became the foundation stone of marginalist theories.

This should not be taken to mean that economic theory was always based on the hedonistic framework. For instance, the founder of political economy, A. Smith had a sophisticated, non-hedonistic view of human behaviour. Also, the main representatives of the historical and institutional schools criticised the profound influence of hedonism on the late classical and marginalist economists. The same applies to J. M. Keynes who was very explicit in condemning the hedonistic influence on his contemporary economics.

In the first decades of the twentieth century, there was an attempt to minimize the hedonistic image of orthodox economics. The main reasons were the drive towards a neutral, objective economic science freed from psychological assumptions and the heterodox attack on the hedonistic basis of mainstream theory. Thus, first Robbins set the methodological frame and later Hicks and Samuelson constructed their theories of choice. These theories were supposed to be free of the value laden concepts of economic man, utility and selfish behaviour. However, as we shall see, despite these attempts, the hedonistic influence on orthodox theory can still be discerned.

In general, it is the purpose here to assess the argument that, despite the differences in interpretation of various classical and neoclassical economists (fictional versus real economic man) and the construction of allegedly value-free theories by the moderns (choice theories), the hedonistic framework has played, and still plays, an important role in the formation of orthodox economic theory (especially microeconomic theory).

A number of distinguished historians of economic thought, like J. Schumpeter, M. Blaug, A. Gray, E. Roll, E. Heimann and W. Barber, have not paid proper attention to the above. More specifically they only make brief mention of the hedonistic approach in mainstream economics in spite of its importance in the construction of orthodox theory. For instance, M. Blaug in his "Economic Theory in Retrospect" mentions hedonism only in the pages dealing with Jevons and in the section of Marshallian utility theory. J. Schumpeter finds that Epicurus and Bentham can be called hedonists in a wider sense and he only mentions hedonism in relation to the marginalists. The same happens with E. Roll who writes about hedonism only in the section dealing with marginal utility, and especially with respect to Jevons. A. Gray, E. Heimann and W. Barber do not mention hedonism at all. Although, for instance, they speak about Jevons' calculus of pain and pleasure, they do not refer to him as a hedonistically oriented theorist. In general, most historians of economic thought have underestimated the role of the hedonistic ideas in the formation of mainstream economics and also have failed to point out the continuity of this approach between classical and modern orthodox economics (see Blaug, 1978, pp. 372-373, Schumpeter, 1963, pp. 66, 887-888, 1056, Gray, 1931, pp. 330-356, Roll, 1961, pp. 378-385, Heimann, 1945, pp. 184-195, Barber, 1977). On the contrary we wish to explore the possibility that since Bentham, mainstream economics has been under the continuous influence of the hedonistic framework. Even after the attempts of Robbins, Hicks and Samuelson to build an economic science without the concept of utility, the conceptual basis has not changed. Generally, we do not accept the view of the above authors who treat hedonism simply as one of the many characteristics of some marginalist economists, but we see it as a constant and important influence on conventional economics.

An important sign of the presence of hedonistic ideas can readily be found in contemporary orthodox textbooks. The contents of these textbooks suggest that the hedonistic influence is sometimes explicit even today (decades after the neutralization attempt). Thus one can read:

"The principal assumption upon which the theory of consumer demand is built is: a consumer attempts to allocate his

limited money income among available goods and services so as to maximize his satisfaction." (Ferguson and Gould, 1975, p.35)

"A basic assumption of the utility theory of the household is that the members of a household seek to maximize their total utility." (Lipsey, 1979, p.161)

"The model of economic man can be described in terms of four assumptions...These assumptions form a model of decision making sometimes referred to as economic man, where each individual is portrayed as a utility maximizer." (L. Friedman, 1984, pp. 22,23)

"The model [the theory of consumer choice] has four elements which describe both the consumer and the market environment:

1. The given income that the consumer can spend
2. The prices at which goods can be bought
3. The consumer's tastes, which rank different combinations or bundles of goods according to the satisfaction they yield to the consumer
3. The behavioural assumption that consumers do the best they can for themselves. Of the possible consumption bundles that can be purchased out of a given income, the consumer picks the bundle that maximizes his or her satisfaction."

(Begg et al, 1984, p.90)

Apart from the above, the hedonistic influence can also be discerned in a number of conventional definitions of economics. The definition of economics in terms of satisfaction comes from the marginalist era but it is still used occasionally.

"Economics is the study of the way man meets the problem of limited resources, choosing among alternative uses as he attempts to satisfy his own satisfaction." (Solmon, 1976, p.14)

Moreover, we believe that the role of economic methodology is important in understanding the relationship of economics and hedonism. Hedonistic ideas turned out to be conveniently adaptable to the mechanistic-positivist approach of mainstream economics. This approach called for a stable, quantifiable and predictable economic behaviour. Thus, a selfish, pleasure maximizer economic agent was the ideal. And this is the main reason why the keenest advocates of the mechanistic-positivist methodological approach were also the keenest supporters of hedonistic ideas (although we think that there can be a mechanistic, but non-hedonistic representation of human nature).

During the development of hedonistic ideas in orthodox economics there was also a parallel heterodox movement which opposed this trend.

Examples of this movement were the Historical, Institutional and the Post-Keynesian schools of thought. These alternative approaches condemned the hedonistic bias of mainstream theory and suggested that a less simplistic account of human nature should be introduced in place of economic man. Moreover, they rejected the mechanistic-positivist methodology of the orthodox approach and instead, followed a more open, pluralist economic methodology.

In order to discuss the above ideas, we shall begin with a brief examination of the origin of the development of the concepts of pleasure and pain in the writings of the ancient Greeks. We believe that this will be helpful in understanding the nature and significance of the hedonistic framework. Although many ancient thinkers have written about pleasure and happiness, we will concentrate on the Cyrenaic school and the Epicureans because those were the ones who emphasized them most, and thus influenced subsequent hedonistically oriented theorists.

In the beginning of the third chapter, we shall examine how the ancients (through Gassendi, Helvetius and Hobbes) influenced J. Bentham the founder of utilitarianism. Then we will discuss the way that the hedonistic ideas were systematized and introduced in classical economics through Senior, Mill and Cairnes. We will also attempt to assess the first formulation of the hedonistic-based economic man and the various controversies concerning its interpretation.

In the first part of the fourth chapter, we shall examine the way that the hedonistic approach was consolidated in the views of the members of the first marginalist generation: Gossen, Jevons, Walras and Menger. In the second part, Edgeworth's and Marshall's role in the development of the hedonistic framework will be assessed. Moreover in this chapter, we will find out how the hedonistic orientation of economics was assisted by the prevailing formalization of economic theory. Generally, as we shall see, the hedonistic influence on orthodox economics reached its peak during the marginalist period.

The fifth chapter will discuss the first attempts to downplay hedonism in economics. As we will observe, Wicksteed, Pareto and Fisher were the first theorists who tried to construct a "value free"

economic science. Our attention in this section, will be on the success of the above in minimizing the psychological assumptions of economic theory.

In the sixth chapter we will deal with the modern attempts towards a neutral economic science, without psychological or philosophical bias. The basic point here will be to examine the claim of modern orthodox economists that economic theory is free from any kind of psychological basis. We will concentrate mainly on the work of Robbins, Hicks and Samuelson, and will also summarize the major modern developments.

Our examination of the influence of hedonism on mainstream economic theory will close with a discussion of non-hedonistic oriented economists. This section will be necessary in order to show the existence of alternative economic approaches without hedonistic basis. The purpose here, however, will not be a detailed examination of the non-hedonistic approaches, but the exposition of indicative examples which will serve the above stated intention.

A general conclusion which will contain the results of our investigation, will constitute the final chapter of the present thesis. The main aim there will be to summarize the most important arguments and to state their possible implications for economic theory.

In summary then, the thesis will be the following: despite the minor attention that important historians of economic thought give to the role of hedonistic ideas, these ideas have had a significant influence in the development of orthodox economic theory. Hedonism, which originated in ancient Greek thought, entered economics with Bentham and ever since has had a continuous, underlying presence. Hedonism in economics was further strengthened by the dominant mechanistic-positivist methodological approach especially during the marginalist period. Modern attempts to build a positive economic science might have succeeded in eliminating extreme hedonistic connotations. However, in spite of this, we believe that the hedonistic influence is still present as an underlying characteristic of mainstream economic theory.

## APPENDIX TO CHAPTER 1

Philosophical Hedonism: Traditionally philosophical hedonism states that the maximization of pleasure is the true goal of every being and what everyone ought to aim at. Pleasure is identified with Good. A Hedonist offers the following equation:

$$\text{Pleasure} = \text{Good}$$

And also:  $\text{Happiness} = \text{Pleasure}$

A basic difference between a hedonist and a non-hedonist lies in the fact that the non-hedonist might accept that pleasure is a good but he will definitely reject that pleasure is the good.

Psychological Hedonism: Pleasure is the good in itself because it is what we all, ultimately at least desire or aim at.

Reconciliation Between Moral and Psychological Hedonism: Generally the following sequence of arguments has been suggested:

- 1) Pleasure and Pleasure alone is desired as an end
- 2) What is desired as an end and only what is desired as an end is good as an end
- 3) Pleasure and Pleasure alone is good as an end.

Non-hedonistic thinkers have put Truth, Knowledge, Beauty or Virtue in the place of or in addition to pleasure as an end. Moreover, non-hedonistic psychological theories emphasize self-actualization and not pleasure maximization (Maslow's psychological theory can be seen as a representative example of this).

A detailed discussion of the above ideas can be found in Mill, 1979, Moore, 1966, pp. 60-109, Frankena, 1963, pp. 67-72, and in Plato (Philebus).

Egoism: Analogous to the distinction between moral and psychological hedonism, is the distinction between ethical and psychological egoism. An ethical egoist should act and judge by the standard of his advantage in terms of good and evil. On the other hand psychological egoism states that everyone is always seeking his own greatest good. Ethical egoism has generally presupposed what is called psychological egoism. Thus, psychological egoist hedonism, which as we shall see is



the idea that prevails in orthodox economics, states that it is in the nature of man to seek his own greatest pleasure.

Again an extensive discussion of both kinds of egoism can be found in Moore, 1966, pp. 18, 96-105, Frankena, 1963, pp. 16-21, and in Butler, 1950, p. 45.

## CHAPTER 2

### ORIGINS OF HEDONISTIC IDEAS

#### 2.1 INTRODUCTION

Before starting to examine the role of the hedonistic approach in the development of economic thought, it would be useful if we devoted a brief section to discussing the origins of hedonistic ideas. We believe that in order to grasp the role and significance of hedonism in orthodox economic theory we must first understand its birth and growth as an intellectual movement.

As with many other ideas, one can trace the origins of hedonism back to ancient Greek thought. The first to attempt an analysis of the concepts of pleasure and pain were the ancient Greek philosophers. Nearly every major ancient philosopher had his own theory about happiness and the role of pleasure and pain in it. Specifically, Democritus, Plato, Aristotle and others wrote about pleasure and pain. Amongst the pre-Socratic philosophers, Democritus especially had placed particular emphasis on the idea of an interplay between pleasure and pain. However, there were two schools of philosophical thought which considered pleasure and pain as the principal concepts in their system, and only these two had as a starting point of their theories the following principle: pleasure is the highest good and aim of human life. These two philosophical schools were the Cyrenaics and the Epicureans. The respective leaders of the schools were Aristippus and Epicurus. As we pointed out, many ancient philosophers have written about pleasure and pain but the distinctive characteristic of these two was that the concept of pleasure maximization was considered to be the central idea of their teachings (this view constitutes the essence of the hedonistic framework). The idea of maximization of pleasure is a universal feature of all subsequent hedonistic theorists. Moreover, Aristippus and especially Epicurus were major

source of influence on Bentham, who was to introduce the hedonistic approach in economic thought.

In this chapter we will discuss the growth of the hedonistic thought in the ideas of these two philosophers and their followers. Before that, however, we will briefly mention the state of analysis of the concepts of pleasure and pain before the Cyrenaics and the Epicureans set the basis of hedonism.

## 2.2 ANALYSIS OF PLEASURE AND PAIN: DEMOCRITUS AND PLATO

Although Democritus cannot be characterized as a hedonist, one can trace some elements of his thought which influenced the formation of subsequent hedonistic philosophy. For instance, Democritus placed importance on pleasure and pain by stating' :

"The criterion of our interests is pleasure and pain."  
(Fragment No: 188 in Helios,1981,p.30)

As we shall see, the above idea is very similar to one of Bentham's fundamental philosophical views. However, Democritus did not see pleasure as the ultimate purpose of life as did subsequent philosophical schools. According to him, the purpose of life was the "ευδαιμονία" which means the equilibrium of the "ψυχή" (soul) and this is attainable only through the moderation, wisdom, and education of the individual (see Karayiannis,1988,p.8 and Helios,1981,p.32). Moreover, in other parts of his writings, Democritus qualifies the importance of pleasure by emphasising that: "Men achieve harmony of the soul when they mitigate their pleasures and when they hold a balance in their life." (Fragment No: 191 in Helios,1981,p.30). The above show that Democritus was not a hedonist in the sense that his thought did not revolve around the idea of pleasure maximization.

Democritus attempted to find a method to measure pleasure and pain. This attempt is a basic characteristic of the development of the hedonistic approach. In principle he believed that pleasure can be measured because it had to do with the mechanical movements of the soul. However, he did not leave us a concrete method of measuring pleasure and pain.

Plato, in his dialogues discusses extensively the problem of pleasure and pain and their significance for human life. More specifically, there are at least two dialogues where he attempted a systematic analysis of the issue: "Protagoras" and "Gorgias".<sup>2</sup> Furthermore, Plato devotes a whole dialogue -'Philebus'- to a detailed examination of the problem. In the beginning of this work two opposite views, which are going to be examined in the dialogue, are suggested. The first states that for every living being the highest good is pleasure. The second one asserts that prudence and reasoning

constitute the highest good (Plato, Philebus:11a). As one can observe the first view characterises the hedonistic approach, while the second can be taken as the starting point for a non-hedonistic creed. Plato's approach to pleasure is mainly moral and this puts him closer to philosophical hedonism (although one can find some psychological observations in his work which support his moral ideas).

During the process of the discussion, Plato rejects both views and in their place suggests that only a mixed life of prudence and pleasure is the highest good. In this mixed life, Plato gives priority to prudence and reasoning; pleasure comes afterwards. His main argument supporting this, is that prudence is necessary for pleasure otherwise human life would be no different from the life of an oyster (Plato, Philebus:21d).

Thus, one can see that before the Cyrenaics and Epicureans, a number of thinkers, but especially Democritus and Plato had occupied themselves with the study of pleasure and pain<sup>3</sup>. However, as we shall see, the history of hedonism as an independent doctrine starts with the above two schools.

## 2.3 CYRENAICS

The founder and the main representative of the Cyrenaic school was Aristippus (435-356 B.C.). He was the one of the many students of Socrates although much of his teaching was in opposition to that of his teacher. It is highly likely that he has written a number of books but unfortunately they have never been found. Thus the sources of his teachings are the writings of his contemporaries or of subsequent Greek and Roman authors. The main source of information on Aristippus' views is considered to be the work of Diogenes Laertius. In his book entitled "Βίοι Φιλοσόφων" ("The Lives of Philosophers") Diogenes Laertius makes an analytical reference to Aristippus and also to his school, the Cyrenaics. After mentioning some facts and episodes from Aristippus's life, he proceeds to state the basic points of his philosophical system. The way that Diogenes Laertius begins his description of Aristippus's views reveals an important characteristic which will be found in all subsequent followers of the hedonistic approach: the emphasis on two opposite concepts, pleasure and pain.

"The ones who followed the teaching of Aristippus, and they were named Cyrenaics, supported the following views: they said that there are two feelings, pain and pleasure [πόνος καί ηδονή] and that the feeling of pleasure is born by the soft movement, while that of pain from the hard and impetuous movement; that there is no difference among the various pleasures, and also that no pleasure is more pleasant than another pleasure; and that pleasure is desirable for all beings while pain is hated." (Diogenes Laertius, Book 2, §87)

Another point which can be observed from the above passage is that Aristippus is closer to what was to be called later quantitative hedonism, viz: no qualitative difference among pleasures. (As we shall see Bentham was also a quantitative hedonist.) A few lines further on, the basic principle of the hedonistic framework can be seen:

"But they [Cyrenaics] mean the bodily pleasure, which they consider as the ultimate purpose..." (Diogenes Laertius, Book 2, §87)

The above is the distinguishing characteristic of the Cyrenaics. We saw that Democritus and Plato theorized about pleasure but the emphasis of the Cyrenaics upon pleasure as the aim of life made them

the first school of thought to establish the basis of the hedonistic approach. The fact that they placed pleasure in the centre of their philosophy by making it the highest good and aim of life, and also the fact that they were the first to concentrate exclusively on its analysis, justifies the view that they were the first systematizers of the philosophy of hedonism. The well-known scholar of ancient Greek philosophy E. Zeller writes: "Thus the crowning principle of his [Aristippus] ethics is the conviction that all our actions must be directed to the object of gaining for us as much pleasure as possible" (Zeller, 1901, p. 123). The above ideas of Aristippus are also confirmed by another ancient Greek author Athinaios. As he writes:

"After he [Aristippus] accepted pleasure he then said that it is the ultimate aim of life and also happiness depends upon it." (Helios, 1981, p. 42)

It is clear that Aristippus' ideas are closer to ethical or moral hedonism. As will become evident later, the majority of the hedonistically-oriented economists are inclined more towards psychological hedonism. However, Aristippus attempts to establish his ethical belief in the maximization of pleasure by drawing from the psychology. Thus he tries to reconcile moral and psychological hedonism (see appendix to chapter 1). He reinforces his ethical ideas from psychological observations. As he states:

"The evidence, however, that the ultimate purpose is pleasure, is the fact that, by instinct, when we are children we are attracted by it; and when we attain it we do not seek anything else, while there is nothing we avoid so much as the opposite to it, pain." (Diogenes Laertius, Book 2, §88)

Zeller observes this important point when he emphasizes that Aristippus believed that the fact that pleasure coincides with the good and the bad with the unpleasant, is declared to everyone by the 'voice of nature' (Zeller, 1901, p. 123).

The Cyrenaics did not believe in any hierarchical order of actions according to their moral values. All kinds of actions are desirable as long as they bring pleasure. The placement of pleasure on the position of the highest good means that all actions have the same moral value. This point is related to the quantitative hedonism of the school. A serious moral and practical problem arises here,

which is also observed in Bentham's utilitarian theory. Actions that bring pleasure to the individual may be harmful for another individual or for the society as a whole. Diogenes Laertius writes:

"They [Cyrenaics] considered pleasure as something good even if it is coming from indecent behaviour...Although the action (from which pleasure is derived) could be absurd, the pleasure however which is extracted by it, is as such, desirable and good." (Diogenes Laertius, Book 2, §88)

Another important issue is the nature of pleasure. Zeller explains: "By pleasure Aristippus does not, like Epicurus after him, think only in terms of repose of spirit, for this would be the absence of any feeling, but of positive enjoyment" (Zeller, 1901, p.123). As we shall see later in this chapter, Epicurus had a different conception of pleasure. Aristippus associates it with movement not with the absence of pain. Diogenes Laertius makes it clear:

"The absence of pain, which Epicurus supports, is not according to them [Cyrenaics] pleasure; nor is the absence of pleasure pain." (Diogenes Laertius, Book 2, §89)

Aristippus distinguishes two kinds of pleasure: the bodily pleasures and the pleasures of the soul. He holds that the pleasures of the body are preferable because they are more intense than those of the soul. As Diogenes Laertius explicitly states:

"Much superior are the pleasures of the body than the pleasures of the soul, and the pleasures of the body are more intense. Because of this the outlaws should be punished by bodily pains." (Diogenes Laertius, Book 2, §89)

The issue of measuring pleasure and pain is related to the above point. As a genuine hedonist, Aristippus attempted to find a method to measure pleasure. More specifically, it seems that he accepts the views of Socrates which are expressed in Plato's dialogue 'Protagoras' (Helios, 1981, p.42). In this dialogue, Socrates believes that there is a 'measuring art' with which one can calculate the pleasures and pains (Plato, Protagoras, 1979, pp.66-69). As we shall see the attempt to measure pleasure is common to many subsequent hedonistic oriented theorists (eg Bentham's calculus of pleasure and pain).

It is quite likely that Aristippus' hedonism was basically egoistic hedonism (egoist in the sense that people always seek their own greatest good; in this case pleasure). Although we do not have an



explicit statement which proves the above, we can conclude from the general spirit of his ideas that this is the case. Paragraph 89 from Diogenes Laertius quoted above and Zeller's comment in page 15 are clear indications.

The immediate followers of Aristippus were his daughter Arete and Antipatros. Other important Cyrenaics were Theodorus, Hegesias and Anniceris. Theodorus brought a considerable change to the philosophical system of the school by giving less emphasis to the maximization of pleasure as the purpose of life. Instead, he emphasized the feeling of joy (gladness) which comes from pleasure (Helios, 1981, p.43). Thus it seems that he gave more attention to the spiritual than the bodily level. Moreover, although he accepted the basic principles of the school, Anniceris spoke about the value of friendship and gratitude which cannot be subsumed under hedonism. Diogenes Laertius writes:

"However they [Anniceris and his followers] accepted in life friendship, gratitude and the respect towards the parents and also that we ought to do something for our country."  
(Diogenes Laertius, Book 2, §96)

Here it is clear that there is a shift from the atomistic (egoist) hedonism of Aristippus to a less selfish view. Care about others comes in to the picture and gives more of a social character to the school.

The above examination of the principal views of the Cyrenaic school enables us to distinguish them as the founders of the hedonistic approach. The Cyrenaics were the first to build a whole philosophical system on the idea of pleasure maximization. Nearly all subsequent hedonistic theorists were based on their doctrines. In particular, as we shall see, the theories of hedonistic oriented economists exhibit many common points with the Cyrenaics. Namely, the pleasure-pain distinction, the emphasis on the idea of pleasure maximization, and the attempt to find some measure of pleasure and pain, are all ideas which can be found in the writings of Bentham, Mill, Jevons, Edgeworth and others. The importance of the Cyrenaic school in the formation and development of hedonism is evident. The other source of influence on subsequent hedonists, the Epicureans, is our next topic of discussion.

## 2.4 THE EPICUREANS

The founder of this school was Epicurus (341-271 B.C.). Although his parents came from Athens, he was born in Samos -a small Greek island in the Aegean sea. There he took courses in philosophy from Pamphilos who was an advocate of Plato, and from Naphsifanis a follower of the philosophy of Democritus (Theodorides, 1981, p.136). The Democritean and Platonic origins of his teachers give a first indication of his philosophical orientation (see earlier section on Democritus and Plato). These two were the only known teachers of Epicurus, which is why later he used to say that he was a self-taught man (Helios, 1981, p.90). After founding a philosophical school in Lampsakos -a city in Asia Minor- he came to Athens where he opened a school, the famous "Κήπος" ("Garden"). In Athens, he had many advocates and friends and soon his school became one of the four most important. (The other three were the Academy, the Peripatics and the Stoics.) Epicurus' rejection of all previous and contemporary philosophical systems and the introduction of a new philosophical scheme, made him famous and assisted Epicurean thought to spread rapidly in the whole Graeco-Roman world (Matsoukas, 1981, p.232). As we shall see, the influence of the Epicurean thought was to be felt in the Renaissance and in the modern period.

Epicurus wrote a number of philosophical works and also some letters. Unfortunately, only a small part of his work was not lost. His main works that came down to us are three letters (a letter to Herodotus, a letter to Pythocles, and a letter to Menoecus) and an essay called "Κύρια Δόξαι" ("Principal Doctrines") which is a summary of his teachings. As in the case of Aristippus, Diogenes Laertius is again the main source of knowledge about Epicurean ideas.

Epicurus' starting point is the same as that of Aristippus: emphasis on pleasure.

"Wherefore we call pleasure the beginning and the end of a happy life; pleasure is our first kindred good. It is the start of every choice and every aversion, and to it we come back, in order to make the feeling the rule by which to judge

every good thing." (Diogenes Laertius, Book 5, §128)

The quotation indicates that Epicurus' thought was closer to moral hedonism. Professor G. Stordach agrees with this view when he writes: "Epicurus' hedonism has two basic assumptions: a) that moral good is the same as pleasure, either physical or mental, since the experienceable range of pleasure is very wide to more than one level; and b) that moral evil is the same as pain, whether physical or mental" (Stordach, 1963, p. 72). However, like Aristippus he attempts to reinforce his moral belief by using psychology. He uses the examples of animals and newborn babies. Sextus Empiricus writes:

"The Epicureans believe that by nature pleasure is good; because, they say, animals when they are born unperverted, seek pleasure and avoid pain...The newborn baby, which has not yet been influenced by mistaken ideas, cries when an extremely cold wind strikes it. Thus if by nature the baby is attracted by pleasure and avoids pain, it is natural to avoid pain and seek pleasure." (Sextus Empiricus, in Theodorides, 1981, p. 234)

Here again we see an example of reconciliation of moral and psychological hedonism. The key point in the Epicurean reconciliation is that the only case in which people do not seek pleasure and avoid pain is when they are alienated from nature, when they hold mistaken ideas. Thus the function of moral hedonism is to remove these mistaken views and to convince them to follow the rules of nature. Moreover, as in the case of Aristippus, the whole spirit of Epicurus' writings favours egoistic hedonism.

After placing pleasure in the centre of his philosophical system, Epicurus proceeds to distinguish two categories of pleasure. He calls the first category "καταστηματική ηδονή" ("stable pleasure") and the second "εν κινήσει ηδονή" ("moving pleasure"). This issue is central to Epicurean hedonism and as we shall see, it is the main difference from the hedonism of the Cyrenaics. The first kind of pleasure the "stable pleasure", is a permanent situation. In the words of Epicurus:

"By pleasure we mean the absence of pain in the body and of trouble in the soul." (Letter to Menoecus, in Saunders, 1966, p. 51)

It is clear that this definition of pleasure is a rather negative one. Diogenes Laertius mentions that this negative definition is criticized

by the Cyrenaics who reject it because they believe that pleasure has to do with movement. According to the Cyrenaics, Epicurus' "stable pleasure" is like the situation of a sleeping man (Diogenes Laertius, Book 2, §89). One can say that Epicurus refers to a untroubled state of mind. He uses a word which describes exactly this state: "αταραξία" meaning calmness, tranquility of mind. The same term is used by the Stoics and especially by Epictetus in order to describe their moral attitude towards life, some years later (see Xenakis, 1983, pp. 113-153).

The other kind, the "moving pleasure" encompassed the common pleasures of everyday life that is food, drink, and entertainment (Theodorides, 1981, p. 231). The most important feature of the second kind of pleasure is its transient character. Although Epicurus believed that all kinds of pleasure are natural and thus good, he preferred the "stable pleasure". This preference can be explained -in our view- by his belief that the common pleasures do not last and usually bring unpleasantness in the long-run.

"Because of the very fact that pleasure is our primary and congenital good we do not select every pleasure; there are times when we forgo certain pleasures, particularly when they are followed by too much unpleasantness." (Letter to Menoeceus, in Stordach, 1963, p. 80)

Epicurus' preference for the first category of pleasure becomes more explicit when he specifies which pleasures he approves of:

"When I say that pleasure is the goal of living I do not mean the pleasures of liberties or the pleasures inherent in positive enjoyment, as is supposed by certain persons who are ignorant of our doctrine or who are not in agreement with it or who interpret it perversely. I mean on the contrary, the pleasure that consists in freedom from bodily pain and mental agitation." (Letter to Menoeceus, in Stordach, 1963, p. 77)

From the previous two passages it is clear that the Epicurean hedonism is different from that of the Cyrenaics. As was observed the Cyrenaics did not distinguish among different pleasures. Epicurus did not accept this position but on the contrary, he states explicitly that "there are differences between one pleasure and another" (Principal Doctrines, in Saunders, 1966, p. 54). This makes him an advocate of qualitative hedonism.

Like Aristippus, Epicurus speaks about a method for measuring

pleasure. His approach to this problem is related to his ideas about the two categories of pleasure. Since not all pleasure is equally desirable, there must be a measuring device in order to be able to choose:

"It is however, by measuring one against another [pleasure], and by looking at the conveniences and the inconveniences, that all these matters must be judged." (Letter to Menoeceus, in Saunders, 1966, p.51)

Epicurus as far as we know, did not analyze further this issue which becomes extremely complicated when one accepts differences among pleasures. However, it shows again the attempt to find a measuring device, an attempt which is observed in the vast majority of hedonistic theorists.

Epicurus devotes much space among his writings to emphasizing the superiority of the pleasures of the soul from the pleasures of the body. At this point he is in marked contrast with Aristippus who considered corporeal pleasures as superior to the pleasures of the mind. The same holds true with the pains of the body and the pains of the soul. This difference between the two originators of the hedonistic philosophy is also marked out by Diogenes Laertius:

"Still, there is a difference from the Cyrenaics; they say that the bodily pains are much worse than the pains of the soul, and that is why criminals should be punished by bodily pains; but he [Epicurus] says that the mental pains are worse; because for the flesh only the present exists, while for the soul exists the past, and the present and the future; thus the greatest pleasures are those of the soul." (Diogenes Laertius, Book 5, §137)

By identifying it with peace of mind, Epicurus' views pleasure in a broader sense than Aristippus. Thus the Epicurean hedonism is more of an 'enlightened hedonism', contrary to the common belief which holds Epicurus as an advocate of the vulgar way of life.

Apart from Epicurus, other important members of the school were Metrodoros and Polyainos who were contemporaries of Epicurus. After Epicurus' death, the leader of the school became Ermarhos who along with Kolotis were the main representatives of the Epicurean thought (Theodorides, 1981, p.146). During the third century B.C. Epicureanism as a movement had considerable influence in the Greek and Roman world.

After a temporary decline in the second century, it reappears again and continues its influence until the end of the Roman Empire. The extent of its influence can be seen by the fact that great Roman poets and authors were advocates of Epicurean thought. For instance one can mention the names of Lucretius and Horace (Helios, 1981, p. 91). Moreover, the well-known Roman philosopher Cicero mentions many of Epicurus' ideas (see Adam, 1902, pp. 10-27).

After the dark period of the Middle Ages, Epicurean thought is revitalized in materialistic theories, especially in the writings of Gassendi and Helvetius. Moreover, Bentham, Mill and later Jevons and Edgeworth would borrow a lot of Epicurean ideas (especially ones about pleasure and pain) sometimes indirectly through the writings of Gassendi and Helvetius, and sometimes directly by reference to the Epicureans. As we shall see, however, Aristippus' hedonism was closer to the hedonistic ideas of the above writers than Epicurus' hedonism (especially with respect to the concept of pleasure). The main reason for this was that the Epicurean thought was more popular in the Roman world and thus became more influential in subsequent centuries..

In general, the Epicureans along with the Cyrenaics are the main two branches of ancient Greek hedonistic philosophy. In spite of their differences, the fundamental principle of hedonism (the maximization of pleasure and minimization of pain) had been established.

## 2.5 CONCLUSION

In this chapter we have discussed the origins of hedonism in ancient Greek thought. More specifically, we stated that although a number of philosophers theorized about pleasure and pain (i.e. Democritus, Plato), only the Cyrenaics and the Epicureans placed pleasure in the centre of their system. Both schools advocated a number of key ideas which can be taken to constitute the essence of the hedonistic approach ever since. These ideas are the following:

- 1) They both believed in the existence of two opposite motives, pleasure and pain, which play a fundamental role in human life.
- 2) They both held that the maximization of pleasure and the minimization of pain is the highest good and aim of human life.
- 3) It seems that they both were inclined towards egoistic hedonism
- 4) They both realized the need to find a measuring device in order to calculate pleasure and pain and thus to assess a particular action.

The second point refers to the problem of the reconciliation between moral and psychological hedonism. It seems that both philosophers started from moral statements and then tried to reinforce their validity by drawing from psychological observations. Epicurus, who was more explicit in this matter, combines the two by referring to man's alienation from his nature.

Apart from the above common points, there are also some differences between the two. The first difference has to do with the nature of pleasure. The Cyrenaics accepted as most desirable the "moving pleasures" or the pleasures which bring positive enjoyment. These kind of pleasures are generally the pleasures of the body. By contrast, the Epicureans conceive pleasure as the absence of pain and consider that mental pleasures are more desirable because of their permanent nature. Another difference was that the Epicureans were qualitative hedonists while the Cyrenaics can be characterized as quantitative hedonists. As we shall see, subsequent hedonist theorists exhibit the same differences. For instance, Bentham's hedonism can be

seen as quantitative, while Mill's as qualitative.

With Aristippus and Epicurus we have the first systematic hedonistic philosophies, and as frequently happens in the history of ideas, subsequent thinkers were to borrow a great deal from the originators. Thus after examining the birth and growth of hedonism, we will proceed to discuss its development in modern times and its subsequent introduction in economics. The first part of the next chapter will deal with Gassendi, Helvetius and Hobbes who were the ones to revitalize the hedonistic ideas after a long break in the Middle Ages. The second part will examine the introduction of hedonistic views in late classical economics.



## NOTES TO CHAPTER 2

1) The original quotations from Democritus and most quotations from Diogenes of Laertius mentioned in the text were in ancient Greek. The translation to English has been done by the author.

2) Plato's solution to the problem of the happy life in his other dialogues where the problem of pleasure and pain is discussed, is similar to the ideas expressed in "Philebus" (1980). In his "Protagoras" and "Gorgias" the happy life is a mixture of sober reasoning and pleasure. The key phrase in Plato is "Measure in everything". In "The Republic" intellectual life is given priority. See "Protagoras", 1979, "Gorgias", 1980, and "The Republic", 1976.

3) Another ancient Greek philosopher who considered the problem of pleasure and pain was Aristotle. Aristotle like Plato, rejects the notion that maximization of pleasure leads to happiness. Instead he speaks of a mixed life with emphasis on activity. See Aristotle's "Nicomachean Ethics", 1925, and Helios, 1981, pp. 70-72.

## CHAPTER 3

### THE REAPPEARANCE OF HEDONISM AND ITS INTRODUCTION TO ECONOMICS

#### 3.1 INTRODUCTION

In the previous chapter, we discussed the birth of hedonistic ideas in the philosophical theories of the Cyrenaics and Epicureans. We observed that these two schools of thought were the only ones which considered the concepts of pleasure and pain as central to their theories. In fact their whole approach was based on the idea of pleasure maximization. The influence of Cyrenaic and Epicurean thought in ancient Greece and later in the Hellenistic period was considerable. However, with the appearance of Christianity, these ideas started to weaken. And finally they disappeared almost completely during the Middle Ages.

After a thousand or more years of absolute reign of Christian dogma (expressed by St. Augustine and later by Thomas Aquinas) and modified Aristotelian thought, the other ancient Greek philosophers were brought out of oblivion during the Enlightenment period. The materialist theories and the anti-theological spirit, which was growing during this time, favoured the rediscovery of ancient Greek thinkers like Aristippus and especially Epicurus. In particular, the representatives of the French Enlightenment were the most enthusiastic promoters of the ancient Greek thinkers. P. Gassendi first and C. A. Helvetius later were the ones who were influenced most by the hedonistic ideas of Aristippus and Epicurus. Also T. Hobbes was the philosopher who popularized the hedonistic ideas in the Anglo-Saxon world.

The somewhat modified (as we shall see) hedonism of the above thinkers was the main source of influence on J. Bentham. Bentham was

the one who introduced hedonism, through his utilitarian theory, to the field of economics. Other important economists of the classical school adopted the hedonistic views of Bentham. Classical economists like J. S. Mill, N. Senior and J. Cairnes elaborated further the hedonistic principles that Bentham had introduced.

However, it must be pointed out that although the basic principles of the hedonistic framework can be found in the writings of all the above theorists, there were also some differences from these principles. First of all, we observed that the Cyrenaics and the Epicureans thought of hedonism mainly as a moral system (although psychological hedonism can also be found in their work). Helvetius and most of the classical economists saw it mainly as a psychological theory. Second, Aristippus and Epicurus only implicitly refer to egoism but the modern and classical economists can be described as 'egoistic hedonists' because of their emphasis on the concept of self-interest. This concept along with the pleasure-pain principle and that of rational behaviour would form the basis of economic man.

Thus, in general we can say that Gassendi, Helvetius and to a certain extent Hobbes, revitalized -although in a somewhat modified form- the hedonistic views of the Cyrenaics and Epicureans. Consequently, the above influenced considerably Bentham who introduced the hedonistic approach in economics. By adding the element of rationality, in the sense of consistency, subsequent classical economists like Senior, Mill and Cairnes constructed the first model of economic man. A pleasure maximizer, selfish and rational economic agent would be an important manifestation of the influence of hedonism on classical economics.

In order to show the above, we will begin this chapter with a discussion of the views of Gassendi, Helvetius and Hobbes and we will attempt to identify their contribution to the reappearance of hedonism in modern times. In the second part, we will examine the ideas of Bentham and the introduction of hedonism in economic thought. Subsequently, we will discuss the hedonistic influence on the economic thought of Senior, Mill and Cairnes.

## 3.2 THE REAPPEARANCE OF HEDONISM

### 3.2.1 Gassendi

Although there is a time difference of some decades between Gassendi and Helvetius, one can safely say that they belonged to the same era. Gassendi (1592-1655) died twenty years before the history textbooks' starting date of the Enlightenment (1675) but his ideas are in the same ideological climate of that age. It can also be maintained that his thought influenced many representative thinkers of the Enlightenment and particularly of the French Enlightenment.

The main characteristics of Gassendi's age -which would become stronger in the eighteenth century- were a growing rejection of Aristotle's authority and a trend towards experimentation in the field of science. Gassendi was one of the strongest opponents of Aristotle's dominance. In contrast, he was one of the most enthusiastic advocates of Epicurean thought. In fact it was he who popularized and spread the teachings of Epicurus (Mitropoulos, 1980, p.134 and Kearns, 1979). More specifically, Gassendi attempted to make a synthesis of Epicurean atomism with the mechanical science of his age. Along with this, he adopted the Epicurean ethical philosophy and tried to harmonize it with the prevailing Christian ideology.

From our point of view the second aspect of Gassendi's thought - his ethical philosophy- is the most interesting. Gassendi's ethical philosophy is heavily based on the ideas of the two ancient Greek schools of hedonistic philosophy the Cyrenaics and Epicureans. However, the emphasis of the Cyrenaics on bodily pleasure made it impossible for Gassendi to adapt it to Christian ideology. This is the main reason that Gassendi refers to the Cyrenaics only two or three times in his famous work "The Syntagma" while he makes many references to Epicurus.

The cornerstone of his ethical philosophy is based on Epicurean hedonism. In the preface of his work "Exercises in the Form of Paradoxes in Refutation of the Aristotelians", Gassendi specifies the contents of Book VII which deals with moral issues:

"Finally, Book VII deals with moral philosophy. It hardly requires a lengthy recapitulation. In one word, it teaches

Epicurus' doctrine of pleasure by showing in what way the greatest good consists of pleasure and how the reward of human deeds and virtues is based on this principle." (Gassendi, 1972, p.25)

The above quotation shows that Gassendi was in line with Epicurus as far as the idea of pleasure as being the highest good is concerned. As we have shown, Epicurus thought of the maximization of pleasure principle mainly in normative terms, although he tried to reinforce it with psychology. Gassendi did not make a clear distinction between the two. For instance in his other work, "The Syntagma" he states:

"...and a third inclination of this nature is Epicurus' inclination, or pleasure and pain to the extent that we do everything in order to obtain the former and avoid the latter." (Gassendi, 1972, p.291)

Clearly the meaning here is that he views the pleasure-pain principle as a psychological motivation for action. He then proceeds to examine a criterion for action, for what is good and what is bad. Again here there is a shift to philosophical hedonism. As he states:

"Hence for example, music has the senses (namely hearing) as its criterion to a certain degree, not in just any way at all, but inasmuch as it is affected by harmony and discord; in the same way ethics has the senses as its criterion, not in just any way at all, but inasmuch as they can be affected by pleasure and pain. And pleasure and pain are as much the province of logic as are harmony and discord." (Gassendi, 1972, p.360)

It seems that there is a mixture of philosophical and psychological hedonism. Gassendi does not provide a clear method of reconciliation between the two. An obvious way out could be Epicurus' method.

Following the hedonistic tradition, Gassendi's next step is to find a method of calculating pleasure and pain. Like Epicurus, he finds reason as the means for calculating pleasure. Professor Sarasohn writes: "It [right reason] will defend us from stress due to engendered or social prejudices and serve as a means to calculate what will bring us the greatest amount of happiness and the least amount of pain" (Sarasohn, 1982, p.241). Again one finds here the familiar need for nearly all hedonistically oriented thinkers to calculate pleasure and pain. We shall meet this expression -calculus of pleasure and pain- in many classicals but especially marginalist economists.

After the idea of how to calculate pleasure, Gassendi states his views about the nature of pleasure. As one would expect, he is close to the Epicurean approach. Here he feels that it is necessary to emphasize the spiritual dimension of Epicurus' notion of pleasure in order to show its compatibility with the Church's views. As he states:

"Epicurus feels that no other pleasure is the end than that which consists of stability, somewhat like repose, namely tranquility and freedom from pain." (Gassendi in Sarasohn, 1982, p. 241)

At the time when Gassendi wrote his works the dominance of Christian theology in the community of French intellectuals was still very strong. Thus, it is natural for his interpretation of Epicurus to be austere in the spirit of the age. France's intellectual environment was still very much influenced by Christian dogma and a more materialist approach to pleasure would be absurd. As J. Spinks points out:

"...he [Gassendi] had undertaken a study of Epicurus and gradually the whole of the time which his ecclesiastical duties left at his disposal became absorbed in an effort to present the natural and moral philosophy of Epicurus in a form acceptable to the reason and conscience of his contemporaries." (Spink, 1960, p. 15)

And as we have stated, Christian theology was the core of this conscience. Thus, Gassendi had to introduce God in his moral theory. And he did it by expressing God's providence in terms of the pleasure-pain principle. More specifically, he thought that God led human beings to prefer maximum pleasure over pain and thus to be able to survive by acting according to this principle. As Sarasohn writes:

"The natural desire for pleasure and aversion to pain, supplemented by the natural ability of the reasonable creature to calculate what will bring him pleasure over pain in the long run, becomes the 'invisible hand' of God, guiding man along his foreordained path while, as we shall see later, not denying him the use of free will." (Sarasohn, 1982, p. 243)

In general, it can be said that Gassendi based his moral system on the Epicurean pleasure-pain principle. In his thought one can also find elements of psychological hedonism, apart from the apparent philosophical one. Moreover, he tried to combine Epicureanism with Christian theology by emphasizing the spiritual side of pleasure and

by introducing God's providence in the pleasure-pain principle. However, the significance of his thought was the reintroduction of the concept of pleasure maximization. As we shall see, subsequent hedonist theorists were to discard the theological aspect of his thought and keep those aspects suitable for a secular hedonism based on the calculus of pleasure and pain. Thus the most important role of Gassendi in the development of hedonism, was the rediscovery and the dissemination of the idea of pleasure maximization.

### 3.2.2 T. Hobbes

In the same way that Gassendi was responsible for the rediscovery of hedonistic views in France, T. Hobbes (1588-1679) promoted the hedonistic approach (especially egoistic hedonism) in England. Hobbes was a contemporary of Gassendi and thus Christian theology had a substantial influence on him also. Like Gassendi, Hobbes had studied ancient Greek philosophy and had been influenced by it. However, he was not as keen a follower of Epicurus' as Gassendi. The concepts of pleasure and pain, as well as that of selfish behaviour, are basic in Hobbes' moral philosophy. The combination of these two constitutes the essence of egoistic hedonism which is closer to the hedonism advocated by subsequent orthodox economists. In addition, Hobbes is considered to be one of the main advocates of materialism. But let us start first from pleasure and pain.

Like the previous theorists, Hobbes identifies good with pleasure and bad with pain. As he declares:

"Every man, for his own part, calleth that which pleaseth, and is delightful to himself, good; and that evil which displeaseth him." (Hobbes, 1839, vol IV, p.32)

The pleasure-pain approach which we find in Hobbes, is a common characteristic of the hedonistically oriented thinkers. Like Epicurus and Aristippus, Hobbes speaks of the pleasures of the body and the pleasures of the soul:

"There are two sorts of pleasure, whereof the one seemeth to affect the corporeal organ of the sense, and that I call sensual...The other sort of delight is not particular to any part of the body and is called delight of the mind, and is that which we call joy. Likewise of pains, some affect the body, and are therefore called the pains of the body; and some not, and those are called grief." (Hobbes, 1839, vol. IV, p.34)

Apart from pleasure and pain the other important element in Hobbes' ethics is the idea of self-interest. Hobbes places greater emphasis on the analysis of this idea than he does on the concepts of pleasure and pain. One could also argue that selfish behaviour is the cornerstone of Hobbes' moral views. In a very strong statement, Hobbes



speaks of self-interest as one of the basic motives of human behaviour.

"...I set down for a principle, by experience known to all men and denied by none, to wit, that the dispositions of men are naturally cruel, that except they be restrained through fear of some coercive power, every man will distrust and dread each other." (Hobbes, 1839, vol. II, p. xv)

Hobbes considers self-interest as having great personal and social importance (for a further discussion of Hobbes views on selfish behaviour and its consequences for social organization see Faulhaber, 1977, pp. 311-329). At the same time he sees it as a destructive motive which can lead to confusion and disorder (see Myers, 1983, pp. 28-34 and Faulhaber, 1977, pp. 314-316). At this point one can mention that in the history of orthodox economics the prevailing attitude towards selfish behaviour was the exactly opposite one, although recently some economists have partially returned to Hobbes' (eg. prisoners' dilemma). The connection between self-interest and pleasure and pain is obvious: individuals always seek their own greatest pleasure. The whole of Hobbes' approach is psychological. Selfish behaviour and pleasure seeking are seen as psychological characteristics. Thus, Hobbes' hedonism can be termed psychological egoistic hedonism. Like Bentham later, Hobbes sees egoistic hedonism as hiding behind any 'noble' or altruistic action. As R. Peters points out: "The appearances, our pretensions to generosity or to disinterestedness, are but cloaks to hide the struggle between these egoistic motives; the reality beneath is the thrust and recoil of a pleasure-pain calculating machine" (Peters, 1956, p. 143).

The significance of Hobbes' thought for the development of the hedonistic ideas, is that he emphasized the element of self-interest in the analysis of pleasure and pain. As we stated, the previous thinkers do not mention explicitly this element. Helvetius and subsequent followers of hedonism were to elaborate further on this, and finally as we shall find out, egoistic hedonism became the prevailing strain of hedonism, especially among the marginalist economists.

### 3.2.3 C. A. Helvetius

Helvetius was born in the eighteenth century (1715-1771) and in that period some changes had been made in the Church's strictness over new ideas. More specifically there was a movement of intellectuals, who advocated radical ideas (i.e materialism), and which grew stronger and stronger as the period proceeded. This period (1675 up to the end of the eighteenth century) is better known as the French Enlightenment. The most representative figures of the era, (Diderot, Holbach, Helvetius,) were also the most important materialists and hedonists of that time, and this shows the general character of the period. The important characteristics of the period were a strong belief in mechanical materialism, the theory of evolution and sensationalism. As Wade points out:

"In fact, all ethical thought of the Enlightenment is oriented towards three concepts, all of them concrete: happiness, enlightened self-interest, and beneficence."  
(Wade, 1977, p.243)

From our point of view the moral attitude of the era is our main interest. However the existing context of mechanistic materialism shows also the relationship of moral ideas with the prevailing scientific approach of the period. More analytically, the growth of experimental science and the attempt to explain everything in terms of laws of matter, assisted the view that man is simply a pleasure-pain calculating machine. The views of a representative philosopher of the period, D' Holbach, are indicative:

"According to Holbach Man, too, is a mixture of matter whose arrangement is called organization and whose essence is to sense, to think, and to act. The mind of each depends on his physical sensibility, which depends in turn on his temperament. The sole law of his activity is to love pleasure and to fear pain." (Brehier, 1967, p.129)

This materialist hedonism was shared by a considerable number of intellectuals. The hedonistic philosophy of Gassendi, which as we observed, contained an element of Christian theology, was transformed to a hedonism which was characterized by sensual pleasure. Thus, the idea of a morality of pleasure and the identification of the more general concept 'happiness' with that of pleasure took place (Wade, 1977, p.244). This shift from the spiritual pleasures of Epicurus

and even of Gassendi, would be very influential for subsequent economists who spoke about pleasure and pain.

The work which gave an identity to the spirit of the age and created a more specific ideological framework was the famous "Encyclopaedia". Its twenty-eight volumes -published in France from 1751 to 1772- expressed the philosophical attitude of the Enlightenment. Elements of the same philosophical attitude could be found in other European countries like England, Scotland and Italy. Philosophers from these countries had travelled to and made contacts with France, and many French thinkers and especially Diderot and Holbach had travelled to these countries too (Brumfit,1972,p.23). For example E. Gibbon, A. Smith and D. Hume had visited France.

However, it was Helvetius who systematically developed a theory of pleasure and pain and who influenced most subsequent hedonists and especially Bentham. Helvetius' main works are two books; the first entitled "A Treatise on Man, his Intellectual Faculties and his Education" and the second "Essays on the Mind". In the beginning of chapter IX of his second work he writes:

"The design of this chapter is to show that all our passions have their source in the love of pleasure, or in the fear of pain." (Helvetius,1810,p.xxx)

The quotation indicates that Helvetius was closer to psychological hedonism, which views pleasure and pain as motives for human actions. In his other book, "A Treatise on Man" he has the same attitude:

"Pleasure and pain are, and always will be, the only principles of action in man...The question being discussed, I conclude that corporeal pains and pleasures are the unknown principles of all human actions." (Helvetius,1777,vol.I pp.120,143)

Apart from psychological hedonism, the above shows also Helvetius' emphasis on the bodily pleasures, and this fact is indicative of the difference from Epicurus and Gassendi, and of the similarity with Aristippus. In another part of his book -namely in volume II- Helvetius distinguishes two kinds of pleasure: the corporeal pleasures and the pleasures of expectation (although the second kind of pleasures are derived from corporeal pleasures, they are themselves

mental). However, the basis remains the corporeal pleasures. As he writes:

"I distinguish two sorts of pleasures. The one are the pleasures of the senses. They are founded on corporeal wants, are enjoyed by all conditions of men, and at the time of enjoyment are equally happy. But these pleasures are of short duration. The others are the pleasures of expectation. Among these I reckon all the means of producing corporeal pleasures; these means are by expectations always converted into real pleasures." (Helvetius, 1977, vol I, p. 198)

It is evident that the real pleasures according to Helvetius are the pleasures of the senses.

As in the case of Hobbes the pleasure-pain theory is combined with selfish behaviour. Helvetius put a lot of emphasis on self-interest, an idea which was in the spirit of his era. He sees self-interest as playing a decisive role for individuals and nations. As he declares:

"...at all times, and in all countries, both with regard to morality and genius, personal interest alone dictates the judgment of individuals; while general interest dictates that of nations." (Helvetius, 1810, p. 38)

As we shall see later this egoistic hedonism of Helvetius would be discernable in many classical and marginalist economists. According to Helvetius the role of self-interest in human life is like that of a mechanical law of the Universe. This is in accordance with the intellectual environment of his age where mechanistic physics started to be influential. This spirit can be seen in Helvetius materialist and mechanist account of man:

"Man is a machine, that being put in motion be corporeal sensibility, ought to perform all that it executes." (Helvetius, 1777, vol I, p. 146)

To all of the above (pleasure-pain, self-interest) the concept of rationality is added, and Helvetius puts them all into the same picture: a picture which is not very different from the subsequent formulation of 'economic man'. Helvetius writes in the form of questions and answers:

"Q. What is a man?

A. An animal, said to be rational, but certainly sensible, weak and formed to propagate his species.

Q. What should man do as an animal of sensibility?

A. Fly from pain, and pursue pleasure. It is to this constant flight and pursuit that is given the name of self-love." (Helvetius, 1777, vol II, p. 413)

One can also notice here that in the above quotation Helvetius is not consistent with his view of psychological hedonism. Without doubt, the above is more of a normative statement. However, the element of rationality might be used as a way of reconciling the two. A rational man would always seek the maximum pleasure for himself. An irrational individual (alienated from his true nature) would need a normative statement like the previous one in order to act according to his true nature, rationally. This element of rationality would become important in the work of subsequent orthodox economists. In spite of the quotation cited however, we believe that Helvetius was more in favour of psychological hedonism. And this is another difference from Epicurus and Aristippus and from Gassendi's middle position.

In addition, Helvetius was an advocate of the mechanistic science of his age and a strong opponent of the Christian dogma. He was also an advocate of education and believed that the pleasure-pain principle could serve as a basis for better legislation, an idea which would be found later in Bentham's system.

In general it can be maintained that Helvetius' (and Hobbes') hedonism was closer to the hedonism of Bentham and other economists in the sense that he excluded all metaphysics and spiritual elements from the hedonism of Gassendi. His emphasis on the role of self-interest in human actions combined with the pleasure-pain principle and rationality, was a close approximation to the subsequent 'economic man'.

In this section we have discussed the rebirth of Epicurean hedonism in the writings of Gassendi, who added a metaphysical element. Then we examined Hobbes' hedonism with his emphasis on selfish behaviour. The continuation of the rediscovery of hedonistic ideas was carried out by Helvetius, who following the line of Hobbes, expanded the theory of egoistic hedonism. All these developments took place in an intellectual framework which was characterized by the growth of mechanistic materialism and thus favoured the conception of man as a pleasure-pain calculating machine (see also

Wisman, 1979, p.31). The next thinker to continue and elaborate hedonism and above all to introduce the hedonistic ideas in economics was Bentham.

### 3.3 HEDONISM AND ECONOMICS

#### 3.3.1 J. Bentham

J. Bentham (1748-1832) was the founder of utilitarianism, a theory which -as we shall see- has influenced a considerable number of economists. Bentham cannot be identified as an economist only. His main interest was philosophy, but one can also find some economic writings in his various works. In spite of the philosophical nature of his theories, his utilitarianism had, and according to our view still has, a great impact in the field of economics. Although many economists would refer to Bentham as a philosopher-economist who influenced only some members of the late classical school (see for instance Backhouse, 1985, p. 135), we hold that his thought is a constant underlying characteristic of the development of economic theory up to this day. With Bentham's utilitarian theory the hedonistic approach entered orthodox economics in a systematic way. But let us discuss the main points of Bentham's theories in a more detailed manner.

One of the most important works of Bentham is "An Introduction to the Principles of Morals and Legislation" where he presents the basic points of his thought. From the first page of this work, one can distinguish the relationship of Bentham's ideas with hedonistic philosophy (for a discussion of the influence of previous hedonistic ideas on Bentham see Lowry, 1981, pp. 819-820). As every advocate of the hedonistic approach, from Aristippus up to the moderns, Bentham begins with the concepts of pleasure and pain.

"Nature has placed mankind under the governance of two sovereign masters, pain and pleasure. It is for them alone to point out what we ought to do, as well as to determine what we shall do. On the one hand the standard of right and wrong, on the other the chain of causes and effects, are fastened to their throne." (Bentham, 1823, p. 1)

Two observations can be made from the above quotation. The first and the most important one is that Bentham's starting point is pleasure and pain. We noted this in all previous hedonists that we have discussed: Aristippus, Epicurus, Gassendi, Hobbes and Helvetius. The second observation is that Bentham does not distinguish between

ethical and psychological hedonism. As in the case of Aristippus and Epicurus, the quotation shows that Bentham thought that the one kind of hedonism reinforces the other. In the following passage, (which is on the same page as the previous one,) he emphasizes psychological hedonism:

"They [pleasure and pain] govern us in all we do, in all we say, in all we think: every effort we can make to throw off our subjection, will serve but to demonstrate and confirm it." (Bentham, 1823, p. 1)

However, it has to be pointed out that the above refers to the individual. As we shall see later, Bentham emphasizes the other kind of hedonism, the ethical one, in his social and political theories.

The next step of Bentham is to state the "Principle of Utility" which was to be the foundation of his utilitarianism. In turn, he bases this principle on the concepts of pleasure and pain. As he declares:

"The Principle of Utility recognizes this subjection and assumes it for the foundation of that system, the object of which is to rear the fabric of felicity by the hands of reason and law. Systems which attempt to question it, deal in sounds instead of sense, in caprice instead of reason, in darkness instead of light." (Bentham, 1823, pp. 1-2)

According to Bentham only a philosophical system which has pleasure and pain as its basis is acceptable. Bentham based his whole moral theory, his philosophy of law, and also his theory of government on the "Principle of Utility". Thus Bentham constructed a complete hedonistic framework. But let us discuss further the "Principle of Utility", the cornerstone of Bentham's thought. He himself explains:

By the Principle of Utility is meant that which approves or disapproves of every action whatsoever, according to the tendency which it appears to have to augment or diminish the happiness of the party whose interest is in question: or what is the same thing in other words to promote or to oppose happiness." (Bentham, 1823, p. 2)

Before we go on we must point out that for Bentham the notion of happiness is very similar to that of pleasure (see Bentham, 1823, p. 1) . In the Benthamite system, happiness is not thought of as a general term which might include pleasure as is the case in other non-hedonistic philosophical systems. Bentham places great importance on



the discovery of the Utility Principle, which he thought would open new horizons for the whole mankind. He recognizes, however, that other thinkers in previous times had stated it. In his work "The Limits of Jurisprudence Defined" he writes:

The principle [utility] such as it is, is not of my own invention. The merit of discovering it is none of mine. The legitimate consequences of it, should any of them prove abnoxious are not chargeable upon me. I had it from Epicurus, from Carneades, from Horace, from Helvetius, from Beccaria." (Bentham, in Mack, 1969, p. 154)

The influence on Bentham of the first hedonist philosopher Epicurus, and also of the main representative and systematizer of the hedonistic philosophy in the Enlightenment period, Helvetius, is evident. The continuation of the development of the hedonistic approach can be identified.

Moreover from the above quotation one can discern a statement of reservation. In fact, Bentham was worried about the impossibility of proving the Utility Principle. Thus he had to accept it without proof and he sought to make it true by definition that the meaning of moral terms was a priori a function of pleasure itself. Also he made a negative approach by asking what other motive exists if we exclude the pursuit of happiness (Bentham, in Mack, 1969, p. 154).

The given definition of the Utility Principle mainly refers to the individual. However, there is another formulation of the Utility Principle which has to do with the community or society. This is known as the Greatest Happiness Principle, and states that an action is justified when it tends to increase the total sum of happiness of the community. In Bentham's words: "It is the greatest happiness of the greatest number that is the measure of right and wrong" (Bentham in Mack, 1969, p. 45). In the first formulation of the Utility Principle, which deals with the individual, Bentham is more in favour of psychological hedonism (man seeks pleasure and avoids pain). His theory is rather a psychological theory which views the seeking of pleasure and the avoidance of pain as the only motives of human action. However, the second formulation -which for Bentham is a consequence of the first- is clearly an ethical formulation. Bentham's theory of legislation and theory of government are based on this moral

principle. According to Bentham all government actions should aim at the increase of the total happiness of the community; and also the spirit of the Law should be such as to approve actions which add to the total happiness of the community and to punish actions which tend to diminish it. In his work "Pannomial Fragments" which deals with legislation and penal code, the Greatest Happiness Principle is the prime concern:

"In the formation of such a work, the sole proper all-comprehensive end should be the greatest happiness of the whole community, governors and governed together; -the greatest happiness principle should be the fundamental principle." (Bentham in Mack, 1969, p.243)

In general, it can be said that Bentham's utilitarianism is a psychological theory on the individual level and a normative or ethical theory on the social level. Thus, he is an advocate of psychological hedonism on the individual level and a follower of philosophical hedonism on the social level (see also Hunt, 1979, p.562). As we shall see later this distinction would become a controversial point in the writings of subsequent economists.

An important issue of the two formulations of the Utility Principle is the problem of their compatibility. One might say that there are some actions of individuals which increase their pleasure but at the same time these actions do not add to the total pleasure of society. For instance let us think of two neighbours A and B. Neighbour A believes that he can increase his pleasure or utility by buying a luxury good. According to the individualistic formulation of the principle of utility his action is absolutely correct and natural. In addition to that, as Bentham said the individual is the best judge of his own utility (Bentham, 1882, part I). However, the same action is not considered acceptable if we take into account the second principle of Greatest Happiness of the greatest number, because A could have given his extra money to the needy neighbour B and thus increase the utility of the community (assuming that A experiences decreasing marginal utility). This problem can be solved however, if one follows the subsequent distinction between act-utilitarianism and rule-utilitarianism. According to act-utilitarianism the rightness of an action depends on the goodness of the consequences of the action

itself. Rule-utilitarianism is concerned with the consequences of the action as if the action was to become a universal rule. Followers of these two versions have definite answers to the problem (see Smart and Williams, 1973, pp. 9-12).

Bentham however, did not make the above distinction and some authors spoke of a "conflict between individual egoistic hedonism and universal ethical hedonism" (Petrella, 1977, pp. 221-224). One can possibly defend Bentham by saying that individual hedonism and universal hedonism can be reconciled if there are social structures which will make it to the interests of those who govern to do (in their own interest) what in fact is in the general interest. This idea has an echo in economics in terms of coordination of individual economic actions at macro levels.

Before going on to discuss the problem of the measurement of utility in detail, we will take a closer look at the meaning of the term utility as it is conceived in Bentham. The term utility entered the field of economics with Bentham, and ever since it has occupied a central part of economic terminology. Bentham defines it as follows:

"By utility is meant that property in any object, whereby it tends to produce benefit, advantage, pleasure, good or happiness (all this in the present case comes to the same thing) or (what comes again to the same thing) to prevent the happening of the mischief, pain, or unhappiness to the party whose interest is considered: if that party be the community in general, then the happiness of the community: if a particular individual, then the happiness of that individual." (Bentham, 1823, p. 2)

There is a clear identification of utility with pleasure and with happiness (as was also seen in previous section). Moreover, the similarity of the use of the words pleasure and pain with good and evil is a feature of the hedonistic approach and it can be found for instance in Epicurus. It must also be noted here that Bentham does not use the concepts of pleasure and pain as frequently as the previous hedonistic philosophers. Instead, he uses extensively the word utility which would replace to a great extent, the word pleasure. Subsequent economists enthusiastically adopted the utility concept because it represented an apparently more objective concept than the philosophically loaded concept of pleasure.

All previously examined hedonist philosophers made an attempt to find a system of measuring pleasure, and the main reason for that is that the calculation of pleasure and pain is necessary for the foundation of any hedonistic system. Thus, Bentham, after having stated the Principle of Utility, found it necessary to establish a measurement of pleasure or utility. As we shall see in later chapters, the same need for a "calculus of pleasure and pain" was to arise in the works of hedonistic economists and particularly in the writings of the marginalists. But let us now see Bentham's views about the measurement of utility.

Bentham's first attempt at measuring pleasure and pain can be found in his major work "Introduction to the Principles of Morals and Legislation". The main purpose of his attempt to measure pleasure was the construction of a moral rational system of legislation and a penal code. First, he gives his view about the individual:

"To a person considered by himself, the value of a pleasure or pain considered by itself, will be greater or less, according to the following circumstances: 1. Its intensity, 2. Its duration, 3. Its certainty or uncertainty, 4. Its propinquity or remoteness... 5. Its fecundity...6. Its purity." (Bentham, 1823, pp. 29, 30)

The next step is to state the circumstances to be taken into the account in estimating the value of a pleasure or pain with reference to a number of persons. Again the above six circumstances hold, but he adds a seventh one which is "Its extent" meaning the number of persons to whom it extends (Bentham, 1823, p. 30).

The final step is to describe the process for estimating the tendency of any act according to the balance of pleasure and pain:

"Begin with any person of those whose interests seem most immediately to be affected by it: and take an account, 1. Of the value of each distinguishable pleasure which appears to be produced by it in the first instance. 2. Of the value of each pain which appears to be produced by it in the first instance. 3. Of the value of each pleasure which appears to be produced by it after the first. This constitutes the fecundity of the first pleasure and the impurity of the first pain. 4. Of the value of each pain which appears to be produced by it after the first. This constitutes the fecundity of the first pain, and the impurity of the first pleasure." (Bentham, 1823, pp. 30, 31)

Given the above , everything is a matter of arithmetic. In Bentham's words:

"Sum up all the values of all pleasures on the one side, and those of all the pains on the other. The balance, if it be on the side of pleasure, will give the good tendency of the act upon the whole; if on the side of pain, the bad tendency of it upon the whole." (Bentham, 1823, p.30)

The same thing holds true for a number of persons or for the whole community. The only difference is that the number of persons must be taken into account in the general summation. The above quotations are the essence of the Benthamite calculus of pleasure and pain. Although, as we have stated, previous hedonists had attempted to measure pleasure, none of them had taken the extreme position of reducing it to mere arithmetic. Bentham's calculus was facilitated by his strict quantitative hedonism (see also Bronfenbrenner, 1977). G. Stigler points out the importance of the Benthamite calculus: "Bentham had indeed planted the tree of utility. No reader could overlook the concept of utility as a numerical magnitude" (Stigler, 1950, p.311). Or as E. Hulevy states in general terms:

"The aim of Bentham, as of all Utilitarian philosophers, was to establish morals as an exact science. He therefore sought to isolate in the human soul that feeling which seems to be the most easily measurable." (Hulevy, 1928, p.15)

The predominant scientific framework of that era, which demanded the quantification of everything has surely influenced Bentham's attempt in the construction of his "moral arithmetic". However, Bentham did not stop at this point. He proceeded to an issue which would become the center of discussions among economists and especially among marginalist economists: the issue of interpersonal comparisons of utility. This matter is related to the measurability of pleasure or utility and to the concept of collective maximization of happiness. Interpersonal comparisons were necessary for the Benthamite system and also for subsequent utilitarian economists. Thus, as one would expect, Bentham did not hesitate to accept comparability.

The important and interesting part of the issue of comparability is that which refers to the utility of income. In his "Theory of Legislation", Bentham makes interpersonal comparisons of the utility of income. He writes:

- "1) Each portion of wealth, has a corresponding portion of happiness.
  - 2) Of two individuals with unequal fortunes, he who has the most wealth has the most happiness.
  - 3) The excess in happiness of the richer will not be so great as the excess of his wealth."
- (Bentham, 1882, pp. 103, 104)

Proposition 2 compares feelings for each individuals and proposition 3 implies both diminishing marginal utility for each individual and similar capacities for satisfaction. These two ideas can be found in subsequent utilitarian oriented economists (see Drakopoulos, 1988, p.4). Moreover, the first proposition establishes a link between wealth and happiness and the whole spirit of the quotation seems to indicate that other things being equal the greater the wealth the greater the happiness; an idea which is not so alien in subsequent economic thought. In addition G. Stigler has observed the following with respect to the third proposition:

"Then shifting ground, Bentham argues that, although utility does not increase as fast as income, for small changes the two move proportionately, so we may measure pleasures through the prices they command." (Stigler, 1950, p.310)

The above notion of measuring pleasures through prices is not an unknown one for orthodox economists, the only important difference is that instead of "pleasures" they prefer the "softer" word, "utilities". (The above is also related to the subsequent concept of income compensated demand curves.) One can discern from this aspect of Bentham's work, that he constructed the framework for the subsequent development of a utility based theory of value and of the theory of consumer behaviour.

Before we proceed to the next issue, which is the influence of Bentham's thought on subsequent economists, we should recapitulate the main points of Bentham's view about human nature. First of all as we saw, he believed that all actions of human beings have as an object the seeking of pleasure and the avoidance of pain. He writes: "My notion of man is, that, successfully or unsuccessfully, he aims at happiness, and so will continue to aim as long as he continues to be a man, in everything he does" (Bentham, in Stark, 1954, p.421). In addition to this hedonistic view of human nature, Bentham holds that

man is also rational. He thought that, because man was a rational agent Bentham viewed him as the best judge of his own utility. The third element of Bentham's view of human nature is selfish behaviour. According to him man is basically an egoist. Because this egoism involves a conflict between utility at the individual level and at the social level it is necessary to formulate laws which would enforce the principle of the greatest happiness of the greatest number. Here, as J. Viner emphasizes, there is a serious discrepancy between the actual behaviour of the individuals and the behaviour which would conduce to the above principle (Viner, 1949, p. 365).

Thus, Bentham's image of man is that he is a rational, hedonist and selfish being. This image is not very far from the basic characteristics of the subsequent "Economic Man". As we shall discuss later, the "Economic Man" of J. S. Mill and especially the "Economic Man" of the marginalists would have the same characteristics as Bentham's view of human nature. And, as is known, "Economic Man" would be a fundamental notion for the development of orthodox economic theory.

The influence of Bentham's thought on subsequent economists was great. As one would expect, the first economists to be influenced by his ideas were the representatives of the late period of the classical school. N. Senior, J. S. Mill and J. E. Cairnes were the most famous classicals to be influenced. In addition, Bentham's influence extended to the neoclassical school of economic thought. Bentham's reference to the maximization of pleasure and to the concept of utility along with his general view of man as a rational and selfish being, make him the ideological ancestor of the marginalist school. As T. W. Hutchison declares:

It has often been pointed out, obviously with much truth, that Bentham's development of, and emphasis on, the two concepts of maximization and utility make him above all the ancestor of the neo-classical economic theorizing, and especially of Jevons and Edgeworth." (Hutchison, 1956, p. 290)

More specifically, as we shall find out later in the section dealing with Jevons, his main work "Theory of Political Economy" deals largely with the concepts of pleasure and pain and also with the principle of utility. Jevons' theory has its roots in Bentham's approach (see also

Collison Black, 1972a, p.125). Apart from Jevons, another marginalist economist, L. Walras based a lot of his economic ideas on Bentham's thought. The issue of Bentham's influence on mainstream economics will be discussed more thoroughly in the appropriate sections.

Bentham lived in an era whose main features were, scientific experimentation, mechanistic physics and reason. It was an era which was characterized by a belief in the power of science and more specifically of mechanistic, deterministic science. The great success of Newtonian physics and later of classical mechanics, had created a conceptual framework which demanded that all branches of knowledge should follow the path of mechanistic physics. Thus, one could observe a strong trend towards quantification and mathematization even in traditional theoretical branches of knowledge like philosophy. Many people thought that as there exist absolute universal laws in physics so it must be the case with other fields like morals. This conceptual framework had an important impact on Bentham, and one has to take this into account for a better understanding of the nature of Bentham's thought. Having this in mind, it will not seem surprising that in his time "Bentham was hailed from St. Petersburg to Lisbon as the 'Newton of the moral world' who had laid down for all time the basic Universal laws of Utility" (Mack, 1969, p.viii). Or as E. Halevy puts it:

"In laying down the rules of his moral arithmetic, he [Bentham] is trying to construct a kind of mathematical morality analogous to mathematical physics."  
(Halevy, 1928, p.29)

Generally, Bentham's thought represents a continuation of the hedonistic approach which originated in ancient Greece with the work of Aristippus and Epicurus, and continued in modern times with Gassendi, Hobbes and Helvetius. Bentham's ideas are very much influenced by the above theorists. For instance, he refers a number of times to Epicurus and he accepts his debt to Helvetius for his greatest happiness principle:

"A sort of action is a right one, when the tendency of it is to augment the mass happiness in the community. This is what we are indebted for to Helvetius." (Bentham in Mack, 1969, p.39)

(One can also note here that the above quotation suggests that Bentham



had some kind of awareness of the significance of rule-utilitarianism.) However, Bentham's hedonism is much more elaborated and systematized than that of the previous hedonists. He constructs his hedonistic philosophy in a careful way using principles and propositions. He is the first to introduce a concept which would be central in subsequent mainstream economic theory, the concept of utility. Thus, with Bentham hedonism entered economics and since then it has constituted a considerable part of orthodox economics conceptual framework. More specifically, Bentham defined the concept of utility in terms of pleasure or happiness, after accepting -as every hedonist did- that the main motives of human actions are the seeking of pleasure and the avoidance of pain. Moreover, his second formulation of the utility principle demonstrated the ethical (along with the psychological of the first formulation) aspect of his utilitarianism. After this, he proceeded to an attempt of the quantification of utility. As was noted, his attempt was in the spirit of his era which called for greater quantification in all fields of knowledge. Moreover, he accepted the possibility of interpersonal comparisons of utility because it was necessary for the coherence of his system. Finally, he held that man was a rational being and a selfish one.

All these aspects of Bentham's thought influenced to a great extent the subsequent course of economic thinking. Without doubt, the concepts of economic man, utility and marginal utility which are central in late classical and marginalist economic thought, are based on his views. The first major classical economist who was influenced by Bentham, was N. Senior and our next section is concerned with his ideas.

### 3.3.2 N. W. Senior

As we stated in the previous section, Senior was the first major classical economist who was influenced by the ideas of J. Bentham. In addition to this Senior introduced some new methodological ideas which assisted the advance of hedonistic views in economics. More specifically, Senior maintained that four basic propositions were enough for the formation of the fundamentals of economics. Moreover, he set the bases for the positive-normative distinction by pointing out that economists must not give advise, but state general principles. But let us see the above points in a more detailed way.

Senior starts by stating that political economy rests on few general propositions. The first and most important proposition, according to Senior is the following:

"That every person is desirous to obtain, with as little sacrifice as possible, as much as possible of the articles of wealth." (Senior in Bowley, 1967, p.46)

The important point here is Senior's definition of wealth which is as follows:

"Under that term [wealth] we comprehend all those things, and those things only, which are transferable, are limited in supply, and are directly or indirectly productive of pleasure or preventive of pain." (Senior, 1850, p.6)

From the first proposition and from the definition of wealth, one can discern the idea of pleasure maximization which is the basic principle of the hedonistic framework. Although the concepts of pleasure and pain are not mentioned in the proposition, there is a clear connection when one takes into account the definition of wealth. The implicit idea of pleasure maximization can also be observed in Senior's definition of political economy which was given in his introductory lecture at Oxford in 1826. He defines political economy as "the science which teaches in what wealth consists -by what agents it is produced- and according to what laws it is distributed- and what are the institutions and customs by which production may be facilitated and distribution regulated, so as to give the largest possible amount of wealth to each individual" (Senior in Bowley, 1967, p.43).

Apart from the implicit idea of pleasure maximization, the above definition also reveals some important aspects of Senior's methodological thought. The fact that he defined political economy as a science indicates his methodological orientation. Moreover, the use in the definition of words like "laws" shows Senior's intention to treat political economy as an exact, physical science. However, the best example of Senior's methodology were his basic four propositions on which, he thought, political economy rests. The first of these four propositions was , as we stated, the principle of the maximization of wealth. The other three were:

"2. That the population of the world, or, in other words the number of persons inhabiting it, is limited only by moral or physical evil

3. That the power of labour, and of other instruments of production will produce wealth, may be indefinitely increased by using their products as the means of further production.

4. That agricultural skill remaining the same, additional labour employed on the land within a given district produces in general a less proportionate return." (Senior, 1850, p.26)

The first thing that can be observed is that proposition two is not compatible with Senior's emphasis on a positive approach to economics. Senior held that the validity of these propositions can be proved by the fact that they are familiar to almost every man's thoughts (a priori acceptance). Again this is not in agreement with his belief that economics should be a science like physics. Senior does not prove the propositions scientifically but appeals to common sense.

Senior believed that if someone started from these propositions, one could deduce conclusions which have universal validity for the science of political economy. He also wanted a clear separation between the positive science and the normative art of political economy. He desired a scientific political economy freed from all normative elements. In this context, one can understand the reasons for his disapproval of the economist as an adviser.

The methodological ideas of Senior are important because, as we stated, they assisted the introduction of hedonistic views in economics. Thus his main methodological ideas were the following: a) economics is based on four basic propositions b) from these propositions one can draw conclusions about political economy which

are universally true c) the above mean that political economy is a positive science and not to be involved with normative matters. Gide and Rist summarise:

"He [Senior] removed from political economy every trace of [ethical] system, every suggestion of social reform, every connection with moral or conscious order, reducing it to a small number of essential, unchangeable principles." (Gide and Rist, 1915, p. 350)

Senior's methodological approach was in accordance with the prevailing conceptual framework of his era. The great success of the physical sciences had influenced researchers working in other fields who also wanted their fields to achieve the high status of physics. This meant a growing trend towards formalization in every field and especially in economics. The hedonistic principles, selfish maximization of pleasure and minimization of pain, offered a basis for a "positive" science of economics where man's behaviour would be easily calculable and predictable. Thus, it can be argued that Senior's methodological views are closely connected with his hedonistic ideas.

Apart from his first proposition which clearly indicates a hedonistic orientation, other aspects of Senior's economic thought demonstrate its relationship with the hedonistic approach. More specifically, Senior's theory of value is an important indication of the above. Before Senior, Adam Smith and D. Ricardo had constructed a cost-of-production theory of value (see Deane, 1978, p. 69). Both theorists attempted to connect value with something objective (i.e. labour). Senior explicitly disagreed with this attempt and pointed out that value depends on utility, limitation in supply and transferableness (Bowley, 1967, p. 95). Thus he connected value with utility (subjective) instead of with costs, as was the case with previous classicals. This connection would become very important because it was to influence -as we shall see- the value theory of marginalist economists who based value solely on marginal utility. (Jevons recognized Senior as one of the prophets of marginal utility theory.) But before we proceed let us see first Senior's definition of utility:

"Utility, however, denotes no intrinsic quality in the things which we call useful; it merely expresses their relations to the pains and pleasures of mankind." (Senior, 1850, p. 7)

The important idea here is the definition of utility in terms of pleasure and pain. Thus, Senior's value theory involves the concepts of pleasure and pain and this means that there is a clear break from the classical theory of value.

Another indication of Senior's hedonistic influence is his formulation of the law of diminishing marginal utility where pleasure and pain are again central in the analysis:

"Not only are there limits to the pleasure which the commodities of any given class can afford, but the pleasure diminishes in a rapidly increasing ratio long before those limits are reached. Two articles of the same kind will seldom afford twice the pleasure of one, and still less will ten give five times the pleasure of two." (Senior, 1850, p. 11)

Apart from expressing the law of diminishing marginal utility, the above passage implies a conviction in the measurability of utility. As we have seen, the attempt to measure pleasure is a universal characteristic of all advocates of the hedonistic approach. In the following quotation, Senior implies that there must be a measurement of pleasure:

"The comparative utility of commodities depends partly on the intensity of the pleasure they afford, and partly on their durability..." (Senior in Bowley, 1967, p. 103)

Another manifestation of Senior's hedonistic tendencies was his views about J. S. Mill's economic man. As we shall see in the next section, J. S. Mill had created a model of economic man based primarily on hedonistic principles. However, Mill thought that his economic man was a fictional man useful only for the purposes of economics. Senior did not accept the fictional man view of Mill. Rather he thought that the model of economic man was also a description of man's actual behaviour. Senior himself did not formulate a model of economic man but in a way he had implied such a model in the first of his four fundamental propositions. His view that Mill's economic man was not an imaginary being but the actual man, is a clear indication of adherence to an extreme kind of psychological hedonism. More specifically he comments on Mill's hypothesis of economic man:

"It appears to me, that if we substitute for Mr Mill's hypothesis, that wealth and costly enjoyment are the only objects of human desire, the statement that they are universal and constant objects of desire, that they are desired by all men and at all times, we shall have laid an equally firm foundation for our subsequent reasonings, and have put a truth in the place of an arbitrary assumption."  
(Senior, in Bowley, 1967, p.61)

Senior believes that the hedonistic based economic man portrays human behaviour at all times. The above statement also affirms Senior's methodological views.

In general it can be said that Senior was the first major classical economist who was an advocate and promoter of Bentham's hedonistic ideas. The first hedonistic-based proposition, the connection of utility with pleasure, the utility-based theory of value, the implicit acceptance of the measurability of pleasure, and the belief that man's actual behaviour is based only on the maximization of pleasure, all prove the hedonistic orientation of his thought. In addition, his deductive, positive and physical science oriented economic methodology, facilitated the influence of the hedonistic approach on economics. J.S. Mill represents the next phase of the history of hedonistic influence on classical economics.

### 3.3.3 J. S. Mill

J. S. Mill's work represents the continuation of the introduction of hedonistic ideas in economics. Mill was the most important economist of the late period of the classical school, and his thought exercised a considerable influence on the ideas of subsequent economists and especially of the marginalists.

Mill's exceptional educational background provides a first indication of the orientation of his thought. More specifically, Mill was educated in an intellectual environment which was dominated by the philosophy of utilitarianism. His father, James Mill, was a utilitarian economist and also a close friend of Bentham. For the whole of his life, James Mill was a utilitarian propagandist and theorist (Winch, 1966, p.1). James Mill was one of the first utilitarian thinkers who attempted to apply utilitarian principles to politics. The influence of his father on the young Mill was considerable. It is known that J. S. Mill first heard about utilitarianism from his father. Moreover, Bentham, being a friend of Mill's family, discussed utilitarian philosophy with the young Mill. Undoubtedly, this strong utilitarian environment had an impact upon the formation of his views. However, unlike his father, Mill was not a mere follower of Bentham's utilitarianism. By criticizing some of the master's ideas and by suggesting new ones, Mill established his own version of utilitarianism. Mill's modification of utilitarianism made easier the adoption of hedonistic ideas by economists. For instance, by limiting Bentham's hedonism only to the business part of life (examined by economics) and by emphasizing that political economy is an abstract science based on some psychological (hedonistic) assumptions, Mill laid the foundation for the notion of economic man which became so influential among subsequent economists. But let us see these points in greater detail:

A number of philosophers have characterized Mill as being a "quasi-ideal utilitarian" (Smart and Williams, 1973, p.13). The reason for this was that Mill's utilitarianism was softer than Bentham's in the sense that he did not explain every human action in terms of

pleasure and pain. Mill condemns Bentham because he did not take into account aspects of human life like spiritual perfection and self-respect for their own sake. As he emphatically writes:

"Man is never recognised by him [Bentham] as being capable of pursuing spiritual perfection as an end; of desiring, for its own sake, the conformity of his own character to his standard of excellence, without hope of good or fear of evil from other source than his own inward consciousness...and neither the word self-respect, nor the idea to which that word is appropriated, occurs even once, so far as our recollection serves us, in his whole writings." (Mill, 1979, p.100)

It is clear that while Bentham believed that all forms of human behaviour could be explained by his pleasure-pain principle, Mill could not accept this oversimplified view of human nature. Instead, Mill believed that Bentham's theory describes human behaviour only in the business part of life. In his "Essay on Bentham", Mill devotes a number of pages to trying to show the weaknesses of Bentham's view that all human behaviour is hedonistic. He is anxious to emphasize that Bentham's ideas are not universally true, but they stand for one aspect of human life, that of business. He refers mainly to the hedonistic view that men maximize pleasure and minimize pain. As he writes:

"It [Bentham's philosophy] can teach the means of organizing and regulating the merely business part of the social arrangements...He committed the mistake of supposing that the business part of human affairs was the whole of them." (Mill, 1979, pp. 105, 106)

If one thinks that the business part of life is the province of political economy, then the representation of economic agents according to Bentham's hedonistic ideas is acceptable. The above is very close to the idea of a fictional economic man with hedonistic behaviour. The picture will be even clearer when we discuss Mill's methodological ideas.

The first observation that one can make about Mill's utilitarianism then, is that it is not universal but limited only to a specific aspect of human life. The second difference from Bentham has to do with the concept of pleasure. As we saw, Bentham can be characterized as a quantitative hedonist because he did not distinguish among different pleasures or pains. Mill however, states



explicitly that there are differences. As he asserts in his famous "Utilitarianism":

"It is quite compatible with the principle of utility to recognise the fact, that some kinds of pleasure are more desirable and more valuable than others. It would be absurd that while, in estimating all other things, quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone."  
(Mill, 1979, p. 258)

In general, Mill's limitation of utilitarianism to one aspect of human life and his qualitative approach to hedonism, are the two unique characteristics of his 'softer' version of utilitarianism. However, the above should not be taken to mean that there is a great distance between Bentham and Mill. After criticizing Bentham, Mill proceeds to express his admiration and esteem for the father of utilitarianism: "We are now to show the greatness of the man; the grasp which his intellect took of the subjects with which it was fitted to deal; the giant's task which was before him, and the hero's courage and strength with which he achieved it" (Mill, 1979, p. 106).

Thus, although Mill was critical of some aspects of Bentham's philosophical system, he still viewed him as a great theorist and his ideas as correct in many respects. In essence, Mill's thought represents the continuation of Bentham's system. As J. Schumpeter points out in his "History of Economic Analysis" :

"J. S. Mill cannot be called a utilitarian without qualification. In some respects he outgrew the creed; in others he refined it. But he never renounced it explicitly..." (Schumpeter, 1963, p. 408)

In spite of his more open attitude and his more sophisticated approach to human nature, Mill's thought still exhibits the basic traits of hedonistic philosophy.

First of all, one can discern in his writings the common concepts which can be found in every hedonistically-oriented thinker: pleasure and pain. Mill refers to them as the concepts which form the basis of the term utility. We noted that Bentham did the same thing. More specifically, in chapter 13 of his important work "Utilitarianism", Mill attempts to give a definition of utility:

"Those who know anything about the matter are aware that every writer, from Epicurus to Bentham, who maintained the theory of utility, meant by it, not something to be contradistinguished from pleasure, but pleasure itself, together with exemption from pain." (Mill, 1979, p. 256)

Apart from linking utility with pleasure and pain, the above statement also demonstrates Epicurus' influence on Mill. The fact that he saw Epicurus as the first utilitarian writer, shows Mill's view of the continuation and development of the hedonistic ideas from ancient Greece up to this time.

Another indication of Mill's hedonistic orientation can be found in his statement about utilitarianism:

"The creed which accepts the foundation of morals, Utility, or the Greatest Happiness principle, holds that actions are right in proportion as they tend to promote happiness, wrong as they tend to produce the reverse of happiness. By happiness is intended pleasure, and the absence of pain." (Mill, 1979, p. 257)

Two interesting points can be observed from this quotation. Firstly, Mill places greater emphasis on the second formulation of the utility principle, which is the greatest happiness principle. As we have seen in the section dealing with Bentham, the founder of utilitarianism had given two formulations of the utility principle: the first that deals with the utility of the individual and the second which concerns the utility of the community or the greatest happiness principle. Mill shows preference for the second formulation. Secondly, Mill identifies happiness with pleasure. As we have noted, this is a distinct characteristic of the hedonistic approach. Usually non-hedonistic theorists would hold that pleasure is only a part of happiness but not happiness itself; happiness is conceived as a more general term than pleasure. Mill, like Bentham, equates happiness with pleasure.

Before we proceed, it is appropriate to devote more space to the discussion of Mill's emphasis on the second formulation of the utility principle, because it represents a unique element in Mill's version of utilitarianism. The following quotation is indicative of Mill's views:

"I have dwelt on this point, as being a necessary part of a perfectly just conception of utility or happiness, considered as the directive rule of human conduct. But it is by no means

an indispensable condition to the acceptance of the utilitarian standard; for that standard is not the agent's own greatest happiness, but the greatest amount of happiness altogether." (Mill, 1979, p. 262)

In the section on Bentham we noted the problem of compatibility between the two formulations of utility principle. Mill clearly chooses the second one when there is a conflict between the two. Thus one can argue that Mill follows more a "social utilitarianism". As was seen, the second formulation allows for rules or laws which curb pleasure maximization of the individual where this would conflict with the greatest happiness principle. (One can also note here the utilitarian origins of welfare economics.) However, this preference for the second formulation is abandoned when it comes to the business part of life. But we will discuss this issue later in the section.

The above second formulation of utility principle is related with our next issue which is the problem of utility measurement. It is evident that if one accepts the greatest happiness principle, then one has to assume some sort of utility measurement in order to make it operational. Although Mill does not mention much about the method of measurement, it is clear that he believes in the measurability of pleasure or utility. (Again he realizes the differences among pleasures and this is the reason why in the following quotation, he refers to 'allowances made for kind.) This is another important characteristic of the hedonistic framework. Mill writes:

"That principle [greatest happiness] is a mere form of words without rational signification, unless one person's happiness, supposed equal in degree (with proper allowance made for kind), is counted for exactly as much as another's." (Mill, 1979, p. 319)

The passage implies measurability of pleasure. Interpersonal comparisons of utility are also assumed along with the idea of equal capacities for satisfaction. We noticed the same assumptions in Bentham, but the difference with Mill is that they are mentioned more explicitly; and this is one of the reasons why Mill has been called a liberal utilitarian. (This has to do more with the acceptance of equal capacities for satisfaction.)

As a recapitulation of the ideas that we have discussed up to now, we can say that Mill's thought exhibits the basic traits of a

hedonistically oriented theorist. These are: the concept of pleasure maximization and pain minimization, the identification of happiness with pleasure and the idea of the measurability of pleasure or utility. However, his qualitative approach to hedonism, his belief that utilitarianism as advocated by Bentham is true only for the business part of life, and his emphasis on the social dimension of utilitarianism, mean that his approach was softer than Bentham's.

In spite of his generally softer version of utilitarianism, Mill, by stating that Bentham's views are valid for the business part of life, set the basis for the concept of economic man. In essence Mill suggested that although not all human behaviour is hedonistic, the behaviour of individuals in the market place is. Moreover, by making this distinction, Mill also set the basis of dualism in economics. Mill did not mention in his writings the term 'economic man'; this term appeared in the marginalist period. However, one can say that he was the one who supplied its basic methodological and psychological characteristics. He based the psychology of economic man on hedonistic principles and especially on Bentham's utilitarianism. Moreover, he provided the basis of its methodology by stating some methodological principles which were based on the idea that political economy was an abstract science. But let us see first his ideas which helped the genesis of economic man.

The notion of economic man is a very important one for the field of economics, because it became a basic tool for economic analysis especially in the marginalist period. Thus it is worth citing one long quotation which show the specific views of Mill on this subject. Mill's ideas about this problem can be found in his book entitled "Essays on Some Unsettled Questions of Political Economy". He asserts:

"It [political economy] does not treat of the whole of man's nature as modified by the social state, nor of the whole conduct of man in society. It is concerned with him solely as a being who desires to possess wealth, and who is capable of judging of the comparative efficacy of means for obtaining that end. It predicts only such of the phenomena of the social state as take place in consequence of the pursuit of wealth. It makes entire abstraction of every other human passion or motive, except those which may be regarded as perpetually antagonizing principles to the desire of wealth,

namely, aversion to labour, and desire of present enjoyment of costly indulgences." (Mill, 1874, p. 137)

The above passage is a crucial for the history of economic thought, because it sets the basis on which the next school, the neo-classical, would develop methodologically. It considers only one motive, the hedonistic one, which concerns the field of political economy. By using the method of abstraction, Mill isolates the pursuit of wealth or enjoyment from all other human motives. The important point is that he considers that political economy -which examines the business part of life- can be constructed on the principles of Benthamite hedonism. In another passage, the isolation of motives is quite clear:

"The science [political economy] then proceeds to investigate the laws which govern these several operations, under the supposition that man is a being who is determined, by the necessity of his nature, to prefer a greater portion of wealth to a smaller in all cases..." (Mill, 1874, p. 138)

Mill's views on economic man are linked to his general methodological thought which we will examine later in this section. However, at this point it is important to notice that Mill viewed economic man as an abstraction, as a hypothetical creature or generally as a "fictional" and not a real man. Moreover, this is a point of difference from Senior who thought that the hedonistic motives of Mill's economic man, are also the only motives of real man. As we shall see this controversy between fictional versus real economic man was to be an issue also for subsequent economists.

After having established the psychological characteristics of his fictional economic man, Mill proceeded to give the definition of political economy.

"Political Economy, then, may be defined as follows; and the definition seems to be complete: The science which traces the laws of such of the phenomena of society as arise from the combined operations of mankind for the production of wealth, in so far as those phenomena are not modified by the pursuit of any other object." (Mill, 1874, p. 140)

From this definition certain characteristics of Mill's conception of political economy can be observed. The first is that he calls political economy a science and not an art. This shows his intentions to treat political economy as an abstract science in the manner of

positive sciences. And second, he views political economy as a science which studies only the phenomena which are connected with the production of wealth. But as we shall see later, the concept of wealth is a very narrow concept in Mill's economic thought.

After the definition, Mill proceeds to describe the basic methodological features of political economy.

"In the definition which we have attempted to frame of the science of political economy, we have characterized it as essentially an abstract science, and its method a priori."  
(Mill, 1874, p. 143)

Then he combines his methodological views with the assumption of economic man and writes:

"Geometry presupposes an arbitrary definition of a line 'that which has length but not breadth'. Just in the same manner does political economy presuppose an arbitrary definition of man, as a being who invariably does that by which he may obtain the greatest amount of necessaries, conveniences, and luxuries, with the smallest quantity of labour and physical self-denial, with which they can be obtained in the existing state of knowledge." (Mill, 1874, p. 144)

It is clear that Mill viewed economics as a science which should be developed in the same way as the more positive sciences. His method was, as the quotation shows, to start from a priori assumptions like that of economic man with hedonistic behaviour, and by deduction to reach universally valid conclusions. The reference to Euclidean geometry which is based on abstract and a priori (self-evident) axioms, is indicative. (One can maintain that this method, starting from assumptions like that of economic man, is a very influential one even among modern economists.) Just as was the case with Senior, Mill was influenced by the prevailing conceptual framework of the nineteenth century which promoted the idea that all sciences should follow the method of the more 'advanced' positive sciences. This meant greater quantification, and exclusion of all non-measurable elements from the social sciences. Also it meant that the behaviour of Mill's economic man with its standard, well-defined hedonistic characteristics fitted the requirements of greater formalization and abstraction in the social sciences and especially in economics, the most advanced of them. As Whitaker observes about Mill's book "A

System of Logic" : "The keynote of book 6 is set by Mill's belief that the complexities of human and social phenomena will only be understood by applying to them the successful methods developed in studying natural phenomena" (Whitaker, 1975, p. 1037).

However, it should also be noticed that Mill was conscious that political economy and its method were based on a priori assumptions. He insisted that every economist must keep in mind the nature of the assumptions. A few pages after defining economic man and political economy, he was anxious to point out:

"Political Economy, therefore, reasons from assumed premises -from premises which might be totally without foundation in fact, and which are not pretended to be universally in accordance with it. The conclusions of political economy, consequently, like those of geometry, are only true, as the common phrase is, in the abstract." (Mill, 1874, p. 144)

In another part of his work, Mill refers specifically to the assumption of economic man. He states that this is a hypothetical assumption which makes the political economist's conclusions, only true in the abstract (Schwartz, 1972, p. 60). This limitation that Mill himself imposed on his utilitarian oriented economic ideas, was to be forgotten by subsequent economists who followed the same approach, namely to see human nature from a hedonistic perspective and to apply the method of abstraction and a priori deduction.

The main aspects of Mill's economic theory can be found in his well-known book "Principles of Political Economy". In this work he does not mention much about method and human nature, but states his economic ideas. Again, however, one can find a passage when he is conscious of the limitations of abstract methodology:

"For practical purposes, Political Economy is inseparably intertwined with many other branches of Social Philosophy. Except on matters of mere detail, there are perhaps no practical questions, even among those which approach nearest to the character of purely economical questions, which admit of being decided on economic premises alone." (Mill, 1909, p. xxvii)

In the same book, Mill discusses the basic economic concepts of utility, wealth, and value. First, he distinguishes three kinds of utilities: 1) utilities fixed to objects, 2) utilities fixed in human beings, where he gives as an example education and 3) utilities not

fixed in any object, but consisting in a mere service rendered, where he gives the example of the labour of musical performer (Mill, 1909, p. 46). He then proceeds to define wealth in the following way:

"I shall therefore, in this treatise, when speaking of wealth, understand by it only what is called material wealth, and by productive labour only those kinds of exertion which produce utilities embodied in material objects."  
(Mill, 1909, p. 48)

The above definition of wealth is very important because the concept of wealth is used in the definition of economic man and of political economy (as was noticed in the previous pages). This evidently narrows the scope of political economy and reinforces the conception of man as a being who maximizes his pleasures by acquiring material wealth. The identification of happiness with pleasure and pleasure with material wealth is thus characteristic of Mill's economic thought. This point was not accepted by Senior who also included services in his notion of wealth.

With respect to value, Mill departs from Senior and goes back to Ricardo, advocating a cost-of-production theory of value. Thus utility is not an essential part of Mill's theory of value as it is in Senior's and in subsequent neoclassical economists.

As a recapitulation, one can maintain that J. S. Mill was a sceptical utilitarian. While he criticized Bentham's hedonistic views and Bentham's quantitative hedonism, he accepted them completely in the business part of life. While he proposed the model of hedonistic economic man, at the same time he limited its use by stating that this is only a fictional being. (One can point out here that the term fictional mainly implies that hedonistic behaviour is limited to the business part of life, not that Mill thought of it as an unrealistic creation; see also Lawson, 1987). And lastly, while he advocated an abstract, positive-science-like, methodology for economics, he pointed out its limitations. Thus it can be said that Mill's thought has two sides. The first one shows a theorist who advocated a utilitarian, hedonistic approach; who created a pleasure maximizing economic agent and who proposed an abstract, positivist economic methodology. The other side represents a thinker who had many doubts about the



universal validity of the hedonistic views, who insisted his economic agent was only an abstraction and not a real man, who recognized the differences between different pleasures, and who pointed out the limited nature of his positive economic methodology. In addition, he defined wealth only in terms of material objects and at the same time he based his theory of value on costs and not on utility as Senior as well as many subsequent (neo-classical) hedonistically oriented economists, did.

The first side of Mill's thought is in the hedonistic tradition of Aristippus-Epicurus-Gassendi-Helvetius-Bentham and Senior. The other side is closer to the thought of Hume and especially of A. Smith. However, the first side of his thought played an important role in the development of hedonistic ideas in economics. Mill's contribution was that by specifying some hedonistic principles and by combining them with an abstract methodology, he was able to construct the concept of economic man. Also it was Mill who justified the dualistic approach (fictional and real man) in economics thus allowing the introduction of hedonistic assumptions without worrying much about their relevance to human behaviour. The next school of economic thought, the marginalists, adopted only the first hedonistic and positivist side of his thought without paying attention to his cautions. In short, his 'business part of life' utilitarianism and a priori methodology facilitated the introduction of hedonistic ideas in economics especially during the marginalist era.

### 3.3.4. J. Cairnes

J. Cairnes (1824-1875) represents the closing period of the classical school of economics. The date of his death coincides with the beginning of the marginalist period of economics, which we will examine in the following chapter. J. Cairnes was a disciple and a close friend of J. S. Mill, and generally his views on the most important economic issues are similar to those of Mill. The main contribution of Cairnes to the development of hedonistic ideas in economics was his economic methodology. Cairnes systematized and promoted the establishment of the positivist methodology of Mill and thus facilitated the acceptance of hedonistic views. Moreover, Cairnes' thought provides a first indication of the marginalist intellectual environment. But let us discuss briefly Cairnes' position.

Cairnes most important ideas can be found in his two chief works: "The Character and Logical Method of Political Economy" and "Some leading Principles of Political Economy". In his first work one can see the tendencies of orthodox economic methodology in the middle of the nineteenth century. In this book he places wealth as the subject-matter of political economy:

"I should therefore at starting take it for granted that 'wealth', the subject-matter of Political Economy, is susceptible of scientific treatment; that there are laws of its production and distribution." (Cairnes, 1875, p. 7)

The use of terms like 'scientific' and 'laws' in the above passage gives a first impression of Cairnes' methodological views. In the spirit of the age, Cairnes attempted to place political economy on the same level as the exact, physical sciences. The following quotation indicates Cairnes' intentions:

"What Dynamics does for the phenomena of motion; what Chemistry does for the phenomena of chemical combination; what Physiology does for the phenomena of the functions of organic life; that Political Economy does for the phenomena of wealth: it expounds the laws according to which those phenomena co-exist with or succeed each other; that is to say, it expounds the laws of the phenomena of wealth." (Cairnes, 1875, p. 18)

It is clear that Cairnes reinforces the conception of political

economy as an exact science. As we saw this conception had started to take shape in the late period of classical school. In Cairnes' thought the old dilemma of the nature of political economy (art versus science) does not exist anymore. For him, political economy is exactly the same kind of science as chemistry, dynamics, and physiology. This parallelism of political economy with the positive sciences leads to the idea that political economy is a neutral science and the political economist an objective scientist. As he declares:

"In the first place, then, you will remark that, as thus conceived, Political Economy stands apart from all particular systems of social or industrial existence...But this notwithstanding, the science is neutral, as between social schemes, in this important sense. It pronounces no judgement on the worthiness or desirableness of the ends aimed at in such systems." (Cairnes, 1875, p.20)

and after some paragraphs, he adds more emphatically:

"On the relative importance of such conflicting considerations, Political Economy offers no opinion, pronounces no judgement, thus, as I said, standing neutral between competing social schemes." (Cairnes, 1875, p.21)

The above views reflect the prevailing conceptual framework of the nineteenth century which was characterized by the dominance of the philosophy of positivism and by the belief that the ideal model of a science is the physical science. However, in order to establish the field of economics among the exact, positive sciences, Cairnes needed to establish some solid, unquestionable bases. He founded those bases on three premises which were universally true, according to Cairnes, because they were based on facts. Following the previous theorists and especially Bentham, Senior and Mill, Cairnes accepts the hedonistic view of human nature as the first of these three fundamental premises. Moreover, as was the case with Senior and Mill, Cairnes tends to psychological hedonism.

"The principal of these I stated to be, first, the desire for physical well-being implanted in man, and for wealth as the means of obtaining it, and, as a consequence of this in conjunction with other mental attributes, the desire to obtain wealth at the least possible sacrifice; secondly, the principles of population as derived from the physiological character of man and his mental propensities; and thirdly, the physical qualities of the natural agents, more especially land, on which human industry is exercised."

(Cairnes, 1875, p. 59)

According to Cairnes these three "mental principles and physical conditions are taken by the political economist as ultimate facts, as the premises of his reasonings" (Cairnes, 1875, p. 59). Thus, these three premises can not be refuted because they are ultimate facts. At this point, Cairnes departs from Mill's position that the assumptions in economics are hypothetical ones. However, he does not hold the same view when it comes to the conclusions of political economy. As he states, the economists' conclusions will "correspond with facts only in the absence of disturbing causes, which is, in other words to say that they represent not positive but hypothetical truth" (Cairnes, 1875, p. 49). From these ideas, one can understand Cairnes' view that political economy is both a positive and a hypothetical science. As far as its premises are concerned, political economy is a positive science, but as far as its conclusions are concerned it is a hypothetical science (because of disturbances which occur in the process from the assumptions to the conclusions). One can note that other sciences are both positive and hypothetical in Cairnes' sense; the postulated conditions are not frequently fulfilled. In addition, it is clear that the above premisses are not something new in political economy because we saw approximately the same assumptions in the section dealing with Senior.

Thus, in general it can be maintained that Cairnes agrees with Senior that the assumptions of economics are not hypothetical but based on fact. This means that the assumption of economic man is a real one and it follows that economic man is not an imaginary being but a real man. This point is the opposite of Mill's view of fictional economic man. However, Cairnes agrees with Mill on the issue of economic conclusions which both regard as hypothetical.

Apart from the disagreement on the issue of assumptions, Cairnes follows Mill's views in other important economic points. For instance, Mill's influence is distinguishable in both of his major economic works. In particular, Cairnes adopts Mill's theory of value. He holds, like Mill, that value depends on costs and not on utility. Moreover, he criticizes and rejects the new marginal utility theory of value which was proposed by Jevons and marked the beginning of a new era in

economics (Cairnes, 1874, pp. 14-16).

Overall, it can be said that Cairnes brought to the surface a semi-hidden trend of the late period of orthodox classical economics: identification of political economy with the exact, physical sciences. And in order to do this, he stated three ultimate premisses which he characterized as based on facts. The first and most basic assumption described the behaviour of what would be termed economic man (Gray, 1931, p. 288). In addition to the first assumption, Cairnes emphasized the factor of self-interest which is present in the operations of trade (Cairnes, 1875, p. 103). By promoting a formalist economic methodology, Cairnes facilitated the development of hedonistic ideas in economics.

### 3.4 CONCLUSION

We have separated this chapter into two parts. In the first part we discussed the rebirth of hedonistic ideas in the period of the Enlightenment. It was observed that after their virtual disappearance in the Middle Ages, the hedonistic views (which originated in the writings of Cyrenaics and Epicureans) came again onto the intellectual picture. Three thinkers were mainly responsible for this reintroduction: P. Gassendi, T. Hobbes and C. A. Helvetius. In their work one can find again the basic elements of the hedonistic approach: major emphasis on the concepts of pleasure and pain, and philosophical and psychological hedonism combined with selfish behaviour. Their ideas (especially those of Helvetius) were assisted by the prevailing intellectual environment which favoured mechanistic materialism and thus facilitated the acceptance of the hedonistic image of human nature (as a pleasure maximizing machine).

The thinker who systematically introduced the hedonistic ideas to the young field of political economy, was the founder of utilitarianism, J. Bentham. Thus, in the second part of this chapter, we started our discussion of the introduction of hedonism in economics with an examination of the main ideas of Bentham. Bentham's hedonism was much more elaborated and systematized than the hedonism of previous theorists. It was he who introduced the concept of utility which gradually replaced the more "loaded" term of pleasure, and was to become central for subsequent economists. Like all previous hedonists, Bentham proceeded to attempt the measurement of utility. Moreover, his image of man as a rational, selfish and pleasure maximizing being would set the bases for the development of the concept of economic man. N. Senior and J. S. Mill followed Bentham's general approach. Senior's thought exhibited most of the characteristics of hedonistic philosophy; in addition, he introduced a positive, exact-science-like economic methodology which facilitated the introduction and development of the hedonistic approach in economics. Mill was another part of the chain of those who developed hedonistic ideas. However, he was the most sceptical of all hedonistically oriented classical economists. Although, he was the one who conceived the idea of an abstract economic agent (later known as

economic man), he was cautious to point out his doubts about the universal validity of the hedonistic views and to state that his hedonistic, selfish economic agent was a fictional one useful only for the purposes of economics. Moreover, limiting hedonism to the business part of life (the province of economics) made easier for subsequent economists the acceptance of hedonistic ideas. The last major classical economist, J. Cairnes, was in the same line of thought. In addition he emphasized a more positive economic methodology, and like Senior, he believed in the reality of the ideal economic agent of Mill.

Thus, it can be maintained that after the revitalization of hedonistic views in the modern period, Bentham introduced them into economics. Senior, Mill and Cairnes assisted the process by elaborating the concept of utility, by setting the basis for the subsequent model of selfish, rational and above all pleasure-maximizing economic man, and finally by constructing a positive, physical-science-influenced, economic methodology which assisted the development of hedonism in economics. However, as far as the concept of economic man is concerned, it must be noted that since classical economists were concerned mainly with questions of growth and distribution and not so much with questions of allocation, the idea of economic man did not play a central role in their theories. As we shall see, the idea of economic man (albeit its classical roots) would become a major analytical tool in the marginalist period when orthodox economists were concerned mainly with microeconomic phenomena.

## CHAPTER 4

### HEDONISM AND MARGINALISM

#### 4.1 INTRODUCTION

In the previous chapter we discussed the rebirth of hedonism in the writings of Gassendi and Helvetius and also its introduction and development in the field of economics. More specifically, we observed how Bentham's hedonistic views influenced subsequent classical economists, Senior, J. S. Mill and Cairnes, who also represent the mainstream of the later period of the classical school. Cairnes was the final major figure of the classical school. Chronologically, the end of the classical school is considered to be in 1850's or 1860's. By that time, the writings of Bentham, Senior, Mill and Cairnes had already contributed to the promotion of the hedonistic approach in economics. Elements to be found in the works of these theorists include, the emphasis on the concepts of pleasure and pain, (as well as the attempt to find a method of measurement of those); self-interest; the first formulations of the concept of (hedonistic) economic man; and the intensification of the use of the term utility which was conceived as equivalent to pleasure. In addition to the above concepts, a positive, physical science oriented methodology of economics, that facilitated the application of these hedonistic ideas, can be observed.

The 1870's was the period in which the originators of the marginalist revolution published their economic theories. From our point of view, the marginalist school represents a strengthening of the influence of the hedonistic approach in economics. Indeed, one can say that the peak of hedonistic influence was reached with the emergence of the marginalist school which also represented a theoretical shift of major importance. The shift of emphasis to questions of allocation, which was a basic feature of marginalism, meant that a model of standard economic behaviour was needed (classicals were concerned more with questions of growth and



distribution). In addition, the emergence of marginalism was assisted by a shift from a supply-based explanation of value and prices to a demand-based explanation. The emphasis on the concept of demand and the attempt to analyse it, required a psychological model and this assisted the application of hedonistic ideas. (One can argue that the analysis of costs which are the basis of supply, does not require a psychological, agent-based, theory.) Moreover, the trend towards a mathematical methodology demanded a well defined economic agent with standard and predictable behaviour. The hedonistic framework was a very good model for these purposes and thus during the marginalist period, hedonistic ideas become more and more influential in economics.

All of the above represented a more consistent and systematic application of hedonistic principles to economics. The foundation of the marginalist doctrine on the concept of marginal utility which is defined -as we shall see- in terms of pleasure, is a first indication of the hedonistic influence. Another indication is the use of hedonistically oriented economic man as a main tool of economic analysis. In addition, there was a close association of the increasingly mathematical methodology of the marginalists with the standard hedonistic behaviour of economic agents. Overall, the marginalist period is an extremely important phase of the development of hedonistic ideas in economics.

In this chapter then, we shall examine the main views of the most important marginalist economists. We shall start with a discussion of one of the most important forerunners of the marginalist doctrine H. Gossen whose work contains the central points of marginalism and hedonism. The makers of the marginalist revolution, Jevons, Menger, and Walras will be examined next. Finally, a discussion of the work of the main representatives of the second marginalist generation will follow.

## 4.2 FIRST MARGINALIST GENERATION

### 4.2.1 H. Gossen: Forerunner

Although there are signs that some marginalist ideas can also be found in the work of economists like J. Dupuit (1844) and R. Jennings (1855), it can be maintained that the first concrete exposition of the marginalist ideas can be identified in the work of a German economist named Hermann Heinrich Gossen, almost forgotten by all except historians of economics (see Dupuit, 1933; and Jennings, 1969). His main economic work appeared in 1854, almost twenty years before the formulation of the marginal utility theory by Jevons, Walras and Menger. After two decades of oblivion, Gossen's work was rediscovered by Jevons and Walras who in the name of Gossen found a forerunner of their theories. It was only after reference to Gossen's name by Jevons and Walras that his work attracted the attention of the historians of economic thought. The enthusiasm with which Jevons and Walras promoted Gossen's work indicates the great similarity of Gossen's views with those of the marginalists.

Gossen states his economic ideas in a book entitled: "Development of the Laws of Human Relationships and of the Rules to be derived therefrom for Human Action". In this work one can find the main marginalist principles which in turn are influenced by the hedonistic framework. Moreover, the methodology and the manner of exposition of ideas are of a mathematical character, another similarity with subsequent marginalist work. As E. Roll states: "Thus Gossen's book contains the main elements of the Jevonian and Austrian theory. Even the geometric and algebraic apparatus is there" (Roll, 1961, p. 376). But let us look at Gossen's ideas more analytically.

The starting point of his economic theories shows the direct influence of hedonism. As A. Gray states in his section about Gossen:

"The fundamental principle, then, is that man should so direct his actions that the sum of his enjoyments in life should be a maximum; and this, moreover is in accordance with the will of the Creator." (Gray, 1931, p. 337)

The above quotation clearly demonstrates the hedonistic orientation of Gossen's thought (one can note the similarity with Gassendi's hedonism due to the the added metaphysical element). Although the

passage is closer to philosophical hedonism, Gossen is not an advocate of ethical hedonism alone. In another statement he writes that "the aim of all human conduct is to maximize enjoyment" (Gossen in Roll, 1961, p. 374). This is clearly closer to psychological hedonism. He reconciles the difference by stating that many pleasures may generate a feeling of pain as an after-effect, thus although man aims at pleasure he should only act in a way that the sum of his pleasures is maximized. It seems that an element of rationality is added in Gossen's hedonism.

After stating the basic hedonistic principle, Gossen attempts to find a method of measurement of pleasure. As we have already seen, this need to discover a measuring device of pleasure and pain was a common characteristic of almost all previous hedonistic thinkers. Gossen's mode of thought in this important area is as follows:

"We can conceive of the magnitudes of various pleasures only by comparing them with one another, as, indeed, we must also do in measuring other objects. We can measure the magnitudes of various areas only by taking a particular area as the unit of measurement, or the weights of different bodies only by taking a particular weight as the unit. Similarly, we must fix on one pleasure as our unit, and hence an indefiniteness remains in the measurement of a pleasure. It is a matter of indifference which pleasure we choose as the unit. Perhaps the consequences will be most convenient if we choose the pleasure for the commodity which we use as money." (Gossen in Stigler, 1950, p. 115)

The idea of using money as an indirect measure of pleasure is similar to subsequent ideas about the relationship between money and marginal utility (as expressed by Marshall for instance).

After the above attempt of measuring pleasure, Gossen proceeds to define the concept of utility. This concept is central to Gossen's work. As was seen, after Bentham utility became a familiar and often-used term in the writings of classical economists. However, in Gossen and in subsequent representatives of the marginal school, utility and especially marginal utility was to become the single most important concept. Gossen's definition of utility can be found indirectly in a piece written by one of the originators of the marginalist revolution, L. Walras:

"The term 'werth' is next introduced, which may, Professor Adamson thinks, be rendered with strict accuracy, as utility; and Gossen points out that the quantity of utility, material or immaterial, is measured by the quantity of pleasure which it affords." (Walras, 1973, p. 216)

Walras carries on to state Gossen's ideas about "useful objects". The classification of useful objects is conducted in terms of pleasure and this can be the first indication of his theory of value.

He [Gossen] classifies useful objects as, 1) those which possess pleasure-giving powers in themselves; 2) those which only possess such powers when in combination with other objects; 3) those which only serve as means towards the production of pleasure-giving objects." (Walras, 1973, p. 216)

This identification of pleasure with utility is another indication of the hedonistic orientation of Gossen's economic views. Thus, after having specified the term of utility, Gossen proceeds to state the basic principles which characterized this utility, and which also are of major importance for marginalist economics. Professor Stigler, in an article entitled: "The Development of Utility Theory" thinks that Gossen was the first writer to formulate explicitly what would be known as the fundamental principle of marginal utility, and he quotes Gossen as follows:

"A person maximizes his utility when he distributes his available money among the various goods so that he obtains the same amount of satisfaction from the last unit of money spent upon each commodity." (Gossen in Stigler, 1950, p. 315)

It is clear that the above passage was a step towards the development of the relationship between utility and demand curves (see also Stigler, 1950, p. 315).

After having stated his views about pleasure and utility, Gossen proceeds to formulate three fundamental principles. These principles exhibit a great similarity with the subsequent main core of the marginalist doctrines. He writes:

"1. In the case of each enjoyment there is a manner of enjoyment chiefly dependent on the frequency of repetition, which will make the sum of enjoyments a maximum. If this maximum is attained, a more frequent or less frequent repetition will diminish the total enjoyment.

2. When there is a choice between several enjoyments, but insufficient time to enjoy all completely, maximum enjoyment requires that all should be partly enjoyed, even before the

greatest of these enjoyments has been exhausted. At the moment of breaking off, the enjoyment which is being derived from each of the possible lines should be the same.

3. Thirdly, and rather oddly, the possibility of increasing the sum total of enjoyment is present whenever a new enjoyment (however small in itself) is discovered, or an existing enjoyment extended. Blessed indeed is he who invents a new pleasure." (Gossen in Gray, 1931, p. 338)

The whole spirit of the above quotation is clearly based on the hedonistic framework.

Gossen's hedonistic orientation can also be seen in his discussion of various economic issues like the theories of labour and exchange and the theory of value. In short, Gossen's theory of labour is based on the idea that work is a disutility and thus it must be subtracted from the utility of the product. In other words, the final utility of a product is its utility minus the disutility of labour for that product. One can note here that the disutility of labour, which is not a constant function of quantity of labour, undermines any labour theory of value because it introduces the subjective concepts of pleasure and pain. Moreover, Gossen's analysis of the disutility or pain of labour is similar to that of Walras'. As Walras himself states on this point: "He [Gossen] describes the variation of the pain of labour much as I have done, exhibiting it graphically, and inferring that we must carry on labour to the point at which the utility of the product equals the pain of production" (Walras, 1973, p. 216). The above summary of Gossen's labour theory is the first sign of a subjective theory of value and also it indicates the great difference of his views from the ideas of early classical economists who would sharply reject the conception of labour as a "disutility". (Adam Smith and Marx for instance, placed much emphasis on labour as such; the basis of wealth.)

Gossen constructs his theory of exchange in the same manner, starting with a demonstration of the way exchange leads to a rise of utility. And in a would-be typical marginalist manner, he states that exchange will proceed up to a point at which the utilities of the portions next to be given and received are equal (see Walras, 1973, p. 216).

His theory of value is linked with the three fundamental

principles and is based on the concept of diminishing satisfaction. The other basic idea of Gossen's value theory is that "the value of a thing is to be reckoned entirely in terms of the enjoyment which it can produce" (Roll, 1961, p. 375). His theory of value is also related to his classification of objects according to their pleasure-giving power. Thus, he departs drastically from the classical view of the labour theory (except as put forward by Senior) and he offers the first outlines of a new theory of value based on the concept of utility or pleasure.

As was noted in the beginning of this section, Gossen follows a method which was to become very familiar in marginalist theory. His enthusiasm for, and use of mathematics indicates his conception of economics as an abstract science with formalist methodology. Moreover, he compared the importance of his economic theories with that of Copernicus, whose discoveries brought a great transformation in physical science. The physical science ideal is thus present in Gossen's thought too. As Spiegel states:

"So firmly was Gossen convinced of the far-reaching consequences of his message that he started his book by comparing it with the discoveries of Copernicus and ended it with the promise that the acceptance of his doctrines would turn the world into a paradise." (Spiegel, 1971, p. 512)

In general, Gossen can be characterised as a forerunner of the marginalist doctrine. His economic thought exhibits the major points that constitute the marginalist economic theory. His economic ideas are also a first indication of the influence that the hedonistic approach would have on marginalist economics. The hedonistic principles; the continuous use of concept of pleasure and pain; the attempt of their measurement; the principle of diminishing satisfaction; and the utility-based theories of labour, exchange and value, are central elements in Gossen's economics. As we shall find in the following pages, the very same elements would constitute the foundations of the new major school of economics, the marginalist school. Thus, in marginalism the hedonistic trend of mainstream economics would continue, more strongly.

#### 4.2.2 W. S. Jevons

The British economist W. S. Jevons (1835-1882) was one of the makers of the marginalist revolution. The decade of the 1870's was the period when three economists, Jevons, Walras and Menger, published their major, and extremely influential, works.

In 1871 Jevons published his work "Theory of Political Economy" in which he developed his economic ideas. These can be characterized as being novel in comparison to the work of the classical economists. The basis of this work is the notion of marginal utility upon which the theories of labour, exchange and value are constructed. The fact that utility is linked with pleasure and also that Jevons devotes a whole chapter to the "theory of pleasure and pain" as well as other points which will be discussed below, show the great influence of hedonism. Moreover, the mathematical methodology that is used completes the image of mathematically-oriented hedonistically-based economic theory. Thus, in the following pages we shall discuss the main aspects of Jevons' economic thinking starting with his definition of political economy.

In the preface of his "Theory of Political Economy", Jevons gives a summary of his views and methods concerning economics. He states explicitly that in his work he has attempted "to treat Economy as a Calculus of Pleasure and Pain" (Jevons, 1871, p. vii). This statement shows clearly his mathematical and hedonistic treatment of economics. In the same paragraph he reveals the nature of his approach by writing:

"The Theory of Economy thus treated presents a close analogy to the science of Statical Mechanics, and the Laws of Exchange are found to resemble the Laws of Equilibrium of a lever as determined by the principle of virtual velocities. The nature of Wealth and Value is explained by the consideration of indefinitely small amounts of pleasure and pain, just as the Theory of Statics is made to rest upon the equality of indefinitely small amounts of energy."  
(Jevons, 1871, p. viii)

The comparison that Jevons makes between economics and physical sciences like mechanics, supports the view that nineteenth century economists had physical science as their ideal model of science, and attempted to construct economics on their method. This trend was

observed in previous economists and as would become obvious, it would be intensified in the work of the marginalists. Moreover, another quotation from Jevons' book demonstrates again the emphasis that he put on the notions of pleasure and pain, and their importance for economics.

"Pleasure and pain are undoubtedly the ultimate objects of the calculus of Economy...In other words, to maximize comfort and pleasure, is the problem of Economy." (Jevons, 1871, p. 44)

Here, the basic hedonistic principle of the maximization of pleasure is placed as the prime objective of economic science. The hedonistic principle in Jevons goes together with his attempt to reduce complex economic phenomena to simple facets. Thus, a hedonistic view of human nature reduces the complexity of human behaviour to well-defined, relatively simple hedonistic principles. This reductionist trend can also be found in a considerable number of subsequent economists. Jevons emphasizes:

"The science of Political Economy rests upon a few notions of an apparently simple character. Utility, value, labour, capital, are the elements of the subject." (Jevons, 1871, p. 1)

After having defined economics in terms of a calculus of pleasure and pain and attempted to reduce it to simple elements, Jevons does not conceal the great influence of the utilitarian theory of Bentham. In fact, he refers frequently to Bentham's work, especially in the chapter dealing with the theory of pleasure and pain. In addition, Jevons explicitly admits the influence of utilitarianism when in the introduction of his book he states: "I have no hesitation in accepting the Utilitarian theory of morals" (Jevons, 1871, p. 27). However, it must be noted that Jevons, when he writes about utilitarianism, mainly refers to the principle of individual utility and not to the Greatest Happiness Principle (though he refers to it as a theory of morals). As was noted before, the marginalist economists did not pay much attention to social questions but were mainly interested in individual economic behaviour. As Collison Black points out:

"Yet the 'Theory of Political Economy' with which we are here primarily concerned, deals very little with social questions. How then does Bentham come into it? Clearly it is not 'the greatest happiness principle', but the 'principle of utility' which matters in the Theory. Indeed that work not only starts



out from, but revolves around, the theory of pleasure and pain." (Collison Black, 1972a, p. 125)

As a hedonistically oriented thinker, Jevons continuously refers to the concepts of pleasure and pain, and following the hedonistic tradition, he attempted to find a method of their measurement. However, Jevons, (and as we shall see later Menger and Walras), were not very clear on this important issue. First of all, in Jevons' introduction, he accepts a possible reader's observation that "there is no unit of labour, or suffering, or enjoyment" and this according to him could mean that "a mathematical theory of Political Economy would be necessarily deprived for ever of any numerical data" (Jevons, 1871, p. 9). In this observation he answers that "if we trace history and other sciences, we gather no lessons of discouragement. In the case of almost everything that is now exactly measured, we can go back to the time when vaguest notions prevailed" (Jevons, 1871, p. 9). Thus although he agrees that in the present time there is no unit of pleasure or pain, he believes that it would be found in the future. The important implication of this, is that he accepts the existence of a unit for the measurement of pain and pleasure whose discovery is only a matter of time. (One can think of examples of subsequent economists who expressed the same line of argument; I. Fisher on the method comparing interpersonal utilities for instance, see Fisher, 1965, pp. 86-87.)

However, after some pages Jevons declares:

"I have granted that we can hardly form the conception of a unit of pleasure and pain, so that the numerical expression of quantities of feeling seems to be out of question." (Jevons, 1871, p. 19)

Thus, a discrepancy between his statements can be discerned. In the same page Jevons adds that "Pleasures, in short, are for the time being, as the mind estimates them" (Jevons, 1871, p. 19). Clearly, this is an important manifestation of the shift towards subjectivism which took place during the marginalist period. However, he seems to forget these reservations when he comes to the actual development of his theory of pleasure and pain. In the relevant chapter, he starts by quoting Bentham's writings about estimating the value of pleasure and pain. He quotes Bentham extensively and follows Bentham's method. More

specifically, he refers to Bentham's book "An Introduction to the Principles of Morals and Legislation" where Bentham estimates the value of pleasure and pain according to four circumstances: a) Its intensity, b) Its duration, c) Its certainty or uncertainty and d) Its propinquity or remoteness (see section 3.3.1. on Bentham). After this, Jevons emphasizes the element of intensity and goes on to construct a diagram which represents the quantity of feeling (pleasure or pain) at time intervals. He attempts to measure the intensity of feeling. After maintaining that the estimation will be more accurate if the time intervals are very short, he draws the following diagram:

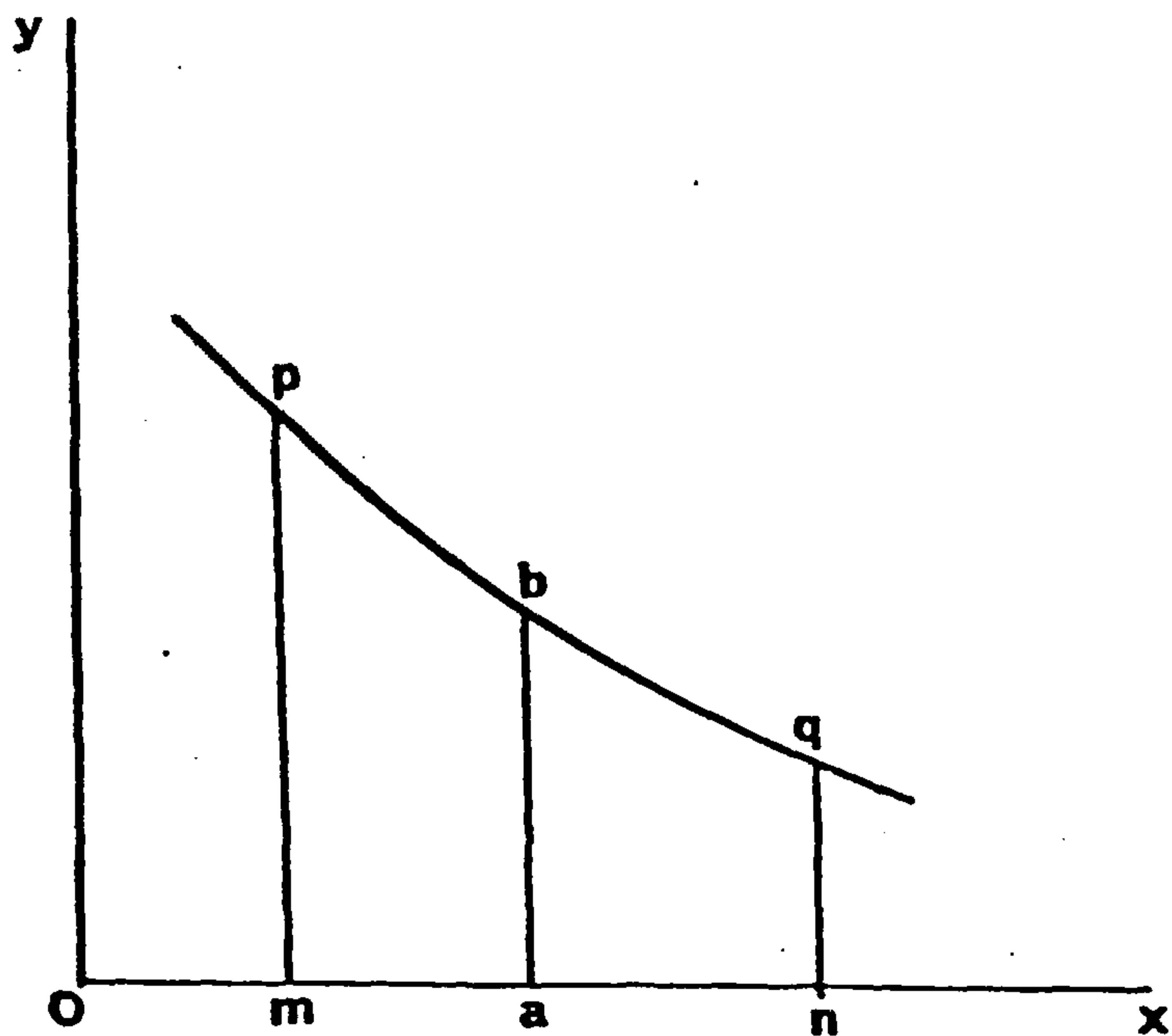


Figure 4.1

(Jevons, 1871, p. 37)

where the x-axis measures time and the y-axis measures intensity of pleasure. In the pq curve, the quantity of feeling generated (i.e. by the consumption of a commodity) in the time mn is measured by the area below it (mpqn). As the negative slope of the curve indicates, Jevons assumes that the intensity of the feeling is supposed to be gradually declining. This is the first step towards his theory of utility. In

addition, another indication of his attempt to measure pleasure and pain is his notion that pleasure is a positive quantity and pain is a negative one, as he writes:

"The algebraic sum of a series of pleasures and pains will be obtained by adding the pleasures together and the pains together, and then striking the balance by subtracting the smaller amount from the greater. Our object will always be to maximize the resulting sum in the direction of pleasure, which we may fairly call the positive direction. This we should really do by accepting everything and undertaking every action of which the resulting pleasure exceeds the pain which is undergone; we must avoid every object or action which leaves a balance in the other direction."  
(Jevons, 1871, p.38)

Apart from indicating clearly that at this point Jevons thought of pleasure and pain as purely quantitative concepts, the above passage provides the essence of a hedonistic moral guidance. Again, this point can be found in Bentham in almost identical form. This hedonistic morality may also be the central assumption for the actual behaviour of individual economic agents, which can be identified in many marginalist economists' writings. Moreover, one can point out that although Jevons tends to favour the "principle of utility" which is closer to psychological hedonism, the passage is to a certain extent, a formulation of moral hedonism.

After stating his views about pleasure and pain, Jevons moves on to the next chapter which is concerned with the "Theory of Utility". He gives a definition of utility which is in accordance with his ideas about pleasure and pain: "Whatever can produce pleasure or prevent pain may possess utility" (Jevons, 1871, p.45). Also, he quotes Bentham's definition of utility which is again given in terms of pleasure, or benefit, or happiness. In addition, Jevons treats utility as he treats pleasure. In a section entitled "Duration of Utility" he writes:

"As utility corresponds to, and is measured by, pleasure produced, and as pleasure is a quantity of two dimensions, intensity and duration, so utility must be conceived as capable of duration." (Jevons, 1871, p.71)

Thus, the concept on which his entire economic theory is based, is defined in terms of pleasure. As would become clear later, a great

number of subsequent economists identified utility with pleasure. In addition to this, other important economic concepts are defined accordingly. For instance Jevons defines a commodity as "any object, or, it may be, any action or service, which can afford pleasure or ward off pain" (Jevons, 1871, p.45).

His next step is to examine further the issue of utility using diagrams which were to become the basis of the subsequent development of mainstream microanalysis. Specifically, he draws the following figure:

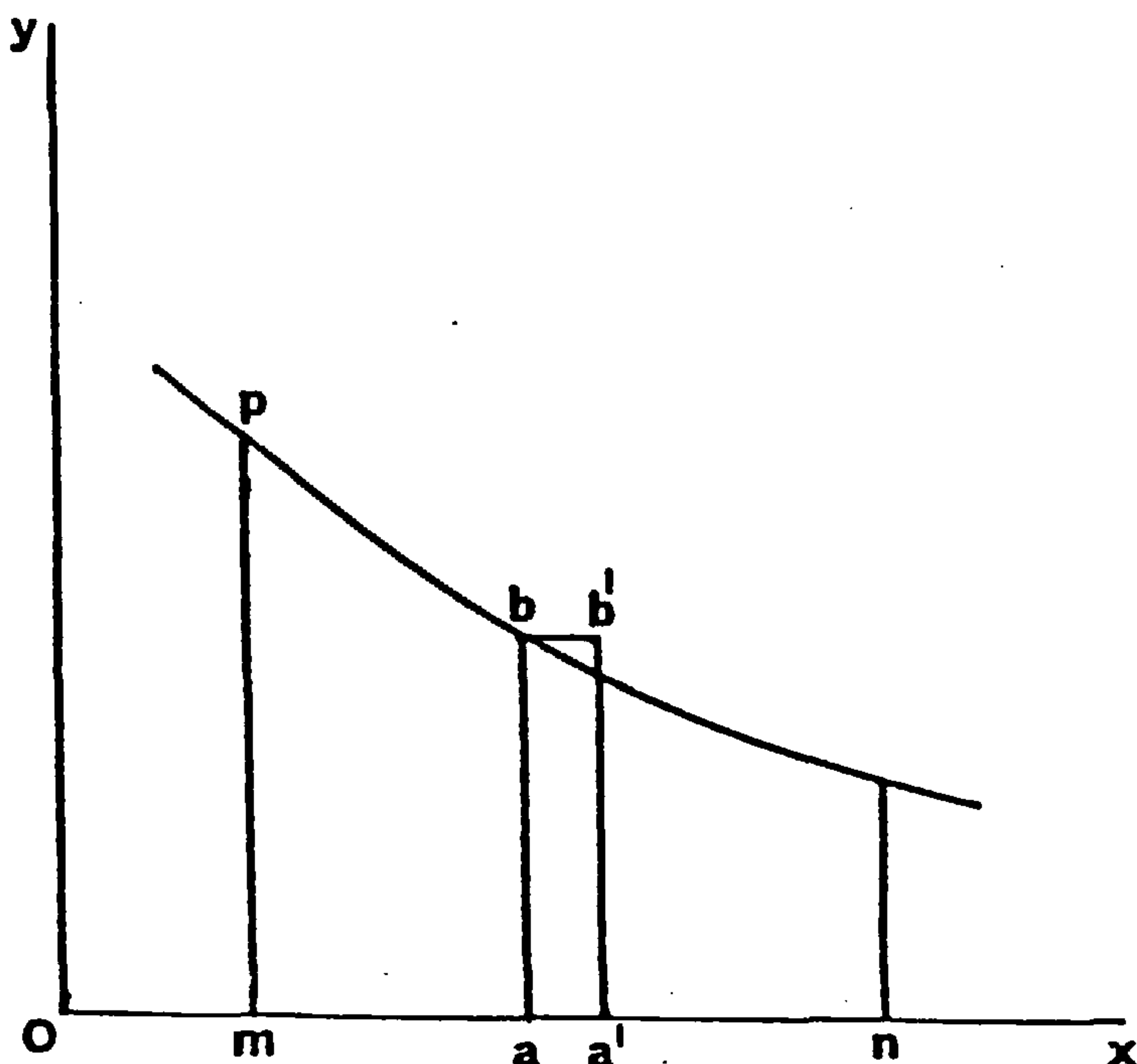


Figure 4.2

Here there is a shift from the previous 'average' curve to a marginal curve. In the x-axis he puts quantity of food and on the y-axis degree of utility. When  $Oa$  has been consumed the degree of utility is  $ab$ . He names  $ab$  as the degree of utility which is the marginal utility.

The introduction of the concept of marginal utility was a major point of difference between the classical and the marginalist school. The core of the new school was the notion of the "Degree of Utility" or as it became known later Marginal Utility. Jevons realizes the novelty of the notion and he repeats that his great object is to

express the degree of utility. His next step is to define the utility function of a given quantity  $x$ , and then to express the degree of utility as the fraction  $\Delta u/\Delta x$ . And after a few pages, he states the principle of diminishing marginal utility:

"The variation of the function expressing the final degree of utility is the all-important point in all economical problems. We may state, as a general law, that it varies with the quantity of commodity, and ultimately decreases as that quantity increases." (Jevons, 1871, p. 62)

As Jevons himself emphasizes, this law is of fundamental importance for economics. Indeed, since the marginalists the law of diminishing marginal utility (as well as his formulations of total utility, marginal utility and utility function,) constitute a central part of modern economic theory and especially of microeconomic theory. It must be pointed out however, that Jevons' approach to utility is a cardinal one. As we shall observe in subsequent chapters, the Hicksian-based ordinal utility theory replaced the cardinal approach of marginalists (although the theoretical constructions and conclusions of the ordinal approach are basically the same as those of the cardinal one). Moreover, before concluding the discussion of Jevons' utility theory, it must be noted that he was not the first theorist to formulate the notion of diminishing marginal utility. As was seen in the section dealing with Senior, he also conceived the basic idea of this principle. This fact is accepted by Jevons who acknowledges Senior's contribution.

As was stated in the section which discusses Bentham's ideas, the idea of interpersonal comparisons of utility was one of the characteristics of the utilitarian approach. Jevons discusses this issue in his "Theory" where he writes:

"The reader will find again, that there is never, in a single instance, an attempt made to compare the amount of feeling in one mind with that in another. I see no means by which such comparison can ever be accomplished." (Jevons, 1871, p. 21)

From the above it is clear that Jevons categorically rejects the idea of interpersonal comparisons (although his cardinal approach makes easier its acceptance than it is with the ordinal approach). This point also indicates his preference for the principle of utility

rather than the Greatest Happiness principle. (The rejection of interpersonal comparisons of utility undermines the Greatest Happiness principle.) In spite of this however, one can find examples in Jevons' work where he makes interpersonal comparisons. For instance in the process of his theory of exchange he demonstrates that both parties gain satisfaction. However, his demonstration is based on the marginal utility curves of nations (see also Stigler, 1950, pp. 318-320). Thus there seems to be a contradiction with his previous explicit rejection of comparability. This contradiction shows, as with the question of a unit of pleasure, the ambiguity of his views in an important issue in his economic theory.

Jevons does not refer to the concept of economic man as such, but it is implied through his work. First of all he enthusiastically endorses Bentham's hedonistic view of human nature. ("Nature has placed mankind under the governance of two sovereign masters - pain and pleasure..." Bentham, 1823, p. 1.) Second, the existence of economic man is clearly implied in the following passage:

"My present pleasure is accomplished in pointing out this hierarchy of feeling, and assigning a proper place to the pleasures and pains with which Economy deals. It is the lowest rank of feelings which we here treat. The calculus of utility aims at supplying the ordinary wants of man at the least cost of labour. Each labourer, in the absence of other motives, is supposed to devote his energy to the accumulation of wealth." (Jevons, 1871, p. 32)

Jevons recognizes the existence of higher motives for which a "higher calculus of right and wrong is needed". But he adds that "there is no rule of morals to forbid our making two blades of grass grow instead of one, if, by the wise expenditure of labour, we can do so" (Jevons, 1871, p. 32). This is a clear manifestation of a dualistic approach initiated by Mill. Jevons accepts explicitly that economic man is only a partial picture of human behaviour since he omits higher motives (one can only wonder if by stating this, Jevons assumed that higher motives do not produce utility). Moreover, in another part of the book, he writes that "in the science of Economy we treat men not as they ought to be, but as they are" (Jevons, 1871, p. 45). Thus it seems that Jevons advocates the conception of human nature as characterized by maximization of pleasure and self-interest as a

description of actual behaviour. However, he also accepts that these are lower motives and economics deals with these lower motives (again one can observe the explicit dualist orientation). The way that he develops his economic theory shows that he believes that higher motives do not have any effect on the universal validity and 'physical science exactness' of the discipline of economics. Overall, Jevons' theory of utility is based on the hedonistic principle that man maximizes his pleasures and minimizes his pains, and this is a description of actual behaviour. The above-mentioned standard and predictable hedonistically-oriented behaviour facilitates the application of mathematical methodology. As Bensusan-Butt comments:

"Thus in Jevons we find Economic Man described as a psychological construction and already equipped with all abstractions so convenient for mathematicians." (Bensusan-Butt, 1978, p. 128)

Jevons' theory of value is another important part of his work and this also had and still has great influence on subsequent economists' ideas about value. It also indicates another application of his hedonistic approach to a crucial economic issue: the theory of value. He makes clear his intentions in the introduction of his "Theory":

"Repeated reflection and inquiry have led me to the somewhat novel opinion, that value depends entirely upon utility. Prevailing opinions make labour rather than utility the origin of value." (Jevons, 1871, p. 2)

Jevons' criticism refers to the classical tradition which viewed value as dependent on costs of production. (The costs of production theory of value has two main approaches: 1) labour or capital spent for the production and 2) sacrifices made for production -labour, abstinence, risk). The classical economists who advocated the costs of production based theory of value thought of value as something real, as an objective term (related to this was their desire to have an invariant measure of the wealth of nations). The difference in Jevons is that by defining value in terms of utility only, it becomes a purely subjective concept. Jevons rejects the labour theory of value (he refers to Ricardo and to all economists who put forward labour as the cause of value). He criticizes it by using the following arguments which nowadays have become commonplace. First, he mentions examples of

high price goods which are fixed in supply like ancient books, coins, antiquities. Second, by stating that large labour costs do not necessarily mean large value: Labour once spent has no influence on the future value of any article" (Jevons, 1871, pp. 158, 159). And thirdly he holds that labour itself can not be considered as a uniform entity. Then, he states his own view about value.

"Value depends solely on the final degree of utility. How can we vary this degree of utility? By having more or less of the commodity to consume. And how shall we get more or less of it? By spending more or less labour in obtaining a supply. According to this view then, there are two steps between labour and value. Labour affects supply, and supply affects the degree of utility, which governs value, or the ratio of exchange." (Jevons, 1871, p. 160)

Apart from the indication of Jevons' view that value depends on the final degree of utility, or marginal utility (Jevons himself never used the term marginal), the above also shows the well-known connection between labour and value:

Labour determines supply,  
Supply determines marginal utility  
Marginal utility determines value

(At this point it has to be noted that given the above, value depends on what determines labour. One can go further by stating that for a given quantity of labour, the marginal principle would yield values in proportion to marginal labour inputs. Thus a labour supply function is necessary. And if Jevons's view that the only factor of value is utility is to be valid, then labour supply must be determined by utility.)

Thus, Jevons' economic thought introduces a definite shift from the cost of production theory of value to the marginal utility theory of value, a crucial development in the history of economic thought. This shift which characterizes the school of marginalism and also of modern mainstream economics is rightly called the "subjective theory of value" (Dobb, 1979, p. 168).

Having established the basic economic concepts of utility, final degree of utility and commodity, and also an implicitly hedonistic treatment of economic agents, Jevons constructs the theories of exchange, labour, rent and capital. He constructs these theories by



following a mathematical methodology. In the next pages, we will discuss the most important of the basic points of his exchange and labour theories. These would serve as examples of explicitly hedonistically-oriented economic theories. As we shall see, the marginalist theories of rent and capital are built on the same lines.

Before analysing his theory of exchange Jevons, makes the assumptions of perfect competition, whose essential points can be found in most modern textbooks. (The classicals used the notion of free competition). Namely, he states that there is homogeneity of products, that buyers or sellers cannot influence the price and that there is perfect information. Then he takes two commodities x, and y and states that in in the perfectly competitive market their ratio of exchange is  $dy/dx = y/x$  where the first term represents marginal utilities and the second term represents prices. After that he writes what he sees as the "keystone of the whole theory of exchange, and of the principal problems in Political Economy":

"The ratio of exchange of any two commodities will be inversely as the final degrees of utility of the quantities of commodity available for consumption after the exchange is affected." (Jevons, 1871, p.95)

He proceeds by supposing that if a person A held the quantity a of corn and person B the quantity b of beef (in this case, x is the quantity of corn available and y is the quantity of beef available) then after the exchange the situation will be: A has a-x of corn and y of beef and B has x of corn and b-y of beef. Then if  $\Phi_1(a-x)$  and  $\Psi_1(y)$ ,  $\Phi_2(x)$  and  $\Psi_2(b-y)$  are the final degrees of utilities (marginal utilities) of corn and beef and persons A and B respectively then for maximum satisfaction of the two person the following should be true:

$$\frac{\Phi_1(a-x)}{\Psi_1 y} = \frac{y}{x} = \frac{\Phi_2 x}{\Psi_2(b-y)}$$

(Jevons, 1871, p. 101)

This means that maximum satisfaction is attained when the ratio of exchange is inversely proportional to the ratio of marginal utilities.

The above serves as an illustration of the way that one of the originators of the marginalist revolution develops economic theories.

The hedonistic principles and the mathematical methodology are fundamental characteristics of the theory. This kind of theoretical framework would become very common, as we shall see in later chapters, among the majority of modern orthodox economists.

Jevons' theory of labour is also built on hedonistic bases, and more specifically on the premise that labour is disutility or pain - a view which was also held by Gossen. The following diagram illustrates his approach:

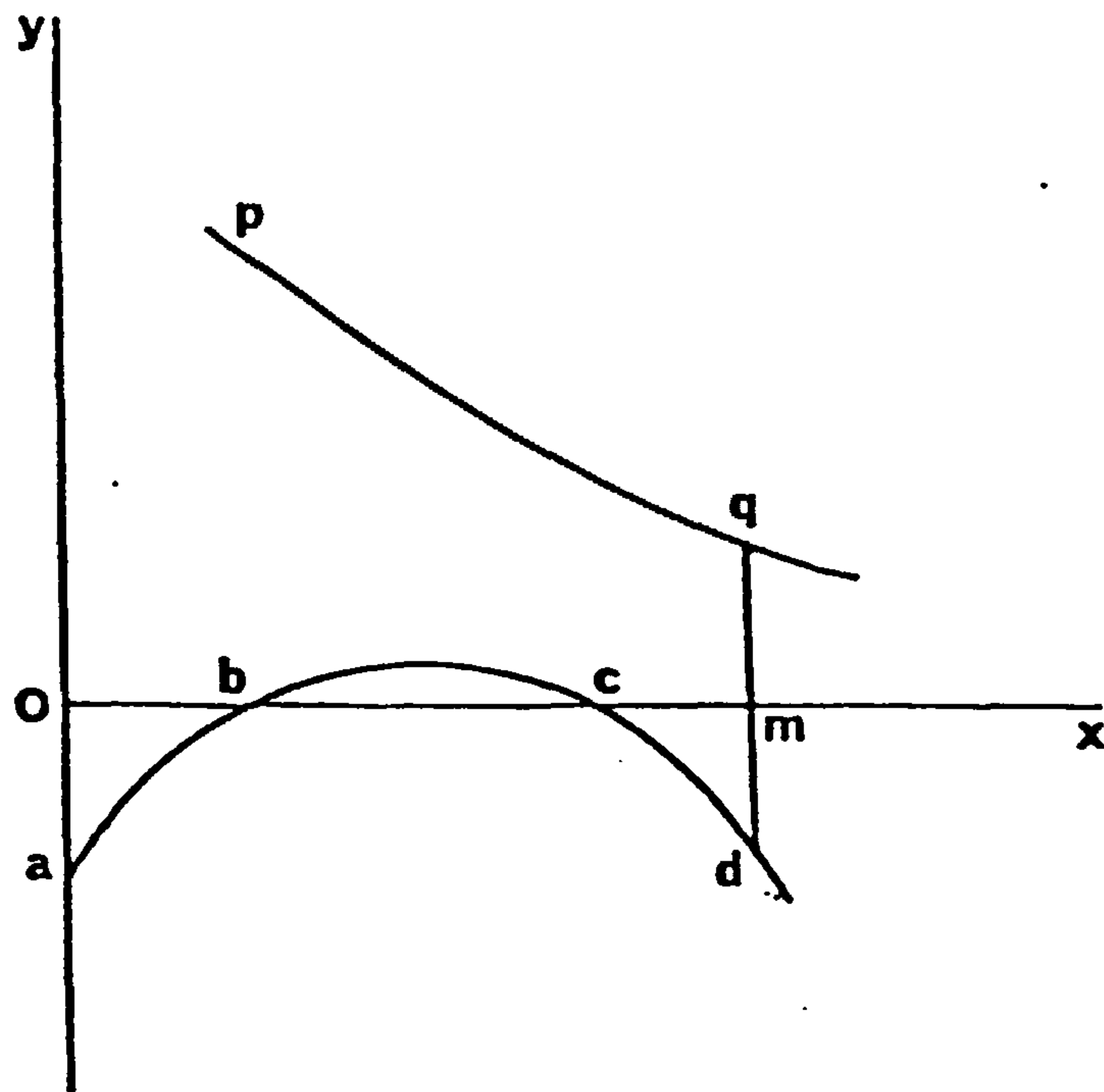


Figure 4.3

The curve *abcd* represents the marginal painfulness of labour in proportion to produce. In this diagram, *Oy* represents marginal pleasure and below *O* marginal pain, *Ox* represents amount of product. As Jevons writes "at the moment of commencing labour, it is always more irksome than when the mind and body are well bent to work thus the pain is measured by *Oa*...between *b* and *c* a small excess of pleasure is represented as due to exertion itself...but after *c* the energy begins to be rapidly exhausted, and the resulting pain is shown

as  $cd$ " (Jevons, 1871, p. 168). The curve  $pq$  is the marginal utility of the produce. It shows that the larger the product produced ( $Ox$ ) and thus wages earned, the less is the pleasure derived from a further increment. At point  $m$  where  $qm = dm$ , the marginal pleasure gained is exactly equal to the marginal labour endured and this is the equilibrium point (Jevons, 1871, p. 169). In this theory one can discern Jevons' ideas about maximization of pleasure and measurement of pleasure and pain, applied in a specific economic problem. Also the basis of modern orthodox theories of labour are not very far from the above approach. The difference is that the "strong" terms of pleasure and pain have been replaced with more technical, allegedly neutral ones.

As was observed, Jevons follows a mathematical methodology in his theories of utility, exchange and labour. He does the same thing in the theory of rent and the theory of capital. Jevons applies mathematics consciously. He is a firm advocate and promoter of the mathematical method in economics. His methodological belief can be put into perspective if we take into consideration his conception of economics as a rational system of ideas which can achieve the exactness and high scientific status of physical sciences. Moreover, Jevons had a mathematical education which facilitated his enthusiastic application of mathematics to economics. As Collison Black points out:

"On the foundation of this basic training in experimental science Jevons deliberately built a further training in logic and mathematics so that he ultimately acquired a knowledge of scientific method which was broad and deep." (Collison Black, 1972b, p. 370)

In addition, Jevons' ambition that political economy achieve the status of exact sciences can be seen from the following passage:

"But I do not hesitate to say, too, that Political Economy might be gradually erected into an exact science, if only commercial statistics were far more complete and accurate than they are at present, so that the formulae could be endowed with exact meaning by the aid of numerical data." (Jevons, 1871, p. 25)

Thus he sees the incompleteness of commercial statistics as the only obstacle for economics to become an exact science. According to him the perfect model of an exact science was the science of Astronomy,

"because the position of a planet or a star admits a close measurement (Jevons, 1871, p.6). In addition to this one can find examples of his economic methodology in his "Principles of Economics" where for instance economic laws are conceived as universally valid like those of physical sciences (see Jevons, 1905a, p.198). Also his well-known belief that if economics is to be a science at all, it must be a mathematical science, indicates his great support for a mathematical oriented science of economics. A systematic exposition of his methodological views can be found in his more general work "Principles of Science" (Jevons, 1905b). A very good summary of Jevons' methodological viewpoint is given by D. Winch:

"According to Jevons, economic science was a rational, logical, deductive, and ultimately mathematical pursuit. Its scope was narrowly confined to the 'mechanics of self-interest and utility'; but since it dealt with universal laws of human wants it also possessed great generality." (Winch, 1972, p.328)

Moreover, Jevons in order to indicate that all political or normative elements should be excluded (mainly because of their non-measurability), omitted the term "Political" from the second edition of his "Theory". This also demonstrates that mainstream economics had definitely turned towards a positive, mathematically oriented economic methodology.

Before we conclude this section, we have to note that Jevons' thought exhibits a characteristic which is unique in the marginalist tradition: his concern with social reform. In fact he wrote a whole book where he discusses socio-economic issues and possible methods of reform (see Jevons, 1883). However, this aspect of his thought was not an important factor in the construction of his economic theories.

As a conclusion it can be maintained that Jevons' work is a typical example of a mathematically formulated hedonistic-based economic theory. One can discern this if one looks at the main aspects of his thought. Jevons defines political economy in terms of pleasure and pain. He then develops a theory of pleasure and pain which exhibits most of the features of the hedonistic framework. The emphasis on the concepts of pleasure and pain and his attempt to measure them are always present throughout his work. On the issue of

measurement he follows the approach of Bentham but there is a discrepancy in his thought about the existence of a unit of pleasure and pain. He goes further than does Bentham's measurement approach by constructing diagrams on which he measures the intensity of pleasure. His next step was to define the concept of utility in terms of pleasure and also to make the important distinction between total utility and the final degree of utility (marginal). However, he is again vague on the crucial issue of interpersonal comparisons of utility. He seems to reject the possibility of interpersonal comparisons but there are examples where he implicitly accepts them. From his writings one can also discern the formation of the concept of economic man (although not explicitly) with a hedonistic psychology. Jevons' admits that economics deals with the lower human motives which is an indication that he had reservations about the moral version of hedonism. On the central issue of the theory of value, he rejects all previous attempts to define it in terms of costs, and he defines it in terms of marginal utility or indirectly in terms of pleasure. With Jevons, there is the start of the dominance of the subjective approach to value. His theories of exchange and labour are the practical applications of his hedonistic views and of his mathematical, positive economic methodology. Moreover, Jevons is a devoted supporter of the application of the method of physical sciences to the sciences occupied with the study of mental and social phenomena, and thus to economics (see Jevons, 1905b).

In general, Jevons' work represents an ideal example of the application of hedonistic ideas (which are integrated with formalist methodology) to economics. His work is considered as one of the foundation stones of modern orthodox economics and this might mean that his notions of economics as a 'calculus of pleasure and pain' or as 'the mechanics of self-interest and utility' were not to be thought of as an extreme position, but they were to be shared by an increasing number of subsequent economists. With Jevons, hedonism combined with a positive methodology was firmly established in mainstream economics. Bentham's calculus of pleasure and pain was at its height.

#### 4.2.3 L. Walras

The French economist L. Walras (1834-1910) was one of the three originators of the marginalist revolution. Walras' work did not receive immediate recognition by contemporary economists, but today he is considered to be the most influential of the three (the other two being Jevons and Menger). Most orthodox economists when they refer to general equilibrium, derivation of demand curves or to the marginal utility-based theory of value, acknowledge the crucial contribution of Walras to the development of these concepts. Moreover, mainstream economists give credit to Walras as one of the first economists to apply mathematical analysis to economics in a consistent manner. (Cournot had made the first step to a systematic application of mathematics to economics.)

From our point of view, Walras represents an important link in the chain of development of the hedonistic framework in orthodox economics. As we shall discover in this section, Walras' economic thought exhibits most of the characteristics of the hedonistic framework which can be found in previous hedonistically oriented economic theorists. The theoretical basis of his famous general equilibrium analysis, the concept of the demand curve and his theory of value are all influenced by the hedonistic approach. Moreover, Walras' continuous use of mathematical tools represent a vital step in the development of mathematical methodology in economics which, as we have pointed out, appears to go together with the hedonistic framework.

Walras published his most important work "Elements of Pure Economics" ("Elements d' Economie Politique Pure") in 1874, three years after the publication of Jevons' and Menger's works. Despite the obvious similarity of the general approach and the identical use and application of new economic concepts (mainly marginal utility), of Walras' work with that of Jevons and to a lesser extent with that of Menger, Walras was not influenced by them. It can be maintained that their conceptions of the marginal utility theory occurred independently. However, Walras was influenced by his father Auguste Walras who also was an economist. As Walras himself comments in his principal work: "I readily acknowledge Gossen's priority with respect

to the utility curve and Jevons' priority with respect to the equation of maximum utility in exchange, but these economists were not the source of my ideas. I am indebted to my father, Auguste Walras, for the fundamental principles of my economic doctrine" (Walras, 1965, p.37). The main points of Auguste Walras' economic thought were the attempt to place "rareté" (marginal utility) instead of labour or cost of production as the source of value, and the measurement of rareté. Moreover, he advocated a mathematical economic science which would be similar to mechanics, physics, accoustics and optics (Jaffe', 1972, p.389). Thus, it can be seen that Walras took from his father the general guidelines of his subsequent economic thought. All of the above elements of Auguste Walras' work can be found in the writings of Leon Walras.

At the beginning of his work Walras constructs demand and supply curves for given commodities. He follows a diagrammatical approach which is supported by algebraic expressions of the relationships. Walras is the first economist to use the nowadays familiar diagrams of demand and supply. For instance the demand curve for commodity (A) is the following:

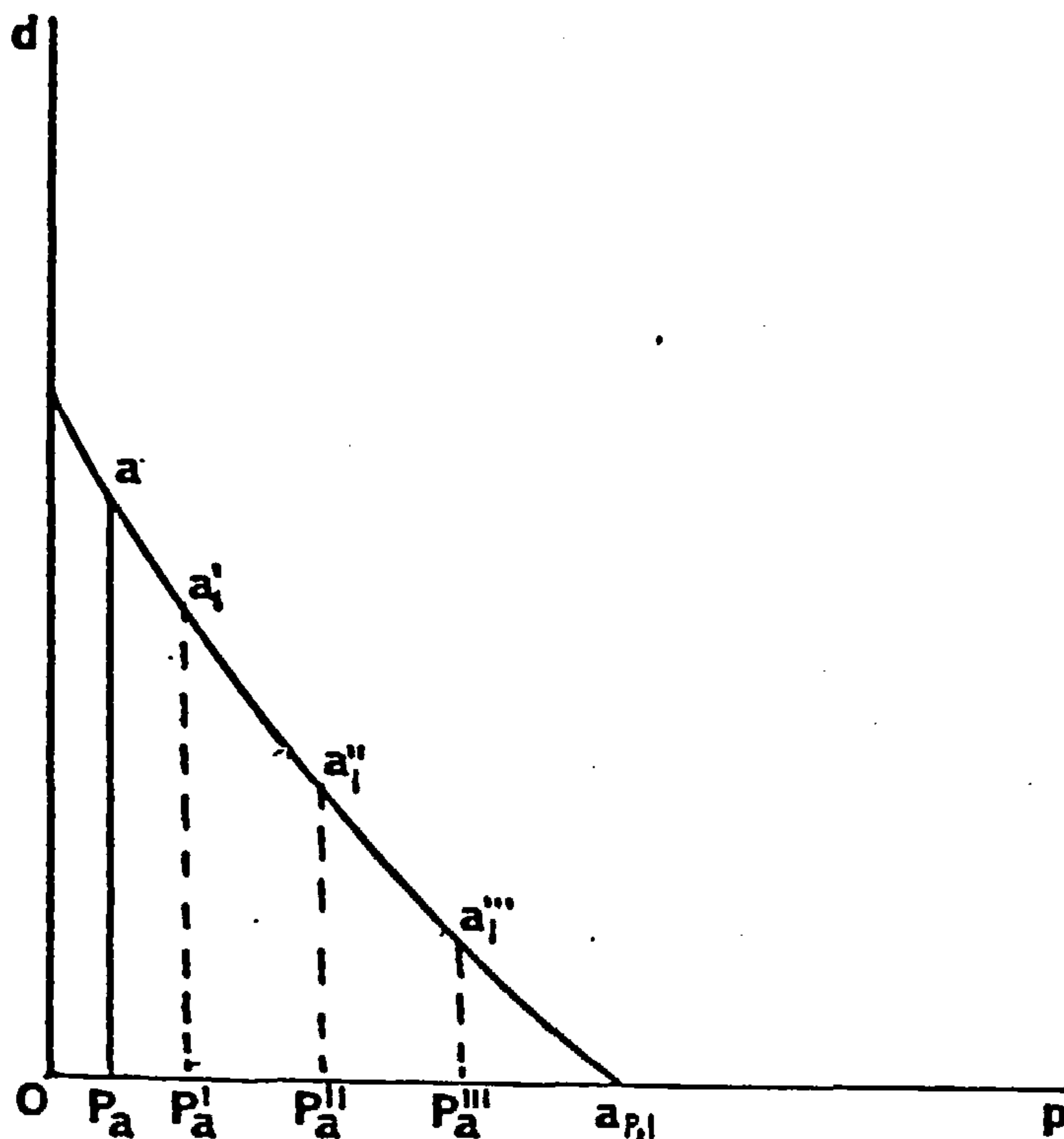


Figure 4.4

Where  $OP'a$ ,  $OP''a$  etc represent various possible prices;  $a$ ,  $a'$ ,  $a''$  etc represent quantities demanded (see Walras, 1965, p.94). It is worth mentioning here that Walras does not initially provide a utility based explanation of his demand curves but considers them as given. However, as we shall see, he was to explain the derivation of demand curves in terms of rareté or utility in subsequent chapter.

His next step is to examine the problem of equilibrium between two commodities (A) and (B). He finds out that in order for the market to be in equilibrium "it is necessary and sufficient that the effective demand be equal to the effective offer of each commodity" (Walras, 1965, p.106). The discussion of the problem of exchange of two commodities comes next and is expressed in algebraic terms as follows:

$$D_a = F_a(p_a) \quad (1)$$

$$D_b = F_b(p_b) \quad (2)$$

$$D_a v_a = D_b v_b \quad (3)$$

where (1) and (2) are the demand functions of (A) and (B) and  $v_a$  is the value in exchange of one unit of (A) and  $v_b$  is the value in exchange of one unit of (B). Equation (3) determines the equilibrium price. Although his analysis here is still at an early stage, one can discern the use of algebra and geometry as the main analytical tools.

After having discussed the above, Walras attempts to derive demand curves from utility. In order to do that he needs to give specific definitions to economic concepts on which he would base his analysis. Thus, in his next chapter entitled "Utility Curves or Want Curves. The Theory of Maximum Utility of Commodities", he defines the meaning of those basic terms. The following is a summary of his discussion.

Walras recognizes the need to refer to utility as the subjective concept necessary for the construction of demand curves. (He was the first economist to do this; Jevons, for example did not make this attempt.) His approach to utility, however, is somewhat different from the contemporary standard textbook analysis. He distinguishes two kinds of utility: extensive utility, and intensive utility<sup>1</sup>. These two notions are similar to the contemporary notions of the extensive and



intensive margin (see Varian, 1987, pp. 271-272). Walras associates these two conceptions of utility with the slope of the demand curve and this can be seen as the first formulation of the concept of elasticity (Walras, 1965, pp. 115, 116). According to Walras, both kinds of utility are measurable. (Although he has reservations about the measurability of the second one, he solves the problem by assuming a "standard measure... which is applicable not only to similar units of the same kind of wealth but also to different units of various kinds of wealth; see Walras, 1965, p. 117.)

Walras' next step is to introduce the term *rareté* which is one of the most important aspects of his economic thought. This essentially corresponds to the final degree of utility that we saw in Jevons, and to the modern term of marginal utility. Walras defines *rareté* as "the intensity of the last want satisfied by any give quantity consumed of a commodity" (Walras, 1965, p. 119). *Rareté* can be shown diagrammatically as follows:

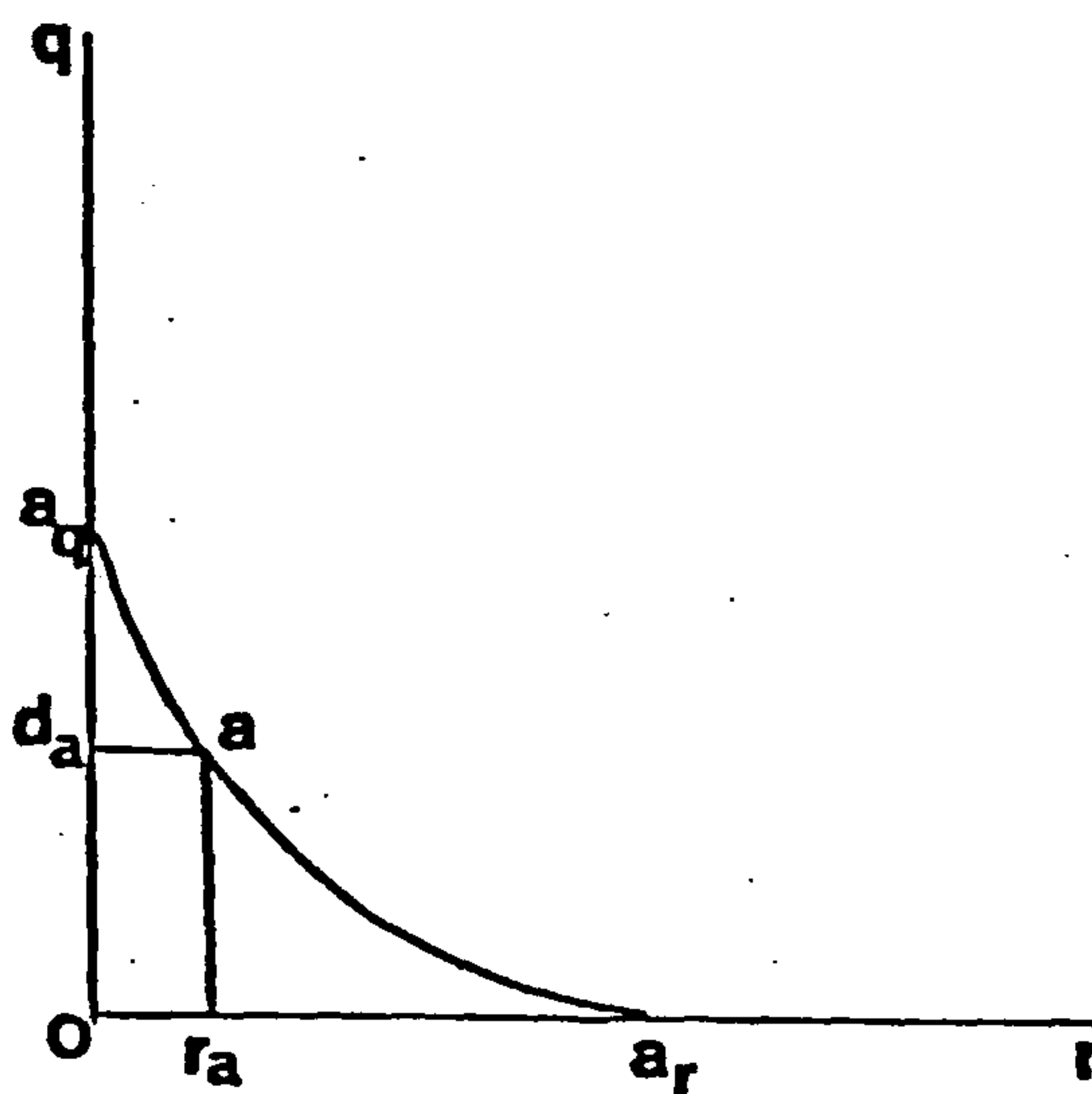


Figure 4.5

Where  $q$  on the vertical axis is quantity and  $r$  in the horizontal axis is rareté. The curve  $a_r a_q$  represents the rareté curve of a given individual. If he consumes quantity  $Od_a$  of good (A) the "effective" or total utility is represented by the area  $Od_a ar_a$ . The whole method of reasoning shows that Walras treated rareté as a quantifiable concept. As is the case with the rest of marginalist economists, rareté would be used as the basis of a new subjective theory of value.

The concept of rareté and his previous analysis enables him to find the relationship between prices and raretés in a two-commodity exchange market. After some pages of mathematical formulations he concludes that:

"Given two commodities in a market, each holder attains maximum satisfaction of wants, or maximum effective utility, when the ratio of intensities of last wants satisfied (by each of these goods), or the ratio of raretés, is equal to the price. Until this equality has been reached, a party to the exchange will find it to his advantage to sell the commodity the rareté of which is smaller than its price multiplied by the rareté of the other commodity and to buy the other commodity the rareté of which is greater than its price multiplied by the rareté of the first commodity." (Walras, 1965, p. 125)

Apart from establishing the nowadays well-known equilibrium condition of exchange, a number of important points can be observed from the above passage. First the concept of maximum satisfaction occupies a central position in Walras' thought. It is regarded as the desired, the optimum position of an individual. As we shall find out, this hedonistic idea is present in every key formulation of Walras' theories. Second, in accordance with the hedonistic tradition, Walras finds it necessary to establish a method of measurement of marginal utility or rareté. We observed the same attempt in his extensive and intensive utility. In the above passage he clearly implies the existence of a measurement of rareté by comparing the magnitude of the raretés of two commodities. Moreover, as a final but important point we should mention that Walras reached the above conclusion through the assumption that the individual's objective is the satisfaction of the greater possible sum of wants. The assumption serves as an important maximization condition in Walras' mathematical formulations which prove the relationship between prices and raretés (Walras, 1965, p. 121).

Here, one can discern the hedonistic foundation of the assumption.

As we noted, the concept of maximum satisfaction can be found in all important aspects of Walras' work. Walras, after having analysed the general solution of the simple two commodity problem -and subsequently the general solution of the multi-commodity problem along the same lines- turns his attention to the theory of production. Again the general framework of the discussion is similar to the method of two commodity equilibrium which is the simplest exhibition of Walras' approach. He starts by stating  $n$  productive services of land (T), labour (P) and capital (Q). These are required to produce  $m$  commodities A,B,C. Thus we have  $nm$  technical coefficients ( $n$  columns of  $m$  rows) of the form:

$$\begin{aligned} & (a_t, a_p, a_q, \dots) \\ & (b_t, b_p, b_q, \dots) \\ & (c_t, c_p, c_q, \dots) \\ & \dots \end{aligned}$$

As in the two commodity equilibrium, he writes the utility functions for each individual for  $n$  productive services and  $m$  consumer goods. The form of the utility function is the following:

$$r = \Phi(q)$$

Individuals initially possess a given amount of productive services  $(q_t, q_p, q_q, \dots)$  at prices  $(p_t, p_p, p_q, \dots)$ . The prices of the consumer goods are  $(p_a, p_b, p_c, \dots)$ . Then  $(o_t, o_p, o_q, \dots)$  are the quantities of the factor services offered, and  $(d_a, d_b, d_c, \dots)$  are the quantities demanded of consumer goods. The equation relating quantities and prices (budget equation) is:

$$o_t p_t + o_p p_p + o_q p_q + \dots = d_a p_a + d_b p_b + d_c p_c + \dots$$

The next step is to state the condition of maximum satisfaction which as we saw equates marginal utilities (raretés) with prices. This gives us  $n$  equations for productive services for each individual of the form: (equalization of marginal utilities with prices)

$$\Phi_t(q_t - o_t) = p_t \Phi_a(d_a)$$

$$\Phi_p(q_p - o_p) = p_p \Phi_a(d_a)$$

.....

The equation for commodity (A) the numeraire, drops out and we have m-1 equations for goods of the form:

$$\Phi_b(d_b) = p_b \Phi_a(d_a)$$

$$\Phi_c(d_c) = p_c \Phi_a(d_a)$$

All the above are the basis for constructing individual demand functions for consumer goods and individual supply functions for productive services. From these we can obtain the market functions (by summation). Finally Walras adds two more conditions: market clearing for factor markets and equality of unit costs and prices of final goods (for a detailed discussion see Walras, 1965, pp. 237-242 and Blaug, 1978, pp. 574-579). The above system of simultaneous equations will give the solution of the general equilibrium position. This is the essence of Walras' basic project which was to establish the conditions necessary for market clearing equilibrium.

Apart from maximum satisfaction, Walras' economic thinking exhibits another important assumption; he assumes that there is a perfectly competitive market. This assumption has the crucial function of facilitating the conception of the economy as a mathematical model. These two assumptions are interrelated in a vital way: the existence of perfect competition guarantees the maximization of utility or satisfaction (see also Stigler, 1950, p. 322). As he writes:

"Freedom procures, within certain limits, the maximum utility; and since the factors which interfere with freedom are obstacles to the attainment of this maximum, they should, without exception, be eliminated as completely as possible."  
(Walras, 1965, p. 256)

The hedonistic-based objective of maximum satisfaction clearly underlies the previous passage.

As was stated above the assumption of perfect competition is also ideal for the application of mathematical analysis to economics. W. Jaffe', the translator of Walras' work and also an established authority on Walras' economic thought, gives a summary of the Walrasian idea of perfect competition:

"It comes out more clearly in the resume than in the Elements that Walras meant by an ideally perfect competitive market one in which there is no friction or viscosity in the flow of bids and offers to a central point where positive or negative excess demand is eliminated prior to the closing of any contracts. Contracts are then executed at a unique current equilibrium price. The process of elimination of excess demand is normally entrusted in the best-organised markets to brokers, whose procedures are so mechanical that a 'calculateur' (a computer) might have done just as well, though -Walras surmised in 1873- not as quickly." (Jaffe', 1972, p. 383)

The Walrasian concepts of general equilibrium and perfect competition, as well as the rest (demand-supply curves, theory of value) presuppose the existence of a specific kind of economic agent. As is evident the main psychological characteristics of this agent are maximization of satisfaction or utility, rationality and self-interested behaviour. This sort of psychology -which many would regard as a partial if not simplistic view of human nature- fits perfectly the requirements of the mathematical approach that Walras followed. Let us see some examples where Walras uses the above economic agent (he emphasizes the element of maximum satisfaction). In the preface to the fourth edition of his "Elements" when he refers to the problem of capital formation, he writes:

All I had to do was first to represent the circulating capital as rendering a service of availability, either in kind or in money; and then to look upon the offer of all such services as coming exclusively from capitalists, and the demand as coming, in part, so far as these services are consumers' services, from land-owners, workers, and capitalists in their pursuit of maximum satisfaction, and in part, so far as these services are productive services, from entrepreneurs to the extent of their need for certain coefficients of production in the form of services of availability." (Walras, 1965, pp. 42, 43)

Here, it can be observed that the conception of all land-owners, workers, and capitalists as pleasure maximizers is central to the theory. The same approach is taken in the process of the discussion of utility and prices. In particular, Walras states that if we assume that in trading the individual gratifies the greatest possible sum of total wants, then rareté should equal prices upon completion of exchange (Walras, 1965, p. 121). Again, a pleasure maximizing individual

is a vital step to the mathematical proof of a link between prices and raretés. Moreover, the other aspects of Walras' economic agent can be explicitly revealed by further examples. Specifically, Walras corresponded with the well-known French mathematician H. Poincare, on the issue of the appropriateness of the application of mathematics to economics and especially on the legitimacy of the cardinal measurement of utility or satisfaction. Walras was anxious to know Poincare's response to his method of measurement of satisfaction. Poincare replied as follows (after having stated that he approves of the use of mathematics within certain limits):

"When I spoke of 'proper limits' that is not all I wanted to say. What I had in mind was that every mathematical speculation begins with hypotheses, and that if such speculation is to be fruitful, it is necessary (as in applications to physics) that one be aware of these hypotheses. If one forgets this condition, one oversteps the proper limits. For example, in mechanics one often neglects friction and assumes bodies to be infinitely smooth. You, on your side, regard men as infinitely self-seeking (egoistes) and infinitely clairvoyant. The first hypothesis can be determined as a first approximation, but the second hypothesis calls perhaps, for some reservations."  
(Jaffe', 1977a, p. 305)

Thus, the picture of Walras' economic man can be said to consist of a pleasure - satisfaction maximizing, rational, selfish, and perfectly informed being. The last characteristic is also necessary if Walras' general equilibrium theory is to work (the individual is supposed to know any changes in prices). One can observe here that the requirement of perfect foresight is still present in many contemporary general equilibrium models (see for instance Stoleru, 1975, p. 11). Moreover, the importance of clairvoyance for the concept of general equilibrium can be seen in the 'antiequilibrium' stance of theorists who emphasize uncertainty (i.e Menger). However, before going on we have to mention that Walras thought of the economic man concept as being applicable only to pure economics. This can be seen in his view that "the will of man is free to influence the production as well as the distribution of social wealth. The only difference is that in distribution, man's will is guided by considerations of justice, whereas in production his will is guided by considerations of material

well-being" (Walras, 1965, p. 75). This is relevant to the discussion that he undertakes in his subsequent writings where he distinguishes 'homo oeconomicus' who maximizes his satisfactions by the division of labour and exchange from 'homo ethicus' who has sympathy and aesthetic sense, understanding, reason and free will, both being blended to become 'homo oenonicus' (Bensusan-Butt, 1978, p. 129). However, pure economics is only concerned with homo oeconomicus. According to his view a higher social science is needed for the study of both homo oenonicus and homo oeconomicus. All these points tend to indicate that Walras thought of his economic man as a fictional being. However, he takes little notice of this in the course of the exposition of his economic theory. The whole analysis is conducted in a way that tends to show that Walras thought of his assumptions as realistic. In other words his notion of a fictional economic man did not have any effect on his view of the validity of his economic theory. Before we conclude this topic it is worth mentioning the similarity of Walras' ideas to those of Jevons. As was observed, Jevons was not very comfortable with his approach to the behaviour of economic agents. Thus it seems, that both theorists wanted in a way to compensate for their extreme conception of economic behaviour, and that is why they referred to the possibility of a higher morality.

The Walrasian theory of value is similar to that of Jevons; depending upon rareté or marginal utility. Like Jevons, Walras discards the labour or cost of production theory of value. In a section dealing with a critique of Adam Smith's and J. B. Say's theories of value, he forcefully rejects the ideas of these two classical economists:

"So the theory which traces the origin of value to labour is a theory that is devoid of meaning rather than too narrow, an assertion that is gratuitous rather than unacceptable."  
(Walras, 1965, p. 202)

As a typical marginalist, he proceeds to the marginal utility based formulation of value:

"Current prices or equilibrium prices are equal to the ratios of the raretés. In other words: Values in exchange are proportional to the raretés." (Walras, 1965, p. 145)

Thus, Walras (like Jevons) advocates the marginal utility theory of

value which, as can be seen from the preceding pages is ultimately a pleasure-based theory of value. Again we have a shift from an objective (labour, costs) to a subjective (utility) value theory, a shift of major importance for the development of economic theory.

As we have already stated, the use of mathematics is the underlying characteristic of Walrasian economics. Apart from being an analytical tool, mathematics is also a vital link in the construction of his economic theories starting from hedonistic assumptions. In a very indicative and important passage, Walras outlines his views:

"It is only with the aid of mathematics that we can understand what is meant by the condition of maximum utility, for attributing to each trading party an equation or curve relative to each consumer's good or service, in order to express the rareté, i.e the intensity of the last want satisfied, as a decreasing function of the quantity consumed, mathematics enable us to see that a given party will obtain the greatest possible total satisfaction of his wants if the demands and offers in such quantities when certain prices are cried that the raretés of these commodities are proportional to their prices upon completion of exchange."  
(Walras, 1965, p. 43)

The above demonstrates the close association of hedonistic principles and mathematic methodology in Walras' economics, a general characteristic of marginalist economics.

Walras was completely aware of the continued use of mathematics in his theory and was prepared to justify it methodologically. He believed that mathematics would make pure economics a science of absolute exactness like physics or mechanics. He was convinced that his treatment would result in a transformation of economics into what he called a 'physico-mathematical science' (Jaffe', 1972, p. 382). For him this transformation of pure economics was a perfectly justifiable methodological proposition.

"In any case the establishment sooner or later of economics as an exact science is no longer in our hands and need not concern us. It is already perfectly clear that economics, like astronomy or mechanics, is both an empirical and a rational science." (Walras, 1965, p. 47)

We observed the existence of this constant methodological trait in almost every hedonistic-orientated economist: the desire to turn economics into an exact science like physics. According to our view,



one has to place in this context the increasing use of mathematics and the methodological demand for a positive economic science. We believe that the following methodological ideal of Walras would be enthusiastically advocated by a large number of orthodox economists:

"It took from a hundred to a hundred and fifty or two hundred years for the astronomy of Kepler to become the astronomy of Newton and Laplace, and for the mechanics of Galileo to become the mechanics of d'Alembert and Lagrange. On the other hand, less than a century has elapsed between the publication of Adam Smith's work and the contributions of Cournot, Gossen, Jevons, and myself...Then [in the twentieth century] mathematical economics will rank with the mathematical sciences of astronomy and mechanics; and on that day justice will be done to our work." (Walras, 1965, pp. 47, 48)

As it was pointed out at the beginning of this section, Walras enjoys a greater familiarity with his work among contemporary orthodox economists than Jevons or Menger. This is a clear indication of the influence of his theories (mainly his general equilibrium theory) and methods upon subsequent economists. For instance, Schumpeter thinks that as far as pure theory is concerned, Walras is the greatest of all economists (Schumpeter, 1963, p. 827). More analytically, a number of central points of Walrasian economics can be found almost intact in the contemporary body of orthodox economic theory. As R. Harrod states: "Walras' general theory of commodity and factor prices will already be familiar to readers; for it is nothing less than what may be called the theory of commodity and factor prices as purveyed in any respectable textbook today" (Harrod, 1956, p. 313). J. Hicks and H.C. Recktenwald are another two theorists who place Walras as one of the great contributors to the modern 'permanent body of established truth" (Hicks and Recktenwald, 1973, p. 262). In addition, a number of contemporary equilibrium analysts, explicitly acknowledge Walras' contribution. For instance, K. Arrow and F. Hahn refer to him in their "General Competitive Analysis" and M. Allingham in his "General Equilibrium" points out that the basic framework of equilibrium analysis can be found in Walras' "Elements" (Arrow and Hahn, 1971, pp. 3-5, and Allingham, 1975, p. 41). As far as the textbooks are concerned, one can find in them many sections very similar to Walras' original formulations (see for instance Chiang, 1984, pp. 46-51).

Moreover, the contemporary orthodox theory of value is heavily based on Walras' ideas about value. All these demonstrate the great importance of his theories in the development of mainstream economics.

In this section we have discussed the central points of Walras' economic thought. It was observed that his work represents an important factor in the development process of hedonistically oriented economic science with a positive, mathematical methodology. (At this point one has to mention that despite the hedonistic basis of his ideas, Walras does not refer to Bentham; the explanation may be found in the antagonistic attitude of French and British writers towards each other at that period.) Like Jevons, Walras based his system on the concept of rareté or marginal utility which in turn is founded on satisfaction or pleasure. Like all hedonistic economists, Walras attempted to find a method of measurement of rareté, and subsequently treated rareté as a quantifiable concept. The hedonistic orientation of his thought is also shown in his central assumption of maximization of utility or satisfaction. This assumption is of major importance, since it serves as the maximization condition for the mathematical formulation of his equilibrium theory. The second major assumption that Walras makes, perfect competition, is related to the first in the sense that perfect competition leads to the maximization of satisfaction. The economic agents who compose the traders in his general equilibrium are pleasure maximizing, rational, perfectly informed and selfish beings. Thus, the psychological characteristics of economic man can be found in Walras' economic agents. However, he maintains that his hedonistic economic man is appropriate only for pure economics, thus advocating in theory (but not in practice), a fictional economic man. Moreover, his mathematical, physical science-like economic methodology is the bond holding together his economic theory. Thus, the essence of Walras' economic approach is: selfish individuals seeking to maximize their utility (pleasure) and to minimize their disutility (pain) in a perfectly competitive market which can be described in mathematical formulations. And the fact that he is so widely acknowledged by contemporary orthodox economists indicates the influence of the hedonistic framework on mainstream economic theory.

#### 4.2.4 C. Menger

The Austrian economist C. Menger (1840-1921) is considered by most historians of economic thought to be one of the three originators of the marginalist school. However, his influence upon subsequent orthodox economists is not so profound as is that of Jevons and Walras. Leading mainstream economists regard Menger as the least significant figure in the famous marginalist triad. For instance, Samuelson declares that "a recent rereading of the excellent English translation of Menger's 1871 book convinces me, that it is the least important of the three works [Jevons, 1871, and Walras, 1965, being the other two]" (Samuelson, 1966, p. 1756). Menger's unique style of writing - long paragraphs, use of ambiguous terms - and his total rejection of the use of mathematics, are two obvious obstacles to the enthusiastic acceptance of his work by subsequent orthodox economists. Another important reason for the limited influence of Menger's thought is the fact that he was the 'least marginalist' of the three founders of marginalism. His rejection of the notion of equilibrium and his unique mathematical methodology distance him from the more or less uniform approach of Jevons and Walras. However, the use of the concept of the margin in his economic analysis, his subjective theory of value and his emphasis upon the analysis of competitive markets are the main elements that can justify his position in the history of the development of marginalist thought.

Even if Menger is today the least influential of the marginalist triad, this does not mean that he played a minor role in the history of economics. The fact that it was he who systematically introduced the new marginalist approach to the German-speaking world, and also that he is considered to be the founder of the Austrian school (which followed a line of development as a separate school) indicates the importance of his work. The Austrian school has influenced orthodox economics to a considerable extent; for instance the rational expectations approach to macroeconomics has its roots in Austrian thought.

From our viewpoint, although his thought exhibits some important departures from the marginalist framework, Menger's work is of interest because he promoted the development of the hedonistic

approach in economics. Although his economic thought is less hedonistically-oriented than other marginalists one can find the basic characteristics of the hedonistic framework. Let us see these basic characteristics in detail.

The two most important works of Menger are first the "Grundsatz der Volkswirtschaftslehre" (translated as "Principles of Economics"), and second, the "Untersuchungen über die Methode der Socialwissenschaften und der Politischen Oeconomie Insbesondere" (translated as "Problems of Economics and Sociology"). In the first work, Menger expounds his economic theory (theory of value, theory of price, theory of commodity, theory of money). This work appeared in 1871 almost at the same time of publication as Jevons' "Theory" and Walras "Elements". His second work, which dealt with methodological problems, appeared in 1883, and it is here that one can find Menger's definition of pure economics:

"The exact theory of political economy is a theory of this kind, a theory which teaches us to follow and understand in an exact way the manifestations of human self interest in the efforts of economic humans aimed at the provision of their material wealth." (Menger, 1963, p.87)

In the above quotation one can find two basic elements of Menger's approach: 1) the methodological view of economics as an exact science and 2) the selfish, (and as we shall discover later,) satisfaction seeking, economic man.<sup>2</sup> In another definition of economics, the hedonistic related characteristic of the satisfaction of needs ('wants' in modern terminology) is present:

"If we sum up what has previously been said together with this characterization of the nature of economy, it is clear that 'economy' ultimately means that activity by which we satisfy our direct material needs with the directly available goods." (Menger, 1963, p.217)

Although this definition is not as explicitly hedonistic as Jevons', the key point of all hedonistic theorists, which is the satisfaction of wants, is used as the fundamental feature of economic activity. Another important observation is that in both definitions, Menger refers only to material needs (or wants). It seems that he gave more emphasis to material needs which are satisfied by material objects, than to non-material needs. According to him the basis of

economic activity is the satisfaction of material needs and these needs are satisfied by material objects. At this point he is close to J. S. Mill who did not accept services as part of wealth. This is also related to his notion of first order goods which, although somewhat ambiguously defined, tends to include only material goods and not services. This issue will be discussed more analytically in the section dealing with Menger's theory of value.

In addition to a hedonistically-oriented definition of economics and economic activity, Menger uses a hedonistically-based economic agent in his economic theory. First of all, like most economists influenced by the hedonistic framework, Menger's economic agent exhibits self-interested behaviour. Menger sees self-interest as a fundamental characteristic of human behaviour, and above all the dominant characteristic in economic activity. Implicit here is also the idea that economic motivation determines all other forms of human activity. As he points out:

"Among human efforts those which are aimed at the anticipation and provision of material (economic) needs are by far the most common and most important. In the same way, among human impulses that which impels each individual to strive for his well being is by far the most common and most powerful." (Menger, 1963, p. 87)

It is clear that a selfish individual who is striving for his material well-being is the kind of economic agent that Menger has in mind. Indeed, in his work "Problems of Economics and Sociology", Menger, views self-interest as a basic idea for theoretical economics, and goes on to condemn the representatives of the historical school who doubt its validity (see also Hutchison, 1973, pp. 22-37). Menger holds that self-interest is basic to economic activities although he does not see it as the exclusive factor in other aspects of life. This point is related to his notion of economic man as a fictional rather than a real being, following Mill and the other two marginalists. He emphasizes this point especially in his second, methodological work:

"It [a theory] cannot provide understanding of human phenomena in their totality or of a concrete portion thereof, but it can provide understanding of one of the most important sides of human life." (Menger, 1963, p. 87)

Thus, Menger views economic theory as representing only one side of

the reality and also the concept of economic man as representing only one side of human nature. As was mentioned, this side, the economic one, is the most important one.

In order to support his argument for the role of self interest Menger uses the name of Helvetius (Menger, 1963, p.88). This demonstrates the influence of the hedonistically oriented French philosopher on Menger. The influence of Helvetius might be the possible explanation for Menger's emphasis upon the satisfaction of material needs. As we have seen in previous sections, Aristippus and Helvetius gave greater emphasis to material pleasures. Another description of the behaviour of economic man is given in his "Principles":

"Wherever men live, and whatever level of civilization they occupy, we can observe how economizing individuals weigh the relative importance of satisfaction of their various needs in general, how they weigh especially the relative importance of the separate acts leading to the more or less complete satisfaction of each need, and how they are finally guided by the results of this comparison into activities directed to the fullest possible satisfaction of their needs (economizing)." (Menger, 1950, p.128).

Thus, Menger, apart from viewing economic agents as selfish, satisfaction maximizers, also attaches rational behaviour to them. Two further characteristics are added to complete the picture of economic man: infallibility and omniscience (Menger, 1963, p.84). Here the picture of economic man is very close to that of Jevons and Walras. Perfectly informed, selfish, and pleasure maximizing are the key characteristics of the marginalist conception of economic man. Moreover, as in the case of Jevons and Walras, Menger notes that all the above characteristics do not describe every aspect of actual behaviour. Once more he states that in real life other motives also exist (public spirit, love of one's fellow men, custom, feeling for justice), but in order to have an exact science of economics the economist assumes as motivations only those mentioned above (Menger, 1963, p.84). This is why he calls them the "dogma of ever-constant self-interest, and the dogma of infallibility and omniscience"; terms which signify that they are arbitrary assumptions. Without these assumptions there can be no exact economics with exact

laws. In order to justify this method he provides examples of other sciences which make similar assumptions (mechanics, mathematics and chemistry) (Menger, 1963, pp. 85, 86). These points support the view that Menger's economic man was a fictional being.

Before we go on we have to mention Menger's emphasis on uncertainty and error. In spite of his previous statements about infallibility, Menger paid far more attention to the concepts of error and uncertainty than the other two marginalists. In particular, in his theoretical work, he gives considerable stress to the importance of uncertainty for economic phenomena. As he points out: "This uncertainty is one of the most important factors in the economic uncertainty of men, and as we shall see in what follows, is of the greatest practical significance in human economy." (Menger, 1950, p. 71).

And also:

"Even individuals whose economic activity is conducted rationally, and who therefore certainly endeavor to gain an accurate foundation for their economic activity, are subject to error. Error is inseparable from all human knowledge."  
(Menger, 1950, p. 148)

Thus it seems that while in his methodological work he was willing to exclude error from his economizing individuals, he attached a much greater importance to it in his theoretical work. The fact that selfishness and pleasure maximization are characteristics that can be found in both of his works, while infallibility and omniscience are mentioned in the second only, also supports this view. Menger's emphasis on uncertainty and error has also to do with his rejection of the notion of equilibrium. It is not difficult to see that in a world where uncertainty and error are present the notion of equilibrium cannot be easily accepted.

As was noted in the beginning of this section Menger's value theory is one of the features of his thought which place him closer to the marginalist school. Moreover, the theory of value constitutes a crucial part of Menger's most influential work: "The Principles of Economics". Menger develops a whole theory of goods and of economy in order to arrive at the formulation of his theory of value. His views about value also demonstrate the influence of the hedonistic framework.

The cornerstone of Menger's theory of value is his definition of a good. According to him a thing can become a good when the four following conditions are present: "1) A human need, 2) Such properties as render the thing capable of being brought into a causal connection with the satisfaction of this need, 3) Human knowledge of this causal connection, 4) Command of the thing sufficient to direct it to the satisfaction of the need" (Menger, 1950, p. 52). Conversely if these conditions cease to exist the good loses its character as a good. One can observe that the basis of a good is that it is capable of satisfying a need. One can discern that the hedonistically related idea of maximum satisfaction of wants as the prime objective of man is present in the above definition.

Menger proceeds to separate goods into four orders. The goods of the first-order are those that directly satisfy human needs. Menger gives some examples of such kind of goods; he mentions, bread, beverages, clothes. These consumption goods are the most important because on them depend the second-order goods. The second-order goods are those used for the production of the first-order goods and it is only through this relationship that they acquire their goods character (Menger, 1950, p. 57). Examples of these second-order goods are the "labor service of a journeyman baker, ordinary flour" etc. By the same principle, the third-order goods are those that are used for the production of the second-order goods. The example that Menger gives in this case, are the grain mills, wheat, rye, and labour services applied to the production of flour (Menger, 1950, p. 57). Finally, the fourth-order goods are used for the production of the third-order goods. According to Menger, examples of fourth order goods are fields for the cultivation of wheat and rye, instruments and appliances necessary for their cultivation, and specific labour services of farmers (Menger, 1950, p. 57). One can note here that only first order-goods which directly satisfy needs have direct value. Values of higher order goods are imputed. Clearly this is the reverse of the cost of production theories of value.

Menger's analysis of the concept of good shows that for him consumption goods (first order) are those that are directly responsible for the satisfaction of human needs. And as we observed



from Menger's examples the first-order goods are mainly material goods. Services are only first mentioned in the description of the second order goods. This leads again to the point that Menger emphasized material needs and their satisfaction by material goods. Services can be second, third or fourth order goods, and as we saw the criterion for the characterization of such order of goods is their remoteness from the direct satisfaction of human needs. This line of thought is another indication of the influence on Menger of the hedonistic framework.

Having stated Menger's theory of goods we can now proceed to the rest of the basic elements of his value theory. Menger starts the chapter on value by emphasizing the purely subjective nature of value:

"Value is therefore nothing inherent in goods, no property of them, but merely the importance that we first attribute to the satisfaction of our needs, that is, to our lives and well-being, and in consequence carry over to economic goods as the exclusive causes of the satisfaction of our needs."  
(Menger, 1950, p. 116)

A purely subjective, satisfaction-based definition of value is thus the starting point of Menger's value theory. In addition, as is implied by the definition, only economic goods have value. The economic goods also possess another characteristic that enables them to have value: utility. Menger identifies utility as the capacity of a thing to serve for the satisfaction of human needs (Menger, 1950, p. 119). Thus, he follows the tradition of all hedonistically-oriented economists, from Senior to Gossen and Jevons, who defined utility in terms of satisfaction or pleasure.

The next step for Menger is the attempt to find some kind of measure of value. And as, according to him, value depends on satisfaction, he starts from a discussion of the magnitude of satisfactions. Here one can again discern the familiar need for all hedonistic inspired theorists to find some kind of measure of pleasure or satisfaction. As we have seen this need is always present in the development of the hedonistic ideas, from Aristippus to the marginalist economists. In a very indicative passage, Menger maintains that:

"...it is above all a fact of the most common experience that the satisfactions of greatest importance to men are usually those on which the maintenance of life depends, and that other satisfactions are graduated in magnitude of importance according to the degree (duration and intensity) of pleasure dependent upon them." (Menger, 1950, p. 122)

And after few lines, he goes on to explain:

"With the same intensity, they will prefer pleasures of longer duration to pleasures of shorter duration, and with the same duration, pleasures of greater intensity to pleasures of less intensity." (Menger, 1950, p. 123)

Apart from the apparent idea that pleasures can be measured, the quotation is a further indication that Menger viewed individuals as pleasure maximizers. Moreover, he seems to suggest that men actually behave this way which means that he advocated psychological hedonism. We must also point out that in his description of fictional economic man, Menger did not doubt the issue of maximum satisfaction which is another indication of his preference for psychological hedonism. (As was seen he was doubtful about the prevalence of other motives in other sides of life, the non-economic ones.) Again, in the above quotation, one can not avoid noticing the similarity of Menger's terminology to that of Bentham.

In his attempt to measure satisfaction, Menger proceeds to give numerical examples of magnitudes of the satisfaction that different goods yield. In the table that he constructs, he compares the magnitudes of satisfaction of different goods by using a scale for satisfactions (Menger, 1950, p. 127). Thus, he completes his attempt of evaluating through measuring satisfaction.

As we have already seen, this analysis of value is purely subjective, based only on each individual's level of satisfaction. Menger wanted to add an objective factor too in his theory of value. This objective factor is the availability or supply of the goods. However, this factor plays a secondary role in the determination of value. As he writes:

"Accordingly, in every concrete case, of all the satisfactions secured by means of the whole quantity of a good at the disposal of an economizing individual, only those that have the least importance to him are dependent on the availability of a given portion of the whole quantity. Hence the value to this person of any portion of the whole

available quantity of the good is equal to the importance to him of the satisfactions of least importance among those assured by the whole quantity and achieved with an equal portion." (Menger, 1950, p. 132)

One can also observe the use of the term 'least importance' which has the same meaning as the established term 'marginal'. Menger did not use the nowadays universally accepted term marginal in either of his books.

Like the rest of the marginalists, Menger emphasized the erroneous character of every non-satisfaction-based theory of value. More specifically, he dismissed the labour and cost of production theories of value. He devotes a whole section in which he stresses the absolute validity of the subjective theory of value. He points out:

"The determining factor in the value of a good, then, is neither the quantity of labor necessary for its production nor the quantity necessary for its reproduction, but rather the magnitude of importance of those satisfactions with respect to which we are conscious of being dependent on command of the good." (Menger, 1950, p. 147)

As we noted in the beginning of this section, Menger's value theory is one of the points held in common with the rest of the marginalists. Indeed, Menger's theory is an important link in the chain of development of a hedonistic, subjective theory of value.

The manner of exposition of the above theories is different than that of Jevons and Walras. The most distinctive characteristic of Menger's methodology is the absence of mathematics. He rejected the use of mathematics on methodological grounds. In order to understand this particular methodological stance, we have to mention some of his ideas concerning economic investigation. Menger's conception of economic theory can be characterized as essentialist, meaning that he was interested about the general nature and the general inter-connections of economic phenomena (Menger, 1963, p. 37). He accused other economists of dealing with the linguistic image of economic concepts and not with their essence. In short, Menger thought that the object of economic research was to discover those laws governing market phenomena which can be traced back to their ultimate genetic determinants in man's physiological, psychological and social nature (Jaffe, 1976, p. 522). The method by which we can trace the ultimate

nature of economic phenomena is called by Menger the "analytic-compositive method". Mathematics can not serve the above purpose and so their use in economics is not appropriate (they can only describe functional relationships). The only concession that he made in this respect was that mathematics might be a method of presentation (see Menger, 1973, p. 52).

As well as the above, other points of Menger's economic methodology, and also his general views about the methodology of social sciences, can be found in his second book "Problems of Economics and Sociology". The main arguments of this work are directed against the German historical school of economics. The emphasis on induction, the rejection of the absolute character of economic laws, the resistance to accept stereotyped models of human behaviour (ie economic man) and generally the 'holistic' approach, were the basic features of the methodology of the German school. The deductive, physical-science oriented methodology of Menger was clearly at odds with that of the historical school. Menger's hostility towards the historical method is characteristic of this particular work. (The methodological discussion between Menger and the historical school became known as "Methodenstreit".)

Like most of the hedonistically-oriented economists, Menger held that economics can be as exact a science as the physical sciences (mechanics, chemistry etc.) are. As he writes:

"The high value of these laws for the theoretical understanding of the economic aspect of social phenomena has already been stressed by us repeatedly, as well as their formal nature is no different from that of the laws of all other exact sciences and of the exact natural sciences particularly." (Menger, 1963, p. 218)

Again like most of the previous economists that we discussed, Menger viewed physics as the ideal science and the prototype for economics. Unlike Jevons and Walras who, as we saw, believed that it was only a matter of time for economics to be an exact science like physics, Menger believed that economics had already the status of an exact science (provided that theories are based on the 'dogmas' or the assumptions that we discussed). An indication of the above is his continuous reference to physical sciences as an example in his

analysis of economics as an exact science (Menger, 1963, pp. 85-88). However, we must emphasize his caution that exact economics can only provide us with the theoretical understanding of a special side of social phenomena. Moreover, it should be mentioned that Menger thought of economics as an exact science only when the initial assumptions hold. It seems that this idea was similar to the problem faced by physical sciences: the outcomes hold only when the initial conditions (laboratory) hold.

Before we conclude, we have to point out again that Menger's thought, aside from these similarities, had some points of difference from the marginalist conceptual framework. The first, as we have noted, is his emphasis on uncertainty and error at least in his first work. The second which is related to the first, is the introduction of time in his economic theories. As M. Alter observes:

"The introduction of time as essential, as an ontological element in his 'exact' theories, has two consequences: On the theoretical level it introduces uncertainty at the very basis of economic theory and therefore emphasizes the importance of gathering information." (Alter, 1982, p. 154)

The third important point of difference from the rest of the marginalists is his rejection of the concept of equilibrium which was basic in Jevons and especially in Walras' thought. The reason for this rejection was his notions of uncertainty and error which clearly do not facilitate the idea of equilibrium. Also the emphasis on historical rather than on mechanical time, can be seen as another reason for his rejection of equilibrium. Some economists have described Menger's economics as process economics with unintended consequences leading to further actions (Loasby, 1976), and others as disequilibrium economics (Streissler, 1973, p. 178). The crucial point here, however, is that the concept of equilibrium was alien to his thought.

As a conclusion we can point out that although Menger is the 'least marginalist' of the hedonistic oriented marginalist school, his thought represents another link in the development of the hedonistic influence on mainstream economics. His definition of economics in terms of satisfaction of wants is the first indication of the above. Menger's economic man is described in his methodological work as selfish, pleasure maximizing, perfectly informed and rational. In his

theoretical work the last two characteristics are de-emphasized, and error and uncertainty are brought into account. In both works, Menger pointed out that economic man was a fictional being corresponding only to a part of human behaviour. In spite of this however, the fact that he supported the universal character of pleasure maximization as a human characteristic, indicates his preference for psychological hedonism. (Pleasure maximization is never thought of as an abstraction like the other characteristics of economic man, but it is treated as a permanent, realistic feature of behaviour.) Menger's theory of value depends again on the satisfaction of wants. Like other marginalists, Menger rejected any labour or cost of production based theory of value. In accordance with the hedonistic tradition, he attempted to find a measure of satisfaction. The fact that his attempt was made in terms of intensity and duration of pleasure and also his construction of a scale for measuring the different magnitudes of satisfaction, shows the influence of the Benthamite calculus. Another common point with the marginalists and generally with hedonistically oriented economists was his methodological view of physical-science-type economic methodology. It has to be pointed out however, that his economic thought differed in some respects from the marginalist framework. His emphasis upon historical time, uncertainty and his rejection of mathematics, and of the concept of equilibrium, are the main points of difference from the marginalist orthodoxy. One might state the above as the main reason for Menger's lesser influence on subsequent mainstream theory. An additional reason for his lesser impact on subsequent orthodox economists is his less explicit hedonistic basis of his theories. This can be seen as an additional sign of the continuous influence of this framework on orthodox theorists. (As we shall see this was the case with Marshall's theories.)

In general, although his hedonism was less explicit, Menger assisted the development of hedonistic ideas especially among German-speaking economists. (His polemic against the more open, non-hedonistic approach of the historical school of economics is an indication of the above.) The hedonistic basis of economic man and the satisfaction based theory of value are the most important

contributions of Menger to the promotion of the hedonistic framework to economics.

With the discussion of Jevons, Walras and Menger, we complete our examination of the first marginalist generation. The impact of the marginalist ideas became increasingly, though gradually pronounced. This was assisted by the publication of works which promoted the Benthamite ideas. One good example of such author was Sidgwick who provided philosophical grounding for the new term utility (see Sidgwick, 1874). The next generation of theorists was to become known as the second marginalist generation to which we now turn our attention.

### 4.3 SECOND MARGINALIST GENERATION

#### 4.3.1 A. Marshall

Some years after the publication of the works of Jevons, Walras and Menger, the marginalist doctrine commenced its gradual dominance in orthodox economics. A. Marshall (1842-1924) was one of most influential figures of the period (late nineteenth, early twentieth century) who followed the marginalist analysis. Marshall's main work "Principles of Economics" was widely read and used as a textbook during the above period. However, Marshall can in no way be considered as a typical representative of marginalist thought. As we shall see, although one can find important elements of marginalism, such as developing demand analysis by using the concept of marginal utility, one can also find some points in his work which clearly lie outside the marginalist paradigm. (For Marshall, marginalism was largely the principle of continuity.) With this in mind we can understand the characterization of Marshall as the "odd man out" of the marginalist school.

Marshall's thought played a peculiar role in the development of the hedonistic approach to economics. In his work, passages that are of hedonistic origin can be found alongside passages that explicitly reject the hedonistic framework. However, as one can judge from the subsequent development of mainstream economics, the influence of Marshall's non-hedonistic side was minimal in comparison to the influence of the other aspects of his thought.

Even from the opening pages of his "Principles" one notes the peculiarity of Marshall's approach. The first paragraph supplies the definition of economics:

"Political Economy or Economics is a study of mankind in the ordinary business of life; it examines that part of individual and social action which is most closely connected with the attainment and with the use of material requisites of wellbeing." (Marshall, 1961, p.1)

In this definition, Marshall does not mention the usual terms, such as satisfaction of wants or maximization of pleasure, that can be



found in most hedonistically-oriented economists. His definition involves the element of social action, too. In the above definition, Marshall speaks about the business part of life and about the material requisites of well being. These points can be found in most orthodox definition of economics. However, he is anxious to include another element in the definition of economics. Immediately after the first paragraph he writes:

Thus it [economics] is on the one side a study of wealth; and on the other, and more important side, a part of the study of man." (Marshall, 1961, p. 1)

The study of man is thought by him to be more important than the study of wealth. This is a clear departure from the established view of most hedonistically-based definitions of economics.

Marshall's treatment of the concept of economic man follows the same path as his definition of economics: one can find some points which are of marginalist character and also some explicit refutations of marginalist views. More specifically, in the chapter dealing with consumers' demand, he conceives human nature in the same way as the rest of the marginalists:

"There is an endless variety of wants, but there is a limit to each separate want. This familiar and fundamental tendency of human nature may be stated in the law of satiable wants or of diminishing utility thus: The total utility of a thing to anyone (that is, the total pleasure or other benefit it yields him) increases with every increase in his stock of it, but not as fast as his stock increases." (Marshall, 1961, p. 93)

This passage has no serious differences from the respective treatment of diminishing total utility of the main representatives of the marginalist school. The same holds for the identification of utility with pleasure. However, in another section one can discern a clear rejection of the narrow, hedonistically-based concept of fictional economic man. In a passage which is worth quoting at length, he points out:

"In all this we deal with man as he is: not with an abstract or 'economic' man; but a man of flesh and blood. They [economists] deal with a man who is largely influenced by egoistic motives in his business life to a great extent with reference to them; but who is also neither above vanity and recklessness, nor below delight in doing his work well for

its own sake, or in sacrificing himself for the good of his family, his neighbours, or his country; a man who is not below the love of a virtuous life for its own sake. They deal with man as he is: but being concerned chiefly with those aspects of life in which the action of motive is so regular that it can be predicted, and the estimate of the motor-forces can be verified by results they have established their work on a scientific basis." (Marshall, 1961, p. 27)

Although Marshall is ready to accept the existence of egoism as the most powerful motive in the business part of life, he rejects the artificial being (fictional economic man) of J. S. Mill and of the marginalists. Moreover, the fact that he insists on treating man as he is, and that he takes into account other motives like altruism and the love of virtuous life indicates the extent of his reservations about the use of fictional hedonistic economic man. This disagreement is connected with his mistrust of economic abstractions as potentially misleading. (As we shall see later this point is related to his ideas on mathematics.)

Clearly, Marshall's view of human nature is much broader than that of the previous orthodox economists whom we discussed. This broader view of Marshall is not restricted to the methodological level but is a vital part of his economic theory. As Whitaker states: "Normal action is always to be viewed as the consequence of all motives, not the economic one alone - a consideration which is particularly important in the theory of factor supply" (Whitaker, 1977, p. 196). However, this does not mean that Marshall did not apply in any of his theories the concept of the maximizing consumer. As we saw, in his analysis of demand, he uses a much less broad view of human nature. As P. O'Brien points out: "Marshall's utility analysis, which involved the theory of the maximizing consumer, clearly comes after the demand curve and owes a good deal to Jevons" (O'Brien, 1981, p. 41).

In his "Principles" Marshall expressed some views concerning the philosophy of hedonism and especially the hedonism of Bentham. His critique is conducted in terms of the necessity of an independent principle if hedonism is to become a complete ethical philosophy. As he writes:

"It may be noted that some followers of Bentham (though perhaps not Bentham himself) made this large use of 'pain and pleasure' serve as a bridge by which to pass from individualist hedonism to a complete ethical creed, without recognizing the necessity for the introduction of an independent major premiss; and for such premiss the necessity would appear to be absolute, although opinions will perhaps differ as to its form." (Marshall, 1961, p. 17n)

One cannot help observe the difference of Marshall's attitude towards Bentham and utilitarianism from that of the English founder of marginalism, Jevons. As was noted in the section dealing with Jevons, he embraced every aspect of utilitarianism without any reservations. In addition to this critique, Marshall advocated a refined version of utilitarianism. A great number of pages in his "Principles" refer to the higher faculties of man; to his higher motives other than those of preserving his physical wellbeing; to the necessity of education, in general, to human progress. As Birch emphasizes: "In the final analysis, Marshall's vision of progress consisted of people developing new and better wants and activities than satisfying the existing ones" (Birch, 1985, p. 195, but see also Jensen, 1985).

However as we pointed out in the beginning, one can also find in Marshall's work elements of the hedonistic approach. For instance in the mathematical appendix to the book, Marshall bases his analysis upon the assumption of the maximization of pleasure. As in Jevons and Walras, the central point of his mathematical exposition is marginal utility. In the Mathematical Appendix, a number of issues which are today part of every orthodox microeconomic textbook can be found: the analysis of the elasticity of demand, consumer surplus, utility and disutility of labour etc. These nowadays familiar concepts are products of Marshall's work, especially the elasticity of demand and the consumer surplus. His manner of presentation of these issues is very similar to Jevons and Walras. For example in Note II of his appendix he states:

"If  $m$  is the amount of money or general purchasing power at a person's disposal at any time, and  $\mu$  represents the total utility to him, then  $d\mu/dm$  represents the marginal degree of utility of money to him.

If  $p$  is the price which he is just willing to pay for an amount  $x$  of the commodity which gives him a total pleasure  $u$ , then

$$\frac{du}{dm} \Delta p = \Delta u; \text{ and } \frac{du}{dm} \frac{dp}{dx} = \frac{du}{dx}$$

If  $p'$  is the price which he is just willing to pay for an amount  $x'$  of another commodity, which affords him a total pleasure  $u'$ , then

$$\frac{du}{dm} \frac{dp'}{dx'} = \frac{du'}{dx'}$$

and therefore

$$\frac{dp}{dx} : \frac{dp'}{dx'} = \frac{du}{dx} : \frac{du'}{dx'}$$

(Marshall, 1961, p. 838)

As can be observed, the method and assumptions (measurability of pleasure) of the above analysis are typical of the marginalist - hedonistic analysis.

However, in contrast to Jevons and Walras, Marshall makes this analysis only in an appendix. This is related to his position on mathematical methodology which we shall see later, and also with his doubts concerning hedonistic assumptions. More specifically, he is cautious to emphasize from time to time that most results like the above "belong to Hedonics and not properly to Economics" (Marshall, 1961, p. 841). This is a very important point because it demonstrates that Marshall had serious reservations about the approach of the marginalists. It is evident that an economic theory based on hedonistic assumptions and expressed in abstract terms was not considered by Marshall as proper economics but as hedonics.

As one would expect, Marshall's theory of value differs from the common approach of Jevons, Walras and Menger. As was observed, the three founders of marginalism based their value theory on marginal utility. They also rejected categorically every labour, cost of production based theory of value. Marshall takes into account both marginal utility and cost of production in the determination of value. Moreover, time plays a decisive role in the theory, because it determines the share of each of the two factors in the final determination of value.

"Thus we may conclude that, as a general rule, the shorter the period which we are considering, the greater must be the share of our attention which is given to the influence of demand on value; and the longer the period, the more important will be the influence of cost of production on value." (Marshall, 1961, p. 349)

More analytically, utility has a greater significance in the determination of value in the short run. The short run values are the market values. The normal values which are the long run values are influenced more by the cost of production. (Marshall believed that in the long run the cost of production is steadily declining because of the growth of knowledge and organization thus helping to improve the condition of the people.) Marshall's idea of including the cost of production in the determinants of value indicates once again his unique position in the development of orthodox economic theory. At this point he is closer to the classicals -Smith, and Ricardo- than to the contemporary marginalist approach. Moreover, Marshall (again in accordance with the classicals) uses the term costs of production for real costs, not for money costs or opportunity costs: "The businessman is concerned with money costs; but the evaluation of normal value with real costs" (Marshall, 1961, p. 350). His emphasis on the real costs of production distance him from the subjective, pleasure-based theory of value which was one of the main characteristics of the marginalist school. However, Marshall's theory of value was not to have any substantial influence on the course of the mainstream theory. The simple hedonistic oriented theory of value would prevail. As B. Loasby points out:

"Marshall's own theory [value] was found much too difficult by his successors, who replaced its elaborate structure with a plain and simple doctrine." (Loasby, 1978, p. 2)

Apart from the theory of value, another major theoretical departure from the marginalist framework was Marshall's partial equilibrium analysis. In contrast to Jevons and especially to Walras, Marshall rejected the conception of the economy as being in a general equilibrium. His emphasis upon historical time and his willingness to accept complex interrelationships between various markets may be the explanation for his partial equilibrium approach. (The emphasis on historical time and the rejection of equilibrium were also observed in

Menger's thought.) Marshall always believed that adjustments in the market take time -time was also one important determinant of normal value- and this meant that he rejected a general equilibrium model, like that of Walras, which did not allow much scope for historical time. Again at this point Marshall is closer to the classical views than to marginalist ones. As S. Dow writes:

"...[Marshall's Principles] attempted to express marginalist theory as a progression from Ricardian theory, i.e. to restore a theoretical consensus; and indeed Marshall's partial equilibrium framework (contrasting with Walras's general equilibrium framework) was designed to preserve the capacity to relate theory to developments in historical time." (Dow, 1985, p.53)

Marshall' methodology is also different from that of most marginalists (with the exception of Menger). In contrast to the methodology of most hedonistically-oriented economists, Marshall did not consider economics as an exact or as a physical-science-like discipline. He saw the changing character of human nature as the main reason that economics cannot be an exact science. As he writes: "But of course economics cannot be compared with the exact physical sciences: for it deals with ever changing and subtle forces of human nature" (Marshall, 1961, p.14). Marshall sees analogies of economics more with biology, than the established analogy with mechanics. His belief in the dynamical or evolutionary nature of economic phenomena is another methodological reason for the rejection of the general equilibrium model. As he points out in the preface of his 8th edition of the "Principles", the term equilibrium suggests something of a statical analogy" (Marshall, 1961, p.xiv).

A related point of his methodology was his serious reservations about the use of mathematics in economics. As can be observed from the previous pages, the mathematical approach started to dominate mainstream economics with the emergence of marginalism. (Menger was again the exception.) The marginalists' simple hedonistic model of economic man assisted the mathematical approach to economics and vice-versa. Marshall, though a mathematician himself, was very reluctant to use mathematics in his work. Only in footnotes and appendices did he present the mathematical exposition of his theories. Moreover, he had

expressed his methodological reservations in the following way, as described by his student A. C. Pigou:

"Though a skilled mathematician, he used mathematics sparingly. He saw that excessive reliance on this instrument might lead us astray in pursuit of intellectual toys, imaginary problems not conforming to the conditions of real life; and further, might distort our sense of proportion by causing us to neglect factors that could not easily be worked in the mathematical machine." (Pigou, 1925, p.84)

This reluctance to use mathematics can be connected with his concern about the damage wreaked by abstraction. Indeed, it seems that Marshall regarded utility maximization as a useful abstraction in economics, but was also worried about its damaging effects. Thus he attempted to limit the damage by relegating mathematics to appendices and by emphasizing the potential risks of a formalist methodology. It is evident that the use of mathematics and economic man are of a diminished significance within the body of his work. However, as we shall see, Marshall's partial marginalist approach would become widespread in the work of subsequent economists.

Marshall is a unique figure in the development of orthodox economic thought. One can find the main elements constituting mainstream economics in his work. For instance, the basis of his demand theory is a consumer who maximizes his satisfaction. Also present are: the use of the concept of pleasure; the assumption of its measurability in the analysis of various economic issues (especially in the mathematical appendix); and the use of mathematical methodology in the footnotes and in the mathematical appendix. All these aspects place Marshall in the position of an important mainstream theorist, and that is the image that most orthodox economists have of him. But as was noted, this is only a partial picture of his thought. An essential part of his work can be recognized as not falling into the mainstream hedonistically-oriented framework. His explicit rejections of the conception of man as a selfish and pleasure maximizing; the critique of the hedonistic philosophy; the combination of marginal utility with the cost of production in his theory of value; the emphasis on partial and not on general equilibrium; the desire to create better wants and not just to satisfy the existing ones; and the

more open methodology; are all aspects which do not promote Marshall's image as a marginalist economist. However, the contemporary use of his economic ideas (mainly demand theory) without any reference to Marshall's qualifications and reservations, shows that mainstream economists have totally neglected most of his non-hedonistic, non-marginalist points. This very important point provides strong evidence about the influence of the hedonistic framework on orthodox economics. The fact that those aspects of Marshall's work which did not fit the hedonistic programme were ignored, rejected or distorted is a clear indication of overall hedonistic influence.

From our point of view, Marshall's work as an entirety does not fit in the hedonistic framework. However, the fact that subsequent economists adopted only those parts that fitted this framework, and thus assisted the further development of the hedonistic approach, demonstrate clearly its dominance in orthodox economics.



#### 4.3.2 F. Y. Edgeworth

A. Marshall's critical and sceptical approach towards the hedonistic-oriented marginalist school did not have any considerable inhibiting influence upon the subsequent development of the hedonistic framework in economics. In contrast, the writings of F. Y. Edgeworth (1845-1926) (a contemporary of Marshall) gave new momentum to the adoption of hedonistic ideas by orthodox economists. Moreover, the profound mathematical character of his methodological approach (in great contrast with that of Marshall as shown above) reinforced the idea that a mathematical methodology and the hedonistic framework are the optimum combination for orthodox economics.

Edgeworth's thought were explicitly rooted in Bentham's philosophy of utilitarianism. Moreover, the ideas of Jevons played a key role in the development of his views. By developing this hedonistic background, Edgeworth was able to formulate his theories of taxation, foreign trade and production, and above all his contract and indifference curves. Indeed, Edgeworth's utility functions and contract curves constitute the basis of modern mainstream approaches.

The most important work of Edgeworth is the "Mathematical Psychics" with an indicative subtitle: "An Essay on the Application of Mathematics to Moral Sciences". In the first pages of this book, Edgeworth gives the definition of economics:

"For Economics investigates the arrangements between agents each tending to his own maximum utility;"  
(Edgeworth, 1881, p.6)

First of all, one can observe the reduction of economics to the study of selfish, hedonistic behaviour (catalactics). His emphasis upon maximum utility as the central characteristic of economics is in accordance with the definitions given by marginalist economists (Jevons, Walras, Menger, etc). Moreover, this emphasis can be found in modern orthodox definitions. Edgeworth saw all social sciences as having a basic common feature: all their inquiries can be viewed as maximization problems (Edgeworth, 1881, p.6). The intention of Edgeworth is to draw attention to the analogy between the maximization principles of physics and the principle of maximization of pleasure or

utility in the social sciences, and particularly in economics. As he emphatically points out:

"An analogy is suggested between the Principles of Greatest Happiness, Utilitarian or Egoistic, which constitute the first Principles of Ethics and Economics, and those Principles of Maximum Energy which are among the highest generalizations of Physics..." (Edgeworth, 1881, p. v)

Apart from the methodological implications of the above passage -which we will discuss later in this section- one can also discern its utilitarian philosophical basis. Indeed, throughout his book, Edgeworth mentions several times Bentham and his philosophical system. He calls Bentham "great" and he uses the key notions of utility or pleasure as the foundation stone of his theoretical framework. He distinguishes between the two principles of utilitarianism in the same way as Bentham had: a) the principle of utility which refers to the individual level and b) the Greatest Happiness Principle which refers to the social level. As is stated in the above quotation, the (utilitarian) first principle is that which in Bentham's terms corresponds to the Greatest Happiness Principle (the second formulation of the Utility Principle; see section on Bentham). The second principle is the Egoistic one which corresponds to Bentham's (individual) first formulation. The starting point of "Utilitarian Ethics" is the Greatest Happiness Principle. The "calculus of pleasure" can be subdivided into Economics and Utilitarian ethics, each one based on different hedonistic principles. In Edgeworth's words:

"Such are some of the preliminary considerations by which emboldened we approach the two fields into which the Calculus of Pleasure may be subdivided, namely Economics and Utilitarian Ethics. The Economical Calculus investigates the equilibrium of a system of hedonic forces each tending to maximum individual utility; the Utilitarian Calculus, the equilibrium of a system in which each and all tend to maximum universal utility." (Edgeworth, 1881, p. 15)

Thus, according to Edgeworth, economics can be reduced to a system of economic calculus which is based on the egoistic maximization of pleasure. This conception is essentially identical to Jevons' statement that economics is a calculus of pleasure and pain. As we observed, the hedonistic oriented definition of economics occupies a central position in both theorists.

As with most marginalist economists, economic man is again present in Edgeworth's work. He does not mention the term explicitly but it is implicit through his book. Naturally, as is the case with all hedonistically oriented economists, Edgeworth conceives economic man as a selfish, pleasure maximizing being. As he categorically states:

"The first principle of Economics is that every agent is actuated only by self-interest." (Edgeworth, 1881, p. 16)

However, it must be noted that the selfish motive is supposed to dominate the economical calculus only. In the utilitarian calculus, the agent is thought to be more benevolent in order to maximize universal utility. In both cases, man is conceived as a "pleasure machine" (Edgeworth, 1881, p. 15).

The distinction between the agent of economic calculus and the agent of utilitarian calculus, indicates that Edgeworth viewed economic man as a fictional being. In fact, he believed that the real agent is something between the two. As he writes:

"For between the two extremes Pure Egoistic and Pure Universalistic there may be an indefinite number of impute methods; wherein the happiness of others as compared by the agent (in a calm moment) with his own, neither counts for nothing, not yet 'counts for one', but counts for a fraction." (Edgeworth, 1881, p. 16)

In contrast to the selfish motive, Edgeworth thinks of the maximization of pleasure (either one's own or all) as the fundamental characteristic of human nature. Moreover, he is ready to use the abstraction of a selfish, pleasure maximizing economic agent in his theories. This is again a point of contrast with Marshall's explicit rejection of the use of fictional economic man in economics.

Edgeworth's conception of utility is similar to Bentham and Jevons. Following Jevons closely, he states that utility has two dimensions: time and intensity. Then, the issue of the existence of a utility/pleasure unit comes into the scene.

"The implied equitability of time intensity units, irrespective of distance in time and kind of pleasure, is still imperfectly evolved. Such is the unit of economical calculus." (Edgeworth, 1881, p. 7)

Edgeworth realizes the need of having a pleasure/utility unit (, even

if he accepts its imprecise nature,) for the subsequent development of his mathematical approach. For the economic calculus a two dimensional unit is adequate, but as he states: "For moral calculus a further dimension is required; to compare the happiness of one person with the happiness of another, and generally the happiness of groups of different average happiness" (Edgeworth, 1881, p.7). At this point, he introduces interpersonal comparisons of utility. As has been noted, comparability of utilities is a characteristic of utilitarianism. As we saw, even Jevons was very reluctant to accept interpersonal comparisons of utility. This fact indicates Edgeworth's adoption of an extreme form of utilitarianism-hedonism.

In other parts of his work, Edgeworth becomes more explicit in the issue of the unit of pleasure. As he points out:

"We must then carefully consider this possibility, or, what is much the same thing, the existence and nature of a unit of pleasure. There is no doubt, much difficulty here, and the risen science is still obscured by clouds; and hedonism may still be in the state of heat or electricity before they became exact sciences, as described by Professor Jevons." (Edgeworth, 1881, p.98)

As was observed, Jevons thought that the discovery of a unit of pleasure and pain was only a matter of time. By the same reasoning, Edgeworth hopes that hedonics would someday become an exact science.

The difficulties concerning the exactness of a unit of pleasure do not prevent Edgeworth from stating in a categorical way the measurability of pleasure:

"Axiom: Pleasure is measurable and all pleasures are commensurable; so much of one sort of pleasure left by one sentient being equatable to so much of other sorts of pleasure left by other sentients." (Edgeworth, 1881, p.59)

Again as all hedonists, Edgeworth discusses the issue of measurability of pleasure. As can be seen, the mathematical minded Edgeworth solves the problem by accepting it as an axiom.

The unit of pleasure or utility, the interpersonal comparisons of utility and the axiom of measurability of pleasure are all integrated in Edgeworth's utilitarian calculus or moral arithmetic. To these points, he adds another assumption, viz: that some people are more capable of pleasure than others: "An individual has greater capacity

for happiness than another, when for the same amount whatsoever of means he obtains a greater amount of pleasure" (Edgeworth, 1881, p.57).

These four points constitute the bases for the solution of the following problem : "To find a) the distribution of means and b) of labour, the c) quality and d) number of population, so that there may be the greatest possible happiness" (Edgeworth, 1881, p.56). After stating a number of postulates such as "the capacity of pleasure and the capacity for work generally speaking go together" and by using pleasure-based terms such as "megisthedone" (representing a plane of capacities and means to pleasure), Edgeworth arrives at results like:

The happiness of the present generation may be symbolized:

$$\int_{x_0}^{x_1} n[F(xy) - cy]dx + cD$$

where n is the number of people, F(xy) is a unit of pleasure of consumption, x is the capacity for pleasure, y is the means, x<sub>1</sub> is the highest existing degree of capacity, x<sub>0</sub> is the abscissa of emigration, and D is the given distribuend.

The happiness of the next generation was represented as:

$$\int_{x_0}^{x_1} [n(F(xy) - cy)]dx + cD$$

(Edgeworth, 1881, pp. 72, 74)

One can here observe the combination of hedonism and mathematics in its extreme form. Although a great number of contemporary orthodox theorists would discard this highly abstract and unrealistic approach, it shows the extent of the influence of the hedonistic framework among leading marginalist economists of the late nineteenth and early twentieth centuries.

As was noted earlier, Edgeworth did not need the assumption of interpersonal comparisons of utility and of the different capacities for pleasure in his economical calculus (although, as we shall see, he allowed interpersonal comparisons in his taxation theory). A purely selfish, pleasure maximizing agent was adequate for him. Moreover, the measurability of utility was another necessary assumption. With the

above given, Edgeworth proceeds to supply the equation of his famous contract curve between two individuals, two goods trading under perfect competition:

$$\frac{dp}{dx} \frac{d\pi}{dy} - \frac{dp}{dy} \frac{d\pi}{dx} = 0$$

(where  $p$  and  $\pi$  the utilities of individuals A and B and  $x, y$  the portions of commodities exchanged)

The locus of points that have the above property is the contract curve. In modern terminology these points are called Pareto optimal points. Edgeworth adds that his contract curve holds under the following conditions:

"i) that the pleasure-energy of X and Y considered each as a function of (certain values of) the variables x and y should be functions of the same values...ii) that the joint team should never be urged in a direction contrary to the preference of either individual;" (Edgeworth, 1881, p.24)

The modern graphic representation of the contract curve is:

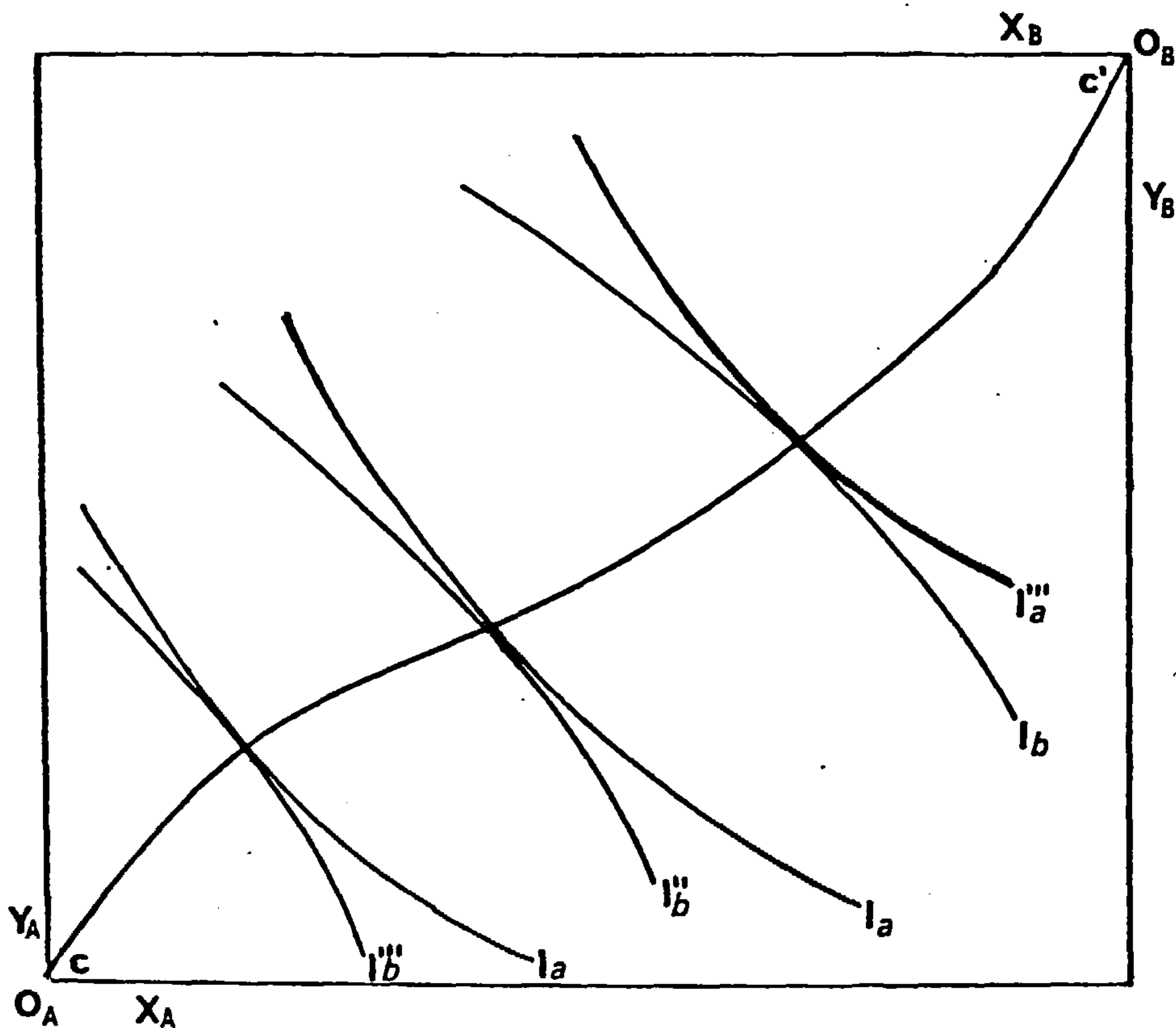


Figure 4.6

Where Ia and Ib are indifference curves of A and B individual, and cc' is the contract curve. This is also known as Edgeworth box diagram; although nowhere in "Mathematical Psychics" can one find the above diagram. (Professor Jaffé believes that the origin of the Edgeworth box diagram can be found in Pareto's writings, see Jaffé, 1974, pp. 343, 344.) Later on, the contract curve is expanded to several persons and several goods. Its general form is (we have m contractors and n equations of this form for n variables):

$$l_1 \frac{dP_1}{dx_1} + l_2 \frac{dP_2}{dx_1} + \dots + l_m \frac{dP_m}{dx_1} = 0$$

where  $l_1, l_2, \dots$  are indeterminate multipliers, P are the utilities of individuals, and x are the subjects of contract (goods). Edgeworth's formulae of exchange have the same basis as those of contract curve: utility maximization and selfish agents. As he himself writes, his own formula

$$\frac{F'_x(x, y)}{F'_y(x, y)} = \frac{y}{x}$$

is a more general form of Jevons'. It shows that maximum satisfaction is attained when the ratio of exchange is inversely proportional to the ratio of marginal utilities, (see Edgeworth, 1881, p. 104). This again indicates the continuity of the marginalist approach along the same theoretical guidelines.

His theory of taxation is also developed along the marginalist-hedonistic framework. For instance he states that "the condition that the total net utility produced by taxation should be a maximum then reduces to the condition that the total disutility should be a minimum" (Edgeworth, 1925, p. 103). Moreover, in his taxation theory Edgeworth allows interpersonal comparisons of utility. As was observed, this assumption was necessary for his utilitarian calculus but not for his economical calculus. However, in the taxation theory (stated in his "Papers") this assumption is reintroduced in economics.

"Practically, I think, in order to apply A2 -to show for instance, that the richer class should contribute a larger sum of money (I do not say a larger proportion of income) -we

must presuppose the sympathetic comparison of wants and feelings experienced by different persons." (Edgeworth, 1925, p. 235)

(In the introduction of his first work, he had equated the meaning of the word 'feeling' with those of pleasure and pain, p.1).

As was stated in the beginning, Edgeworth's methodology is extremely mathematic. As was the case with Jevons and Walras, Edgeworth thought that the application of mathematics to economics would make economics an exact science. The ideal example of exact science was physics. (Again this view is common among most hedonistically oriented economists.) Edgeworth is more specific in stating the parallel points between economic and physics. The most important point was that 'energy', which is the basic concept in physics, corresponds to pleasure, the basic concept in economics according to Edgeworth.

"The application of mathematics to the world of soul is countenanced by the hypothesis (agreeable to the general hypothesis that every physical phenomenon is the concomitant, and in some sense the other side of a physical phenomenon), the particular hypothesis adopted in these pages, that pleasure is the concomitant of energy. Energy may be regarded as the central idea of Mathematical Psychics;" (Edgeworth, 1881, p. 9)

Edgeworth was the first economist to draw such a close parallel between physics and economics. Jevons and Walras had spoken about the "mechanics of utility and self-interest", but none had identified maximum energy with maximum pleasure. In another more general statement, Edgeworth reveals his methodological ideal for economics; an ideal which seems to have occupied the thoughts of all hedonistic theorists:

"Mecanique Sociale may one day take her place along with Mecanique Celeste, throned each upon the double sided height of one maximum principle, the supreme principle of moral as of physical science. As the movements of each particle, constrained or loose, in a material cosmos are continually subordinated to one maximum sum-total of accumulated energy, so the movements of each soul, whether selfishly isolated or linked sympathetically, may continually be realising the maximum energy of pleasure." (Edgeworth, 1881, p. 12)

Thus, the tradition of a physical-science-like economic methodology based on hedonistic principles is at its height in Edgeworth's work.



The relationship between a mechanistic, mathematical methodology and hedonistic principles -especially that of hedonistic economic man- is best shown in Edgeworth's words:

"...at least the conception of Man as a pleasure machine may justify and facilitate the employment of mechanical terms and mathematical reasoning in social science."  
(Edgeworth, 1881, p. 15)

Again, to our knowledge, Edgeworth was the first hedonistic economist explicitly to declare this crucial point. The relationship of the hedonistic approach with the mechanistic economic methodology is essential for the understanding of the development of the influence of the hedonistic framework on economics.

Edgeworth's views concerning the work of the classical economists also indicate the main points of his thought. For instance he realizes the "greatness of Bentham", but he points out that the "principle of the greatest happiness...lost its meaning, by the addition of the 'greatest number'" (although he realized the value of the Greatest Happiness principle as such) (Edgeworth, 1881, p. 118). As was seen, his view that some people have greater capacity for pleasure than others led him to his reservations about the 'greatest number'. Moreover, his enthusiastic comments about Jevons' theory of value, show his belief in the subjective, marginal utility based value theory (Edgeworth, 1881, p. 118). Although he accepts the substantial contributions of Cairnes, he points out that he might have achieved more if he had used mathematical forms (Edgeworth, 1881, p. 119)

Edgeworth's economic analysis had considerable influence on the subsequent development of orthodox economic theory. As was observed, his indifference and contract curves are the foundations of the theory of exchange, and this is still acknowledged by contemporary orthodox theorists (see for instance Varian, 1987, p. 481). Moreover, his more general formulation of Jevons' utility functions facilitated the development of the theory of consumer behaviour. His discussion of taxation theory in terms of equal sacrifices (marginal utilities) set the basis for the modern orthodox theory of taxation. In addition, his contribution to the theory of production was the emphasis upon the distinction between average and the marginal product which later led

to the identification of the optimum position.

Edgeworth's work represents another link in the development of the influence of the hedonistic framework on mainstream economics. The definition of economics in terms of pure selfish maximization of pleasure, was the first indication of his extreme hedonistic views. The distinction between the calculus of pleasure to *Economical Calculus*, and to *Utilitarian Calculus* -the first examining the egoistic maximization of pleasure- demonstrates again the hedonistic nature of his thought. As with most hedonistic economists, Edgeworth used a selfish, pleasure maximizing economic man. As Jevons, Walras and Menger, Edgeworth's economic man is a fictional being. His extreme emphasis on the universal character of pleasure maximization shows that he advocated psychological hedonism. His insistence on the existence of a unit of pleasure or utility and of measurability of pleasure (hedonometry, according to him) is again the common point of almost all hedonistic theorists since Aristippus. The theoretical formulations of Edgeworth exhibit the hedonistic nature of his approach. More specifically, his utility functions, contract and indifference curves, and exchange theory are based on the concept of selfish maximization of utility by the economic agents. In addition interpersonal comparisons of utility -an assumption of his *Utilitarian Calculus*- are introduced into the theory of taxation.

Edgeworth's economic methodology is an ideal manifestation of the combination of the mechanistic, mathematical approach with hedonistic principles. More extreme than Jevons and Walras, he identifies the concept of maximum energy of physics with that of the maximum pleasure of economics. By admitting that the conception of man as a pleasure machine facilitates the application of mechanistic and mathematical terms in economics, he proceeds to express mathematically the "happiness of the present and future generations". As Edgeworth himself declares his ideal is the identification of '*Mecanique Celeste*' with '*Mecanique Sociale*'. This shows the attempt of marginalist economists to transform economics into an exact science like physics, through greater quantification and stricter adoption of hedonistic principles. These ideas found their best expression in the work of Edgeworth.

#### 4.4 CONCLUSION

Having entered the classical school with the work of Bentham, the hedonistic tradition continued in the marginalist school of economics. As was observed in this chapter, the hedonistic approach was increasingly strengthened and also found its ideal combination with the formalist methodology. Thus, the marginalist school represents the height of the hedonistic approach in orthodox economics. In Edgeworth's work, with which we closed our discussion of the marginalist period, the continuous line of development of the hedonistic ideas can be discerned: from ancient Greeks and Helvetius to Bentham and classical economics and then to the marginalist school through Gossen and especially through Jevons.

More specifically, in this chapter we examined the works of Gossen, Jevons, Walras, and Menger (first marginalist generation) and Marshall, and Edgeworth (second generation). These economists are considered to be the main representatives of marginalist economics. We found that all of the above theorists (with the exception of Marshall who is a unique case) have some important theoretical and methodological points in common. These common points again demonstrate the continuity and the profound influence of the hedonistic framework. From Gossen, the most important forerunner of marginalism, up to Edgeworth, one can identify the following common points: The use of the concepts of pleasure, satisfaction or enjoyment (all conceived as equivalent), as basic to the study of economics; the definition of utility in terms of pleasure or satisfaction; the belief in the measurability of pleasure or utility and the attempt to find some method of measurement; the emphasis on psychological hedonism, (although Gossen's and Jevons' thought had an element of moral or ethical hedonism too,); the use of a hedonistically oriented economic agent. More specifically, economic man is conceived as a) pleasure maximizing, b) selfish and c) rational. Moreover, in most cases the assumption of perfectly or well informed man is also present explicitly (Walras) or implicitly (Jevons, Edgeworth). The next common point is the fact that they all conceived economic man as a fictional being which means that they followed Mill's concept of economic man as a hypothetical construction. However it can be maintained, that their

conviction in and persistent emphasis on the pleasure maximizing character of economic man, indicates that they saw maximization of pleasure as a general characteristic of human nature. A subjective, pleasure based theory of value is another universal aspect of marginalist economists. The new theory of value is one of the most important theoretical consequences of the adoption of hedonistic ideas. The categorical rejection of the cost of production or labour based theories of value demonstrates the subjective, psychological nature of the marginalist theory of value.

Another crucial common point of the marginalist economists was the adoption and development of a formalist economic methodology. (Menger can be seen as an exception at this point.) The underlying idea was that the combination of hedonistic views and of mathematical methodology would help the advancement of economics towards an exact science. The ideal exact science for marginalist economists (Menger included) was physics. The combination of a mathematical methodology with the hedonistic approach reached its peak in Edgeworth's work. Moreover, his assertion that the conception of man as a pleasure machine facilitates the application of mathematical methods to economics describes in a representative way the intentions of marginalists.

Marshall was the exception to the general trend of the development of a hedonistic oriented economic science. His reservations about the use of a pleasure maximizing, selfish economic agent and his theory of value based on marginal utility but also costs of production, are two crucial indications of his unique approach. However, the fact that contemporary and subsequent orthodox economists adopted and developed only those elements of his work that fitted in the hedonistic framework demonstrates the limited influence of his non-hedonistic ideas on orthodox economists. Conversely, this phenomenon, (that important aspects of Marshall's work which did not fit the hedonistic programme were ignored or rejected,) is a very strong indication of the hedonistic influence on orthodox theory.

In sum, the general characteristics of the marginalist school of economics are: the dominance of the concept of pleasure in economic definitions; the central position in the theory of the pleasure-based

concepts of utility or marginal utility; the treatment of utility or pleasure as something measurable; a pleasure maximizing, selfish and rational economic agent; a subjective, utility based theory of value; and a physical science-like economic methodology. To these points one can add the emphasis on the study of microeconomics, the general equilibrium approach (except for Menger) and the use of marginal utility as the basic analytical concept of economic theory.

From the above points one can discern the continuity of the hedonistic framework in the thought of marginalist economists. The marginalist school with its elaborate approach and the formalization of hedonistic behaviour, represents the highest stage of the influence of the hedonistic ideas on orthodox economics. And as was noted, the work of Edgeworth would be the peak of this stage. His thought represents the ideal exposition of the hedonistic philosophy through a mathematical methodology, which meant the identification of maximum pleasure with the idea of maximum energy of physics.

After Edgeworth, there was a change in tone. The two main reasons for that change were the intense criticism by heterodox schools of economic thought (eg the historical school,) and the growing influence of positivist philosophies of science, which gave momentum to the idea of the construction of a psychology-free, positive economic science. Thus, after Edgeworth, orthodox economists would start attempting to diminish the apparent hedonistic orientation of their science. The object of the next chapter will be the discussion of these developments.

## NOTES TO CHAPTER 4

1) Walras defines extensive utility as:

"[the first kind of utility] we shall call extensive utility, because it is found in the capacity of the particular kind of wealth under consideration to fill wants that are more or less extensive or numerous, depending upon the number of people that feel them and the strength with which they feel them -in a word, because more or less of the commodity would be consumed even if no sacrifice at all had to be made to produce it." (Walras, 1965, p. 115)

Furthermore, Walras views extensive utility as something that can be measured. As he writes:

"Furthermore, extensive utility is a measurable quantity, inasmuch as it consists in the quantity that will be taken at the price zero, and this quantity can be measured." (Walras, 1965, p. 115)

Walras maintains that the first kind of utility is simple and absolute in the sense that it affects only the demand curves of each commodity (A) or (B). More analytically, the extensive utility of commodity (A) affects only the demand curve of (A) and the extensive utility of commodity (B) affects only the demand curve of (B).

The second kind of utility is defined by Walras as another type of utility of the commodity which will be called intensive utility because:

"it is found in the capacity of this type of wealth to fill wants that are more or less intense or urgent in proportion to the number of people who continue to feel these wants and the persistence with which each person feels them notwithstanding the expensiveness of the commodity -in a word, because the magnitude of the sacrifice which must be made to procure it affects the quantity consumed of the commodity." (Walras, 1965, p. 116)

2) Menger's notion of economics as an exact science is different from the one commonly understood. The basic difference is that this exact science does not yield many specific predictions because actions depend on subjective assessments. This is associated with the general emphasis on subjectivity which characterizes Menger and the Austrian school in general.

## CHAPTER 5

### THE ATTEMPT TO DOWNPLAY HEDONISM

#### 5.1 INTRODUCTION

In the previous chapter, we discussed the main aspects of the economic thought of the most important representatives of the marginalist school. It was noted that with the emergence of this school, the hedonistic framework was further strengthened and became one of the dominant influences on orthodox economics. Moreover, it was seen that marginalist economic thought represented the ideal combination of the hedonistic approach with a mathematical, physical-science-like methodology. A hedonistic oriented conception of the nature of economics (calculus of pleasure and pain), a hedonistic oriented economic man (pleasure maximizer), a pleasure-based theory of value and a highly abstract, formalistic methodology were the basic characteristics of orthodox economics during the marginalist period. Thus, seventy years after Bentham's "An Introduction to the Principles of Morals and Legislation", hedonism had established itself as a fundamental conceptual framework of mainstream economics.

As was observed in the previous chapters, hedonistic ideas had entered classical economics with the work of Bentham; however, their influence became very profound in the marginalist theories. During the late period of the marginalist school the hedonistic orientation of economics was so apparent that, after Edgeworth's extreme hedonistic economic theory, a need started to arise for a lower profile of the hedonistic approach. According to our view, the main reason for this was the increasing influence of the positivist methodologies which called for a social science without philosophical or psychological elements. This fact was reinforced by heterodox economists' critique of the philosophical and psychological content of hedonism. But let us see the above in more detail.

In the latter half of the nineteenth century, positivism

gradually emerged as the dominant scientific philosophy. More analytically, positivism originated in the beginning of the nineteenth century with the work of A. Comte, and continued with R. Congreve and G. Lewes in Britain, and E. Littré and P. Laffitte in France (Brehier, 1968, pp. 287-303, and Lewes, 1878, pp. 10-26). The starting point of positivism was the enormous success of physics as a science. Positivism took the methodology of physics as the ideal. The logical conclusion of a classical physics methodology was the rejection of metaphysical elements as non-scientific. This would become the basic methodological characteristic of positivism and especially of the late nineteenth and early twentieth century positivism. In particular, this branch of positivism placed more and more emphasis on the scientific basis of assumptions of theories. (As was observed, the positivist influence of the late classical and marginalists did not discourage them in accepting the hedonistic premises.)

Marginalist economics had a physical-science-type methodology but with hedonistic ideas as a basis. The latest branch of positivism called for a formalist methodology but without the philosophical or psychological connotations (given the fact that psychological knowledge was thought to be incomplete and therefore not appropriate for assumptions; again this was related to the belief in superiority of physics in comparison to other disciplines). The increasing influence of positivism led to attempts towards the minimization of the hedonistic profile of orthodox economics. Moreover, this tendency was reinforced by the heterodox economists' attacks on the hedonistic nature of mainstream theory.

Thus, towards the end of the nineteenth century, there were the first signs of economic works which tried to minimize the profound hedonistic orientation of economic theory. The works of P. Wicksteed, V. Pareto and I. Fisher can be seen as the first attempts in this direction. For instance, Wicksteed's explicit reservations about hedonism, Pareto's use of "given" (and thus allegedly neutral) indifference curves, and Fisher's critique of the concept of utility, are indications of the above tendency. However, it must be noted, that during this period there was not any major essential change in the



content of mainstream economic theory, and this gives us a first indication that hedonism remained an underlying influence on orthodox economics. (This might also indicate the impossibility of eradicating philosophical or ideological influences from economics.)

For a detailed discussion of the above mentioned points, this chapter will start with the work of Wicksteed. Wicksteed was the main influence on the thought of Robbins who, as we shall see, set the methodological framework for a psychology-free economic theory. Pareto's ideas (the main representative of the new positivist spirit) will be examined in the following section. (Also we will discuss briefly the thought of M. Pantaleoni who is considered to be the main influence on Pareto.) A discussion of Fisher's views will close this chapter.

## 5.2 P. WICKSTEED

P. Wicksteed (1844-1927) is not considered to be one of the major figures in the history of economic analysis by most historians of economic thought. However, from our point of view, he played an important role in the development of the influence of hedonism on economics, for two reasons. The first was that Wicksteed's ideas represent the starting point of the attempt to downplay hedonism. The second was that his views influenced his disciple L. Robbins, who was one of the first theorists to set the methodological basis for an allegedly value-free economic science, a crucial turning point in the development of the influence of hedonism on economics and also in the development of orthodox economics as a whole.

Wicksteed's economic thought is very similar to that of the marginalists and especially to Jevons. His analysis is conducted in terms of marginal utility; however, he does not use mathematics to the same extent as Jevons. As E. Paul writes: "He expressed Jevons' complex formulas in ordinary language, thus rendering them more accessible to those less schooled in advanced mathematics" (Paul, 1979, p. 222). As we shall see, his economic arguments, which he develops in his most important works, are essentially marginalist. In spite of this, he attempts to fight the idea that hedonism is a crucial influence on marginalist economists. Thus, after some sections where he describes the basic elements of the marginalist approach, he declares:

"Nothing that has been said in this chapter must be taken as committing the author to a hedonistic theory of ethics."  
(Wicksteed, 1933, p. 434)

It is clear that Wicksteed was anxious to counter the idea that his economic theories are based on hedonism. He devotes a number of pages to trying to eliminate the role of hedonism in his work, by referring to higher pleasures (Wicksteed, 1933, pp. 431-435). At this point it is interesting to note Wicksteed's conception of "higher pleasures". It seems that he considers material enjoyments as lower pleasures and artistic or spiritual enjoyments as higher pleasures. According to him, lower pleasures are hedonistic and higher pleasures are non-hedonistic. Moreover, he does not consider as hedonistic the

sacrifices and suffering that someone might endure for the purpose of some religious or social end. After making this distinction, he emphasizes that his "general principles do not presuppose a hedonistic theory, but are equally applicable to any other" (Wicksteed, 1933, pp. 433-435). However, as we shall see, his analytical framework is hedonistic (maximization of pleasure, use of the concepts of pleasure and pain, satisfaction diagrams etc.). This is one of the first explicit denials of hedonism by an orthodox economist. Before we go on to examine Wicksteed's claims to a non-hedonistic economic theory, it would be useful to mention his ideas about the important issue of economic man.

Wicksteed's views about economic man are not in line with mainstream marginalism. The new element was his rejection of the concept of fictional economic man. This rejection had to do with the meaning of positive economic theory. Wicksteed thought that an economic science which does not include all psychological considerations and has no universal laws is not a positive science. He thinks that all psychological considerations that actually bear upon the production, distribution, etc, of wealth must be included in economics if it is to become a positive science (Wicksteed, 1933, p. 770). Again one can observe the new element of this period, which is the increasing influence of positivist thought. In the same spirit, he insisted that economic laws were not an exclusive set of rules which apply only to the economic behaviour of human beings, but that their validity was of a general nature. As he explicitly states:

"This brings the economic conduct of man under the same laws as his conduct in general, and promises to give us the wider basis of which we are in search." (Wicksteed, 1933, p. 771)

Clearly, this is a divergence from the established line of marginalist thought which, as we have discussed, viewed economic laws as dealing with a specific sphere of human activity. As would be expected, the above points led him to dismiss the concept of fictional economic man: "the psychological law that dominates economics dominates life" (Wicksteed, 1933, p. 780). This position puts him in complete opposition to Mill's hypothetical economic man and to the fictional economic man

of the marginalists. In this respect, he is closer to Senior and Marshall. (Marshall insisted on including all motives which act with force and regularity.)

The rejection of the concept of fictional economic man might mean that Wicksteed applied hedonism more extensively than marginalists; but let us try to see if there are elements of the hedonistic approach in Wicksteed's economic thought.

Wicksteed's starting point in his economic analysis is the idea of differential satisfaction which corresponds to marginal utility. He analyses total and marginal satisfaction by using diagrams, as the marginalists did. He attaches a positive sign to pleasure and a negative sign to pain. His whole approach implies that the maximization of pleasure or satisfaction is a standard and observable thing (Wicksteed, 1933, pp. 415-417). Apart from this point, which is closer to psychological hedonism, Wicksteed also advocates moral hedonism. After some pages, in the same book ("The Common Sense of Political Economy",) he writes:

"We must therefore cultivate the power to endure such undesired experiences as are unattainable, with the minimum of suffering, and to derive the maximum of satisfaction from the realization of things desired." (Wicksteed, 1933, p. 421)

Although the phrase "things desired" might include -for Wicksteed- non-hedonistic considerations (altruism, moral ends), the important point here is that the whole manner of analysis is based on the hedonistic programme. Furthermore, his failure to distinguish between psychological or moral hedonistic principles can also be seen from the fact that he wishes to include all psychological data whether facts or principles (Wicksteed, 1933, p. 770).

The above point brings us onto another characteristic of Wicksteed's conception of human nature, namely rationality. He maintains that human decisions are mainly rational, and rational estimations are carried out unconsciously. He gives some examples of ordinary behaviour which display an unconscious rationality when undertaking decisions. As he concludes: "but to say all this is merely to say that our scale of preferences often asserts itself automatically" (Wicksteed, 1933, p. 35). Wicksteed uses here a term -

scale of preferences- which was to become central in the subsequent theory of consumer behaviour. In another passage he emphasizes the underlying rationality of decisions:

"That is to say, if we are moderately wise we pretty generally act without reflection in the manner which reflection would have dictated." (Wicksteed, 1933, p.36)

Although he expresses some reservations about the correctness of these decisions, Wicksteed holds that generally human behaviour is rational'. As will be observed, this rationality assumption would become central in subsequent economic theories.

On the issue of egoism, Wicksteed adopts a different position from the marginalists. He thinks that selfish and altruistic behaviour are both equally acceptable in economics. He condemns the exclusion of altruistic motives from the study of economics by previous economists (Wicksteed, 1933, p.179). However, he maintains that in business transactions another situation arises. More specifically, in a bargaining situation the agents might think of their interests (ego) or of the interests of others (family, friends: alteri) but they do not think of the interests of their trading partner (tu). Thus, according to him, "the specific characteristic of an economic relation is not its 'egoism' but its 'non-tuism' (Wicksteed, 1933, p.180). This elaboration of the selfish orientation of economics does not prevent him from stating that "after all, 'altruism' has no place in business, and 'non-tuism' is equivalent to 'egoism'" (Wicksteed, 1933, p.180). The reservations of Wicksteed to accept openly the selfish nature of economic agents can be traced to his Christian background. (Wicksteed was a clergyman.) According to our view, this background was the main reason for his objection to an abstract, pleasure maximizing, selfish economic man. However, as we shall see in the following pages the above theoretical reservations about selfish individuals in economics does not prevent him from constructing his theory along marginalist lines (, especially those of Jevons).

Like most of the previous orthodox economists, Wicksteed discusses the issue of measurement of satisfaction. As was noted in the beginning, his economic theory is essentially based on marginalism, and thus, the measurability of satisfaction is necessary

for the development of his economic analysis. In his first book entitled "Alphabet of Economic Science" one can read:

"...a curve must theoretically exist which assigns to every conceivable quantity of a given commodity the corresponding total satisfaction to be derived by a given man from its use or possession." (Wicksteed, 1888, p. 14)

In his second book, he constructs diagrams which are like those of Jevons, Walras and Edgeworth. The diagram which follows is an example:

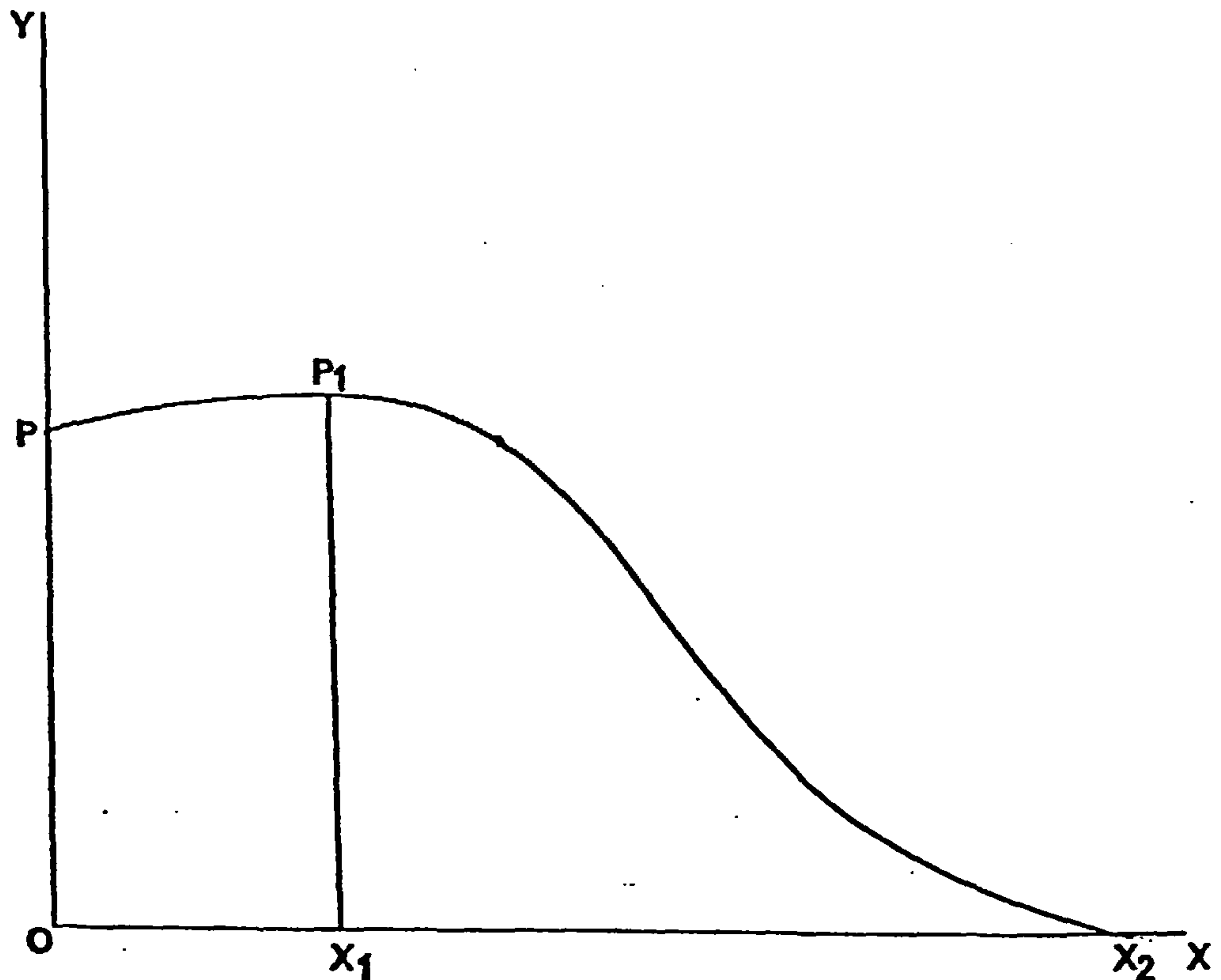


Figure 5.1

On the Y-axis rates of satisfaction are measured, and on the X-axis the supply of any commodity per unit of time is measured. The area  $OPP_1X_1$  represents the rate of total enjoyment per unit of time (Wicksteed, 1933, p. 415).

It is clear that the manner of exposition resembles closely the marginalist one. In this section, Wicksteed even uses the "strong" terms of pleasure and pain instead of the "softer" ones satisfaction and suffering. Thus, at this point he is closer to the hedonistic terminology which was used by most hedonistic-oriented economists.

Again, as was common to most previous hedonistic theorists, Wicksteed attempts to find a unit of satisfaction, with which one could measure different kinds of satisfactions. As he declares:

"The representation of a given satisfaction by an area of any kind, whether rectilinear or curvilinear, involves by implication the conception of a unit to which different satisfactions can be reduced, and in which they can be expressed for diagrammatic comparison with each other."  
(Wicksteed, 1933, p. 440)

Like Jevons, he was convinced of the existence of such a unit, since the mind can compare pleasures. Along the same lines, he accepts the difficulty of finding such a unit, but he implies that satisfaction is the same case as the case of heat. As he points out (in considerable resemblance to Jevons):

"Meanwhile, it may be observed that since satisfaction is certainly capable of being 'more' or 'less', and since the mind is capable of estimating one satisfaction as 'greater than' or 'equal to' another, it cannot be theoretically impossible to conceive of such a thing as an accurate measurement of satisfaction, even though its practical measurement should always remain as vague as that of heat was when the thermometer was not yet invented."  
(Wicksteed, 1888, p. 15)

The implication here is that some time in the future the science of economics will be able to invent a method of accurate measurement of satisfaction as physicists invented the thermometer for the measurement of heat. In the section which dealt with Jevons we observed the same idea in his discussion of the measurement of pleasure.

Up to this point it can be seen that Wicksteed's economic analysis exhibits the main points which characterized the hedonistic basis of marginalist economics. Specifically, his marginal utility based economic approach, with the use of diagrams representing total or marginal satisfaction; his conviction in the measurability of satisfaction or pleasure and his attempt to reduce all different satisfactions to a universal standard demonstrate his hedonistic influence, despite his explicit denials of hedonism that we saw in the beginning. Apart from the above, other important aspects of Wicksteed's economic thought are again influenced by the hedonistic

framework. For instance, Wicksteed's theory of value is -in accordance with the marginalists- based on marginal utility. His subjective, hedonistic-oriented view of value can be shown from his statement:

"...the laws of value are now seen to be so intimately dependent upon the psychological law of diminishing returns of satisfaction..." (Wicksteed, 1933, p. 768)

Like Jevons, Walras and Edgeworth, Wicksteed is an equilibrium theorist, and this is another indication that he essentially follows the orthodox, marginalist approach in spite of his reservations about economic man and the selfishness of the economic agents. As Hutchison states: Wicksteed's economic theory has "an extensive reliance, implicit or explicit, that in some rather indefinite 'long run' the economic system in general and in particular was self-adjusting, with supply and demand marrying happily ever after in equilibrium" (Hutchison, 1953, p. 101). Or as Wicksteed himself points out:

"The function of exchange is to bring about a state of equilibrium in which no such divergencies exist in the relative intensity with which diverse possessors of commodities severally desire or esteem (small) units of them at the margin." (Wicksteed, 1888, p. 140)

Wicksteed's economic methodology is again in the same climate as marginalist methodology. For instance, the physical science ideal is present in his economic works. In his "Alphabet of Economic Science", he compares the analysis of total and marginal utility to the projection of a body upwards at a given velocity. The curve which demonstrates the connection between height and time corresponds to the curve which demonstrates the connection between total satisfaction derived from a given good and the quantity of the good (Wicksteed, 1888, pp. 2-15). The comparison between the projected body and utility extends to include the analysis of marginal utility. Thus, one can discern the idea that for Wicksteed, physics provided the analytical method for the science of economics.

In general we can state that Wicksteed's thought represents a change in the course of development of the influence of hedonism on orthodox economics. After the profound dominance of the hedonistic approach in the work of Edgeworth, a need for a lesser hedonistic profile arose among orthodox economists. Wicksteed's refusal to accept



an abstract, fictional economic man characterized by pleasure maximization, selfishness and rationality, can be seen in this perspective. However, his rejection of the concept of fictional economic man made Wicksteed very careful in ascribing generalizations about the economic behaviour of human beings. Thus, he avoids mentioning the concept of maximization of satisfaction explicitly and also he allows for altruism -although he admits that altruism has no place in business. In spite of these reservations, his economic analysis has no difference from that of the marginalists. The use of standard diagrams representing total and marginal satisfaction is also present in his work. The same happens with the attempt to measure satisfaction and to find a unit for its measurement. His theory of value again follows the line of the marginalists and it is based on the concept of satisfaction. His belief in equilibrium and his physical science-type economic methodology conform to the marginalist paradigm. Thus, according to our view, Wicksteed's economic thought is still influenced by hedonism, since despite his explicit rejection of hedonism, the hedonistic framework is still present.

Finally, Wicksteed exercised a significant influence upon the thought of L. Robbins who is considered to be among the first economists to attempt to build an economic theory without the concepts of utility and self-interest. It remains to be seen however, if the implicit hedonistic ideas of Wicksteed passed, among other aspects, to his famous student.

### 5.3. M. PANTALEONI AND V. PARETO

#### 5.3.1 Introduction

After Wicksteed, the movement towards a less profound hedonistic orientation of orthodox economics found its representative in the thought of V. Pareto. The majority of contemporary economists view Pareto's work as a first important step towards the (positive science) "purification" of orthodox economic theory from its philosophical and psychological bias -ie hedonism- (Roll, 1961, p. 409 and Blaug, 1980, pp. 140, 141). Indeed, as we shall see, Pareto is very careful -especially in his second major economic work- to avoid concepts and terms which are connected with psychology. More specifically, the adoption of the more neutral term "ophelimity" and his attempt to construct a theory of consumer behaviour without using subjective concepts reflect the above tendency. However, as will be observed, implicit and explicit hedonistic elements are again present in central parts of his work.

The first indication which supports the view that Pareto's thought belongs to a great extent to the hedonistic framework despite his attempts towards a neutral economic science, is the fact that one of his main influences was M. Pantaleoni. Pantaleoni was one of the typical advocates of a hedonistic oriented economic science, and it was he who drew Pareto into the study of economics (Hutchison, 1953, p. 216). Moreover, Pareto pays regular tribute to his teacher in both of his major works. For instance in his first work "Cours d' Economie Politique", Pantaleoni is mentioned as the theorist who has made the most important summary of the various utilites theories (Pareto, 1896, p. 10). From the above, it can be seen that a better understanding of Pareto's economic thought involves reference to this economist who influenced him considerably: M. Pantaleoni. (Walras was the other economist who influenced Pareto.) Thus, we will start this section by discussing briefly the basic ideas of Pantaleoni, and then we will move to the discussion of Pareto's work.

### 5.3.2 M. Pantaleoni

Apart from his influence on Pareto, another important reason for discussing the work of M. Pantaleoni (1857-1924) is his strong influence upon other Italians and, in general, European economists. As P. Sraffa emphasizes:

"'Pure Economics' [Pantaleoni's major work] has been the most efficacious disseminator of the theory of utility in Italy as well as in other Latin countries." (Sraffa, 1924, p. 651)

Moreover, a reference to his work gives us an idea of the prevailing economic theories in continental Europe.

Pantaleoni's most important work was "Manuale di Economia Pura" which first appeared in 1889 and was translated into English as "Pure Economics" in 1898. In his definition of economics one can discern the hedonistic orientation of his economic thought.

"Economic science consists of the laws of wealth systematically deduced from the hypothesis that men are actuated exclusively by the desire to the fullest possible satisfaction of their wants, with the least possible individual sacrifice." (Pantaleoni, 1898, p. 3)

The above definition is similar to the definition given by most hedonistically oriented economists. It is thus clear that the central hypothesis of his economics is the hedonistic hypothesis. Pantaleoni is not reluctant to point out the role of hedonism in economics.

"...on the other hand no room for confusion is left, if we note that economic science considers, in all the processes connected with wealth, only the workings of the law of the minimum of action; that is: it either recognizes in these processes the realization of the hedonic hypothesis, or supposes that they take place under the operation of the hedonic postulate." (Pantaleoni, 1898, p. 7)

It can be observed that Pantaleoni views the workings of the "law of minimum of action" as fundamental for economics. This point is analogous to Edgeworth's basic idea that the maximum pleasure-minimum pain approach of economics corresponds to the maximum-minimum energy of physics (see section on Edgeworth). Indeed, Pantaleoni makes a lengthy reference to Edgeworth's views in his work (Pantaleoni, 1898, p. 7).

Pantaleoni was also an enthusiastic advocate of the concept of

'Homo Economicus'. In the following passage, he explains the function of economic man in the study of economics:

"It is easy to understand how the fullest satisfaction of his wants, at the least possible cost, has come to be regarded as the specific characteristic of homo oeconomicus; inasmuch as an economic problem, in a broad sense, presents itself whenever it is desired to obtain a given result with the smallest comparative means; or conversely, to obtain any maximum result with any given means. Economic problems, in a broad sense, are e.g those which constitute the mathematical doctrine known by the genetic name: de maximis et minimis." (Pantaleoni, 1898, p.5)

The specific characteristic of homo oeconomicus is that he satisfies his wants with the least possible cost acquiring the maximum possible pleasure or utility. As J. Bonar states, "Pantaleoni's 'homo economicus' and 'hedonist' are convertible terms" (Bonar, 1967, p.219). Thus, homo economicus has the same role as material bodies have in physics (maximum energy, minimum action). Also, it seems that Pantaleoni suggests that economics should be restricted to those phenomena that fit the models of physical phenomena. The important consequence of this, is that economic problems can be expressed in mathematical terms as minima or maxima problems. As we shall see in the following section, this conception of homo oeconomicus can be found in Pareto's work, another indication of Pantaleoni's influence.

Like almost all hedonistic theorists, Pantaleoni identifies self-interest as another basic characteristic of homo oeconomicus.

"Above all, it is evident that commercial or industrial activity, or the activity (whatever its nature may be) displayed by man in the pursuit of what is commonly termed wealth, has no other motive than egoism." (Pantaleoni, 1898, p.11)

In his discussion of egoism, Pantaleoni refers to the views of Helvetius. This demonstrates the continuity of the hedonistic framework from Helvetius and Gassendi to the post-marginalist period of orthodox economics.

In another passage dealing with the subject matter of economics, Pantaleoni combines homo oeconomicus, the egoist motive and the hedonistic principle (minimum action or cost):

"It is in turn the cause of a series of acts intended to satisfy it, and it is these acts alone that form the subject

matter of economic science; inasmuch as by egoistic individuals (or by the homo oeconomicus) they are performed in accordance with the hedonistic principle, that is, at the minimum possible cost that circumstances admit of." (Pantaleoni, 1898, p. 41)

In his discussion of hedonism and egoism, Pantaleoni makes the distinction between 'Individual' and 'Tribal' egoism. His view is that economic problems can be worked out easily and correctly by accepting the hypothesis of homo oeconomicus actuated by Individual egoism (Pantaleoni, 1898, p. 22). (This point is related to Pareto's rejection of the term utility and adoption of the term ophelimity.).

The next step of Pantaleoni is the identification of the concept of utility with that of satisfaction: "In fact, what we have before called intensity of satisfaction, is nothing but what we now call degree of utility." (Pantaleoni, 1898, p. 71). This is in line with the marginalist tradition of defining utility in terms of satisfaction or pleasure.

Like almost all hedonistic theorists the attempt at measuring pleasure is again present. Pantaleoni seems to accept the measurability of pleasure -at least in principle:

"Since pleasures are differentiated from pains, ceteris paribus, by their duration, and, their duration being equal, by their intensity, it follows that the more lasting pleasure appears to be the greater when the degree of intensity is the same, and that the intenser pleasure appears to be greater when the duration is equal." (Pantaleoni, 1898, p. 26)

The above passage resembles Bentham's terminology and method in measuring pleasures and pains. Again this indicates the continuity of the hedonistic conceptual framework.

Pantaleoni's theory of value is based on the concept of commodity, which in turn is based on pleasure or satisfaction. Unlike most of the marginalists, Pantaleoni was not an extreme advocate of the subjective theory of value. The definition of value is the following:

"Now, we call VALUE the ratio of cost to remuneration, whether in the case of the direct trucking of one commodity against another by two persons, or in that of a single person who undergoes some labour, or who submits to some pain in order to obtain a pleasure." (Pantaleoni, 1898, p. 24)

In the discussion of other economic issues, Pantaleoni follows the general lines of marginalist thought and especially those of Gossen and Jevons. For instance his analysis of the degree of utility and of the total utility of commodities is quite similar to Jevons. (He uses almost the same diagrams and concepts).

In general, we can state that Pantaleoni's economic thought exhibits the basic characteristics of the hedonistic framework. The definition of economics is based on the hedonistic hypothesis. Use is made of an abstract fictional economic man. The concept of utility is based on pleasure. The attempt towards the measurement of pleasure and pain, and the belief in the similarity of physical to economic phenomena (maximum, minimum problems) are also present.

Pantaleoni is not considered as a major figure in the development of orthodox economics. However, his thought represents the state of economics at the turn of the century in continental Europe -especially in the Latin countries. In addition, he was an influential figure in the thought of the important mainstream economist V. Pareto, who made one of the first serious attempts at the purification of orthodox economics. However, the apparent hedonistic orientation of one of his main sources of influence may be the first indication that hedonism was still the underlying framework of Pareto's economic thought.

### 5.3.3 V. Pareto

V. Pareto is considered to be one of the major figures in the development of mainstream economics. By many orthodox economists, he is thought to be the main originator of the ordinal approach to utility. (As we shall see later, the main characteristic of this approach is the attempt to exclude psychological connotations from economics for the purpose of making it a positive science.) Pareto had discerned that very important elements of orthodox economic theory were based on subjective -or according to his terminology on metaphysical- notions (utility, marginal utility, measurability of pleasure etc). Thus, a part of his work deals with the attempt to construct an economic theory free of subjective elements. This is the reason why he is viewed as a pioneer of the modern so-called objective ordinal approach to utility. However, as we shall see in the following pages, this attempt represents only a minor part of his whole work and even so the underlying framework is again hedonistic.

Methodological concerns formed the major motive for Pareto's attempt to diminish the role of subjective concepts in orthodox economic theory. (As was seen, these subjective concepts were mainly hedonistically based.) Pareto's thought is a good example of the increasing influence of positivism. As was noted in the introduction, this period was characterized by the progressive dominance of positivist philosophies which demanded value-free social sciences. Pareto's economic methodology fits the general positivist methodology with which he approached the social sciences. (Pareto was also a noted sociologist and political scientist.) The key process of his methodology is the "logico-experimental" method with which he attempts to discard all "metaphysical abstractions" from the social sciences (Aron, 1967, p. 145). In the case of economics, the metaphysical abstractions were utility, value in use etc. Having this in mind, one can understand better his uneasiness about the great importance for mainstream economics of concepts less scientifically defined, in the positivist sense. But let us first discuss the main points of his economic methodology in a more detailed way and then examine the most

important parts of his economic theory.

As was pointed out, Pareto's ideas about economic methodology are basic for a better understanding of his economic theories. Pareto wanted to exclude all metaphysical elements from social theories. As E. Roll writes:

"Pareto's methodological position is one in favour of an absolutely formal and positive theory and of purging of economics of all ethical elements." (Roll, 1961, p. 409)

Pareto's positivist orientation was responsible for his methodological objective: a unification of all scientific disciplines. According to the positivist philosophy the unification of sciences can only be achieved with the elimination of all subjective, ethical or metaphysical elements. The ideal scientific method was that of the natural sciences. Thus, Pareto thinks of economics as part of the natural sciences. He specifically states that economics is the same sort of science like physiology and chemistry (Pareto, 1896, p. 2, §1). In addition his table of analogies between mechanical and social phenomena in which homo oeconomicus is compared with material bodies and utility (or ophelimity) with the attraction of atoms is another indication of his extreme positivist views. The use of mathematics is considered to be a key step towards the construction of a positive, formalist economic science. Pareto's methodological ideas are best portrayed in the following passage:

"Thanks to the use of mathematics, this entire theory, as we develop it in the Appendix, rests on no more than a fact of experience, that is, on the determination of the quantities of goods which constitute combinations between which the individual is indifferent. The theory of economic science thus acquires the rigor of rational mechanics; it deduces its results from experience without bringing in any metaphysical entity." (Pareto, 1971, p. 113)

In essence Pareto has the same ideal as the marginalists: a formalist, positive, physical science-like economic methodology. The difference is that while the marginalists construct their economic theory through a formalization of hedonistic ideas, Pareto attempts to arrive at the same results by minimizing the role of the hedonistic ideas. His motivation was not the view that hedonism was a mistaken approach but rather the subjectivity of the hedonistic-based concepts. But let us



move on to his theoretical work.

Pareto's two major economic works were first "Cours d'Economie Politique" and second "Manuale d'Economia Politica" translated into English as "Manual of Political Economy". The definition of economics can be found in his first work:

"The object of our study are the phenomena which result from the actions of men for the acquisition of objects which satisfy their needs or their desires." (Pareto, 1896, p. 3)

The definition is in the same climate as the ones given by major representatives of marginalism. Although Pareto does not mention anything like maximization of pleasure or utility (Jevons, Edgeworth), his definition contains the key point that can be found in all hedonistic theorists, which is the conception of the satisfaction of wants as the fundamental feature of economic activity.

As was pointed out in the introduction and in the beginning of this section, Pareto's work represents the attempt towards the making of a more 'objective', 'positive' economic science. As was observed, the marginalists had the same objective, but their approach to greater positivism was through formalization based on hedonistic principles. Pareto and many subsequent economists attempt to diminish the importance of these principles (on the ground that they are subjective or that they are related to psychology, not on the ground that they are hedonistic) but they leave the methodology and the basic theoretical framework unchanged. In this light one can understand Pareto's dislike for the term "utility". "Ophelimity" is a central concept in both of Pareto's major works. This term is derived from the Greek "οφέλιμος" which approximately means useful. According to Pareto the term utility has been used by many theorists and it has a general character while ophelimity is more specialized to the purposes of economics, and thus more scientific. However, the still hedonistic framework of Pareto's economic thought forces him to attach a hedonistic orientation even in this new term. (One could maintain that the new term is closer associated with individual hedonism; see Pareto, 1896, p. 3 and Cooter and Rappoport, 1984, p. 515.). As he states in his "Manual":

"For an individual, the ophelimity of a certain quantity of a thing, added to another quantity (it can be equal to zero) which he already possesses, is the pleasure which the quantity affords him." (Pareto, 1971, p. 112)

The word pleasure is used for the definition of ophelimity, and this demonstrates the hedonistic basis of ophelimity. Thus, it seems that in essence the two terms are not substantially different (see for instance Cirillo, 1979, p. 21). Pleasure is again mentioned in the definitions of elementary and weighted elementary ophelimity.

"

"If this quantity is very small (infinitely small) and if the pleasure which it gives is divided by the quantity itself, we have ELEMENTARY OPHELIMITY... Finally, if we divide the elementary ophelimity by the price, we have WEIGHTED ELEMENTARY OPHELIMITY." (Pareto, 1971, p. 112, emphasis in original)

The further development of Pareto's theory which follows the marginalist pattern forces him to accept one by one the basic hedonistic characteristics of this school. Thus, after defining ophelimity in terms of pleasure, Pareto, like all hedonistic theorists attempts to measure ophelimity. In his discussion of the indices of ophelimity - a concept which is viewed by mainstream economists as an important step towards the abandonment of the cardinal approach to utility - one can read:

"Moreover, a man can tell fairly well whether in passing from combination [of goods] I to combination II, he experiences a greater pleasure than in passing from combination II to another combination III. If this judgement could be of sufficient precision, we would be able, at the limit, to know whether in passing from I to II this man experiences a pleasure equal to that which he experiences in passing from II to III. And consequently, in passing from I to III he would experience a pleasure double that which he gets in passing from I to II. That would be enough to permit us to consider the pleasure or ophelimity as a quantity." (Pareto, 1971, p. 191)

Another observation that one can make from the above quotation is that Pareto's combination of goods resembles the modern standard notion of bundles of goods which are compared to other bundles of goods. Similarly to the modern approach, the main feature of Pareto's combination of goods is that they are capable of giving an amount of pleasure to the individual. As we shall observe, however, modern

orthodox theory attempts to avoid terms like pleasure or satisfaction, although they are implicitly assumed.

In another passage one can discern Pareto's need to find a concrete method of measurement of ophelimity.

"The theory of ophelimity has been improved. There is a weak point, pointed out principally by Professor I. Fisher, in all the reasoning to establish it. We have taken this thing called pleasure, value in use, economic utility, ophelimity to be a quantity; but a demonstration of this has not been given. Assuming this demonstration accomplished, how would this quantity be measured?... We can do so only in one particular case, the unit of measure of ophelimity alone remaining arbitrary; this is when it is a case of goods of a kind such that the ophelimity of each of them depends only on the quantity of that good and remains independent of the quantities of other goods consumed." (Pareto, 1971, p. 112)

Pareto's solution to the problem of measurability is not very far from the marginalist line when he speaks of a unit of ophelimity. This proximity is because like Edgeworth, he assumes the existence of such a unit when the ophelimity or utility function of a good depends only on the quantity of that good.

Economic man is an important element of Pareto's economic thought, and indeed economic man or homo oeconomicus is mentioned explicitly in his first work. Although Pareto attempts to diminish its role in his second work, economic man is still implicitly assumed in his "Manual of Political Economy". In an analogy between mechanical phenomena and social phenomena, (which also reveals his methodological ideas,) Pareto compares the material bodies studied by the science of mechanics with homo oeconomicus studied by the science of political economy. Moreover, Pareto maintains that as rational mechanics studies only ideal situations, so pure economics studies a fictional type of man motivated only by economic considerations (Pareto, 1896, p. 12 §592). He accepts that man's character present other characteristics too, which are studied by other sciences (Pareto, 1896, §592). A rational economic man can be found as a prerequisite in his discussion of economic equilibrium. He holds that man, after trial and error, will end up making the perfectly rational choice of action for the satisfaction of his desires. As he points out:

"Similarly, if at first he makes a mistake in his reasoning about what he desires, he will rectify it in repeating the reasoning and will end up by making it completely logical."  
(Pareto, 1971, p. 103)

In addition to that, Pareto assumes that economics will deal with rational actions only, that is when man, after repetition, is able to make the perfect rational choice (Pareto, 1971, p. 103). Although he does not state it explicitly, his whole approach to rationality seems to suggest that unbounded rationality was a fictional characteristic of economic man.

Selfish behaviour is the next feature of economic man. As in the case of measurability of ophelimity or pleasure, Pareto again diverts from the extreme hedonistic approach of the marginalists. More analytically, although he accepts selfish behaviour as basic in political economy, he is prepared to allow altruistic behaviour too. At this point he is closer to Wicksteed's view about altruistic behaviour in economics. Pareto writes:

"Political economy deals with this class of theories primarily; and since it is customary to assume that man will be guided in his choice exclusively by consideration of his own advantage, of his self-interest, we say that this class is made up of theories of egotism. But it could be made up of theories of altruism (if the meaning of that term could be defined rigorously or, in general, of theories which rest on any rule which man follows in comparing his sensations."  
(Pareto, 1971, p. 105)

Although Pareto asserts that the analytical structure will not be affected by adopting an altruistic economic agent, the whole of his approach is constructed on the assumption of selfish behaviour. As we saw, the same is true for Wicksteed's economic theory which again is based on egoism. This tendency to mention altruistic behaviour too - even if it does not have any impact on their economic theories - is another reflection of the attempt of these two theorists to minimize the high hedonistic image of orthodox economics. (As will be observed subsequently, the adoption of altruistic agents does have important implications for the analytical structure.)

Up to this point we have seen that Pareto's new term ophelimity was as utility, a pleasure based term; that although sceptical, he

does not reject the possibility of a unit of measure of ophelimity; and finally that his notion of economic man is a rational, selfish, ophelimity maximizing being. Thus it can be maintained that although Pareto attempts to construct a more objective, positive economic science, his orientation is still influenced by hedonism. His main theoretical contributions, namely indifference curves and the theory of equilibrium, will now be discussed.

Pareto starts his theory of indifferent curves by giving a numerical example of two goods (bread, wine) and combinations of quantities between which the individual is indifferent in choosing. Then, he constructs a diagram which represents the different numerical combinations of these two goods between which the individual is different.

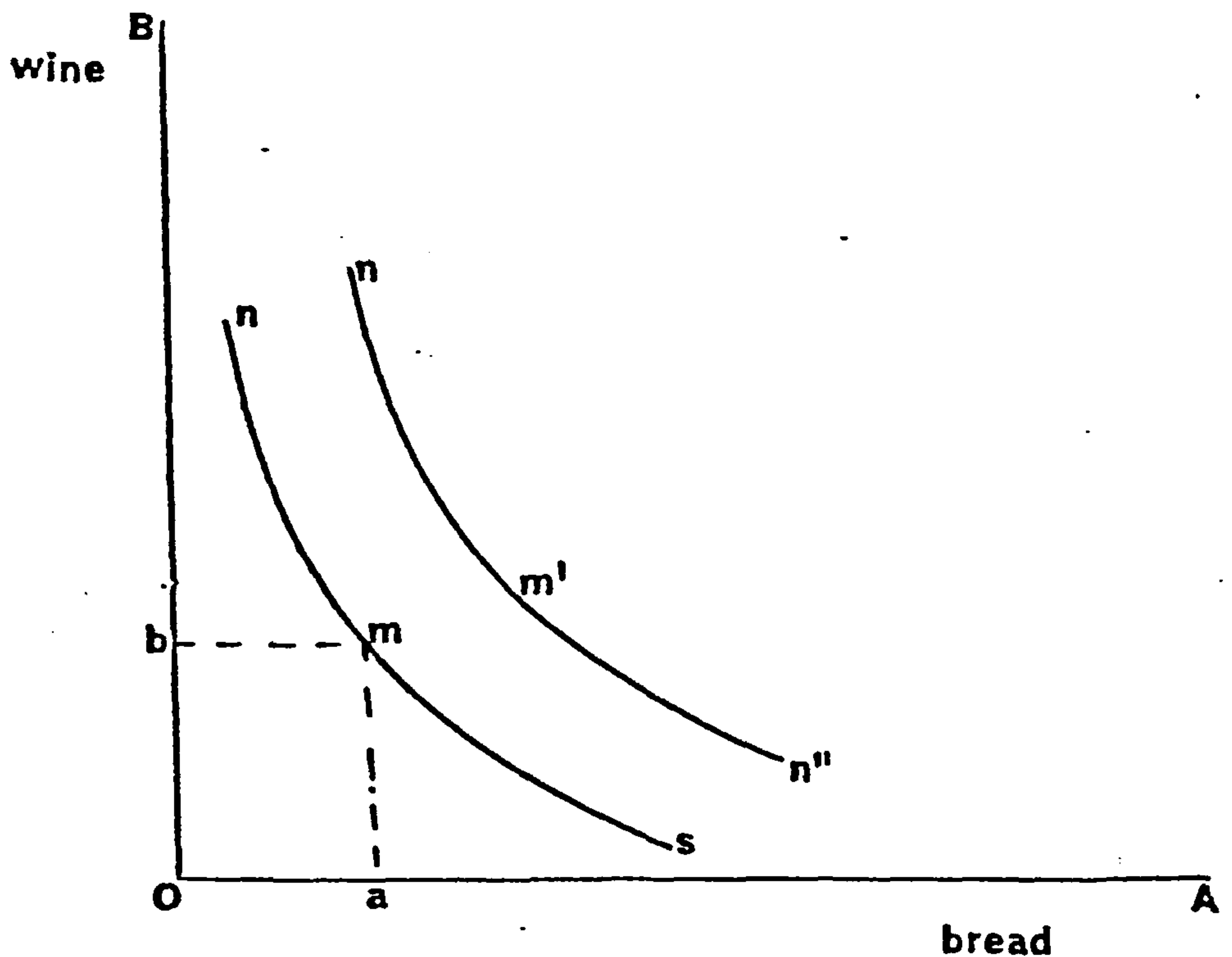


Figure 5.2

Pareto calls nms an indifference line or indifference curve. As was seen, Edgeworth used indifference curves for the derivation of his contract curve. Pareto points out an important difference between his curve and that of Edgeworth. As he writes in a footnote: "This expression is due to Professor F. Y. Edgeworth. He assumed the

existence of utility (ophelimity) and deduced the indifference curves from it. On the other hand, I consider the indifference curves as given, and deduce from them all that is necessary for the theory of equilibrium, without resorting to ophelimity" (Pareto, 1971, p. 119). Pareto does not specify what he means by the word given; that is if his indifference curves are based on observation, personal experience or taken as a priori. His approach is closer to the modern orthodox position because he attempts not to depend upon subjective notions. However, although the implication of the above quotation is that in Pareto's view it is better for economics if it does not depend on ophelimity, his subsequent analysis of the indifference curve is conducted in terms of this concept. For instance, the higher indifference curve  $nm'n''$  is explained in terms of providing a higher level of pleasure. More especially, he assigns an index in each combination (indifference curve) which has the following conditions: 1) Two combinations between which the choice is indifferent must have the same index value, 2) of two combinations, the one which is preferred to the other must have a larger index value (Pareto, 1971, p. 119). He calls these indices the indices of ophelimity. The definition is the following:

"Thus we have the INDICES OF OPHELIMITY, or of the pleasure which an individual feels when he enjoys a combination which corresponds to a given index." (Pareto, 1971, p. 119, emphasis in original)

Thus, the underlying concept behind the indifference curve is again pleasure. The hedonistic influence becomes more apparent when he extends his discussion in the indifference map. By referring to the above diagram, he declares:

"The curves in figure [5.2] are contour lines if we consider the indices of ophelimity to represent the height of the points of a hill above the plane OAB which is assumed horizontal. It can be called the hill of indices of pleasure... If pleasure can be measured, if ophelimity exists, one of these index systems will be precisely that of values of ophelimity, and the corresponding hill will be the hill of pleasure or of ophelimity." (Pareto, 1971, p. 120)

He proceeds to state that if an individual possess a certain combination of bread and wine he will be at a certain point above the

plane OAB. It follows that "the individual will experience a greater pleasure insofar as he is at greater height; of two combinations he will always prefer the one which is represented by a higher point on the hill" Pareto, 1971, p. 120). (The second part of the passage is clearly a statement of psychological hedonism.) In spite of his doubts about the measurability of pleasure in the preceding quotation, he proceeds by taking measurability as given. Pareto's above analysis is very similar to the modern orthodox approach. The pleasure based definition of the indifference curve and the conception of different indifferent curves as different levels of satisfaction can be found in standard orthodox textbooks (see for instance Henderson and Quandt, 1980, pp. 10, 11).

Pareto's introduction of the concept of indices and his more "objective" conception of indifferent curves -i.e taking the indifference curve as given without presupposing the existence of subjective concepts like utility- have led many contemporary economists to view him as the originator of the modern positivist approach (Roll, 1961, p. 409, Blaug, 1980, pp. 140, 141). Moreover, his emphasis upon tastes and choice (which led him to state that "the individual can disappear, provided he leaves us this photograph of his tastes") is another reason that makes them see Pareto as the starting point of modern microanalysis. As V. Tarascio writes:

"The more common view of Pareto's contribution to utility theory is that, through the use of monotonic transformations (index functions), he was able to avoid the necessity for cardinal measures of utility. Hence the cardinal utility theory of the 'marginal utility school' was replaced by an ordinal theory of utility." (Tarascio, 1972, p. 411)

As we shall see later, an important difference of the modern marginal utility theory from that of the marginalists is the introduction of ordinal utility theory which emphasizes choices of individuals without allegedly taking into account psychological assumptions. (The peak of this trend was reached with Samuelson's revealed preference which attempted to expel all psychological assumptions by emphasizing observed behaviour.) The exclusion of psychological assumptions (mainly, as we have seen, hedonistically oriented) was vital for the construction of a positive economic science.

In the Appendix to his "Manual" Pareto derives an equation which is very close to the above "non-psychological" modern approach. More specifically, Pareto states that by observation we look for the positive quantity  $\Delta_1x$  by which  $x$  must be increased in order to offset the decrease represented by the negative quantity  $\Delta y$ , where  $x$  and  $y$  are quantities of economic goods  $X$  and  $Y$  possessed by an individual (Pareto, 1971, p. 393). He does the same thing for  $\Delta_2x$  which corresponds to  $\Delta z$  ( $x, y, z$  are goods);  $\Delta_3x$  etc refer to negative changes in further other goods, and  $q_x, q_y$  are quantities. His next step is to set

$$\Delta x = \Delta_1x + \Delta_2x + \dots$$

from which he gets:

$$q_x'\Delta x + q_y'\Delta y + \dots = 0 \quad (1)$$

the limit of (1) will give:

$$q_x dx + q_y dy + q_z dz + \dots = 0 \quad (2)$$

He comments on equation (2):

"Strictly speaking, equation [2] is the only one which we need in order to establish the theory of economic equilibrium; but that equation contains nothing which corresponds to ophelimity, or to the indices of ophelimity. Hence the entire theory of economic equilibrium is independent of the notions of (economic) utility, or value in use or ophelimity." (Pareto, 1971, p. 393)

One can maintain that the above approach is the origin of all subsequent developments in the theory of consumer behaviour. Essentially equation (2) describes an indifference curve which is allegedly based on observation and thus does not require any subjective concept. However, even this allegedly neutral equation is not entirely independent from psychological assumptions (for instance, the extra amount of  $x$  which would compensate for the loss of  $y$  is a subjective assessment). However, we will discuss this issue more analytically in the chapter dealing with modern consumer behaviour



theory.

Despite the above approach, Pareto arrives at the same result by using ophelimity indices. This can imply he was not prepared to abandon the marginal utility framework entirely. As J. Schumpeter points out:

"The second point is that Pareto's own argument brings out the difficulty he experienced in disentangling himself entirely from the old utility theory. He always kept an eye on the cases in which it might be possible to speak of utility and even of cardinal utility, the existence of which -hence the question of integrability- continued to interest him very much. And his index functions bear after all a pretty close similarity to the old concept."  
(Schumpeter, 1949, p. 162)

Moreover, the concepts of pleasure and ophelimity and also the explicit assumption of their measurability are present at key points of Pareto's economic theory. And this shows that in spite of his attempts to minimize the importance of these concepts, they are still fundamental elements of his economic thought. For instance, the notions of complementary and rival goods are heavily based on the hedonistically oriented concepts of pleasure and ophelimity.

"Dependence can result from the fact that we appreciate the use and consumption of a thing more or less according to the circumstances in which we find ourselves. This dependence can arise from the fact that certain things must be used jointly in order to yield us pleasure; these are called COMPLEMENTARY GOODS." (Pareto, 1971, p. 183, emphasis in original)

In more general terms:

"We conclude, then, that in general, for the first type of dependence [complementarity], the elementary ophelimity of A increases when the quantities of certain other goods B, C, ... increase. It is completely different for the second type of dependence. If A can replace a good B, the elementary ophelimity of A will be smaller insofar as one has a larger amount of its substitute B." (Pareto, 1971, p. 194)

Pareto constructs a table in which he gives a numerical example of complementarity and rival goods. In this table the pleasure provided by the quantity of goods A and B is given a numerical value (Pareto, 1971, p. 195). Clearly, at this point, he accepts the measurability of pleasure explicitly.

Pareto's notion of equilibrium is based on the concepts of "tastes" and "obstacles". The analysis of tastes is represented by the theory of indifference curves and the analysis of obstacles is essentially a theory of production. Pareto begins by giving a simple example of the equilibrium position in the case of an individual who transforms wine into vinegar at a certain ratio. As in orthodox textbooks, the equilibrium point is at the point of tangency of an indifference curve with the constraint line (Pareto, 1971, p. 251). In the more complicated case of the equilibrium of exchange between two individuals, the tastes of one individual appear as obstacles for the realization of the desires of the other individual. The graphic representation is similar to what is currently termed the Edgeworth box diagram. The whole analysis demonstrates the hedonistic basis of his argument.

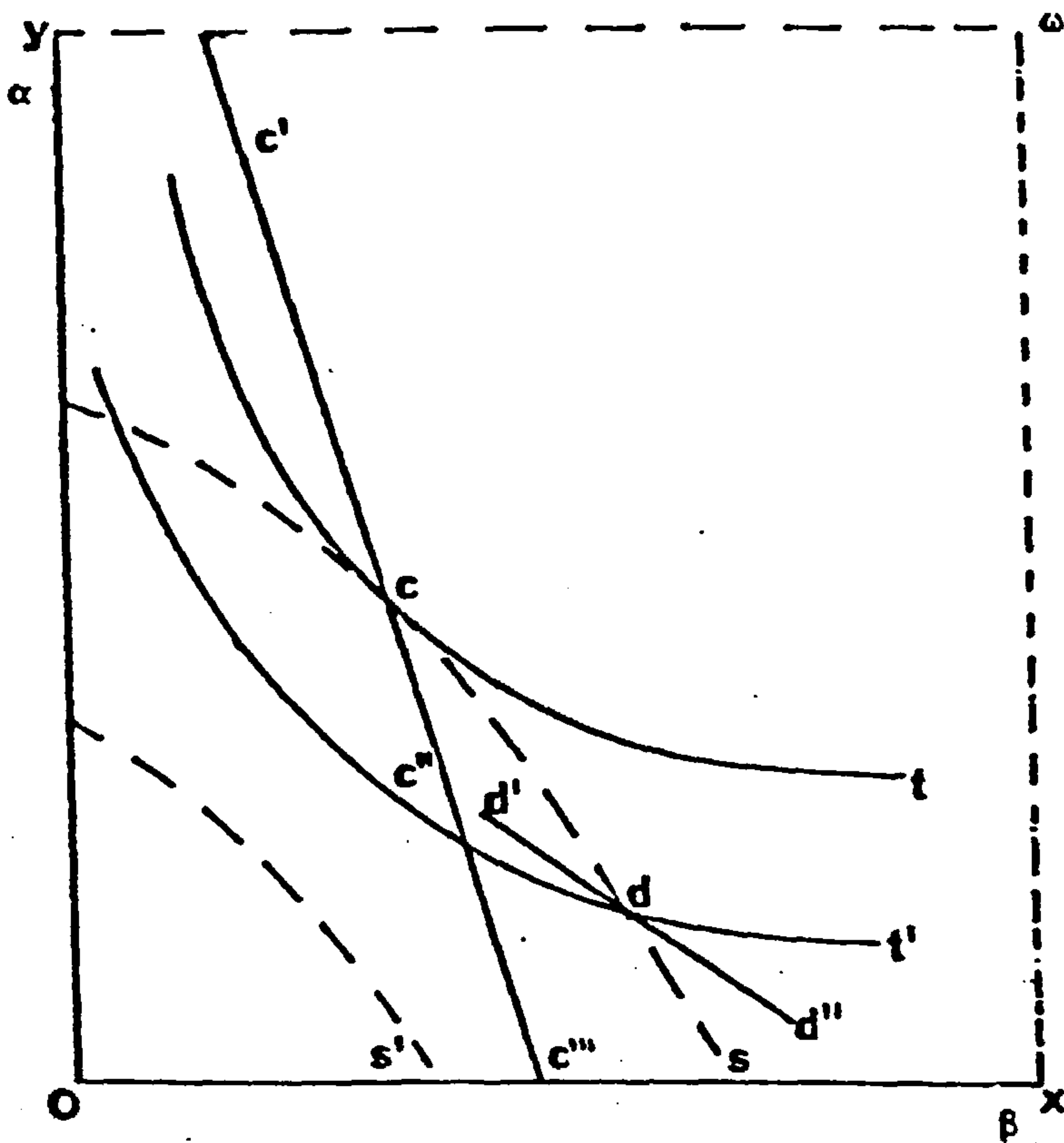


figure 5.3

The axes  $ox$ ,  $oy$  are for the first individual, and the axes  $\omega\alpha$ ,  $\omega\beta$  for the second. The indifference curves are  $t, t'$  for the first and  $s, s'$

for the second. The respective hills of pleasures rise from 0 towards  $\omega$ , and from  $\omega$  to 0. According to Pareto point c is the equilibrium point. A movement along to the route cc' means that we ascend A's hill of pleasure and we descend that of B. The opposite happens if we follow route cc''. Thus, as Pareto states: "it is not possible to move away from c helping or harming both individuals at one and the same time; but necessarily if it is agreeable to the one, it is disagreeable to the other" (Pareto, 1971, p. 262). This is the basis of Pareto optimality. The general formulation of the equilibrium in exchange is the following:

"...when equilibrium takes place at a point where the indifference curves of the contracting parties are tangent, the members of the collectivity under consideration enjoy maximum ophelimity." (Pareto, 1971, p. 261)

It is clear that his analysis is conducted in terms of maximum ophelimity, hills of pleasure, satisfaction of both individuals etc, and also it is implied that the purpose of each individual is to attain maximum ophelimity. This shows the influence of the hedonistic framework on his economic thought. Moreover, in his discussion of the equilibrium in a collectivist society he uses "an abstraction analogous to homo oeconomicus" which considers that the purpose of a collectivist society "is to procure maximum ophelimity for its members" (Pareto, 1971, p. 267).

Pareto's positivist approach did not allow him to accept the utilitarian idea of interpersonal comparisons of utility. Thus, he explicitly rejects any possibility of comparability of utilities of different individuals. As he declares: "A sum of ophelimity enjoyed by different individuals does not exist; it is an expression which has no meaning" (Pareto, 1971, p. 192). However, in his discussion of the equilibrium in the collectivist society, he admits that there are special considerations like comparisons of ophelimity of different individuals, with which he cannot deal but assumes as solved (Pareto, 1971, p. 267). One can also point out that the very concept of maximum ophelimity of members of a collective requires comparability. In addition, the same inconsistency appears in his "Cours". As G. Myrdal writes:

"Although Pareto says that interpersonal comparisons are 'strictly speaking' impossible, he concludes, after drawing some dubious analogies with the theory of colours, that common sense sanctions approximate comparisons." (Myrdal, 1953, p. 102)

There also seems to be a discrepancy between his ideas about value as expressed in his first work and those expressed in the second. In his first work, value in use is defined as following:

"The Value in use of the economists, appears to have the same meaning with that of ophelimity." (Pareto, 1971, p. 7, §18)

In his "Manual" he does not use the above definition, but he points out that it is senseless to speak of value in use unless we speak of the quantities consumed (Pareto, 1971, p. 110). Thus, while in his "Cours" value is defined in purely subjective terms, he is more careful not to mention the above definition in his "Manual". Value in exchange is defined in "Cours" as follows:

"The concept of ophelimity can be found in the concept of value in exchange. However, it is not the ophelimity which results from the direct acquisition of a good; it is the ophelimity of another good which can produce from the exchange with the first." (Pareto, 1896, p. 7, §18)

The above definition is similar to the marginalist idea of value in exchange. However, in his "Manual" value in exchange is thought to be similar to the notion of price which is the quantity of X which must be given to obtain one unit of Y; and this is the price of Y in terms of X. He conceives value in exchange as a ratio of the exchange of two goods. This idea is similar to Pantaleoni's views. Moreover, Pareto with this definition attempts to construct a more 'objective' theory of value. His idea of value as an interdependency concept makes him adopt a neutral position with respect to the two rival theories of value, costs of production versus utility (Tarascio, 1972, p. 409).

Before we state our conclusion, it must be noted again that Pareto followed a formalist methodology based on the ideal of rational mechanics. As was observed in the beginning, his aim was to construct a value-free economic science, and this was his main motive for the exclusion of psychological concepts from economics.

Modern orthodox economists who support the view that mainstream

economics is a science which does not depend on any philosophical or psychological framework see Pareto as the originator of this view. As Wicksteed, Pareto wanted to minimize the high hedonistic profile of mainstream economics at the beginning of this century. (One can also note that similar attempts started to be made in other social sciences like psychology at approximately the same period.) Indeed, Pareto's economic thought exhibits some points which clearly divert from the extreme hedonistic orientation of the marginalists. More analytically, his reluctance to accept the measurability of pleasure or ophelimity, his willingness to accept the possibility of altruistic behaviour in economics, his attempt to find a theoretical method which will be independent of the notions of pleasure or utility and his reservations at embracing the extreme hedonistically based marginalist theory of value -at least in his second work- , demonstrate the above.

However, in spite of the above, the general character of Pareto's economic thought is still influenced by hedonism. First, the hedonistic foundations of his economic theory force him to assign a pleasure based definition to his new term "ophelimity". Moreover, in spite of his first attempt towards the ordinal approach, the assumption of measurability of pleasure or ophelimity is basic for the analysis of key theoretical points (see also Stigler, 1950, p.381). Pareto's fictional economic man is similar to that of most of the marginalists: selfish, rational and pleasure maximizing. One of his most important theoretical constructions, the analysis of indifference curves, is based on pleasure and on the cardinal approach. The same thing happens in his discussion of complementary and rival goods where he assigns a numerical magnitude to pleasure derived. The analysis of exchange equilibrium is conducted in terms of maximum ophelimity, hills of pleasure, satisfaction of both individuals etc, which show a hedonistic influence. Although the possibility of interpersonal comparisons of utility is ruled out in general, it is assumed in some cases; and value is defined -at least in his first work- in terms of pleasure. Pareto's positive economic methodology is the motivation for the construction of a neutral economic theory. The exclusion of all ethical elements and the intensive use of mathematics are viewed as necessary steps for constructing a physical science-like economic

science, but proved impossible in practice. The ideal for Pareto is the unification of all sciences into a universal scientific discipline which will be based on the methodology of classical physics (logico-experimental method). In addition to the above, the apparent hedonistic orientation of his two main sources of influence, L. Walras and M. Pantaleoni, is another indication of Pareto's hedonistic conceptual framework.

In general it can be maintained that in spite of his attempts to diminish the hedonistic image of orthodox economics, Pareto's economic thought is still clearly influenced by hedonism.

#### 5.4. I. FISHER

After Wicksteed and Pareto, I. Fisher (1867-1947) was the next economist of the post-marginalist period whose economic thought is marked by attempts towards the minimization of the hedonistic character of orthodox economics. In fact, as with Pareto, Fisher is viewed as one of the important forerunners of the contemporary prevailing economic theory and especially of microeconomic theory.

Fisher's most influential work is a reprint of his doctoral dissertation entitled: "Mathematical Investigations in the Theory of Value and Prices". From the very first pages of this book, Fisher reveals his intentions. His first important point is directed against the inclusion of psychological concepts in economics:

"To fix the idea of utility the economist should go no farther than is serviceable in explaining economic facts. It is not his province to build a theory of psychology. It is not necessary for him to make sides with those who wrangle to prove or disprove that pleasure and pain alone determine conduct." (Fisher, 1965, p. 11)

The above is the essence and the most important motive behind Fisher's economic thought. Indeed, his whole book is characterized by the attempt to demonstrate that economics can be an absolutely positive science which will not be based on any kind of psychological or philosophical theory. As Pareto, he does not believe that hedonism is an inadequate basis for economics but he thinks that it should be abandoned if economics is to be a positive science. This drive towards positive economics makes him very careful in all aspects of his work. More specifically, he is very cautious in mentioning any hedonistic based terms like satisfaction, pleasure, pain etc. Moreover, he defines utility and marginal utility by accepting some assumptions as true and then proceeding by mathematical elaboration.

The starting point of Fisher's theory is to replace all previous "psychological" assumptions of economics with a "simple psycho-economic postulate: each individual acts as he desires" (Fisher, 1965, p. 11). Although it can be maintained that there is much implicit psychology in this psycho-economic postulate, Fisher believes that the adoption of this postulate enables him to construct a theory of utility without using any of the hedonistic axioms. His view is

that the above postulate is a neutral one, free of any subjective notions like pleasure and pain (see also Coats, 1976, p.5). One can argue that this postulate does not belong to the hedonistic framework that characterizes the basic points of the marginalist theory of utility. However, as Georgescu-Roegen writes, "this postulate is a bare tautology which tells us nothing about the individual desires" (Georgescu-Roegen, 1976, p.316).

Having as a basis the above postulate, Fisher proceeds to discuss the definition of utility. He holds that utility is conceivable as a quantity if we accept that:

"1) For a given individual at a given time, the utility of A units of one commodity or service (a) is equal to the utility of B units of another (b), if the individual has no desire for the one to the exclusion of the other.

2) For a given individual, at a given time, the utility of A units of (a) exceeds the utility of B units of (b) if the individual prefers (has a desire for) A to the exclusion of B rather than for B to the exclusion of A. In the same case the utility of B is said to be less than that of A" (Fisher, 1965, p.12)

One can discern the similarities of Fisher's views to those of the modern theory of choice. His next step is to define mathematically utility, marginal utility, the unit of utility, total utility etc. In sum, his formulations are:

(Util of A) > (util of B) if the individual at a given time prefers A to B or neither.

$$\frac{dU}{dA} = \text{Marginal utility}$$

$$\frac{dU}{dA} = \text{Total Utility}$$

(Fisher, 1965, pp. 22, 23)

(His first formulation is very similar to the nowadays standard method of connecting a preference function with a utility function.)

The first observation that one can make from the above is that



Fisher continues to use the term utility, and that his formulations are similar to marginalist theory. The difference here is that Fisher does not want to accept the established view that utility is based on pleasure. He attempts to disassociate utility from pleasure and to define it objectively in terms of preferences of the individual. However, in spite of this attempt, he accepts the possibility of measuring utility.

At this point, Fisher is close to the position of hedonistically oriented theorists who accept measurability of utility. Clearly, Fisher is an advocate of the cardinal approach to utility, despite his rejection of a pleasure-based concept of utility. The first indication of support for the cardinal approach is his idea of a unit of measurement called "util". As he states:

"The marginal utility of any arbitrary chosen commodity on the margin of some arbitrary chosen commodity quantity of that commodity may serve as the unit of utility for a given individual at a given time. This unit may be called util."  
(Fisher, 1965, p. 18)

Thus, although Fisher was more careful than Pareto in using hedonistically oriented axioms and terms, he is more strongly in favour of the measurability of utility. As we have seen, Pareto was reluctant to fully accept the possibility of utility measurement. Another indication that Fisher was convinced of the measurability of utility or marginal utility is his acceptance of diminishing marginal utility and of increasing marginal disutility:

"...to express the fact for consumption that marginal utility decreases as quantity of commodity increases and for production that marginal disutility increases as the quantity of commodity increases." (Fisher, 1965, p. 94)

The important implication of these two principles is that utility or disutility can be measured in exact terms. Thus, even the mere acceptance of these two principles means automatically the acceptance of the measurability of utility. Therefore, in Fisher's economic analysis utility is treated always in cardinal terms. Moreover, one can maintain that the acceptance of decreasing marginal utility, which is a psychological characteristic, does not fit in with Fisher's strive for objectivity.

As was seen in previous pages, Fisher is always very careful to use the word "utility" in a neutral sense, independent from the concept of pleasure or satisfaction. However, in his discussion of the possibility of interpersonal comparisons of utility, Fisher reveals the implicit hedonistic influence on his thought. But let us see this important point more analytically.

In contrast to Pareto and to a number of other orthodox economists, Fisher realizes the need for interpersonal comparisons of utility for the solution of some economic problems. He is ready to accept the possibility of interpersonal comparisons if an "objective" method can be found. In the following passage he expresses his thoughts about the possible difficulties of such comparisons, which is worth quoting at length:

"It would doubtless be of service in ethical investigations and possibly in certain economic problems to determine how to compare the utilities of two individuals...when it is done the comparison will doubtless be by objective standards. If persons alike in most respects show to each other their satisfaction by similar gestures, language, facial expression, and general conduct we speak of their satisfaction as very much the same. What however this may mean in the 'noumenal' world is a mystery. Very little could be meant by comparing the desire of a Fuegian for a shell-fish with that of a college conchologist for the same object and surely nothing is meant by comparing the desires of the shell-fish itself with that of either of its tormentors."  
(Fisher, 1965, pp. 86, 87)

First of all, it can be observed that contrary to his initial statements, Fisher uses the terms "utility" "satisfaction" and "desire" as synonymous. It seems that despite his attempts to avoid the use of subjective concepts, Fisher can not help using the word satisfaction as equivalent to utility or desire. At this point the implicit hedonistic influences on his work come to the surface. Moreover one can wonder why a comparison of individual actions should enable us to compare individual utilities when individual choices depend on intra-personal comparisons, as Fisher maintains in the beginning of this section.

Another point which can be observed from the previous passage is that Fisher is prepared to accept a method of comparison of the utilities of individuals despite the difficulties involved. Indeed, in

his subsequent work, he proceeded to assume that utilities or wants of different people can in practice be compared. More specifically, in 1927, some thirty years after the first publication of his "Investigations", he wrote an article entitled: "A Statistical Method for Measuring 'Marginal Utility'. (The inclusion of marginal utility in inverted commas is because he thought that this term was no longer appropriate for an objective economic science; instead he uses "want for more".) Apart from demonstrating again his conviction in the measurability of utility by attempting to determine statistically the exact values of marginal utilities, Fisher justifies his belief in the interpersonal comparisons of utilities. To be more analytic, he holds that by making some assumptions and by using the statistics of retail prices and family budgets, he will be able to succeed "in gauging average or typical human emotions even better than any individual who feels them" (Fisher, 1927, p. 159). One of these assumptions is the comparability of wants of different people, and again one can maintain that this a psychological assumption, and does not fit well into Fisher's approach. He admits that there are serious philosophic and academic doubts about comparability, but he sees it as a practical problem which can be solved. As he states:

"...I venture to set up a working hypothesis, that similar families have similar wants, that in particular, two average American workingmen's families which are of the same size and age and sex constitution, and which have the same food budgets will also have the same want-for-one-more unit of food." (Fisher, 1927, p. 180)

As we have seen, even the extreme advocates of the hedonistic approach, Jevons and Edgeworth, were very reluctant to openly admit the utilitarian idea of the possibility of interpersonal comparisons of utilities. Fisher was even prepared to admit them from his very first work onwards. Moreover, in his arguments for comparability, he speaks about "the average intensities of the wants" which indicates the influence of the hedonistic mode of thought on him.

As was pointed out in the beginning, a constant characteristic of Fisher's work is his attempt to minimize the hedonistic orientation of orthodox economic theory. Under this light one can explain his

endeavour to eliminate the concepts of pleasure and pain from economics:

"Doubtless pleasure and pain are connected with desire and doubtless they have an important biological and sociological function as registering 'healthful' or 'pathological' conditions. But the economist need not envelop his own science in the hazes of ethics, psychology, biology and metaphysics." (Fisher, 1965, p.23)

Under the same light one can also explain his dissatisfaction and uneasiness with the term "utility" and his desire to find a new and more "objective", scientific term for economics.

"Perhaps utility is an unfortunate word to express the magnitude intended. Desirability would be less misleading, and its opposite, undesirability is certainly preferable to disutility. 'Utility' is the heritage of Bentham and his theory of pleasure and pains." (Fisher, 1965, p.23)

Apart from desirability, Fisher suggested some other "neutral" terms like 'wantability' and 'marginal wantability'. Moreover, he changed his mind about the unit of utility (util) and he advocated a new term called "wantab" (Fisher, 1918, p.336). Generally, Fisher was one of the first orthodox economists of this period to express explicitly his views about the utilitarian bias of economics and to call openly for its abandonment. Wicksteed's and Pareto's reservations about hedonism were most of the time implicit.

However, in spite of all his reservations and renunciations of utilitarianism, pleasure and pain, satisfactions etc, Fisher's work is still influenced by the hedonistic framework. For instance in one of his subsequent works, economics is defined as follows:

"The purpose of economics is to treat the nature of wealth; the human wants served by wealth; the satisfaction of those wants and efforts require to satisfy them;" (Fisher, 1912, p.1)

Essentially, this definition has no differences from the marginalist, hedonistic oriented definitions of economics. The reference to wealth and to the satisfaction of wants is common to most marginalist economists (Jevons, Walras, Menger). As Mill and Menger, Fisher conceives wealth only in terms of material objects:

"Wealth, then includes, all those parts of the material universe that have been appropriated to the uses of mankind. It includes the food we eat, the clothing we wear, the

dwellings we inhabit, the merchandise we buy and sell, the tools, machinery, factories, ships, and railways, by which other wealth is manufactured and transported, the land in which we live and work, and the gold by which we buy and sell other wealth" (Fisher, 1912, p.4).

Moreover, his analysis of supply and demand is another indication of the influence of the hedonistic framework on him.

"This special relationship enables us to see clearly the fact that, at bottom, supply rests on efforts and demand on satisfactions. The business man, reckoning in money, comes to think of money expenses and money receipts as though they were real costs and benefits in the productive process, whereas they are only the representatives of real costs (efforts) and real benefits (satisfactions)...We see, then, that everything intermediate which happens in the economic machinery represents merely steps in the connection between effort and satisfaction." (Fisher, 1912, pp.351-353)

Fisher's assertion that in the final analysis economics is an interplay of efforts and satisfactions is very important. It demonstrates that his own allegedly neutral economic approach is not very far from the hedonistic calculus of pleasures and pains. Thus in spite of his clear rejection of subjective, psychological terms like pleasure, pain, satisfaction, Fisher now bases the whole mechanism of economic activity on these concepts. In addition, although he has abandoned utility and uses desirability in the above mentioned book, his implicit hedonistic orientation forces him to refer to the importance of efforts and satisfactions when he analyses the basic determinants of economic activity.

Furthermore, another indication of his implicit (and sometimes explicit) hedonistic influences can be found in the very book, "Investigations" where he openly rejects the use of psychological or subjective concepts in economics. In his discussion of the relationship between price, quantity and marginal utility, he uses the example of a cistern where the amount of liquid represents commodity and the distance of its surface from the top O , its marginal utility (O to R represents marginal utility).

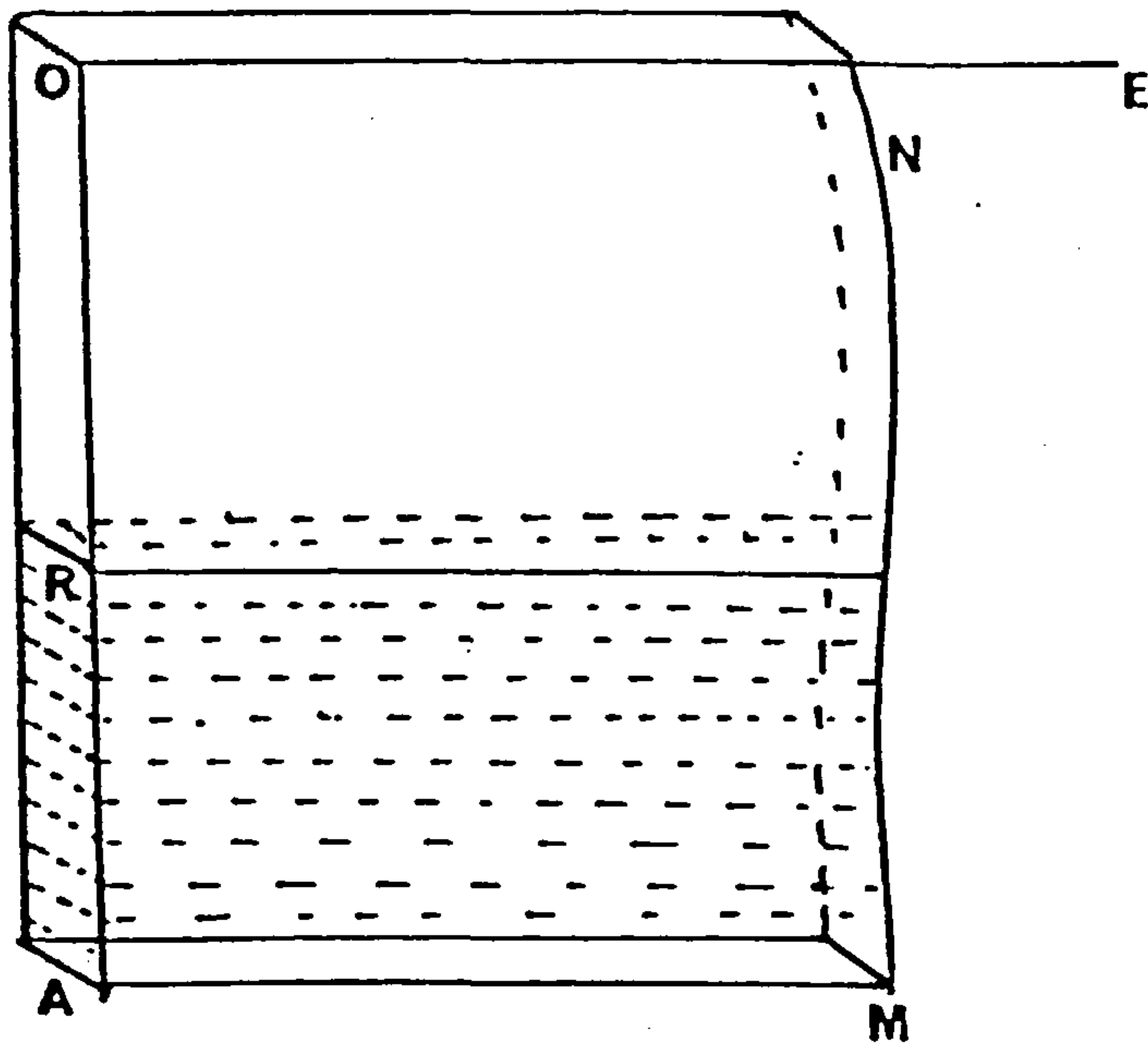


figure 5.4

In the above figure the curve MN is drawn with axes OE and Oa. This curve is such that the shaded area represent any amount of the given commodity consumed by the given individual in the given period of time (Fisher, 1965, p.25). Then he states:

"If the price rises, OR will increase and less be consumed but if it falls, more. If the price falls to zero as in the case for water and air the quantity consumed fill the whole cistern up to the horizontal axis. This volume is therefore the quantity of maximum satisfaction [emphasis by Fisher]" (Fisher, 1965, p.26)

Clearly at this point Fisher's analysis is identical to the hedonistic based economic theorists. It also implies that satisfaction is measurable.

Although Fisher did not mention explicitly the idea of economic man, it will become evident that the notion of an economizing individual is present in his analysis. More analytically, in his discussion of equilibrium and indifference curves, Fisher makes some assumptions about individual behaviour which are very similar to those of the marginalist economists (especially Walras). In his analysis of

one consumer one commodity when the utility is a function of one commodity only, he assumes that:

"Each individual in the market knows all prices, acts freely and independently and preserves some characteristics during the period, so that the forms of his utility curves do not change." (Fisher, 1965, p. 25)

Apart from assigning psychological characteristics which according to him must be absent from economics, the above quotation demonstrates that the individual or economic man is considered to be perfectly informed and consistent. Furthermore in the appendix of his discussion of general equilibrium, the individual is portrayed as maximizing his total utility and minimizing his total disutility. As the individual maximizes his total utility so he minimizes his total disutility, or in Fisher's words:

"In the like manner the individual distributes his production so that the marginal disutilities in all modes of producing a dollar's worth of commodity are equal so that his total disutility is a minimum. Hence the difference between his total utility and total disutility or his economic gain is a maximum." (Fisher, 1965, p. 98)

Apparently the individual is portrayed above as a utility maximizer. This is at odds with Fisher's earlier claims that his economic analysis does not involve psychological (hedonistic) assumptions. Thus, this is an additional indication that hedonism is still an important underlying framework in Fisher's thought despite the fact that he claims otherwise.

The main theoretical points of Fisher's work are the analysis of equilibrium and the indifference curve. He separates his work in two parts: the first deals with equilibrium when the utility of a commodity is assumed to be a function of that commodity. He discusses the equilibrium when there is only one consumer or producer and many commodities. Then he extends his analysis to  $m$  commodities and  $n$  consumers. The analysis is conducted in terms of incomes of individuals and of their utility functions. Like Walras, Fisher provides a general solution which is derived from a system of simultaneous equations. The starting point of the second part is that the utility of one commodity is considered to be a function of the quantities of all commodities. At this part, he derives the

indifference curves and supplies a general equilibrium solution. His approach is very similar to the marginalists and also very similar to modern techniques. Fisher derives indifference curves as the locus of points representing all consumption combinations of A (axis) and B (axis) which have given total utility.

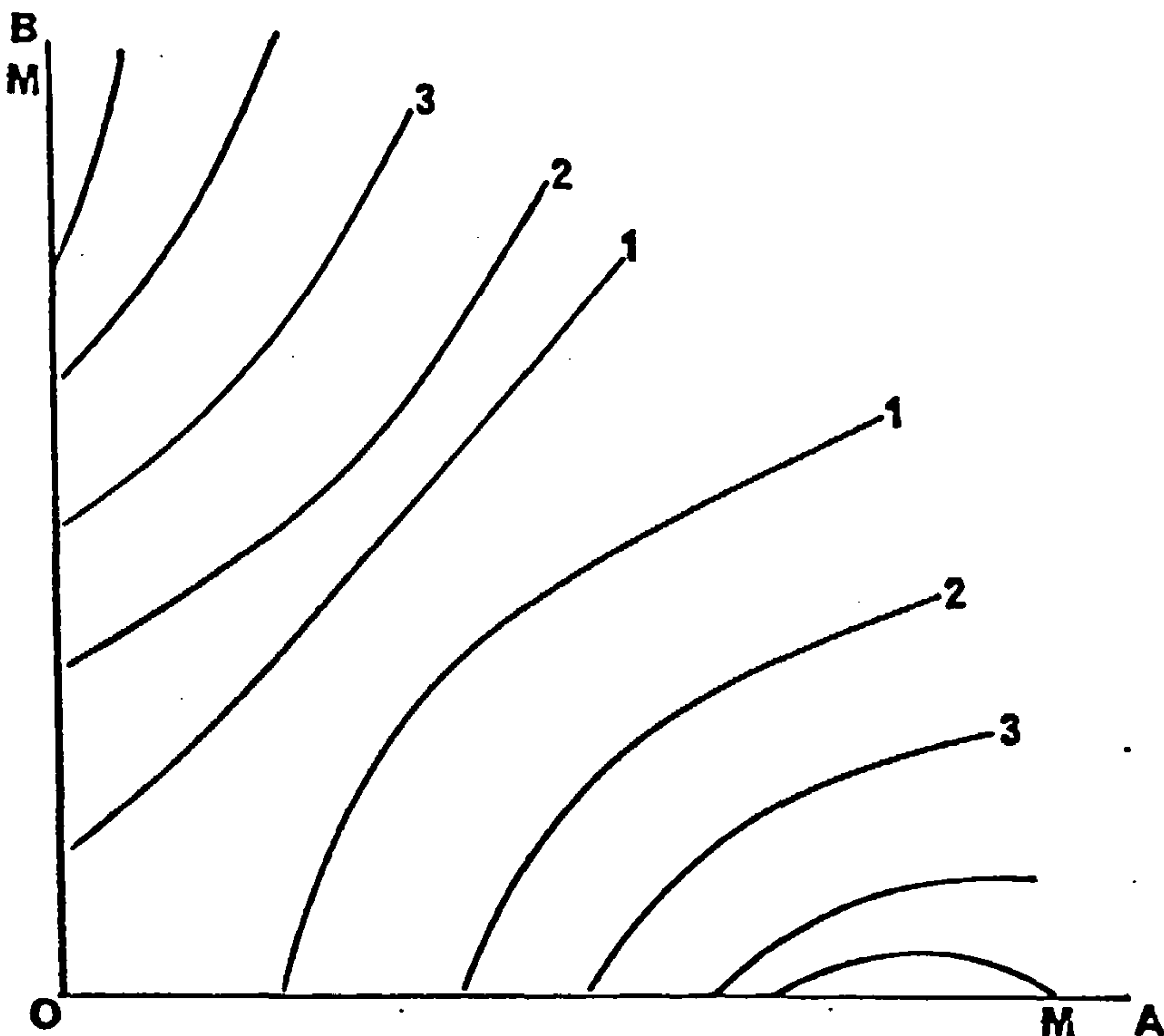


Figure 5.5

The numbers attached to each indifference curve represent magnitudes of utility. Fisher avoids the use of strong terms like pleasure or satisfaction in this analysis, and confines himself to the use of the term utility (as was seen, Pareto in his discussion used freely strong hedonistic concepts). However, Fisher cannot avoid mentioning that point M (where indifference curves vanish, bliss point) is the point of maximum satisfaction for the individual (Fisher, 1965, p. 70). Moreover, he thought that the supreme principle which characterizes economic equilibrium "is that arrangement will be assumed which will maximize utility" (Fisher, 1965, p. 72). At this point, he makes a reference to



Edgeworth who, as was seen, emphasized the principle of maximization of pleasure in equilibrium. In addition, Fisher makes frequent references to other hedonistically oriented economists like Pantaleoni, Jevons, and Gossen and enthusiastically credits them as pioneers of scientific economics (Fisher, 1965, pp. 109-115).

As we noted in the relevant section, Edgeworth is the perfect example of a theorist combining hedonistic ideas with a formalist methodology (especially a physical science-type methodology). Fisher's economic methodology is again similar to those of the marginalists. First of all, the whole manner of exposition of his economic theory is mathematical. As with the marginalists, mathematics is viewed as the means for establishing a physical-science-type, "objective", "positive" science of economics. As Fisher himself declares: "The introduction of mathematical method marks a stage of growth -perhaps it is not too extravagant to say, the entrance of political economy on a scientific era" (Fisher, 1965, p. 109).

In the course of our discussion we observed that most of the hedonistically oriented economists thought that physics was the ideal model for the scientific development of economics. Although Fisher attempted to minimize the hedonistic image of economics, he frequently emphasizes the analogies between economics and physics and especially between energy and utility, an idea which we saw in Edgeworth's extreme hedonistically based work. More specifically, a great number of pages of his "Investigations" are devoted to showing the analogies between physical and economical phenomena. (Fisher was influenced also by the famous physicist W. Gibbs, see Tobin, 1985, p. 32.) His attempts were directed towards drawing a mechanical (especially hydrodynamic) analogy for every economic phenomenon. As was observed before, most economic problems are associated with the analogy of cisterns and liquids. As Edgeworth and Pareto, he went on to construct a table of correspondence of mechanics and economics.

In Mechanics

A Particle                      corresponds to  
Space                                      "  
Force  
Work  
Energy

Work or Energy = Force\*space

Force is a vector  
(dir. in space)

Forces are added by vector  
addition.

Work and Energy are scalars

Equilibrium will be where  
net energy is maximum; or  
equilibrium will be where  
the impel. and resist.  
forces along each axis  
will be equal

In Economics

An Individual  
Commodity  
Marg. Ut. or Disutility  
Disutility  
Utility

Disutility or utility  
= marg.ut.\*commodity

Marg. ut. is a vector  
(dir.in commodity)

Marg. ut. are added by  
vector addition

Disut. and ut. are  
scalars

Equilibrium will be  
where gain is maximum;  
or equilibrium will be  
where the marg. ut. and  
marg. disut. along each  
axis will be equal

(Fisher, 1965, pp. 85, 86)

Another implication of the above table is that the individual is portrayed as having a machine-like behaviour guided, as a particle, only by the maximization of his utility or the minimization of his disutility. As we saw in the previous pages, this image of man facilitates the application of mathematics and opens the way for a positive physical science oriented discipline of economics.

Nowadays, Fisher is considered as an important figure in the formation of orthodox economic theory (especially microeconomic theory). His equilibrium equations and indifference curves are the basis for the contemporary theory of consumer behaviour. Moreover, Fisher is well-known for his theories of capital and interest and for

the formulation of the quantity theory of money.

The general characteristic of Fisher's work is his attempt towards a neutral economic science. He is considered to be one of the first originators of the modern theory of choice which allegedly is characterized by its independence from psychology and subjective notions. As Wicksteed and Pareto, Fisher wanted to minimize the profound hedonistic orientation of marginalist economics, which was instead to be based on objective concepts. His first step towards this purpose was to reject the so-called hedonistic hypothesis and to disassociate utility from pleasure. He attempted to base utility on desire and to avoid using the subjective terms pleasure, pain, satisfaction etc. Unlike Wicksteed and Pareto, he explicitly pointed out the utilitarian orientation of marginalist economics. Along the same line can be seen his later attempt to replace the "biased" concept of utility with desirability, wantability, want for one-more etc. In general, he is very careful in using any hedonistically related terms, especially in his "Investigations". Thus, he builds a similar economic theory to that of marginalists without mentioning hedonistic-based concepts.

However, in spite of his attempt to purify economics from its hedonistic or psychological bias, Fisher's economic thought is still influenced by the hedonistic framework, sometimes implicitly and sometimes explicitly. First although he rejects subjective terms, he speaks about maximum satisfaction in the discussion of the relationship between price and quantity. A point relating to maximum satisfaction is also mentioned in the analysis of indifference curves. Like most hedonistically oriented theorists, he discusses the issue of measurability of utility. Fisher is an advocate of the cardinal approach to utility. He devises a unit of its measurement called "util" and even a statistical method for the measurement of marginal utility. His definition of economics in terms of satisfaction of wants and his conception of wealth in terms of material objects are ideas which are influenced by the hedonistic approach. Furthermore, his analysis of supply and demand on the basis of efforts and satisfactions, is very similar to the marginalists' idea of pleasures and pains. His conception of economic individuals (economic man) is

again similar to that of the marginalists: a utility maximizing, disutility minimizing being. The methodological ideal of Fisher is the same as that of most hedonistically influenced economists: a physical-science-type economic methodology. The mathematization of economics would open the way for a positive, objective economic science. Fisher was an enthusiastic advocate of the above methodology and this is the reason why his "Investigations" are filled with analogies between economic and mechanical phenomena. The correspondence of an individual with a particle who is motivated only by considerations of maximum utility or minimum disutility (like a particle, 'motivated' by work and energy) is again another indication of his influence from hedonism.

It seems that despite his attempts to construct a neutral economic science, Fisher's economic ideas are still influenced by the hedonistic mode of thought.

## 5.5. CONCLUSION

The common characteristic of the theorists that we examined was the attempt towards the minimization of the profoundly hedonistic orientation of orthodox economics. As was shown, orthodox economists started to realize the obvious dependence of their discipline on a particular psychological or philosophical theory: hedonism. Thus, Wicksteed's, Pareto's and Fisher's thought expressed the trend towards the downplay of hedonism. The general feature of this trend was to achieve the same theoretical results with the same mathematical, physical-science-type methodology but without depending on the "subjective" concepts of pleasure, pain, satisfaction, pleasure maximizing agents or, in short, to expel the (hedonistic) psychological assumptions. This tendency towards the purification of disciplines from subjective concepts was also the case in other social sciences at that time. For instance, the rise of behaviourism in psychology which tried to explain behaviour in terms of stimulus-response only, without referring to any other subjective concept demonstrates the above (see for example Watson, 1930). The origins of this general tendency towards purification can be found in the gradual dominance of the positivist philosophies of science which called for the abandonment of all subjective, metaphysical concepts from sciences. (At this point one might question the possibility of eliminating normative elements from science; but this issue will be discussed in the final chapter.)

Thus, Wicksteed explicitly rejected hedonism and was very reluctant to accept the concept of economic man as a selfish, pleasure maximizing being, and also he avoided mentioning the maximization of satisfaction explicitly. Moreover, his willingness to consider altruistic behaviour in economics can also be seen from the above perspective. Pareto's attempt to find a theoretical method independent of the concepts of pleasure or utility, his reservations about the measurability of pleasure and about the extreme hedonistic based theory of value are all in this same climate. Furthermore his consideration of altruistic behaviour is another indication of the tendency to downplay the extreme egoistic hedonism of the marginalists. Fisher's attempt to disassociate psychology from

economics by stating a "simple psycho-economic postulate", his avoidance of subjective notions like pleasure and satisfaction and the replacement -in later works- of utility with wantability or desirability, are all indications of this same tendency.

However, in spite of the above, the hedonistic influence is still explicitly or implicitly present in the works of these economists. Moreover, the fact that their economic theories are similar to those of the marginalists is another indication of the presence of the hedonistic approach. Thus, one can see, that despite his reservations, Wicksteed uses the standard marginalist diagrams of total and marginal satisfactions, that he accepts the measurability of satisfaction and that his value theory is based on the concept of satisfaction. Moreover, as with the marginalists his methodology is inspired by physics and his theory of equilibrium is based on the idea of the maximization of utility or satisfaction.

Similarly, Pareto's reservations about measurability do not stop him from adopting measurability as the basis of the development of key theoretical points. Furthermore, Pareto's economic man is a selfish, rational, pleasure maximizing being and his indifference curves are explicitly based on pleasure. In addition, his discussion of equilibrium in terms of maximization of utility or satisfaction, his indirect acceptance of interpersonal comparisons of utility and the fact that his theory of value is still based on pleasure, are additional indications of his hedonistic influence. As with Wicksteed, physics is the methodological ideal for Pareto. Finally, his influence from the clearly hedonistically oriented economic thought of Pantaleoni is another sign of his hedonistic origins.

The definition of economics in terms of satisfaction of wants, the discussion of supply and demand on the basis of efforts and satisfactions, and the reference to maximum satisfaction in his indifference curves theory are some of the hedonistic traits of Fisher's economic thought. The absolute commitment to the measurability of utility, the perfectly informed, utility maximizing economic man and the idea that economic phenomena correspond exactly to mechanical phenomena (cf Edgeworth) are additional indications of Fisher's influence from the marginalist, hedonistic conceptual

framework.

Apart from Wicksteed, Pareto and Fisher there were also other economists who took part in this drive towards the purification of economics. Auspitz and Lieben (1889), Barone (1908), Johnson (1913) and Slutsky (1915) were the most important of these.

The next phase of orthodox economics concerns the modern developments (starting from the first decades of this century) where prevailing theories became established. Thus, the next chapter will examine the influence of hedonistic ideas on modern orthodox economists.

## NOTES TO CHAPTER 5

1) Wicksteed's idea of rationality is related to A. Whitehead. According to Whitehead Civilization advances by increasing the number of operations which we can perform without thinking about them (see Whitehead 1929, p.14).



## CHAPTER 6

### MODERN DEVELOPMENTS

#### 6.1 INTRODUCTION

Our discussion of the previous chapter which dealt with the works of Wicksteed, Pareto and Fisher, enabled us to observe an underlying tendency common to those economists towards the minimization of the hedonistic image of economics. As indications of this tendency, we mentioned -among other things- Wicksteed's explicit rejection of hedonism, Pareto's attempt to find a method independent of the concepts of utility and pleasure and Fisher's critique of the concept of utility. We also pointed out that the main reason for this downplaying of hedonism was the increasing influence of the late nineteenth century positivist philosophies of science. The main characteristic of these philosophies was the demand for the exclusion of all subjective or metaphysical concepts from science and especially from the social sciences with the ultimate purpose of constructing positive sciences.

However, in spite of this tendency, it was seen that the influence of hedonism on orthodox economic thought at the end of nineteenth and the beginning of the twentieth centuries, was still considerable.

This century's economic thought is characterized by a continuation of the trend to downplay hedonism. More specifically after an interval of almost two decades (1910's-1930's) dominated by Pigou's celebrated book "The Economics of Welfare", which was explicitly influenced by Bentham's system, the above tendency was to be highlighted again in Robbins' work. Robbins' ideas were in the spirit of Pareto's and Fisher's but (unlike Pareto and Fisher) he was responsible for the systematic introduction of a positivist philosophy in economics. The introduction of this scientific philosophy marked an important point in the history of the hedonistic influence on mainstream economics. From then on, economists, much more consciously

than before, have attempted to 'purify' economics from subjective and psychological assumptions and concepts like pleasure and pain, or a pleasure maximizing consumer. Moreover, the new ordinal approach assisted the construction of allegedly value-free scientific economics. In their effort to implement the above, economists have replaced concepts like pleasure or satisfaction with preference or choice and the assumption of satisfaction maximization with the maximization hypothesis. For instance, a new, apparently neutral, theory of choice was the outcome of the attempt to purify economics from hedonistic influences.

However, we believe that in spite of these efforts to expel any philosophical or psychological content, the hedonistic influence is still discernable in orthodox economics. The existence of the concept of utility maximization (in spite of attempts to neutralize the term utility), the dominance of the egoistic motive, the explicit use of a satisfaction maximizer economic man etc, are indications of the continuation of the spirit of egoistic hedonism. One can even find indications of an underlying psychological framework in the allegedly neutral theory of the rational consumer. Moreover, the explicit hedonistic orientation of well-known modern textbooks (especially in the discussion of consumer behaviour theory), is an additional indication of the influence of the hedonistic framework.

In order to show the above points, we will start with a discussion of Pigou's work which held an influential position between the 1910's and 1930's, signifying in turn the explicit reappearance of utilitarianism in that period.

After a brief discussion of logical positivism which had a major impact on Robbins' thought, we will examine Robbins's attempt in the 1930's to construct a positive economic science without any dependence on ethical or philosophical notions. In this sense, Robbins can be seen as expressing a continuation of Wicksteed's, Pareto's and Fisher's line of thought.

After Robbins, we will move on to a discussion of the more recent theoretical developments (especially theory of choice) and their claim to be independent of any psychological (hedonistic) content. Our discussion will be concentrated on the work of Hicks and Samuelson

which constitutes the basis of modern choice theories.

The final section of this chapter will deal with a discussion of the current state of affairs including a survey of established mainstream textbooks with the purpose of uncovering implicit or explicit traits of the hedonistic influence, especially in consumer theory.

## 6.2 A.C. PIGOU

In the previous chapter, we observed the attempt of Pareto and Fisher to minimize the hedonistic image of economics. As we pointed out in the introduction, this attempt was to continue in the 1930's in Robbins' work. In the meantime, however, (between 1910 and 1930) we find the strong influence of an economist whose work is explicitly characterized by the Benthamite line of thought. A. C. Pigou's work, and especially his "Economics of Welfare", had a considerable influence on mainstream economics in the above period. The "Economics of Welfare" was used in teaching at Cambridge during the 1920's and even until the 1950's (see also Cotter and Rappoport, 1984, p.513). Its influence is an indication that in spite of Pareto's and Fisher's endeavour to downplay hedonism, the Benthamite tradition was still very strong. Naturally, Pigou's work was not so explicit utilitarian as previous marginalist works (eg those of Edgeworth). The general tendency towards a value-free science of economics also had its impact on his thought. However, the basis of his economics was hedonistic oriented and we find many more direct influences from Bentham than in Pareto or subsequent economists. Moreover, one can add that Pigou's work can be seen as an example which indicated that a discussion of economic problems from an aggregate point of view inevitably involved the more explicit use of utilitarian ideas. Thus, in the 1920's and 1930's, with Pigou's work, the hedonistic tradition (especially the universal maximization of utility approach) was once more very much discernable. But let us discuss more systematically the main aspects of his thought.

As was noted Pigou's most important work was "The Economics of Welfare" published in 1920, which grew out of his earlier work "Wealth and Welfare" published in 1912. Pigou was not unaffected by the general trend among economists during this period, which called for the construction of a positive economic science freed from ethical concepts. Thus, as we shall find later in this section, he considered economics to be a positive science. Moreover, one can discern the influence of the period in the opening pages of the "Economics of Welfare" where he discusses the term utility. In a statement where one can trace the influence of Pareto and Fisher, he writes:

"The term 'desiredness' seems, however, to be preferable [to utility], because, since it cannot be taken to have any ethical implication, it is less ambiguous." (Pigou, 1932, p. 23)

The above statement is in the same spirit as Pareto's substitution of utility with the term ophelimity and with Fisher's preference for 'desirability' instead of utility. Fisher especially was dissatisfied with utility because of its ethical implications. Thus, Pigou was not at all isolated from the general idea of an objective or neutral economics. However, in spite of this awareness of the general attitude, Pigou's work is based more explicitly on hedonism than Pareto's and Fisher's.

As the title of his most important work suggests, the central idea in his work is welfare. According to Pigou the goal of economics 'is to make more easy practical measures to promote welfare' (Pigou, 1932, p. 10). Pigou separates social welfare and economic welfare, the first being a much broader concept than the latter. His next point is to make clear that his inquiry is restricted to that part of social welfare which may be called economic welfare (Pigou, 1932, p. 11). Although according to him these two concepts of welfare move towards the same direction, economic welfare is defined as that part of social welfare that can be brought directly or indirectly into relation with the measuring-rod of money' (Pigou, 1932, p. 11). Those aspects related with money are explained as follows:

"The only aspects of conscious life which can, as a rule, be brought into relation with the money measure, and which, therefore, fall within economic welfare, are a certain limited group of satisfactions and dissatisfactions." (Pigou, 1932, p. 14)

This is a first indication that economic welfare is associated with satisfactions. Another statement where a stronger connection between economic welfare and satisfaction is established, can be found in a subsequent article which Pigou wrote in 1951. (This article "Some Aspects of Welfare Economics" was added and became part of the subsequent editions of the "Economics of Welfare".) Pigou writes in a categorical way:

"For the present purpose, I propose to make welfare refer to satisfactions... A Man's welfare consists of his

satisfactions." (Pigou, 1951, p. 288)

After having defined economic welfare, Pigou sets as the ideal the maximization of economic welfare. More specifically, the aim or criterion for economic policies is the maximization of economic welfare. Economic welfare can be maximized when there is a larger national dividend, more equal distribution and less fluctuation over time. It is evident that this line of thought is very close to the Benthamite idea of the 'Greatest Happiness Principle'.

Apart from the aggregate maximization of satisfactions, Pigou has also other ideas which are very similar to Bentham, and to utilitarianism generally. In particular, he holds that interpersonal comparisons of the utilities of different persons are valid. As we observed in the section on Bentham, interpersonal comparisons were thought to be possible. Pigou writes:

"Nevertheless, it is evident that any transference of income from a relatively rich man to a relatively poor man of similar temperament, since it enables more intense wants to be satisfied at the expense of less intense wants, must increase the aggregate sum of satisfaction."  
(Pigou, 1932, p. 89)

The important implication of this statement is that interpersonal comparisons can be made. Moreover, it is implied that the total welfare of the society is the sum of the welfare of the individuals, and this again is a utilitarian idea. In addition, the above is another indication of the identification of economic welfare with satisfaction which is a sign of hedonistic influence.

In line with other hedonistically influenced orthodox economists, Pigou defines utility in terms of satisfaction. In spite of his initial comments about the ethical implications of the term, he makes use of it, especially in the subsequent article of 1951. In this article, he emphasizes the identification of utility and satisfaction:

"...I shall employ it [utility] here to mean satisfaction, so that we may say that a man's economic welfare is made up of his utilities." (Pigou, 1951, p. 288)

After stating that the purpose of economics is the maximization of welfare or satisfaction, Pigou attempts to find a method for measuring satisfaction. We observed this characteristic in almost all

hedonistically oriented thinkers. In his main work, Pigou tries to measure satisfactions in terms of money. As he points out:

"Not much harm is likely to be done by the current practice of regarding money demand price as indifferently as the measure of a desire and as a measure of the satisfaction left when the desired thing is obtained." (Pigou, 1932, p.24)

However, in his 1951 article, Pigou seems to have rejected completely any possibility of a cardinally measurable satisfaction. The gradual dominance of the ordinal approach (which we shall discuss later) seems to be the main factor for change in Pigou's mind. In this article he clearly denies cardinality:

"They [pleasures, satisfactions, utilities] are not the sort of thing that we can correlate with a series of cardinal numbers." (Pigou, 1951, p.289)

But this rejection of cardinality does not prevent him from accepting interpersonal comparisons of utilities. As he declares: "satisfactions or utilities, though not measurable, are comparable in principle and can in fact be compared both intra-personally and inter-personally" (Pigou, 1951, p.293). Another point which can be noticed once again from his discussion of measurability is the use of the concepts of pleasure, satisfaction and utility synonymously.

As one would expect, the hedonistic influence of Pigou's work leads him to point out the important role of self-interest in economics. As we have seen, the role of self-interest is emphasized by the vast majority of the hedonistic minded economists, allowing for characterization of orthodox economics as being based on egoistic hedonism. The importance of self-interest in Pigou's work is manifested in his discussion about the size of national dividend. He writes:

"The essential point for our present purpose is that, when marginal private net products and marginal social net products coincide, any obstacles that obstruct the free play of self-interest will, in general, damage the national dividend." (Pigou, 1932, p.143)

In general, throughout Pigou's work, 'the free play of self-interest' seems to be accepted as a beneficial and dominant force in the economy.

Pigou's economic methodology is not positivist to the same extent

as Pareto's and Fisher's. The nature of Pigou's subject matter does not allow much space for a strict positivist methodology. The idea of collective maximization of happiness could be seen only with difficulty as having a positive basis. Thus, in the beginning of his "Economics and Welfare", he asserts that because of the economist's motive -which is the improvement of social conditions- "it follows that the type of science that the economist will endeavour to develop must be one adapted to form the basis of an art" (Pigou, 1932, p.5). However, he proceeds to emphasize that only the basis of economics should be normative, the science itself should be a positive science.

"It [economics] will not, indeed, itself be an art, or directly enunciate precepts of government. It is a positive science of what is and tends to be, not a normative science of what ought to be." (Pigou, 1932, p.5)

This demonstrates the idea that we mentioned in the beginning of this section: Pigou's thought is not isolated from the general positivist framework which dominates economics during that period.

In general, we observed that Pigou's economics exhibit the main characteristics of the hedonistic influence which we also observed in the work of previous orthodox economists. Although there are indications that he advocated the growing idea of a value-free economics independent from any psychological or ethical notions, Pigou's work is more explicitly influenced by hedonism than Pareto's and Fisher's. More specifically, Pigou bases his most crucial concept -economic welfare- on satisfactions and dissatisfactions (, in the same manner as Bentham's pleasure and pain). He also submits to the utilitarian idea that the total welfare is a sum of individual welfares and to the possibility of interpersonal comparisons of utility. Moreover, like many previous orthodox economists, he identifies utility with satisfaction and conceives (, at least in his most important work,) utility or satisfaction as something measurable. In addition, he realizes the importance of self-interest (egoistic hedonism) and although he states that the basis of economics should be normative, he thinks of economics as a positive science. From all the above one can also observe the explicit reappearance of hedonistic ideas in a work which viewed economic phenomena from a collective



perspective. Overall, the important implication is that in the 1920's and 1930's, the influence of hedonistic ideas in economics is still clearly distinguishable.

Before we finish this section we have to mention that Pigou was not the only influential utilitarian oriented economist of the period. R. Harrod was another well-known theorist whose ideas were influenced very much by the utilitarian-hedonistic framework. For instance, Harrod, in his discussion of the supply of savings, makes his analysis in terms of 'future and present satisfactions' and conceives satisfaction or utility as something cardinal (Harrod, 1963, pp. 36-40). Moreover, like Pigou, he advocates interpersonal comparisons of utility, and generally follows Pigou's approach in welfare questions. The example of Harrod is an additional indication that Pigou's utilitarianism is not an isolated example in the above mentioned period.

## 6.3 LOGICAL POSITIVISM AND L. ROBBINS

### 6.3.1 Logical Positivism

As was pointed out in the introduction, after an interval of two decades dominated by Pigou's thought, the tendency to downplay hedonism came again onto the scene with the work of Robbins. Robbins attempted to construct a methodology which would be the basis for a value-free, positive science of economics. One of the fundamental features of Robbins' work was his endeavour to eliminate all value judgements or psychological elements from economics. As one would expect, the hedonistic orientation of mainstream economics was the most obvious target of Robbins' endeavour. The reasons for this renewed tendency to downplay hedonism were first the prevailing influence of the philosophy of positivism and especially of logical positivism, and second the critique by heterodox economists of the hedonistic bias of orthodox economics. As we have seen in the previous chapter, Wicksteed, Pareto and Fisher were motivated by the same reasons, the only difference being that for them the prevailing scientific philosophy was the positivism of the nineteenth century. Robbins' ideas were a very important point in the history of the hedonistic influence on orthodox economics. But before we start discussing his views we shall devote some space to one of the major sources of influence for the economists of this period: logical positivism.

Logical positivism was a continuation of the spirit of positivism which emerged from the writings of A. Comte in the nineteenth century. The origin of logical positivism is to be found in the famous Vienna Circle, the most important members of which, were: R. Carnap, O. Neurath, M. Schlick and F. Waismann. Moreover, the theories of logic of B. Russell and A. Whitehead, which are to be found in "Principia Mathematica", were the principal source of the methodology of logical positivism. L. Wittgenstein's early ideas were also regarded by the members of the Circle as very much related to their philosophy. Similarly, the Englishman A. J. Ayer, although not a member of the Circle, popularized the ideas of the movement.

The starting point of the philosophy of logical positivism is expressed in the following way by Ayer:

"We say that a sentence is factually significant to any given person, if and only if, he knows how to verify the proposition which it purports to express." (Ayer, 1946, p. 48)

The above principle came to be known formally as the 'verification principle'. (It has to be mentioned here that the above statement can not be verified.) According to this principle, a sentence has meaning or significance if it can be verified either analytically or empirically. The empirical statements are verified by observation and the analytical statements by merely reflecting on the meanings of the relevant words (Hanfling, 1981, p. 9). The basic function of the verification principle is to categorise all kinds of statements into a) meaningful, b) meaningless, and c) tautological. Usually, the statements made by the physical sciences are regarded by logical positivists as being meaningful statements. Value judgements and ethical statements are branded meaningless. As one of the most important logical positivists emphasizes:

"Value judgements have no theoretical sense. Therefore, we assign them to the realm of metaphysics."  
(Carnap, 1981a, p. 150)

As we shall see, Robbins' argument for a 'neutral' science of economics is very similar to the logical positivist rejection of value judgements.

The next important point of logical positivism is the idea of unified science. It was anticipated that the adoption of the logical positivist methodology by all scientific disciplines would eventually result in the unification of all sciences. The reduction of all sciences to one is crucial for the unity of sciences. The first step for the reduction would be the establishment of a common scientific language to be based on the language of a very advanced science, the language of physics. Logical positivists admitted that the task of their philosophy was the construction of one homogeneous system of laws for the whole of science (Carnap, 1981b, p. 128).

The main theoretical points of logical positivism are the rejection from sciences of all statements that cannot be verified

through the verification principle, and the unification of all sciences which can be achieved with the adoption of a common scientific language. From the above, it is clear that for logical positivism, the ideal model of science is physics and that all sciences should be constructed like it. In order to do this, sciences should abolish all elements that are "meaningless" in the logical positivist sense. In the case of social sciences, the implication is that they should become "neutral", "positive" sciences.

The scientific philosophy of logical positivism was developed in the first decades of this century. Its impact on the methodology of sciences, and especially of the social sciences, was great. In particular, economics, as 'the queen of social sciences' was one of the first disciplines to be influenced by this new positivist philosophy. One of the main advocates of this new epistemology was L. Robbins whose ideas we will now discuss.

### 6.3.2 L Robbins

Without doubt, L. Robbins was one of the most influential economists of this century, especially as far as the methodology of economics is concerned. His celebrated "An Essay on the Nature and Significance of Economic Science" had considerable impact on the development of orthodox economics in the sense that it provided a methodological framework. One could say that even today, the above work is a standard reference for a large number of economic theorists.

The prevailing spirit of the book is the spirit of a positivist scientific philosophy. Because of this, an important characteristic of Robbins' essay, is to construct a positive science of economics with a methodology similar to that of physics. This meant that psychological or philosophical (hedonist) elements of economic theory should be separated from the theory as illegitimate. (Obviously this idea presupposes the possibility of separation.) But let us discuss in a more detailed manner the main reasons behind Robbins' endeavour to disassociate economics from hedonism.

As was mentioned, logical positivism was a major source of influence on Robbins' thought. His statements about the neutral science of economics and the rejection of philosophical or ethical elements rely on the epistemology of logical positivism that we discussed in previous pages. Robbins' influence from logical positivism can be seen in a well-known article which he wrote in 1938. In this article entitled "Interpersonal Comparisons of Utility" Robbins rejected the idea of comparability as a value judgement. The justification of this rejection was the following:

"I still cannot believe that it is helpful to speak as if interpersonal comparisons of utility rest upon scientific foundations." (Robbins, 1938, p. 640)

The whole argument against the possibility of interpersonal comparisons is based on the logical positivist conception of science. Even the term "value judgement" that is used is of logical positivist origin. It seems that the ultimate purpose of Robbins' work was the construction, through the application of the methodology of logical positivism, of a positive economic science. This positive science would resemble the "ideal" science of physics. The parallel between

economics and physics is clear when he writes : "In pure Mechanics we examine the implication of the existence of certain given properties of bodies. In Pure Economics we examine the implication of the existence of scarce means with alternative uses" (Robbins, 1932, p. 83). We have noticed this methodological characteristic in almost all previous hedonistic oriented economists that we discussed. The difference with Robbins (and up to a certain extent with Pareto) is that while previously the positivist methodology was assisted by the hedonistic approach, now Robbins tries to retain the same methodology but without hedonism.

Before we proceed, it has to be mentioned that Robbins was also influenced by the contemporary developments in psychology. Some psychologists, especially J. B. Watson, were responsible for a new movement which developed in the first decades of the century. The basic idea of this movement, called behaviourism, was that the province of psychology was behaviour, measured in terms of stimulus and response (see Watson, 1930 and Brennan, 1982, p. 264). By concentrating on observable behaviour in terms of stimulus and response, behaviourists asserted that the study of central mental states (consciousness) was outside the scope of psychology. The fact that some psychologists excluded mental states and motivations from their discipline, had a considerable effect on Robbins' attempt to exclude such elements from economics.

Apart from the above, another reason for this renewed tendency to downplay hedonism was the reaction against orthodox economics by heterodox economists. Indeed as we shall see in the next chapter, a number of economists (especially Institutionalists) had launched a forceful attack on the hedonistic orientation of mainstream economics. This took place at the turn of the century. Clearly, Robbins was aware of such critics, as one can see when he writes:

"...in recent years, endless time has been devoted to the acquisition of cheap notoriety by attacks on the alleged psychological assumptions of Economic Science."  
(Robbins, 1932, p. 84)

By the term 'psychological assumptions', Robbins means hedonistic assumptions. In the subsequent defence against these critics, Robbins

admits that in the past, there were some economists who were influenced by psychological hedonism. However, he emphasizes that hedonism was incidental to the main structure of the theory (Robbins, 1932, pp. 85, 86). One can observe the attempts of Robbins to minimize the role of the hedonistic approach in orthodox economics, even when it was very obvious (eg. in the wake of Jevons and of Edgeworth) that hedonism was the dominant framework of mainstream economics.

The above attack on the critics leads us to one of the most important points of his thought: the subject-matter of economics. Robbins' starting point is to discuss the established definition of economics. He points out the widely accepted definition that economics "is that which relates it to the study of the causes of material welfare" (Robbins, 1932, p. 4). According to him, this definition describes for practical purposes the object of interest for economists. However, he goes on to emphasize that a new definition is needed which would be free of any ethical elements. It seems that the term "material welfare" was viewed by Robbins as implying that economics is concerned only with the material aspects of life. For this reason he brands the above definition a "materialist definition" (Robbins, 1932, p. 9). Again at this point, one can discern Robbins' effort to disassociate economics from any philosophical or ethical framework. After a lengthy discussion of the disadvantages of the materialist definition, he proceeds to state his own new definition.

"Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." (Robbins, 1932, p. 15)

The above definition is allegedly free from any psychological or philosophical connotations. It can be seen that the spirit of positivism is present here. The definition does not specify anything about the nature of ends. The ends can be anything and this very fact, according to Robbins, makes economics a neutral science. However, we believe that despite this "neutralization" of economics the "ends" remain the same, as before, namely: the maximization of satisfaction. One indication of the above is Robbins' assertion that the practice of

those economists who follow the materialist definition fits perfectly in his new definition (Robbins, 1932, p. 21). In short, according to Robbins, although the materialist definition misrepresents economics, economic practice (which presumably is the basic object and study of economics) fits perfectly in the new definition. It is clear that the essential features of economics (one of which is the hedonistic influence) are not challenged by Robbins.

After the 'neutralization' of the definition of economics, Robbins' next step is to make sure that the concept of 'utility' is totally free from any psychological connotations. Here he defines utility in terms of desire. As was seen in the previous chapter, Wicksteed, Pareto and Fisher attempted the same thing at the turn of the century. Robbins acknowledges this, and states:

"Thus, from a very early stage we find explanations that utility is not utility in the sense of psychological hedonism, but rather a neutral quality of being the object of desire, whether hedonistic or otherwise." (Robbins, 1970, p. 27)

The importance of the quotation is in fact that it was written thirty eight years later than the "Essay". Specifically, it can be found in "The Evolution of Modern Economic Theory" which was published in 1970. In the "Essay" Robbins categorically rejected any association of economics with hedonism. However, as one can see, in this later work hedonism is tolerated and he is even willing to consider the connection between utility and hedonism. Moreover, as we shall find out, Robbins' later works are generally less strict in the use of hedonistic related concepts than the "Essay". Thus, one might argue that there is a tendency in Robbins' subsequent works toward acceptance that the unspecified ends of his famous definition could be hedonistic. Furthermore, this is an additional indication that Robbins did not challenge the essential assumptions of marginalist economics.

Another step in his attempt to construct a positive science of economics was his assertion that the concept of economic man is not basic to economics. Robbins realized that his view of a psychology-free economic science was incompatible with the existence of the concept of economic man which was based on psychological



characteristics (As we have stated, the established model of economic man was influenced by egoistic hedonism.) Thus, he attempted to minimize the importance of this concept in economic theory.

"If this were commonly known, if it were generally realized that Economic Man is only a expository device -a first approximation used very cautiously at one stage in the development, of arguments which, in their full development, neither employ any such assumption nor demand it in any way for a justification of their procedure- it is impossible that it would be such a universal bogey." (Robbins, 1932, p.90)

Apart from his attempt to minimize the importance of economic man, Robbins also tried to change the characteristics of economic man. He conceived that rationality and maximizing behaviour were the most important features of his economic man (although it is ambiguous what economic man is maximizing). This new picture was to become basic in the subsequent theories of choice. As will be observed, modern theorists tend to assume rationality, whilst implying that rationality actually means maximizing behaviour. However, the fact that even after the change of features, Robbins insisted on the peripheral role of the concept, indicates that he was not completely certain about its non-hedonistic nature.

So far we have seen the main points of Robbins' attempt to disassociate economics from hedonism: a "neutral" definition of economics, an attack on those who hold that economics is influenced by hedonism, the minimization of the role of economic man etc. In spite of these, however, signs of hedonistic influence are still discernable in Robbins' later works. In particular, when he discusses economic problems, he finds it easier to construct his analysis in the same manner as most hedonistic oriented theorists. Thus, in his 1963 work: "Politics and Economics" one can read the following passage:

"We can, if we are so minded, conceive of a market apparatus which is all sufficient in determining the supply of commodities which yield the end-products of satisfaction to particular consumers- the family for example. But it is in the nature of things that this will not be available in regard to the extensive (and very important) groups of services which afford satisfaction to all and sundry- to use the well-known technical jargon, the case of indiscriminate as distinct from discriminate benefit: roads, bridges, lighthouses and so on." (Robbins, 1963, p.17)

Another indication that Robbins' thought is not at all alien to the hedonistic spirit can be found in a more recent work, his "Evolution of Modern Economic Theory". In this work, Robbins openly admits the great importance for the field of economics of the work of Bentham. He proceeds to declare:

"Now conceived in this way, we can regard the Benthamite outlook as something which definitely transcends its historical origin and achievement. To ask of any contemplated law or administrative order, will it, on balance, achieve more happiness or less pain than the other possibilities, is a habit which, in my judgement at least, is just as incumbent today as it was at the time of the publication of the Principles of Morals and Legislation; and it is difficult to conceive of a state of affairs in which it would not be so."  
(Robbins, 1970, p. 81)

Thus, in spite of Robbins' early attempts to cut any connection of economics with philosophy or ethics, it seems that utilitarianism is still an influential system in his economic thought.

In the same work, Robbins expresses his high esteem for the economic ideas of P. Wicksteed. Robbins was influenced by the ideas of Wicksteed, which were seen to be influenced by the hedonistic framework. Naturally, Robbins points out that Wicksteed attempted to exclude any philosophical bias from economics, but as we discovered, the essential aspects of Wicksteed's economic thought are not different from those of Jevons and Edgeworth in this respect.

Apart from the above, signs of hedonistic influence can even be found in his "Essay" where for instance some issues are discussed in terms of increasing satisfaction (see Robbins, 1932, p. 126).

Before we conclude this section, it has to be mentioned that Robbins' ideas appealed to a considerable number of economists also because of the new theoretical developments which appeared to exclude any psychological or philosophical assumptions. We mainly refer to the ordinal theory of utility which entered economics in the 1930's, especially with the work of J. Hicks. It can be maintained that Robbins provided the methodological framework for these allegedly value-free theories.

In general, it can be said that with the appearance of Robbins' "Essay" in 1932, we have the revival of the tendency to downplay

hedonism in economics. As the main reasons behind this tendency we identified (a) the increasing dominance of the epistemology of logical positivism which demanded the abolition of all non-verifiable elements from social sciences; (b) the critique of the hedonistic or utilitarian bias of orthodox theory, as put forward by heterodox economists; and (c) the influence of behaviourist psychology which emphasized observable behaviour only and thus neglected motivations and mental states. The most important step of Robbins towards the minimization of the hedonistic image of economics, was the introduction of a new definition of economics allegedly free from any non-scientific elements. Moreover, in the same spirit, Robbins attempted to clear utility of any psychological or philosophical associations. However, it seems that his attempt affected only the surface and that in essence orthodox economics preserved its hedonistic influence. As indications of the above, one can mention instances from his later works where he conducts his analysis in a manner very similar to explicitly hedonistically oriented economists (i.e use of hedonistic related concepts). Furthermore, in subsequent works he pays tribute to Bentham's utilitarian ideas and also he admits that utility can be the object of hedonistic desire (something that he avoids discussing in his "Essay"). In addition one can find hedonistic-based concepts in his "Essay". Although Robbins attempted to construct a new type of economic man apparently free from hedonistic characteristics, the rationality (or maximization) feature is still present; the only difference being that we are not told what economic man is maximizing. And as would become evident later, pleasure or satisfaction maximization seems to be the implicit motive of Robbins' economic man.

Thus, in a way Robbins' work is a continuation of Pareto's and Fisher's attempts to downplay hedonism. However, in Robbins' case the endeavour was to be supported by theoretical developments which could be claimed to be totally 'neutral'. In general, Robbins set the methodological framework for the construction of a new theory.

Before we finish this section we have to mention that Robbins was not the only economist of this period who advocated a psychology-free economic science. F. Knight's work was along the same lines. In

particular, Knight, in the same way as Robbins, held that scientific economics must deal with observed facts but that feelings are not observed facts. Thus economics should leave their study to other disciplines (see for instance Knight, 1925, pp. 375-385 and for an attack on this position, Copeland, 1925). In addition, Knight was sympathetic to the idea that economics should attempt to follow the methods of physics. Thus his work (some of it was published earlier than Robbins') also promoted the idea of rejecting psychology from economics.

The next section deals with the work of Hicks who was among the first to attempt to apply these methodological ideas in theoretical economics.

#### 6.4 J. HICKS

In the previous section it was observed that the two most important characteristics of Robbins' attempt to construct a value-free economic science (which essentially was an endeavour to downplay hedonism) were (a) a 'neutral' definition of economics and (b) a value-free concept of utility. It can be said that Robbins' work represented a methodological attempt towards the neutralization of economics. Two years after the appearance of Robbins' "Essay" there was the first indication that the above attempt could be matched by theoretical developments. More specifically, in 1934, J. Hicks and R.G.D. Allen published an article entitled "A Reconsideration of the Theory of Value" which allegedly set the basis for a totally objective economic theory, free from any psychological assumptions (Hicks and Allen, 1934). The same approach had been taken earlier by Johnson and Slutsky but it had minimal influence. However, a more systematic exposure of these new theoretical developments can be found in Hicks' well-known work: "Value and Capital" which was published in 1939. This work is still considered to be one of the foundations of modern economic theory, especially of microeconomic theory. The underlying characteristic of this work was the attempt to purify the basic marginalist concepts of their psychological (hedonistic) connotations for the purpose of the introduction of a new objective economic approach. Modern mainstream economists regard Hicks' work as extremely important for the evolution of scientific economics and this is the reason why some refer to it as the 'Hicksian Revolution'.

Hicks thought that the subjective, utilitarian assumptions of marginalist economists did not constitute a legitimate scientific approach. Thus his basic effort was the replacement of the marginalist utility theory with an objective, positive theory of choice. One could point out that Hicks, like Robbins, was influenced by the rising positivist philosophies of the period. After the 'Hicksian Revolution', and, as we shall see, Samuelson's Revealed Preference theory, many orthodox economists felt comfortable to claim that modern economics had no philosophical or psychological connections. It is true that the introduction of choice theories minimized the explicit hedonistic image of orthodox microeconomics. However, in spite of

this, we believe that the hedonistic connection has not disappeared. In order to show this, we will discuss Hicks' main ideas in a more detailed way.

Hicks starts with a brief review of the historical development of utility theory. He mentions Marshall's argument of the equalization of marginal utilities and prices in equilibrium, next pointing out the ambiguity of the concept of utility (Hicks, 1946, p. 12). Then he praises Pareto as the first economist to conceive of an ordinal conception of utility and to expand on the idea of the indifference curve. However, as he states, Pareto did not develop these revolutionary notions further and "continued to use concepts derived from the earlier set of ideas" (Hicks, 1946, p. 19). Hicks claims that the translation of the marginal utility theory in terms of indifference curves paves the way for a new concept: the ordinally defined scale of preferences. He emphasizes the distinctiveness of this new concept when he writes:

"In Marshall's theory (like that of Jevons and Walras, and the Austrians) 'given wants' is interpreted as meaning a given utility function, a given intensity of desire for any particular collection of goods... 'Given wants' can be quite adequately defined as a given scale of preferences: we need only suppose that the consumer has a preference for one collection of goods rather than another, not that there is ever any sense in saying that he desires the one collection 5 percent more than the other, or anything like that."  
(Hicks, 1946. pp. 17, 18)

It is evident that one of Hicks' main concerns was to avoid the term utility. The concept of the scale of preferences and its ordinal measurement are fundamental in the new theory. As was seen, Pareto was the first economist to attempt a non-cardinal approach. Hicks exploits this concept and starts from the idea that preferences need not be measurable in the cardinal sense. (As we shall see later, he does not give an explanation for preferences, which thus can be seen to be as ambiguous as the concept of utility.) He believes that by this new method he can arrive at the same theoretical results as the marginalists without using psychological concepts (utility, satisfaction, pleasure). Cardinality is the first to go:

"The quantitative concept of utility is not necessary in order to explain market phenomena. Therefore, on the principle of Occam's razor, it is better to do without it."

(Hicks, 1946, p. 18)

The main theoretical points of the marginalist theory are thought to be valid. The only thing that changes is the method of arriving at these points. Apart from the idea of minimum assumptions, the other main motive behind his new theoretical approach is similar to that of Robbins: the construction of an economic science free from value judgements. This aim is stated explicitly when he emphatically asserts:

"If one is utilitarian in philosophy, one has the perfect right to be utilitarian in one's economics. But if one is not (and few people are utilitarians nowadays) one also has the right to an economics free of utilitarian assumptions."  
(Hicks, 1946, p. 18)

One can observe that contrary to early Robbins, Hicks is explicitly ready to tolerate the old utilitarian approach. However, he claims that he is on the side of non-utilitarians and thus sets the task for himself of building this non-utilitarian economics. His first step towards this direction is to abandon the traditional economic concepts used by marginalists. Hicks is very specific on this matter:

"We have now to undertake a purge, rejecting all concepts which are tainted by quantitative utility, and replacing them, so far as they need to be replaced, by concepts which have no such implication." (Hicks, 1946, p. 19)

The above was to be an important part of "Value and Capital" and demands that we devote some space to discussing it.

The basic tool which Hicks uses for the construction of his theory is the notion of the indifference curve. As we have seen, indifference curves were invented by Edgeworth, who defined them clearly in terms of pleasure or utility. Pareto also used indifference curves but he took them as 'given' thus attempting to avoid the employment of subjective terms (like 'pleasure'). Hicks, based on Pareto, conceives indifference curves as showing the combination of goods for which the individual is indifferent. (Edgeworth would say the combination which gives equal pleasure.) Structurally, Hicksian indifference curves are identical with the utility-based indifference curves. The only alleged difference is that now we have a commodity space instead of a utility or pleasure hill. Hicks puts particular

emphasis on the concept of indifference curves, and as he declares, nothing more can be allowed than the indifference map (Hicks, 1946, p.18). However, he does not provide a new concept to describe what happens when the consumer moves to a higher indifference curve. Clearly, a subjective concept is implicitly present (satisfaction, utility). This can be seen as the first indication that Hicksian indifference curves are not substantially different from Edgeworthian indifference curves.

By using indifference curves and the line of the budget constraint, Hicks proceeds to construct the law of consumer's demand (based on income and substitution effects). The theoretical device which is widely used nowadays (constrained optimization) has the following geometrical form:

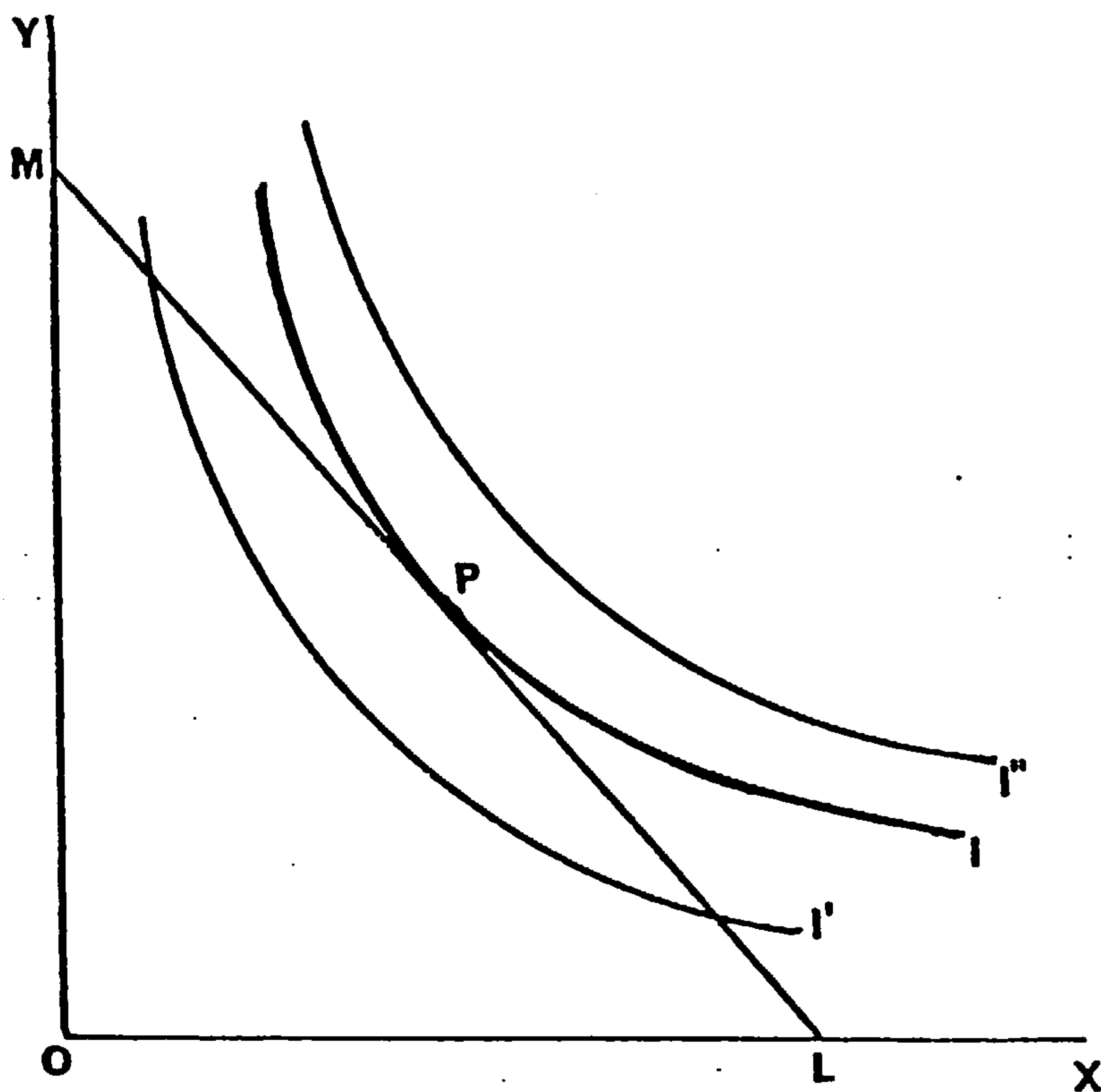


Figure 6.1

Where LM is the budget line, Y and X are goods, I is the highest attainable indifference curve and P (the tangency point) is the point of equilibrium. The shape of indifference curves shown in figure 6.1 presupposes a number of psychological assumptions; but this will be



discussed later in this chapter, also this issue will be examined again in our discussion of the theory of rational consumer. Hicks defines the equilibrium point as the point where the marginal rate of substitution equals the price ratio. With this he attempts to avoid the idea that point P is the point of maximum satisfaction for the consumer; but it is very doubtful if he succeeds. This definition brings us to the next point which is the new terms that he uses in place of marginal utility and diminishing marginal utility.

Thus, apart from 'preference' based indifferent curves, Hicks introduces new concepts like 'Marginal Rate of Substitution' and 'Diminishing Marginal Rate of Substitution' which allegedly are free from utilitarian psychology. He defines the first one as follows:

"In order to avoid the danger of misleading associations, let us give this quantity a new name, and call it the Marginal Rate of Substitution between the two commodities. We may define the marginal rate of substitution of X for Y as the quantity of Y which would just compensate the consumer for the loss of a marginal unit of X." (Hicks, 1946, p.20)

The "Marginal Rate of Substitution" and the "Diminishing Rate of Marginal Substitution", are a vital part of his attempt to eliminate the utilitarian influence in economics. One can observe that the definition does not refer to any psychological concept and that it does not involve cardinal measurement. Hicks saw the introduction of new value free concepts as crucial and not just as a change in terminology: "the replacement is therefore not a mere translation; it is a positive change in the foundation of the theory" (Hicks, 1946, p.21). In spite of this however, he realizes that the new concepts are not very far from Marshall's marginal utility and diminishing marginal utility. But he is quick to point out that the old concepts can be discarded and that the whole theory can be built on these new notions if a set of assumptions is accepted. This takes us back to the discussion of the shape of indifference curve.

As was noticed, Hicksian indifference curves require a number of assumptions, a fact that is acknowledged by modern microeconomic textbooks (reflexivity, continuity, convexity etc; again these assumptions will be examined in a subsequent section). Hicks is very careful when he attempts to justify assumptions because his initial

motive was to eliminate as many assumptions as possible. In discussing the issue of the non-existence of kinks in the preference map, he writes:

"When market conditions change, the consumer moves from one point of equilibrium to another point of equilibrium; at each of these positions the condition of diminishing marginal rate of substitution must hold or he could not take up such position at all...We have to assume that the condition holds at all intermediate points, so that there are no kinks in the curves between the two positions of equilibrium."  
(Hicks, 1946, p.23)

As Hicks himself admits, the non-existence of kinked curves assumes a sufficient degree of regularity in the system of wants. Furthermore, the assumption of diminishing marginal rate of substitution is supposed to hold in the case of many commodities too. Apart from the simple situation of two goods, Hicks extends the above psychological assumption to the case of many goods. As he writes:

"On the same grounds as before we shall assume that the marginal rate of substitution diminishes in every direction at every position with which we shall be concerned in our analysis." (Hicks, 1946, p.25)

One would expect that Hicks attempts to provide a plausible justification for the use of such assumptions in a theory which aims at scientific neutrality. As we have observed up to this point, Hicks' main motive was to build a value-free, positive economic theory. We saw the attempt to substitute marginalist utility theory with an allegedly objective theory of choice, in the light of the above motive. The introduction of the preference based indifference curve, the ordinal approach, and the replacement of value-laden concepts were the most important steps in this direction. As was noted, Hicks was motivated by the same reasons as Robbins: the construction of a positive economic science free from psychological assumptions with a physical-sciences methodology. This idea of methodological monism can also be found in Hicks when he states that "the method of modern economic investigation is the same method of all science" (Hicks, 1946, p.3). It is clear that he was also influenced by the prevailing scientific philosophy of logical positivism. His positivist orientation can also be seen in his rejection of the idea of

interpersonal comparisons of utility on the grounds that it would involve a value judgement (see Hicks, 1939, p. 697). In general, the underlying aim of Robbins' and Hicks' thought was the construction of a positive economic science and the way towards this target was the rejection of all value judgements or psychological elements from economic theory.

In fact, given the above, Hicks tries to provide some justification for the legitimacy of using psychological assumptions. He states (mainly referring to the non-existence of kinks) that "this is the simplest assumption possible, it is a good assumption to start with; and in fact its accordance with experience seems definitely good" (Hicks, 1946, p. 24).

His careful explanation of the above assumption, although not very consistent with his previous points, does prevent him from making a number of subsequent psychological assumptions. For instance, in his discussion of producer's theory, he makes again an implicit psychological assumption.

"The prices of both A [factor] and X [product] are given in the market; it will therefore be to its advantage to embark upon production, so long as the total value of the product secured is greater than the total value of the factor employed. Further, it will be to its advantage to produce that quantity of product which will make the excess as large as possible." (Hicks, 1946, p. 79)

The point here is the assumption that businessmen (or firms) will always aim to maximize profits. One can also maintain that there is the implicit assumption that higher profits mean a higher level of satisfaction for businessmen, which is not very far from the hedonistic or utilitarian ideal.

In a subsequent article, Hicks is more explicit in stating psychological assumptions. He even goes so far as to speak of an 'ideal consumer' or 'ideal man' (Hicks, 1956, p. 18). As one would expect he avoids the use of the old concept of economic man, because of its hedonistic connotations. One of the main characteristics of this ideal consumer is the concept of maximization.

"Let us now introduce the additional hypothesis, that the consumer will always prefer a larger amount of M to a smaller amount of M, provided that the amount of X at his disposal is

unchanged." (Hicks, 1956, p. 42)

Clearly the concept of maximization is implicitly present in the above passage. As was observed an important manifestation of the influence of the hedonistic approach in orthodox economics is the idea of maximum satisfaction. Although Hicks does not specify what the consumer maximizes, it seems that this idea is connected with the hedonistic aim: maximum satisfaction. As we shall see later, the concept of maximization is an important part of modern consumer and producer theories. Also it is vitally connected with the notion of rationality which will be discussed subsequently. A rational consumer or producer will always aim at maximization. As one can observe modern theory has succeeded in deleting the explicit hedonistic terms. However, this does not mean that they succeeded in eliminating the implicit hedonistic influence, as the concept of maximization indicates.

After some pages in the same article, Hicks goes even further to mention that consumers maximize utility. More specifically, Hicks makes an assessment of previous orthodox economics which he calls 'Plain Economics' in contrast with the new approach which he calls 'Econometrics'. After mentioning that Plain Economics conceive producers as maximizing money gain and consumers as maximizing utility (Hicks, 1956, p. 5), Hicks asserts that the conception of human behaviour is identical in both kinds of economics, and he goes on to state:

"The human individual only comes to Plain economics as an entity which reacts to certain stimuli; all that the Plain economists needs to be interested in are the laws of his reactions. Now it is precisely these laws which the econometrist is endeavouring to study, by methods which are empirical as well as theoretical." (Hicks, 1956, p. 5)

For the above it seems that he was ready to tolerate the idea of a utility maximizing human individual. Moreover, one can observe the similarity of his conception of consumer behaviour with that of behaviourist psychology. As we noted, behaviourist psychologists emphasized the stimulus-response approach to human behaviour. In addition there is a similarity with Pareto's statement that the individual can vanish provided the photography of his preferences is preserved.

The above is not the only indication that in essence Hicks' thought was not so independent from hedonistic associations. In another subsequent work, "The Social Framework" his terminology is clearly influenced by the hedonistic approach. More specifically, in a very similar manner to that of the hedonistically-oriented economists, he conceives economic life as an organization of producers to satisfy the wants of consumers (Hicks, 1960, p.15). The analysis in terms of satisfaction of wants is again present in his definition of the concepts of producer and consumer.

"Henceforward we shall mean by production any activity directed to the satisfaction of other people's wants through exchange; we shall use the word producer to mean a person engaging in production in this sense. A person whose wants are satisfied by such production we shall call a consumer."  
(Hicks, 1960, p.22)

A want-satisfaction consumer is also a key concept in his "Value and Capital". At one point, Hicks admits something which was implicitly present in the whole of his analysis. As he writes:

"As the discussion proceeded, we have mostly kept in mind the most obvious application of our analysis: to the ordinary consumer spending his income on the satisfaction of his immediate personal wants." (Hicks, 1946, p.55)

One can discern the implicit presence of a satisfaction maximizer, selfish economic man. Hicks does not specifically mention that the consumer is motivated by self-interested behaviour only, but the implication of the above is that this is so. However, Hicks is again anxious to eliminate hedonistic implications and attempts to include altruism too. Thus, he states that: "there is also included, as Wicksteed well pointed out, the purchase and sale of goods, not to satisfy the wants of other people, or what one supposes those wants to be" (Hicks, 1946, p.56). However, the above passage seems to be a minor part in his theory. Hicks does not mention again the possibility of altruistic behaviour and certainly he does not devote any space to its possible theoretical implications. (The adoption of altruistic agents has substantial effects especially in exchange theory, but Hicks does not examine this possibility; see for instance Collard, 1978 and Danielson, 1975.)

The idea of maximization is important in Hicks' economic thought

(as it was in marginalist economics). In his effort to purify economics from psychology or ethics, Hicks in his "Value and Capital" avoids specifying what the consumer maximizes, and as we shall observe later, this is the case with the modern consumer theory. However, it is clearly implied that the object of maximization is utility. This can also be seen from his subsequent works which indicates that the essence of his approach is not very far from the marginalist paradigm. It has to be said though, that on the surface, utility is not a necessary concept in the Hicksian theory of choice, but its relationship with the theory of utility is not so difficult to identify. As B. Loasby points out:

"Preference functions do not logically require the old-fashioned concept of utility; but it is much easier to believe in them if one is allowed to believe in utility as well." (Loasby, 1976, p.23)

As we will observe later the modern developments of the Hicksian theory of choice, which can be found in standard microeconomic textbooks, attempt to present a theory of choice which is independent of any normative elements. The presentation of this theory starts with a set of assumptions and proceeds to formulate the problem in terms of constrained optimization (see for instance Gravelle and Rees, 1981, pp.55-95). In spite of all the formalization and attempts to expel all non-scientific terms, the concept of utility maximization is always present. The modern theory of rational choice which comes from Hicks, will be discussed in a subsequent section. There we will also observe its implicit psychology. Moreover, a number of contemporary authors when they refer to Hicksian consumer theory, state that the consumer is supposed to maximize his satisfaction as an important assumption of the theory. This is additional evidence of the implicit presence of hedonistic based assumptions (see for instance Mishan, 1961, p.2). Thus one can maintain that despite Hicks' and subsequent economists' efforts, hedonism has still an underlying influence.

In this section we discussed the main points of the new approach of J. Hicks. We noted that Hicks' thought represented a theoretical attempt towards a positive economic science, without psychological

assumptions. Like Robbins, Hicks was influenced by logical positivism which was the dominant scientific philosophy by the time that he wrote his most important work "Value and Capital". The first step towards the construction of an objective economic science was the replacement of the utilitarian oriented theory of utility with a new allegedly objective theory of choice. Thus, Hicks replaced the marginalist utility function with a preference function in which preferences can be ordered but cannot be measured cardinally. The implications of this, were a new conception of the indifference curve. The Hicksian indifference curves had the same structure as the ones used by Edgeworth but instead of utility space, Hicks introduced commodity space. After this, Hicks went on to reject all the utilitarian concepts and to introduce new ones like marginal rate of substitution instead of marginal utility. However, in the process of his analysis, Hicks introduces some psychological assumptions (axioms in the theory of choice) which of course are not in the methodological spirit of the new objective economics. One of these assumptions is the principle that the consumer attempts to maximize something, which is not specified, although utility in the sense of satisfaction is clearly implied. This can also be reinforced by Samuelson's accusations which will be seen in the next section. And as we have observed this idea comes from the hedonistic tradition. Moreover, the same thing can be seen from his indifference curves analysis where a higher indifference curve is explained in terms of increased utility. In addition, hedonistic influences are further indicated in his subsequent works where the idea of the satisfaction of wants is crucial. One can also discern signs of explicit acceptance of the consumer as a utility-maximizing being. Furthermore, it seems that he conceives consumers as basically selfish which is in accordance with the majority of the hedonistic oriented theorists, despite his brief and minor statement otherwise. The modern versions of Hicksian theory which can be found in orthodox microeconomic textbooks cannot help analysing consumer behaviour in terms of maximum utility and indifference curves in terms of utility levels.

In general, it has to be mentioned that the introduction of the Hicksian theory of choice minimized to a considerable extent the

hedonistic image of orthodox economics. However, the above leads us to believe that although hedonism has been pushed from the foreground of orthodox economics, Hicksian theory did not succeed in eliminating it, and it remained as an important underlying influence.



## 6.5 P. SAMUELSON

The attempt towards the reconstruction of an economic science free from psychological or philosophical connotations continued in the work of P. Samuelson. Like Hicks', Samuelson's work is clearly oriented towards the reconstruction of microeconomic theory, especially of consumer's behaviour theory. Samuelson's work goes back to the late 1930's when he started to formulate his views about consumers' behaviour. More specifically, in 1938 he published an article entitled "A Note on the Pure Theory of Consumer's Behaviour" which constituted the basis of his subsequent theories. However the work which most influenced orthodox economists was his "Foundations of Economic Analysis" which first appeared in 1947. (Apparently it was based on Samuelson's doctoral dissertation.) It can be said that the above work along with Hicks' "Value and Capital" are the pillars of modern microeconomic theory. A basic part of the "Foundations" is the theory of revealed preference which according to Samuelson and to many contemporary economists, is a pure scientific theory free from subjective concepts. In his quest for objectivity and for a positive economic science, Samuelson tried to go a step further than Hicks by starting from fewer assumptions and expelling more 'subjective' concepts. Thus, for instance, he does not assume that indifference curves are given as Hicks did. This extreme emphasis on observed behaviour was the starting point of his theory of choice. The idea was that by emphasis on observed behaviour only, economic theory could be independent from any philosophical or psychological connection and thus achieve the much desired status of an exact science. Moreover, this attention to observed behaviour foreshadowed Friedman's methodological views. But let us discuss Samuelson's main points and especially his claim of the neutrality of the revealed preference theory.

As was the case with Robbins and Hicks, Samuelson believed that economics could acquire the scientific prestige of the physical sciences if it could free itself from 'subjective' elements. Thus, one important motive for the construction of his theory was the making of positive economics. Another equally important motive, again like Robbins and Hicks, was the critique of hedonistic or utilitarian bias

of orthodox economics by followers of alternative economic approaches. The above points can be clearly seen in many of Samuelson's works and especially in his "Foundations". More specifically Samuelson wishes to point out the non-hedonistic nature of modern economic theory when he writes:

"Concomitantly, there has been a shift in emphasis away from the physiological and psychological hedonistic, introspective aspects of utility...At the same time there has been a similar movement away from the concept of utility as a sensation, as an introspective magnitude. It is not merely that the modern economist replaces experienced sensation or satisfaction with anticipated sensation, desire, according to the now familiar distinction between ex post and ex ante analysis. But much more than this, many writers have ceased to believe in the existence of any introspective magnitude or quantity of a cardinal, numerical kind."  
(Samuelson, 1963a, p. 91)

Samuelson uses two arguments for the defence of his idea of the non-hedonistic nature of modern economic theory: anticipated sensations and ordinal measurement. In respect of the first, it can be observed that he avoids stating that 'experienced satisfaction is replaced by anticipated satisfaction' but only uses the word sensation or desire. (It is clear that he means satisfaction.) Here it can be noted that most hedonistic theorists (since the ancient Greeks) also considered future or anticipated satisfactions or pleasures, and this means that the essence of the idea of maximization of pleasure (hedonism) is the same. One can also point out that introspection does not have to be cardinal or numerical.

The second motive (the critique of hedonistic bias) of this attempt towards the establishment of a 'neutral' theory can be seen in the following statement:

"Moreover, it is part of economic doctrine [the subjective theory of value associated with the names of Jevons, Menger and Walras], which has proved to be the center of so much controversy. Indeed, many critics of the orthodox tradition have identified the whole body of economic theory with the belief in that abstraction, homo economicus."  
(Samuelson, 1963a, p. 90)

Thus, the influence of logical positivism and the critique by non-orthodox economists are two elements which must be taken into account for the understanding of Samuelson's theory.

Samuelson is not satisfied by Hicks' attempt to construct a value-free theory of consumer behaviour. In an early article (1938) he expresses his doubts about Hicks' and Allen's reconstruction of utility theory in terms of marginal rate of substitution. As he writes:

"It is clear that much of even the most modern analysis shows vestigial traces of the utility concept...The introduction and meaning of the marginal rate of substitution as an entity independent of any psychological, introspective implications would be, to say the least, ambiguous; and would seem an artificial convention in the explanation of price behaviour."  
(Samuelson, 1938, pp. 61, 62)

In the same article, he goes on to formulate the basic elements of a new theory which later was to be known as the theory of revealed preference. As its name indicates, the basis of this theory is observed behaviour. Influenced by the behaviourist psychology which emphasized observed behaviour and neglected the underlying motivations, Samuelson tries to get away from 'subjective' concepts by accepting observed behaviour only. His starting point is that "the individual behaves as he behaves". We have seen a similar point in Fisher's "Investigations" where, like Samuelson, he attempted to 'neutralize' the theory of utility. However, for the construction of revealed preference the above point is not enough. Some psychological assumptions or axioms according to Samuelson are needed. (Of course, Samuelson never calls his axioms psychological assumptions.) These axioms or postulates, as mentioned in the article, are the following:

Postulate I: Confronted with a given set of prices and with given income the individual will always choose the same set of goods.

Postulate II: It is assumed that the consumer's behaviour is independent of the units in which prices are expressed.

Postulate III: It is assumed that the individual will be consistent in the following sense: If the first batch of goods is preferred to second batch, the second will never be preferred to the first. In symbols, it will never be the case that both:

$$\begin{aligned} &(\psi') < (\psi) \\ \text{and } &(\psi) < (\psi') \end{aligned}$$

where ' $\prec$ ' means is 'preferred less than' and  $\psi$  and  $\psi'$  are bundles of goods (Samuelson, 1938, pp. 61-65).

The essence of the theory is that if the behaviour of the individual conforms to the above postulates then the existence and the nature of his indifference curves can be known by his actions. Thus, in this way, Samuelson hopes to build a positive scientific theory of consumer's behaviour.

However, one can express a number of reservations about the validity of the above approach. First of all, Samuelson's extreme emphasis on observed behaviour can only be seen as a Baconian methodological view. However, the theory's dependence on axioms, which are deemed to be beyond observation, makes it irrefutable; and this goes against the mainstream of scientific methodology which places much emphasis on refutability of scientific theories. In addition, one could point out that the above postulates entail certain psychological characteristics. As we also noted in Hicks' theory, the concept of diminishing rate of marginal substitution and the assumption of non-existence of kinks -continuous preferences-, presuppose psychic characteristics. Samuelson cannot avoid the above observation and states that the postulates "relate to an idealized individual -not necessarily however, the rational homo-economicus" (Samuelson, 1938, p. 61). Nothing is mentioned about the precision with which the behaviour of the idealized individual is to be observed. Thus, although he is keen to state otherwise, the old concept of economic man is again on the scene. It is clear that an additional characteristic -maximization of satisfaction- is present at least implicitly in the theory (as we shall see later). Moreover, one can also state that despite Samuelson's emphasis on observed behaviour, he does not give evidence of any actual observation of behaviour, but only refers to it in theoretical terms.

Before we proceed, it is useful to mention that Postulate III is also known as the 'weak axiom' of revealed preference. After some years, Samuelson would find necessary to extend this axiom into the so-called 'strong axiom' of revealed preference. The reasons for this extension will be examined in the subsequent pages.

Ten years after the appearance of the above article, Samuelson

would publish a more sophisticated version of his preference theory. This can be found in the "Theory of Consumer's Behaviour", a chapter of his "Foundations". In this chapter, Samuelson, apart from restating the preference theory, examines the implications of changes in prices and income. First of all he states the fundamental assumptions of his theory:

"The utility analysis rests upon the fundamental assumption that the individual confronted with given prices and confined to a given total expenditure selects that combination of goods which is the highest on his preference scale. This does not require a) that the individual behave rationally in any other sense; b) that he be deliberate and self-conscious in his purchasing; c) that there exist any intensive magnitude which he feels or constructs." (Samuelson, 1963a, p.97)

One can note some interesting points from the above quotation. First of all, Samuelson seems to offer a utility analysis. This is quite incompatible with his stated purposes. Also one can only wonder about the role of the concept of preference scale in a theory which is concerned with observed behaviour. Furthermore one can argue that assumption c) implies that there is no reason for behaviour.

But let us attempt to present Samuelson's theory with a graph.

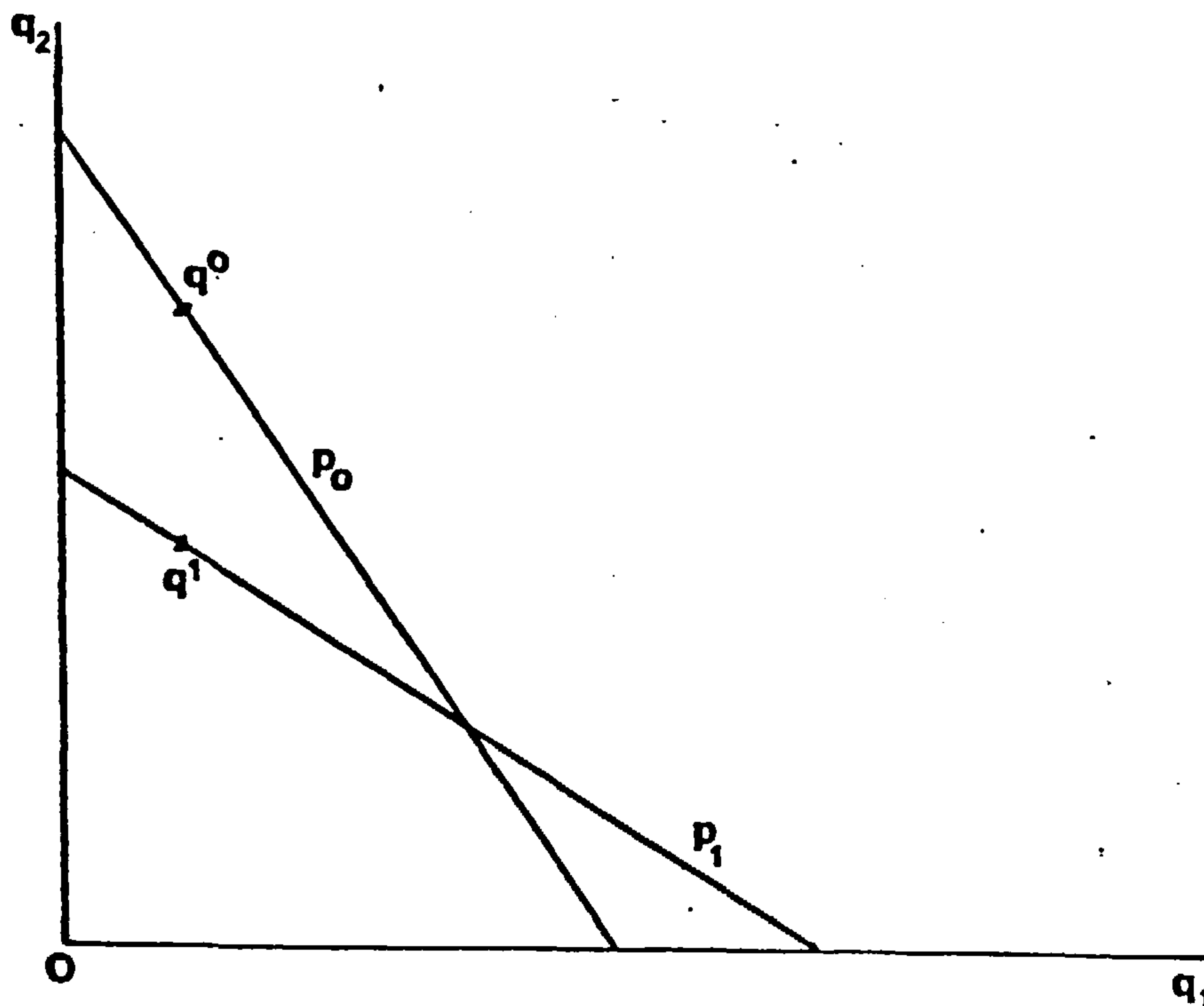


Figure 6.2

In the case of two goods, let us assume that when prices were given by the line  $p_0$  the consumer purchased the good combination  $q^0$ , and when prices were given by  $p_1$  the consumer purchased  $q^1$  (the lines represent budget lines). According to the figure he could have purchased  $q^1$  at the  $p^0$  prices since  $q^1$  lies below the line  $p^0$ . Given this choice, the weak axiom states that  $q^0$  must be unattainable when the consumer buys  $q^1$ , that is,  $q^0$  must lie above line  $p^1$ . By repeating the same method, Samuelson is able to derive indifference curves which are identical to Hicksian indifference curves. Having done this, the problem, according to Samuelson, is reduced to finding a maximum for the ordinal preference field subject to a budget constraint. More analytically, Samuelson considers the simple case of any two combinations of goods respectively  $(X_1^0, \dots, X_n^0)$  and  $(X_1^1, \dots, X_n^1)$  or in short  $(X^0)$  and  $(X^1)$ . Then he asserts that the consumer has the following mutually exclusive choices:

- a)  $(X^0)$  preferred to  $(X^1)$
- b)  $(X^1)$  preferred to  $(X^0)$
- c)  $(X^0)$  and  $(X^1)$  equally preferred or indifferent

Each combination is assumed to be a continuous differentiable function which can be written

$$\varphi = \varphi(X) = \varphi(X_1, \dots, X_n)$$

A given utility index can be found if a number is attached to every combination. Then he introduces another function

$$U = F(\varphi) \text{ where } F'(\varphi) > 0$$

which is defined by any monotonic transformation of the function  $\varphi$ . Then the ordinal preference field can be defined as:

$$U = F[\varphi(X_1, \dots, X_n)], \quad F'(\varphi) > 0 \quad (1)$$

And if the budget line is:

$$\sum_{i=1}^n p_i X_i = I \quad (2)$$

where  $p$  = price and  $I$  = income, then the problem is to find a maximum for (1) subject to (2) (Samuelson, 1963a, p.98)

The whole analysis resembles the familiar issue of finding the highest indifference curve subject to a budget constraint. The difference here is that indifference curves are not given but can be constructed if the consumer chooses according to the axioms. From this stage onwards both theories provide the same results: the construction of demand functions.

One can observe an important point in the above analysis: it is assumed that the functions are continuous. The implication of this, is that indifference curves can only be constructed if we assume the above. In modern texts this assumption is sometimes stated as the continuity assumption.

Another significant observation is that Samuelson emphasizes that his theory does not require the existence of any intensive magnitude which the consumer feels or consults. However, a few pages later, in the process of his discussion of his theory, he states:

"If this cost [the cost of the second batch of goods] is equal to or less than the amount of money that the first batch actually cost, we have conclusive evidence that the second batch is not higher on the individual's preference scale than the first batch; for if it were, the individual could not have been in equilibrium in the first place, since he would not be minimizing total expenditure for the attained level of satisfaction. In other words, if he could have bought the second batch, and he bought the first, we rule out the possibility that he prefers the second to the first."  
(Samuelson, 1963a, p. 109)

As it can be seen, Samuelson uses here the concept of satisfaction as the explanation of consumer's choice. This is in sharp contrast with his previous statement of the 'non-existence of magnitudes that the consumer feels or consults'. Moreover, the above passage implies that the consumer attempts to maximize his satisfaction subject to a constraint. This indicates the necessity of bringing in a kind of

psychological dimension to the theory and this dimension is not very far from hedonism (see also Kroeber-Riel, 1971, pp. 340-344). Clearly the implication here is that the hedonistic connection is not at all finished as Samuelson claims.

Even with the unquestionable acceptance of the three axioms as completely legitimate, the theory of revealed preference is susceptible to serious criticism in its own framework. More specifically, the 'weak axiom' which we saw in the previous pages was shown to be insufficient for the construction of indifference curves. The first sign of this criticism appeared even before Samuelson's first official publication of his theory. In particular, Georgescu-Roegen pointed out that one has to assume consistency in the preference field before attempting to arrive at indifferent curves through revealed preference theory (Georgescu-Roegen, 1936, pp. 549-593, and Lutz and Lux, 1979, p. 325). Thus a need for a stronger axiom arose which would solve the above problem. Three years later, after the publication of his "Foundations", Samuelson -assisted by an earlier article written by H. Houthakker- extended the 'weak axiom' into the 'strong axiom' (Samuelson, 1950, pp. 355-385, and Houthakker, 1950, pp. 159-174). In simple terms this new axiom (stronger transitivity) states:

If	$x_0 > x_1$
and	$x_1 > x_2$
then	$x_0 > x_2$

Where  $x_0$ ,  $x_1$ ,  $x_2$  are combinations of goods, and  $>$  implies "preferred to".

The new axiom was thought to be sufficient for the establishment of the indifference curves. However, in 1954 Georgescu-Roegen demonstrated again that even the 'strong axiom' cannot establish indifference curves. According to Georgescu-Roegen the strong axiom does not guarantee that the derived indifference curves would give comparable combinations of goods at all points. We have seen that Samuelson's theory claims that from observation, one can construct integral varieties (from the continuous functions that we have mentioned) and these integral varieties give us indifference



varieties. (For a detailed discussion of this, see Georgescu-Roegen, 1966, pp. 217-227.) Georgescu-Roegen's criticism is in the following lines:

...although they [integral varieties] have many properties in common with indifference varieties, they cannot possibly be related to the latter in any truly significant way...In the first place, not all combinations can be compared with another." (Georgescu-Roegen, 1966, p. 225)

Apart from the above one could describe decision situations where the transitivity relation breaks down. A specific example of a decision maker who wants to purchase a type of car can be described as follows: Price is the dominant criterion and reliability is the secondary one. His decision rule is: preference will be based on price unless the difference is less than £1000, in which case the second criterion operates.

Type of car	Price	Reliability
A	4000	Low
B	4800	Medium
C	5500	High

If types of cars A, B, C correspond to  $x_0$ ,  $x_1$ ,  $x_2$  respectively, then:

$$x_1 > x_0$$

$$x_2 > x_1$$

$$x_0 > x_2$$

It is clear here that the transitivity relation is not valid. (Choices here are lexicographic, but they need not to be, see Fishburn, 1974, p. 1446.)

Up to now we have discussed the logical difficulties of the axioms. Apart from the logical difficulties there is an observational difficulty concerning the strong and even against the weak axiom and this comes from the field of psychology. More specifically, both axioms are also known as the 'transitivity condition'. At first sight, transitivity seems quite logical especially when it refers to mathematical relations. However, it seems that it is questionable when it refers to preferences, as in Samuelson's theory. A. Tversky, in a

1969 article demonstrated that individuals are not perfectly consistent in their choices. By drawing information from experiments, Tversky asserts that:

"When faced between repeated choices between x and y, people often choose x in some instances and y in others. Furthermore, such inconsistencies are observed even in the absence of systematic changes in the decision maker's taste which might be due to learning of sequential effects."  
(Tversky, 1969, p.31)

These psychological findings undermine the idea of transitivity of preferences and thus Samuelson's revealed preference theory.

As was observed in the previous pages, the novel idea of Samuelson's theory is that it attempts to derive indifference curves without assuming their existence as was the case with Hicks. In the section dealing with Hicks we noted that essentially indifference curves are conceived along the lines of Edgeworth and Pareto (utility or pleasure based). On the other hand, Samuelson declares in the first publication of his theory that his purpose is to develop the theory of consumer's behaviour freed from any vestigial traces of the utility concept (Samuelson, 1938, p.71). Thus, one is tempted to ask why Samuelson goes back to indifference curves. As S. Wong puts it:

"The use of indifference curves is obviously illegitimate within a framework which aims to dispense with vestigial remnants of the utility concept..."(Wong, 1978, p.59)

Moreover, the fact that Samuelson's theory uses the same tools and arrives at the same results of consumer's behaviour theory as Hick's ordinal utility theory, is another indication that his thought belongs to the same conceptual framework as Edgeworth, Pareto and Hicks.

The most important implications of the above points (logical and observational difficulties) suggest the view that in revealed preference theory, the existence of indifference curves is implicitly assumed, otherwise the theory is problematic. Moreover, this reinforces the view that the theory belongs to the same conceptual framework as those discussed previously. Georgescu-Roegen points out:

"Perhaps the most important is that the integral varieties, whether for two or more commodities, do not necessarily represent indifference varieties, unless the existence of a

regular indifference map is already assumed by the approach as, according to my contention, Pareto did." (Georgescu-Roegen, 1976, p. 337)

All this points to the idea that a satisfaction maximizing consumer is an implicit but ever-present concept in the theory of revealed preference. Thus, the hedonistic influence is still present and so Samuelson's intention to construct a value-free economic theory seems to be unsuccessful. As S. Wong emphasizes:

"The development of the theory [Samuelson's] does not represent a break with the tradition in economic theory in which consumer behaviour is explained in terms of preferences (and material circumstances). Consequently, the attendant philosophical and psychological controversies of utility theory, which Samuelson hoped to erode with his observational theory, are not exorcised from the corpus of economic theory..." (Wong, 1978, p. 73)

Apart from the above mentioned theorists, other economists have questioned the independence of revealed preference theory from utility theory (see for instance Robinson, 1962, pp. 50-51, and Stigler, 1966, p. 68).

An additional indication of the underlying hedonistic influence in Samuelson's theory is his discussion of consumer's theory in his very influential textbook "Economics". Given his aims of purifying economic theory of subjective elements one would expect that his treatment of consumer theory would be oriented towards this aim even in an elementary textbook. In spite of this he easily identifies utility with satisfaction and explains:

"As a customer you will buy a good because you feel it gives you satisfaction or utility. A first unit of a good gives you a certain amount of psychological utility." (Samuelson, 1980, p. 408)

Furthermore the relationship between indifference curves and satisfaction is established and the maximization of consumer satisfaction is stated as the point of tangency of the budget line to an indifference contour (Samuelson, 1980, pp. 418-420). But we will discuss modern orthodox textbooks more analytically in the following section.

In this section we discussed the main points of Samuelson's revealed preference theory. It was noticed that his main motivation

for the construction of a new theory of consumer's behaviour was the ideal of a positive economic science free from psychological or philosophical connections. According to Samuelson, the latest attempt towards this direction (Hicks' ordinal utility theory) had ambiguous results because it assumed the existence of indifference curves (which ultimately are based on the concept of satisfaction). Thus, Samuelson considered only observed behaviour in the market and tried to reformulate consumer's theory on this basis only. By defining a number of behavioural axioms and by subsequent observations (which were purely theoretical), he was able to construct an ordered preference field or an indifference map. Then he implicitly assumed maximizing behaviour and arrived at the final formulation which sets to maximize the ordered preference field equation subject to a budget constraint. Thus, all the fundamental concepts of orthodox microeconomic theory (demand function, substitution effect, etc) are constructed on the above basis, which is allegedly free from any subjective elements.

However, his analysis can be criticized on the following grounds: In the process of the construction of his theory, Samuelson cannot avoid using the concept of satisfaction in order to explain consumer choice. Also, along with the concept of satisfaction, the concept of utility appears in his attempt to clarify his theoretical views. In addition, while the idea of homo economicus is discarded, he admits that the axioms refer to an 'idealized individual'. Moreover, he realizes (after some years from the initial appearance) that a further axiom is needed in order to construct indifference curves from observation (stronger transitivity axiom). However, as Professor Georgescu-Roegen (whom Samuelson acknowledges in later works) showed, even the strong axiom is not sufficient to derive indifference curves unless these curves are implicitly assumed to exist. Apart from this, the validity of transitivity in preferences has been questioned by modern psychologists. Moreover, Samuelson's need to construct, by allegedly objective methods, the indifference curve (an old, value-laden psychological concept) indicates that Samuelson's theory is not at all alien to the hedonistic approach of marginalist theorists. Furthermore, the treatment of consumer theory in his extremely influential "Economics", is an additional indication of his connections

with the old approach.

All of the above together with the fact that his discussion is highly formalized (as with most hedonistically influenced theorists), pose serious questions to the claim that revealed preference is a neutral theory and independent from hedonistic connotations.

## 6.6 THE DEBATE ABOUT THE ASSUMPTIONS

Before we go on to a discussion of the current state of affairs, we should mention M. Friedman's methodological position which can be seen as a more recent attempt to justify orthodox economics as a neutral, positive theory. More specifically, Friedman's attempt was entirely different from that of Hicks' and Samuelson's. As we discussed, Robbins, Hicks, Samuelson and other orthodox theorists attempted to construct an economic theory free from any utilitarian or hedonistic connection. The basis of their endeavour was the introduction of new concepts and theories allegedly free from psychological connotations (ordinal measurement, preference based indifference curves, revealed preference theory etc). As was observed the attempt was not successful in establishing a value-free theory.

In 1953, M. Friedman tried to do the same thing (expel hedonism) by a completely different method. In his "Essay on the Methodology of Positive Economics", Friedman argued that the realism of the assumptions does not matter for the validity of a theory. It is clear that Friedman's purpose was to insulate orthodox theory from a wide range of criticisms; among them the hedonistic criticism, as we shall see. From our point of view, the implication of Friedman's thesis is that the philosophical or psychological connections of the assumptions of orthodox economic theory are irrelevant and that they do not have any effect on the value of the theory. It is evident that this thesis effectively brands as useless all the previous attempts to construct a value-free economic science. Thus for instance Robbins', Hicks' and Samuelson's attempts to build an economic theory without the notion of a pleasure maximizing individual or more generally to eliminate the importance of economic man, are seen as unnecessary in Friedman's context. As one would expect, Samuelson and other economists reacted strongly against Friedman's thesis. But let us see the debate more systematically.

Friedman made his intentions clear from the beginning of the essay:

"Viewed as a body of substantive hypotheses, theory is to be judged by its predictive power for the class of phenomena which it is intended to 'explain'. Only factual evidence can show whether it is 'right' or 'wrong' or better, tentatively

'accepted' as valid or 'rejected'. As I shall argue at greater length below, the only relevant test of the validity of a hypothesis is comparison of its predictions with experience." (Friedman, 1953, pp. 8-9).

Friedman moves on to state explicitly that the assumptions of a theory are irrelevant for its validity. As he writes:

"Up to this point our conclusions about the significance of the 'assumptions' of a theory have been almost entirely negative: we have seen that a theory cannot be tested by the 'realism' of its assumptions and that the very concept of the 'assumptions' of a theory is surrounded by ambiguity." (Friedman, 1953, p. 23)

At one point of his essay, Friedman goes so far as to state that in order to be important, a hypothesis must be descriptively false in its assumptions (Friedman, 1953, p. 14).

His next step is to point out the implications of his methodology for certain economic issues. His first example, which also proves that one important purpose of his thesis was to combat the criticism of hedonistic influence, is Veblen's attack on orthodox economics. Specifically, he refers to Veblen's idea which sees economics as a 'dismal' science because it assumes man to be a selfish and money-grubbing, 'a lightning calculator of pleasures and pains, who oscillates like a homogenous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact' (Friedman, 1953, p. 30). Friedman's response to this attack is not like Robbins' or Samuelson's. He simply points out that:

"...criticism of this type is largely beside the point unless supplemented by evidence that a hypothesis differing in one or another of these respects from the theory being criticized yields better predictions for as wide a range of phenomena. Yet most such criticism is not so supplemented; it is based almost entirely on supposedly directly perceived discrepancies between the 'assumptions' and the 'real world'." (Friedman, 1953, p. 31)

Thus Friedman's response to the idea of hedonistic influence on economics is carried out in terms of the "irrelevance of assumptions thesis". The neutrality of mainstream economics is not affected by the fact that its assumptions are based on a particular conceptual framework.

Samuelson's answer to Friedman's position, which he branded the 'F-Twist', was very fierce. In a 1963 article, Samuelson wrote:

"To use the F-Twist to minimize the imperfections or irrelevancies is, as I have argued, simply wrong...[F-Twist] is fundamentally wrong in thinking that unrealism in the sense of factual inaccuracy even to a tolerable degree of approximation is anything but a demerit for a theory or hypothesis (or set of hypotheses)." (Samuelson, 1963b, pp. 233, 236)

An important implication of Samuelson's response is that assumptions do matter and of course that they must be a good approximation of reality, if a hypothesis or a theory is to be valid. This response gives also a new dimension to Samuelson's earlier work and especially to the axioms of his revealed preference theory, that we saw in the previous section. Thus, for instance his notion of an 'idealized individual' which is used in the construction of his theories, is a more or less realistic assumption (as we noted, the psychology of this idealized individual is not very different from the hedonistic psychology of economic man).

Samuelson was not the only orthodox economist to react to Friedman's thesis. Other theorists like Koopmans and Rotwein launched a strong methodological critique against the thesis of the 'irrelevance of the assumptions' (Koopmans, 1957, and Rotwein, 1959). However, a large number of orthodox economists accepted or were ready to tolerate Friedman's argument. Moreover, Rational Expectations theorists followed Friedman's methodology in practice by explicitly stating that their theory is instrumentalist (see Lucas, 1980). However, one can argue that Rational Expectations theorists are inconsistent in that their argument that economic agents are rational -in their sense- appeals to realism (see also Dow, 1985, pp. 149-154).

In general it seems that the F-Twist provides an alternative method (apparently an easy one) for diminishing the significance of the hedonistic based assumptions of mainstream economics. Also the fact that Friedman's thesis was used to justify allegations of hedonistic bias of theories, indicates that the earlier neutralization attempts were not seen to be very successful.



## 6.7 CURRENT STATE OF AFFAIRS

### 6.7.1 General State of Microeconomic Theory

It can be maintained that Samuelson's revealed preference theory was the last major theoretical development of modern microeconomics and especially of consumer's behaviour theory. After Samuelson, subsequent orthodox economists worked towards a general theory of choice free from psychological assumptions (Arrow and Debreu are the first examples that come to mind; see for instance Arrow and Debreu, 1954, and Debreu, 1959). However, these subsequent developments do not constitute a significant change from the basic logic of the theories of choice that we discussed. Thus, the foundations of modern microeconomics are both the Hicksian ordinal utility theory and Samuelson's revealed preference.

Hicks' and Samuelson's choice theories did not only apply to the consumer but to the producer too. Thus both Hicks and Samuelson, and also subsequent theorists, aimed at establishing general theories of choice which would be capable of dealing with a wide range of economic problems. Nowadays neoclassical economic theory is heavily based on these theories of choice, and as one would expect there is concern over their axioms or assumptions. Economists attempt to combat the criticism of these assumptions by simply stating that essentially the only crucial necessary assumption is that of rationality. By doing this they attempt to reduce all the assumptions of the theories of choice that we saw to just this one fundamental assumption. Rationality in orthodox economics is equivalent to constrained optimization (maximization or minimization). However, this important point will be discussed in detail in the subsequent section which will be concerned with the theory of the rational consumer.

As was noticed in the previous chapters, the origin of the concepts of maximization and minimization can be found in the influence of the hedonistic approach. One can observe the implicit influence of hedonism in this context when one presses even the more formalist orthodox economists to answer the question as to what consumers (producers) maximize (minimize). The fact that most of them

will answer utility (profits) and that they are willing to identify utility with satisfaction indicates the above. This issue will be discussed more analytically in the following chapter.

Despite the attempt of a number of economists to reduce all their assumptions to that of rationality, one can discern eight lawlike statements that constitute the basis of equilibrium economics and generally of neoclassical economics. These statements have been identified by Hausman as being the following (see Hausman, 1984, p. 345):

1) For any individual A and two options x and y, one and only one of the following is true: A prefers x to y, A prefers y to x, or A is indifferent between x and y.

2) A's preferences among options are transitive.

3) A seeks to maximize his or her own utility where the utility of an option x is greater than the utility of an option y for A if and only if A prefers x to y. The utilities of options are just equal in the case where the agent is indifferent between them.

4) If option x is acquiring bundle x' and option y is acquiring bundle y' and y' contains at least as much of each commodity and more of at least one commodity, then all agents prefer y to x.

5) The marginal utility of a commodity c to an agent A is a decreasing function of the quantity of c that A has.

6) When we increase any input into production, other things being equal, output increases, but, after a certain point, at a decreasing rate.

7) Increasing all inputs into production in the same proportion increases output by that proportion. The production set is weakly convex and additive.

8) Entrepreneurs or firms attempt to maximize their profits.

The above are sufficient to construct, through a formalist methodology, theories of production and consumption. A first observation that one can make is that the term 'utility', which was the object of so much controversy has not been displaced, but rather is still widely acceptable. Although it is not explicitly stated, utility is conceived by the majority of mainstream economists to mean satisfaction or pleasure (see for instance Becker, 1976, p. 137 and Etzioni, 1986, pp. 160-161).

Furthermore consumers are supposed to maximize their utility and producers their profits. Everyone would prefer more to less because the implicit idea is that more goods or more profits mean more satisfaction. One can safely say that it is not very difficult to discern the hedonistic influence here. Moreover, some economists have identified this very strong position of maximizing behaviour not only in contemporary orthodox economics, but also in the history of the discipline (see for instance Gordon, 1965, p. 124).

Maximizing behaviour is the basic trait of economic man, a concept which despite the great efforts of many orthodox theorists, is still present (see for instance Becker, 1976, pp. 5, 6, 153). Whether it is called economic man or an idealized individual, the idea of maximization is present. A number of orthodox economists would deny the importance of this concept for orthodox economics. However, the effort to dismiss it that we saw in the previous pages, and the attempt of many economists to find an alternative, indicates its still important role in theory (see for instance, Leibenstein, 1976, Hargreaves-Heap, 1985, and for a critical approach Hollis and Nell, 1975, p. 54).

As an additional indication of the presence of hedonistic concepts in modern microeconomics, one can mention examples from the recent developments in the theory of choice under uncertainty. In particular, in their effort to account for some inconsistencies in the standard theory of choice under uncertainty, some theorists have developed the theory of regret. The basic point of the theory is that people tend to compare their actual situations with the ones they would have been in, had they made different choices in the past (Loomes and Sugden, 1983, p. 428). The subsequent analysis is conducted in terms of pleasurable or painful sensations.

"If they realize that a different choice would have led to a better outcome, people may experience the painful sensation of regret; if the alternative would have led to a worse outcome, they may experience a pleasurable sensation we call rejoicing." (Loomes and Sugden, 1983, p. 428)

It is clear that this approach is not very far from hedonism, especially when in a previous article related to the theory, the authors explicitly admit the similarity of their conception of utility

with that of Benthamite pleasure (Loomes and Sugden, 1982, p. 807). The specific reference to the psychological experience of pleasure as well as the idea that agents are assumed to maximize expected modified utility is another clear indication of the hedonistic connection. (Furthermore the conception of utility as a sensation can also be observed from the discussion.)

A utility maximizing economic agent is also a basic concept in modern welfare economics. In addition to this, the Benthamite idea of the collective maximization of satisfaction is also one of the foundations of welfare economics. In spite of the attempts to minimize the normative basis of welfare economics, it is clear that hedonism is a very influential framework in this subfield of orthodox economics (see for instance Ng, 1979).

From the above brief description of the current state of affairs, one can state that modern orthodox economics has not succeeded in freeing itself from philosophical or psychological connections, which was its goal. And when one speaks about the philosophical or psychological connections of orthodox economics, one cannot help but speak about hedonism, especially egoistic hedonism. In order to see the implicit presence of psychology in contemporary economics our next section is concerned with the modern axiomatic theory of the rational consumer which is considered as a good example of a psychology-free theory by many orthodox theorists.

### 6.7.2 The Theory of Rational Consumer

The majority of economists perceive the standard contemporary theory of the rational consumer as a neutral, positive theory, free from any psychological framework (:the basis of this theory is the Hicksian theory of choice). The starting point of this theory is that agents are assumed to be rational. The assumption of rationality is usually conceived as an obvious and simple assumption which does not itself involve any specific psychological characteristics. This is because the concept of rationality as is used in Neoclassical economics is seen as a general principle, the universal principle of all purposive action. In essence this conception has shielded the theory of rational consumer from any criticism and especially criticisms which are directed against its empirical validity. However, since the assumption of rationality is not adequate by itself to specify a theory, theorists supply a number of axioms which constitute the theory of the rational consumer. These axioms are as follows: (In our notation  $R$  means "at least as good as",  $P$  means "strongly preferred,  $X$  is the consumption set, and  $x, x', x''$  are bundles of goods.)

#### Completeness

For all  $x$  in  $X$  either  $x R x'$  or  $x' R x$  or both.

#### Transitivity

For all  $x, x', x''$  in  $X$ , if  $x R x'$  and  $x' R x''$  then  $x R x''$ .

#### Reflexivity

For all  $x$  in  $X$ ,  $x R x$

#### Non-satiation

For all  $x, x'$  in  $X$ , if  $x > x'$  then  $x P x'$

#### Continuity

For all  $x$  in the boundary set  $B(x)$  associated with  $x$ ,  $x' = x$   
(continuous function)

## Convexity

For all  $x$  in  $X$ , the set  $R(x)$ , consisting of all  $x'$  in  $X$  such that  $x'R x$ , is strictly convex.

The implication of the above axioms is that the preference ordering can be represented by a continuous, convex to the origin indifference curve. As a result of the non-satiation assumption, higher indifference curves are preferred to lower indifference curves. The introduction of the budget constraint completes the picture of the axiomatic rational choice theory.

Most writers feel that the axiomatic theory would be understood better if they supplement it with the old concept of the utility function. (We have explained this need in terms of the implicit presence of hedonistic ideas in previous sections). The following method is adopted:

$$u(x) = u(x') \text{ iff } x = x'$$

$$u(x) > u(x') \text{ iff } x > x'$$

After introducing the additional assumption of the differentiability of the utility function, the problem of the rational consumer choice becomes a problem of utility maximization of the following form:

$$\max U(x_1, x_2, \dots, x_n)$$

subject to

$$\sum p_i x_i = M$$

Where  $p$  is price and  $M$  is the total income of the consumer.

The above conception of the theory of the rational consumer appears to be neutral. However, a more careful examination reveals a number of implicit assumptions concerning the behaviour of the agent.<sup>1</sup>

To start with, the theory of the rational consumer presupposes that the preferences of the consumer are Archimedian. In formal terms

Archimedian preferences imply the following: Suppose that there are two bundles of goods  $x$  and  $y$ , and that

$$(x_1, y_1) P (x_2, y_2)$$

this can be reversed by increasing  $x_2$ . This means that there is a  $x > x_2$  such that:

$$(x, y_2) P (x_1, y_1)$$

In particular, a loss of some units of one bundle can always be compensated by gain of some other unit of another commodity (see Borch, 1968, p.22). This means that all preferences are considered to be reducible, that the preferences have no hierarchical structure. Different wants or needs with varying importance are reduced to a common denominator: utility. This implicit assumption can be traced back to the first conceptions of indifference curves that we observed in the previous sections.

The psychological nature of this implicit assumption can be seen more clearly if one assumes non-Archimedian preferences. Such preferences imply that agents are characterized by the principle of the hierarchy of wants or needs or in other words that preferences are irreducible. One can construct a complete model of consumer choice based on non-Archimedian preferences. A specific example of such a model is the lexicographic model where choice is based on different criteria: primary, and secondary. This model can be connected with non-hedonistic psychological theories (i.e Maslow). We will discuss the theory of lexicographic choice in chapter 7 in the section dealing with the alternative theories of choice.

As well as Archimedian preferences, egoistic preferences are almost always assumed by most theorists. According to many writers, the utility function of a given individual depends on what he or she consumes and nothing else (see for instance Winter, 1969, p.9, and Nicolaides, 1988). The standard approach is the following. The utility of individual  $i$  is written as

$$U_i(x_1, x_2, \dots, x_n)$$

The utility of the individual is not affected by the consumption of goods by other individuals. Thus the standard implicit assumption in the presentation of the theory of rational consumer is:

$$\frac{\partial U_i}{\partial x_j} = 0$$

(where  $i$  and  $j$  refer to individuals)

The importance of this implicit assumption can be demonstrated if one takes into account non-selfish utility functions. In the simple case of two individuals and one good, the utility function is:

$$U_i(x_1, x_j)$$

with the possibilities:

- 1)  $\frac{\partial U_i}{\partial x_j} > 0$  (altruism)
- 2)  $\frac{\partial U_i}{\partial x_j} < 0$  (malevolence)

The adoption of altruistic preferences will significantly alter a number of established theoretical points. For instance, altruistic preferences imply that indifference curves are closed when

$$\frac{\partial U_i}{\partial x_1} < \frac{\partial U_i}{\partial x_j}$$

When the above holds then the individual's indifference curve has a positive slope which means that the preference set becomes closed. Closed indifference curves have important implications for the theory of exchange. In the case of two goods, two individuals analysed in the standard Edgeworth box, closed indifference curves will give a shorter contract curve with sections which represent charity (see



Danielson, 1975 and Collard, 1978).

The implicit assumptions of Archimedian preferences and egoistic preferences combined with the idea of utility maximization as the sole aim of the consumer (which as we have seen is a standard feature of orthodox theory) can indicate an underlying psychological theory of the consumer. In particular, the basic characteristic of Archimedian preferences is that all wants are reducible because of the existence of a common denominator, utility, which as was observed, is conceived to mean satisfaction or pleasure. This implies that the underlying psychological framework can be identified as quantitative egoistic hedonism. The quantitative element corresponds to the presence of Archimedian preferences (pleasures are reducible and comparable). The egoistic element corresponds to the preoccupation with egoistic agents. Finally, the orientation towards the idea of utility maximization corresponds to hedonism. Thus one can observe that even in the contemporary theory of the rational consumer, which allegedly is seen as one of the positive bodies of orthodox theory, indications of the hedonistic psychological framework are present. This reinforces the idea of a continuous hedonistic influence on conventional economics.

### 6.7.3 Hedonism and Textbooks

The above idea that modern orthodox microeconomics has not succeeded in freeing itself from hedonistic influence can also be reinforced by a small survey of contemporary orthodox textbooks. One would expect that the 50 year old attempt to 'neutralize' economics would have its influence on the way that economic theory is taught. However, if one looks at contemporary influential economic textbooks, one will find out that the marginalist approach constitutes the core of consumer theory or production theory, four or five decades after Hicks' and Samuelson's purification attempts. As we noted, in spite of these neutralization attempts, the new allegedly positive theories still exhibit implicit and sometimes explicit hedonistic connotations. However, at the textbook level the hedonistic influence becomes much more apparent. The majority of orthodox texts use the terms utility and satisfaction (pleasure) as synonymous. This happens in elementary textbooks such as McConnell, 1975, p.488; Begg et al., 1984, p.90; and Graven, 1984, pp.168-169). Also the same thing can be observed in more advanced texts. For instance, one can read in Henderson and Quandt:

"If we have a utility function of the form

$$U^0 = f(q_1, q_2)$$

then since the utility function is continuous (1) is satisfied by an infinite number of combinations of  $q_1$  and  $q_2$ . Imagine that the consumer derives a given level of satisfaction  $U^0$  from 5 units of  $q_1$  and 3 units of  $q_2$ . (Henderson and Quandt, 1980, p.9)

Another intermediate textbook also follows the same approach. Ferguson and Gould write:

"A consuming unit -either an individual or a household- derives satisfaction or utility from the services provided by the commodities consumed during a given time period." (Ferguson and Gould, 1975, p.12)

In addition to the foregoing other widely used intermediate texts (and sometimes advanced ones) follow the same approach (see for instance, Koutsoyiannis, 1979, p.18). It is clear that the above is much closer to the marginalist line of thought than to developments of the last decades.

Apart from identifying utility with satisfaction as the marginalists did, many contemporary textbooks explicitly refer to the

concept of economic man. In spite of Robbins' efforts to minimize its importance, the concept can be found in a number of textbooks, and is almost identical to that of the pre-Robbinsonian era. L. Friedman states:

"The model of economic man can be described in terms of four assumptions...These assumptions form a model of decision making sometimes referred to as economic man, where each individual is portrayed as utility maximizer."  
(Friedman, 1984, pp. 22, 23)

Although it is not usually stated explicitly, economic man is viewed as selfish. The model of economic man is present in D. Laidler's text when he writes:

"The consumer wishes to do as well as he can for himself, to select that consumption pattern out of those available to him that will yield the highest possible level of satisfaction - he wishes to maximize his utility." (Laidler, 1981, p. 15)

The attempt by orthodox theorists to reduce all characteristics of economic man into one -rationality- is not very popular among textbook writers who still conceive him as a satisfaction maximizer. The consumer is not the only participant in the market who is shown as a utility or satisfaction maximizer. The same applies to the manager, as a successful textbook of managerial economics points out (see Heidenshohn and Robinson, 1974, pp. 82, 93).

As one would expect from the above, the notion of the indifference curve is not explained in Hicksian terms but in marginalist terms:

"The locus of all commodity combinations from which the consumer derives the same level of satisfaction forms an indifference curve. An indifference map is a collection of indifference curves corresponding to different levels of satisfactions." (Henderson and Quandt, 1980, p. 9)

Exactly the same definition is given by Koutsoyiannis (1979, p. 18). The Hicksian notion of a "neutral" indifference curve or map seems to have little impact on contemporary textbooks. (As was observed, Hicks avoided mentioning any subjective concept like "satisfaction" in his discussion of the indifference map).

In addition the analysis of consumer equilibrium that can be found in the majority of texts is conducted in terms of satisfaction

or utility levels. The consumer is viewed as having a given budget constraint which is represented with a straight line or a linear equation. The maximum of consumer satisfaction or utility is attained at the point of tangency of the budget line with the highest indifference curve (maximization of a utility function). Many textbooks follow this approach without worrying much about using concepts implemented by the marginalists years ago (see, for instance, Laidler, 1981, p. 14 and Miller, 1978, p. 31).

There are instances, however, where the modern developments are taken into account (this is the case among more advanced texts). The Hicksian-based term of marginal rate of substitution (which as we saw was meant to replace the hedonistic "marginal utility") is mentioned by many texts. However, the term is connected with the notions of satisfaction or utility which it was originally meant to replace. In an intermediate text one can read:

"[The marginal rate of substitution of x for y is] the number of units of y that must be given up per unit of x gained if the consumer is to either feel equally well-off or to continue to obtain the same level of satisfaction."  
(Miller, 1978, p. 21)

Exactly the same line of explanation is followed by Ferguson and Gould and Koutsoyiannis, where the concept of constant level of satisfaction is used to explain compensation (Ferguson and Gould, 1975, p. 24; and Koutsoyiannis, 1979, p. 18).

Few texts refer to Samuelson's revealed preference theory as a theory which meant to replace the value laden marginalist utility theory. In many cases RPT is mentioned only as a brief footnote (see for instance Miller, 1978, p. 31) or as a way of explaining index numbers. Generally, modern choice theories are connected with the marginalist analysis without giving a hint that the purpose of those theories was to free economics from the psychological assumptions of the marginalists. An example of such textbook is Lancaster's where one can read:

"Since 'most preferred' and 'giving greatest utility' are synonymous, we can make an addition to the list of equivalents to the statement that the consumer chooses point C on his budget line: At point C, the consumer maximizes his utility for points on the budget line...The decision to use

utility analysis or direct preference analysis is simply a matter of convenience." (Lancaster, 1974, pp. 231-232)

Apart from the above, some textbook definitions of economics are in the old marginalist climate (calculus of pleasure and pain). It seems that Robbins' apparently value-free definition had little influence on them. It must be noted, however, that such definitions are limited among textbooks. It shows though, that the explicit influence of hedonistic oriented marginalist economists is still present even in such basic thing as the definition of economics (see for instance, Solmon, 1976, p. 14).

Clearly, one can suggest a number of other possible explanations for the above explicit hedonistic orientation of economic textbooks. The first could be that textbook writers attempt to simplify theory in order to make it easier for students. Thus, it is better to use simpler concepts. One can note here that hedonistic concepts are not only used in introductory texts, but also in intermediate ones (and sometimes advanced ones). This is a first indication that hedonistic ideas are not used for simplification purposes. Another argument which supports this, is the existence of a few elementary textbooks where consumer theory is presented solely in terms of a general choice theory. An example of such textbook is V. Walsh's "Introduction to Contemporary Microeconomics". Walsh's textbook starts with a brief reference to the history of the utility concept and its subsequent replacement by a theory of choice. The whole subsequent analysis is based on Hicksian analysis. In contrast to many texts, Walsh discusses indifference curves in terms of preferences not in terms of utility (see Walsh, 1970). (One can mention though that Walsh, in the process of explaining the theory of choice, uses extremely hedonistic examples). The fact that the text has been a popular student textbook for many years indicates that choice theory can be presented simply enough to be understood by first year students.

Another argument against 'simplification' is that the great majority of textbook writers support explicitly a positivist economic methodology. This means that value-laden terms are not permitted (even if they can simplify theories) for methodological reasons (see, for instance, Lipsey, 1979).

A second explanation can be suggested in terms of the irrelevance of assumptions thesis that we saw in previous section. One could justify the use of hedonistic oriented assumptions by textbook authors in terms of this methodological position. However, none of the textbooks that we mentioned explicitly adopts Friedman's methodological ideas. (Only Miller and Ferguson and Gould are sympathetic to the idea that assumptions are not very important for theories.) On the contrary there are examples of texts which refer to the necessity of realistic assumptions. One of these texts is Stonier's and Hagues' that state that the ideal would be to devise assumptions which come closest to reality (Stonier and Hague, 1980, p. 678). Other authors explicitly call for realistic assumptions or reject Friedman's idea that unrealistic assumptions are positive advantage for a theory (see Graven, 1984, p. 10 and Koutsoyiannis, 1979, p. 4).

Given the above, one is tempted to conclude that the fact that many textbook authors feel that students will better comprehend better consumer theory if they mention things like "each individual tries to maximize his satisfaction", "utility means satisfaction" or "higher indifference curve means higher satisfaction level", might be seen as another indication of the implicit presence of hedonism in choice theories.

The above picture (a utility maximizing consumer) that most orthodox textbooks present, is also the microeconomic basis of mainstream macroeconomic textbooks (see for instance Stevenson et al, 1987, p. 17). It seems that the modern attempts towards the 'neutralization of economics' had no great impact on the microfoundations of orthodox macrotheory. As S. Dow points out:

"Individuals maximize utility subject to a constraint given by the structure of consumers preferences and the conditions of production (the production function)." (Dow, 1985, p. 90)

Moreover, the hedonistically oriented marginalist theory of value still constitutes the explicit basis of modern orthodox macroeconomic theory (Dow, 1985, p. 90).

In general, the above arguments demonstrate that the influence of the hedonistic framework on many orthodox textbooks is considerable.

Important sections of microeconomic theory are presented in a way that is explicitly based on hedonistic ideas. Moreover, the microfoundations of modern orthodox macroeconomics are influenced by the hedonistic framework. Thus, despite the efforts of a number of economists, the textbook presentation of important parts of economic theory is close to the explicitly hedonistic oriented economics of Jevons or Edgeworth. All this indicates that hedonism was not simply one characteristic of some marginalist economists, as many contemporary theorists believe, but that it still exercises a considerable influence on orthodox theory.

## 6.8 CONCLUSION

Our discussion in this chapter dealt with the main developments in orthodox economic theory of this century (especially microeconomic theory). In particular we started with a discussion of Pigou's ideas which were very influential in the first decades of the century. Although there were indications of a growing move towards a value-free, positive economic science in the spirit of Pareto, Pigou's thought was explicitly influenced by the hedonistic framework. His portrayal of the individual as a pleasure maximizer, his cardinal conception of utility and the idea of collective maximization of welfare place him closer to utilitarianism. However, after Pigou, the idea of a 'neutral' economic science (based on logical positivism) became very strong, and we have the first works which place emphasis on the minimization of the hedonistic image of orthodox economics. Robbins was the main figure in this respect. Additional reasons for the above tendency were the criticism against the hedonistic approach by heterodox economists and the influence of behaviourist psychology which emphasized observed behaviour, as opposed to motivations. These reasons and especially the influence of logical positivism, led Robbins to introduce a new allegedly neutral definition of economics. However, as was observed, hedonistically oriented concepts can still be found in Robbins' work and utilitarian influences are also discernable especially in his later works.

While Robbins set the methodological framework for constructing a positive economic science, Hicks and other mainstream theorists attempted to supply the theories. Hicks attempted to replace utility theory with a theory of choice, thus avoiding the value-laden concepts of utility and marginal utility. However, his analysis still involves the notion of an indifference map which can only be defined in terms of satisfaction levels, and also the concept of a selfish, satisfaction maximizing economic man.

It is likely that the unsuccessful attempt by Hicks to free economics from philosophical or psychological concepts, was one reason for Samuelson's revealed preference theory. By accepting observed behaviour only and by setting some postulates, Samuelson constructed his revealed preference theory and rediscovered all the basic elements



of consumer theory 'objectively'. However, Samuelson can not help using the concept of satisfaction in the process of his theory construction. Moreover, some theorists have suggested that revealed preference is valid only when indifference curves are assumed to exist in the first place. In addition, experimental psychological findings cast doubt on Samuelson axioms of behaviour. The implication of all this, is that Samuelson's theory is not far removed from utility theory.

The idea that the above attempts to set economics free were not very successful is reinforced by the appearance of a different approach to the issue. Friedman's thesis that the assumptions do not matter for the validity of a theory can be seen as a way of overcoming the problem of hedonistic influence. However, although this methodological position had considerable impact on economists, the fact that Samuelson and other orthodox theorists rejected Friedman's argument shows the importance that the assumptions have for such theorists.

It must be mentioned that the efforts of Robbins, Hicks and Samuelson are responsible for the much reduced hedonistic image of orthodox microeconomic theory (although as we have shown, the hedonistic influence is still present). However, our discussion of the current state of affairs (especially the contemporary theory of the rational consumer) and our survey of orthodox textbooks indicated that conventional economics has not succeeded in freeing itself from psychology. Moreover, the microfoundations of modern orthodox (neoclassical) macroeconomics are based on the idea of utility maximizing and selfish consumer, producer, and worker. This hedonistically based conception of behaviour assists the application of formalization in orthodox economics.

Our discussion enables us to support the view that the attempts to free mainstream economics from philosophical or psychological connections, attempts which were intensified in this century, have essentially not succeeded. And as was noted before, when one speaks about the philosophical or psychological connections of orthodox economics, one cannot help identifying hedonism as a dominant influence.

## NOTES TO CHAPTER 6

1) Apart from the implicit assumptions which concern the agent's behaviour, there is a number of other assumptions which concern the agent's environment. One can mention three main implicit assumptions of this sort:

1. Euclidean consumption: this implies that consumption goods are infinitely divisible.

2. Stability of commodities: the characteristics of the commodities are given.

3. Income and unit prices are assumed to be fixed.

One can also maintain that agents are assumed to be parametrically rational. Parametric agents treat their environment and the behaviour of other agents as constant. For a discussion of parametric rationality see Elster, 1979, pp. 117-118; and Lesourne, 1977, pp. 10-13.

## CHAPTER 7

### NON-HEDONISTIC ECONOMIC APPROACHES

#### 7.1 INTRODUCTION

In the previous four chapters, we discussed the development of the influence of the hedonistic approach on the formation of orthodox economic theory. We saw the systematic introduction of hedonistic ideas in economics with the work of Bentham. Next, we observed the peak of the influence of hedonism on economics in the marginalist school where economics was reduced to a 'calculus of pleasure and pain' (especially in the works of Jevons and Edgeworth). The subsequent stage was the beginning of the attempt towards the minimization of the hedonistic image of marginalist economics. This attempt started with Wicksteed, Pareto and Fisher, who, as was noted, were not very successful, since hedonism was still an important influence on their theories. The above trend continued with modern economists like Robbins, Hicks and Samuelson and was assisted by the increasing influence of a positivist scientific philosophy. However, as we pointed out in the previous chapter, despite the attempts towards the 'neutralization' of economics, hedonistic ideas are still an underlying characteristic of modern orthodox economic theory.

Our discussion of the influence of hedonism on orthodox economics, can not be complete if we do not mention examples of economists whose economic thought is not based on the hedonistic approach. (In this thesis, the first indication of an economic theory without a hedonistic basis was seen in the section on Marshall -4.3.1- where it was stressed that although Marshall's thought as a whole cannot be characterized as hedonistic, subsequent economists dropped the elements that did not suit their hedonistically oriented theories and gave more emphasis to those that fitted.) We believe that a discussion of non-hedonistic oriented economists is necessary for two reasons. The first reason is to show that there indeed are conceivable non-hedonistic alternatives, and that some of them have been tried.

The second reason is to show examples of non-hedonistic economists which will assist in the understanding of the influence of hedonism on orthodox economics, by demonstrating the contrast.

At this point it has to be mentioned that such theorists were mainly inspired by non-hedonistic conceptual frameworks. There are a number of non-hedonistic conceptual frameworks; one can mention Stoicism as an example of a non-hedonistic philosophical framework and A. Maslow's theory of the hierarchy of needs as an example of a non-hedonistic psychological theory. Stoic philosophers believed that the basic motive of human life is not maximum pleasure (minimum pain) but self preservation. Thus they started from a different psychological basis. They also rejected pleasure as the purpose of life (normative ideal), and suggested that 'living according to nature' is the basis of their morality (see Helios, 1981, pp. 88-89, and Xenakis, 1983, p. 108). Moreover some of them (i.e. Epictetus) rejected the hedonistic approach explicitly (see Xenakis, 1983, pp. 108-112). As far as modern non-hedonistic psychological theories are concerned, Maslow's theory is a representative example. A. Maslow's concept of the hierarchy of needs (motives) and self-actualization, is in contrast with the hedonistic conception of pleasure maximization as the sole motive (see Maslow, 1954).

However, our purpose in this section is not a detailed examination of the non-hedonistic oriented economic approaches, but the exposition of a few indicative examples which will serve the above stated intentions. Thus in this chapter we will discuss the main ideas of non-hedonistically based economists and also demonstrate their attacks on the utilitarian approach of orthodox economics. Our presentation will again have a historical sequence and so the first to be discussed is Adam Smith.

## 7.2 ADAM SMITH

Adam Smith (1723-1790) is considered to be the father of the discipline of economics by the vast majority of economists, and his ideas exercised great influence on the development of economic thought. In spite of this however, the subsequent hedonistic orientation of orthodox economics that we observed, is far from the spirit of Adam Smith's ideas.

Before we go on to a discussion of Smith's views, we should point out that the founder of economics was also a philosopher, and this means that his economic thought was part of his general philosophical system. (Smith was Professor of Moral Philosophy in Glasgow and also a friend of David Hume.) In this respect, Smith can be compared to Bentham, but as will become clear, Smith's thought can provide an alternative to Benthamite hedonism.

Although, Smith was the author of other works too, the "Theory of Moral Sentiments" and the "Wealth of Nations" are the most influential. The "Theory of Moral Sentiments" is a more general work than the "Wealth of Nations", and here Smith expresses his views about human nature explicitly and systematically. From the first pages of this work, Smith starts exposing his ideas about human motives. One of his first and most important ideas was the emphasis upon the non-selfish character of human beings. As he writes:

"How selfish soever man may be supposed, there are evidently some principles, in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it." (Smith, 1976, p.9)

The contrast of the above passage with Bentham's statements in the first pages of his "Principles of Morals and Legislation" is evident. For Smith, sympathy is a crucial characteristic of human nature. In contrast with the majority of subsequent theorists, sympathy is not viewed as a minor or even unimportant motive, but as a basic force influencing human action.

Smith does not simply state that sympathy is a powerful motive but attempts to analyse it and to put it into a wider perspective. Thus, according to him, the reason why men on most occasions ("the

generous upon all occasions, the mean upon many") sacrifice their own interests to the greatest interests of others, is the following:

"It is a stronger love, a more powerful affection, which generally takes place upon such occasions; the love of what is honourable and noble, of the grandeur, and dignity, and superiority of our own characters." (Smith, 1976, p. 137)

The above provides a vital clue to the explanation of the different emphasis of motives that exist in Smith's two great works. (As we shall see later self-interest plays a central role in the "Wealth of Nations".)

The above emphasis on sympathy is in great contrast with the dominant views of the Enlightenment era, as it was manifested in other countries and discussed in Chapter Three. (It has to be mentioned though, that sympathy is also important in the work of Smith's friend, D. Hume, see Hume, 1938 and Broiles, 1964.) As we pointed out, egoistic hedonism was an underlying characteristic of such thinkers as Gassendi, Helvetius and Hobbes. Adam Smith is fully aware of the intellectual climate elsewhere as can be seen in his "Theory of Moral Sentiments". More specifically, Smith criticizes Hobbes' views about the selfish and pleasure seeking nature of man. Moreover, Smith condemns the idea, which can be found in most hedonistic oriented theorists, that apparently non-selfish behaviour can be explained ultimately in terms of selfish and hedonistic considerations. Smith states:

"Man, say they, conscious of his own weakness, and of the need which he has for assistance of others, rejoices whenever he observes that they adopt his own passions, because he is then assured of that assistance; and grieves whenever he observes the contrary, because he is then assured of their opposition. But both the pleasure and the pain are always felt so instantaneously, and often upon such frivolous occasions, that it seems evident that neither of them can be derived from any such self-interested considerations." (Smith, 1976, pp. 13-14)

Unlike the advocates of egoistic hedonism, Smith does not see the selfish maximization of pleasure as the sole motive of human behaviour. Apart from his emphasis on sympathy, he also acknowledges other causes of action, like a sense of duty. As he writes: "The regard to those general rules of conduct, is what is properly called a

sense of duty, a principle of the greatest consequence in human life, and the only principle by which the bulk of mankind are capable of directing their actions" (Smith, 1976, pp. 161, 162). Clearly, the image of man as conceived by Bentham (selfish maximization of pleasure) is very far from the image of man as conceived by Smith (sympathy and a sense of duty).

From the above, one can see, that the most important idea about motivation in the "Theory of Moral Sentiments" is the concept of sympathy. However, in his subsequent work the "Wealth of Nations" self-interest is mentioned as a basic motive, and sympathy is pushed aside. As Smith puts it in a well-known passage:

"It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner, but from their regard to their own interest. We address ourselves, not to their humanity, but to their self-love." (Smith, 1970, p. 119)

At first note there seems to be an inconsistency between these two works. However, many authors have emphasized that in essence there is not any problem of inconsistency between the "Theory of Moral Sentiments" and the "Wealth of Nations" (see for instance Seligman, 1971, pp. 8-11, Coase, 1976, pp. 545-546, West, 1976, p. 99, Heilbroner, 1982, p. 434, and Evensky, 1987, p. 464). First of all one should dismiss the idea that Smith changed his mind when he wrote the subsequent work the "Wealth of Nations" because revisions of the "Theory of Moral Sentiments" made by Smith after the "Wealth of Nations" was published, show no change in the views which he had expressed in the earlier book (Whittaker, 1960, p. 102). Thus, it seems that instead of inconsistency there is a connection between sympathy and self-interest. More specifically, Smith holds that "the real foundation of the desire to trade is that principle to persuade which so much prevails in human nature. When any arguments are offered to persuade, it is always expected that they should have their proper effect...we cultivate the power of persuasion, and indeed we do so without intending it" (Smith quoted in Myers, 1983, p. 113). This implies that consideration for other human beings is the essential cause of the desire to trade. Thus a vital connection is established between sympathy and self-interest.

The above indicate that Adam Smith's analysis of human nature is

a complex one and surely that he was not in line with the simple conception of man as a selfish pleasure-maximizing being that characterized hedonistically oriented thinkers. At this point one must take into account the influence on Smith by non-hedonistic philosophies. Specifically Smith was very much influenced by Naturalist philosophies and especially by Stoic ideas (Roll, 1961, p. 143).

It must also be added that Smith never refers to a fictional man in his economic writings. His discussion attempts to give a picture of actual behaviour and he always believes that he is portraying actual behaviour (see also Hollander, 1977, p. 140). Thus, the concept of economic man which was invented later by Mill is totally alien to Smith's line of thought. As R. H. Coase declares:

"It is wrong to believe, as is commonly done, that Adam Smith had as his view of man an abstraction, an 'economic man', rationally pursuing his self-interest in a single minded way. Adam Smith would not have thought it sensible to treat man as a rational utility-maximizer." (Coase, 1976, pp. 545-546).

In our discussion of the members of the late classical school, we pointed out that they followed an abstract, deductive economic methodology. More analytically, we observed that the introduction of hedonistic ideas in economics was associated with the emergence of a formalized methodology. For instance, it was observed that Mill, Senior and Cairnes who were influenced by the hedonistic approach, advocated a deductive, physical science-like economic methodology. The same tendency was seen in the members of the marginalist school. In contrast with the hedonistic oriented theorists, Adam Smith did not advocate a formalistic methodology for economics. In the "Wealth of Nations", Smith uses the historical, inductive and sometimes the deductive method. From his work, it seems that he was willing to accept any methodological approach and not restrict himself in following the deductive method. As J. N. Keynes emphasizes:

"He rejected no method of enquiry that could in any way assist him in investigating the phenomena of wealth."  
(Keynes, 1904, p. 10)

Thus in the "Wealth of Nations", one can find examples where Smith advocates both inductive and deductive methods (see for instance,



Skinner, 1979, p. 115, and Hutchison, 1978, p. 9). In general Adam Smith's 'open' methodological approach is another point of difference from the subsequent hedonistic course of development of orthodox economics.

In the previous pages we observed the differences that Adam Smith's thought exhibits if compared with the subsequent hedonistic theorists. A consequence of Smith's non-hedonistic thought is that his economic analysis differs from that of subsequent orthodox theorists. His theory of value for instance, is quite different from the pleasure-oriented theory of value which was based on hedonistic principles. While, as we saw, most advocates of the hedonistic approach adopt a simple, pleasure based theory of value which comes from their view of human nature as pleasure maximizing. Smith conducts a careful discussion and tends to follow a cost-of-production value theory. Smith's analysis in terms of real prices, of the real measure of exchangeable value (labour), of prices as reflecting factor rewards etc, is in marked contrast with the subjectivist analysis. Smith does not conceive the value of a commodity as something subjective and ultimately based on pleasure as most hedonistic oriented economists do, but as something objective based on labour commanded by the commodity (see also Deane, 1978, pp. 19-28, and Hollander, 1975).

In this section we examined the main points of difference of Adam Smith's ideas from the hedonistic framework. In particular, it was observed that Smith's views of human nature were much more sophisticated if compared with the simple idea of a selfish, pleasure maximizing being on which egoistic hedonism is based. Smith's emphasis on the role of sympathy in human behaviour and also the identification of other important motives such as the sense of duty, put him in contrast with the hedonistic framework. Moreover, the establishment of a connection between self-interest and sympathy, the fact that he never saw man as a pleasure maximizing being and his open methodology, are further indications of his difference from the hedonistic orientation of mainstream economics. A manifestation of his non-hedonistic orientation is his complex theory of value which is in contrast with the marginalist pleasure-based theory. However, as was the case with Marshall, subsequent economists were to neglect the

important elements of Smith's analysis and concentrate on those which could easily be fitted easily in with hedonistic influenced theories.

## 7.3 ALTERNATIVE APPROACHES: 19TH CENTURY

### 7.3.1 K. Marx

After Adam Smith, the next thinkers whose economic ideas can be described as not belonging to the hedonistic framework are Marx and the members of the Historical school of economics. Chronologically, Marx and the Historical economists correspond to the late period of classical school and to the first marginalist generation. Both Marx and the Historical economists had different conceptions about human nature, economics and the method of economics from those of the theorists that we saw in the previous chapters. But let us examine these differences, beginning with K. Marx.

During his lifetime, Marx wrote a very large number of works which refer to a wide variety of topics. Like Adam Smith, Marx was a philosopher, an historian and an economist, and thus his economic thought is only a part of his intellectual activity. Because of this and also because his writings cover a period of nearly fifty years during which Marx addressed different readerships, a short discussion of his views about man, the nature of economics and economic methodology, is bound to be selective. We will concentrate more on his early writings (up to 1848) where reference to the above topics is more explicit and abundant than in his later works.

An early indication of Marx's views about human nature can be found in an essay written by Marx at around 1844. It contains comments by Marx on classical economists, and more specifically it is concerned with James Mill (who, as we have seen was a utilitarian economist). Marx makes a number of critical comments on James Mill's economic ideas. One can read:

"Thus, the greater and more elaborate appears the power of society inside the private property relationship, the more egoist, antisocial, and alienated from his own essence becomes man." (Marx, 1977, p. 118)

Clearly, the implication of the above quotation is that the real essence of man (non-alienated) is communal, non-egoist in his nature. Or as Marx himself puts it: "...human nature is the true communal nature of man, men create and produce their communal nature by their natural action" (Marx, 1977, p. 115). Thus, a basic feature of the

hedonistic oriented economic thought, egoism, is not considered as part of the real nature of man. Marx's starting point is therefore radically different from that of most orthodox hedonistic theorists.

Moreover, Marx recognizes the spiritual aspect of human nature as basic. In his "Economic and Philosophical Manuscripts" he attacks the position of orthodox economists in this matter. As he writes: "But political economy knows the worker only as a working animal as a beast reduced to the strictest bodily needs" (Marx and Engels, 1975, p. 242). And further:

"...[People] must, above all, have time at their disposal for spiritual creative activity and spiritual enjoyment." (Marx and Engels, 1975, p. 242)

The most important implication of the above is that Marx conceives human nature as an entity composed by bodily and spiritual needs; and also that sociality, not egoism constitutes the real nature of man (see also Meszaros, 1972, p. 170). These ideas are closely connected with the concept of alienation and of alienated labour which constitute one of the cornerstones of Marxian economics. More specifically, Marx's concept of alienation has to do with the alienation from his "species life". In Marx's words: "...alienated labour succeeds in alienating man from his species. Species life, productive life, life creating life, turns into a mere means of sustaining the worker's individual existence, and man is alienated from his fellow men" (Marx quoted in McLellan, 1980, p. 112). Thus, one can see that Marx's conception of human nature, as is shown above, is not an isolated idea, but is an important facet of his overall theoretical framework.

Marx's views about the doctrine of economics are also different from the hedonistically oriented economists (especially marginalist economists) who conceived economics in terms of satisfaction or utility. According to Marx:

"Economics conceives of the communal nature of man, or his self-affirming human nature, the mutual completion that leads to the species-life, to the truly human life, under the form of exchange and commerce." (Marx, 1977, p. 116)

The difference between Marx's approach to economics and the utilitarian approach lies in the fact that Marx's starting point was

the socio-economic relations between men as producers, while the starting point of hedonistically oriented theorists was the psychological relation between men and goods (satisfaction) (see also Meek, 1977, pp. 165-175). According to our view this constitutes one of the most important differences of Marxian economic thought. As one would expect, Marx's conception of economics as the study of relationships between people can be seen as the explanation of the wide disagreement between Marxian and marginalist economic theorists. One can also note that Marx's conception of economics as relations between men, is vitally connected with his labour theory of value (labour being the sole determinant of value). On the other hand, the subjective approach of marginalist economists leads to the utility-based theory of value. Naturally, this difference over the nature of value has tremendous implications in the sense that it leads to two totally different economic theories.

In addition, Marx explicitly condemned Bentham's and J. S. Mill's utility theory; in his "German Ideology" Marx writes (after mentioning Bentham and Mill):

"The economic content gradually turned the utility theory into a mere apologia for the existing state of affairs, an attempt to prove that under existing conditions the mutual relations of people today are the most advantageous and generally useful." (Marx, 1977, p. 189)

Apart from the above, Marx strongly criticizes Bentham's utilitarian theory in his "Capital" by pointing out: "In his arid and simple way, he [Bentham] assumes the modern petty bourgeois, and above all the modern English petty bourgeois, to be the normal man" (Marx, 1957, p. 671). He goes even further and calls most of Bentham's ideas "rubbish" (Marx, 1957, p. 671).

Marx's ideas about methodology are also related to his ideas about human nature and economics. Marx does not consider human nature to be divided into many aspects as orthodox economists did in order to justify the selfish, hedonistic character of economic agents (economic man). For Marx "to abstract from the historical process and presuppose an abstract-isolated-human individual is fundamentally" wrong (Marx, 1977, p. 157). One can state that Marx, like Smith, is concerned with a real and not a fictional individual. An example of a

consequence of Marx's approach can be seen in his discussion about the attitude of orthodox political economy towards the worker. As Hunt asserts:

"Marx is passionately opposed to the attitude of political economy which does not consider the worker 'when he is not working' as a human being; but leaves such considerations to criminal law, to doctors, to religion, to the statistical tables, to politics and to the workhouse beadle."  
(Hunt, 1972, p. 166)

Moreover, it has nothing in common with the mathematical, abstract method which we saw in the marginalist school. Like Smith, Marx uses every method in the study of economic process. In many parts of his work he follows a deductive-abstract methodology but it is combined with historical examples and inductive reasoning. In the words of H. Katouzian:

"Marx was not a pure speculator; if anything he put more emphasis on facts, i.e. empirical and historical knowledge than on pure theory." (Katouzian, 1980, p. 26)

The synthesis of these two methodological approaches (induction and deduction) is supposedly to be found in the Marxian dialectic method (the sources of this method can be found in Hegelian philosophy). Marx uses the dialectic method in order to make a synthesis of the theoretical abstractions and of historical examples. It is then used in order to construct theories and to study structures (see also Godellier, 1972, p. 187).

Marx's holistic approach to human nature and his dialectical method encourage as a consequence a dynamic approach to economics. Marx's avoidance of abstract, deterministic models of human behaviour (i.e. hedonism) and his preference towards historical rather than mechanical time result in another type of economic approach, now identified as Marxian economics. Marxian economics has a substantial influence among many contemporary economists. Naturally, it has different explanations from orthodox theory for most economic phenomena (see Brody, 1975). For instance Marxian economics has a different value (price) theory, different wage theory and different explanation of business cycles. Thus, it can be seen as an example of a coherent body of economic theory which does not stem from hedonism.

### 7.3.2. Historical School

It can be maintained that the Historical school appeared in 1840's and its influence lasted up to the beginnings of this century, although elements of the Historical school can still be found in the work of contemporary economists. The Historical school developed mainly in Germany, but the same line of thought can be discerned in some English economists too. Historians of economic thought usually refer to the Old Historical school, represented by G. Roscher, B. Hildebrand and K. Knies. The Younger Historical school is represented by G. Schmoller and W. Sombart. The English followers of the Historical school include C. Leslie, W. J. Ashley and J. K. Ingram.

The school reached its peak in the latter half of the nineteenth century which means that it coincided with the development of the late classical school and with the marginalists. The school had a distinctive approach to economics and economic methodology and Historical economists attacked orthodox economics in many cases. Their first target was the egoistic behaviour which, as we saw, constitutes an important part of the late classical and marginalist schools. For instance K. Knies, a member of the Older Historical school writes:

"To say that man is always and irremediably actuated by purely selfish motives, is to deny the existence of any better motive or to regard men as having a number of centres of physical activity, each operating independently of the other." (Knies quoted in Gide and Rist, 1915, p. 393)

The important point here is the implicit accusation of isolation of motives. As we saw, Marx accused orthodox economists of the same thing. This tendency of isolating motives (economic against non-economic, which is a basic characteristic of most hedonistic-oriented economists) can be due to the dualistic nature of orthodox economic methodology (see Dow, 1987). As we observed in the previous chapters this tendency which started with J. S. Mill's fictional and real man can be found in the majority of mainstream economists. In the same spirit, B. Hildebrand points out that the egoistic approach of orthodox economics "would transform political economy into a mere natural history of egoism" (Hildebrand quoted in Gide and Rist, 1915, p. 395).

By contrast to the dualistic approach of J. S. Mill and

subsequent classical and marginalist economists, historical economists emphasized that economics should consider all human motivations together. This line of thought is related to the whole methodology of the school. In his "History of Economic Analysis" Schumpeter identifies this crucial difference of the Historical school:

"The school professed to study all the facets of an economic phenomenon; hence all the facets of economic behaviour and not merely the economic logic of it; hence the whole of human motivations as historically displayed, the specifically economic ones not more than the rest for which the term ethical was made to serve, presumably because of it seems to stress hyperindividual components." (Schumpeter, 1963, p. 812)

Historical economists were also opposed to the Benthamite psychology which according to their view underlay orthodox economics. More specifically, G. Schmoller who was one of the most important figures of the school, always condemned Bentham's influence on orthodox theorists (Recktenwald, 1973, p. 337). Moreover, like other members of the school, Schmoller criticized the practice of isolating economic motives and economic phenomena in general. In the words of Schumpeter again: "Schmoller always protested against an 'isolating' analysis of economic phenomena -he and his followers spoke of a method of isolation- and held that we lose their essence as soon as we isolate them" (Schumpeter, 1963, p. 812).

As one would expect, the ideas that Historical economists had about the nature of economics were different from the definitions that we have seen in the chapters dealing with orthodox theorists. For instance, G. Roscher views economics as follows:

"Economic science need not attempt to find the unchangeable identical laws amid the multiplicity of economic phenomena. Its task is to show how humanity has progressed all the transformations of economic life, and how this economic life has contributed to the perfection of mankind. Its task is to follow the economic evolution of nations as well as of humanity as a whole, and to discover the bases of the present economic civilization as well as the problems that now await solution." (Roscher quoted in Gide and Rist, 1915, pp. 383, 384)

The above passage reveals also the main methodological point of the school which is emphasis upon the historical dimension of economic phenomena (see also Keynes, 1904). Naturally, this methodological characteristic implies the strict opposition of historical economists



to the abstract, physical science method of orthodox theorists (especially marginalists). As we discussed, the hedonistic influence on mainstream theory is associated with a physical science-like methodology. Thus, the isolation of motives, the construction of universal economic laws, are all unacceptable according to the members of the Historical school.

The attack of Historical economists on marginalist methodology reached its peak in the 1880's in the famous debate between Schmoller and Menger which became known as 'Methodenstreit'. More specifically, Schmoller attacked the abstract-deductive methodology of Menger, and Menger replied in order to defend "pure political economy against the attacks of the German Historical school" (Gide and Rist, 1915, p. 389). Schmoller stressed the organic nature of social phenomena and the methodological illegitimacy of having economic laws in the sense of physical laws (see Backhouse, 1985, pp. 119-120).

Before we finish this section, we should mention that some subsequent theorists have attempted to minimize the importance of the methodological difference between the two schools in terms of a unified hypothetico-deductive method (see for instance Deane, 1983). However, we believe that the difference is very substantial and can not be reconciled easily. For instance, the historical and anti-isolationist character of the school can also be seen in the writings of the English historical economist J. K. Ingram:

"In other words, a separate economic science is, strictly speaking, an impossibility, as representing only one portion of a complex organism, all whole parts and their actions are in constant relation of correspondence and reciprocal modification. Hence, too, it will follow that whatever useful indications may be derived from our general knowledge of individual human nature, the economic structure of society and its mode of development cannot be deductively foreseen, but must be ascertained by direct historical investigation... There must be a dynamic doctrine, a theory of successive phases of the economic condition of society." (Ingram, 1914, p. 199)

As was the case with Marx, the different starting points, inclusion of all motives, definition of economics in non-hedonistic terms, holistic methodology with great emphasis on historical development, result in a different economic theory. In fact historical

economists advocated another type of economic theory than that of marginalist economists. A. Marshall whom we pointed out as a unique figure in the development of economic doctrine, recognizes the contribution of the Historical school. In his "Principles", he emphatically states that the Historical school has greatly extended the boundaries of economic theory (Marshall, 8th edition, p. 768).

The economic approach of the Historical school is characterized by an extensive historical analysis along with the theoretical discussion. For instance, F. List's book "National System of Political Economy" published in 1885 is a representative example of the economics of the Historical school. List divides the book into four main parts: the 'History' where the historical development -from an economic viewpoint- of the leading nations is analysed; the 'Theory' where one finds discussions about value, material capital, manufacture, customs etc; The 'Systems' where there is discussion of the industrial and agricultural systems; and the 'Politics' where there is a connection between the economic conditions and political developments (see List, 1885).

Another example of the economic approach of the Historical school can be found in the analysis concerning labour by a historical economist: Bucher. Bucher starts by identifying the historical stages of labour production and organization (domestic work for family needs, then specialized handicrafts producing for a market and finally factory system of production). His next major step is to investigate the factors affecting labour productivity (like for instance some musical forms which help to make labour more enjoyable thus increasing productivity) (Whittaker, 1960, pp. 207, 208). The historical and holistic approach to specific economic issues that he follows is in contrast with the marginalist approach towards the same issues. As was discussed, marginalists saw labour in terms of utility and disutility mainly, while historical economists conceived the worker not as an agent engaged in the production process (orthodox approach), but as a whole man, in an activity in which all of the man participated (Whittaker, 1960, p. 208).

In this section we discussed two alternative approaches which appeared in the same period as the late classical and marginalist

schools. We saw that Marx and the Historical economists had a more complex view about human nature from that of orthodox economists who conceived economic agents as selfish, pleasure maximizers -or maintained that they could be fictionalized as such. In addition, we pointed out the differences concerning the definition of economics and the methodology of economics. The common methodological standpoint of Marx and historical economists was that they both opposed the dualistic character of orthodox economics. In contrast to the tendencies towards the isolation of economic phenomena which characterized mainstream theories, Marx and the Historical economists had a holistic approach. As one would expect, the non-hedonistic character and the different methodology, led these two alternative approaches to a different economic analysis, which was marked by an emphasis on the historical perspective and which took into account the context of economic phenomena.

#### 7.4 INSTITUTIONAL ECONOMICS

After K. Marx and the Historical school, the next major wave of alternative economic thought was the Institutional school. The origin of the school is to be found mainly in the United States at the turn of the century. The founders of the school were the American economists T. Veblen, W. Mitchell and J. Commons. A distinct school of economic thought emerged with considerable influence in the English-speaking world. Its influence extends to modern economics where it is viewed as one of the main heterodox economic approaches. Advocates of the modern Institutionalism include well-known theorists like J. K. Galbraith and G. Myrdal. Institutionalists are also connected with other modern heterodox economic approaches like the Post-Keynesians. A very important idea which is common to both schools is the rejection of the simplistic hedonistic conception of economic agents which characterizes orthodox economics. Moreover, both advocate a more open economic methodology and again oppose the physical-science-type mainstream methodology. Naturally, the above led to a different economic theory, an element of which we are going to see in the second part of this section.

From our point of view, a crucial point of the Institutional school (and also of the Post-Keynesians) was the idea that preferences should be treated as endogenous, not as exogenous (Backhouse, 1985, p. 227). As we have seen in the previous chapters, most mainstream economists (the marginalists more explicitly) assumed that economic agents are selfish, pleasure-maximizing individuals. We also noted that some orthodox theorists viewed economic agents as fictional, representing only one aspect of human nature. The important point of difference was that Institutionalists did not submit to this dualism (fictional versus real individual, or economic versus non-economic) which marks orthodox economic thought. With this in mind one can understand better the nature of Veblen's attack on the abstract, isolated concept of economic man:

"Of course, this perfect competitive system, with its untainted 'economic man', is a feat of scientific imagination, and is not intended as a competent expression of fact. It is an expedient of abstract reasoning; and its avowed competency extends only to the abstract principles,

the fundamental laws of science, which hold only in so far as the abstraction holds. But, as happens in such cases, having once been accepted and assimilated as real, though perhaps not as actual, it becomes an effective constituent in the inquirer's habits of thought and goes to shape his knowledge of facts." (Veblen 1899, pp. 142-143)

In essence, Veblen argues that the result of the dualist viewpoint is a distorted image of reality because, to use a nowadays familiar expression, the real world is fitted into the model.

In addition to the above, Veblen attacks directly the hedonistic conception of man which is an underlying characteristic of orthodox theory. The spirit of the following passage reflects Veblen's severe attack on the hedonistically-oriented theorists:

"The hedonistic conception of man is that of a lightning calculator of pleasures and pains, who oscillates like a homogeneous globule of desire of happiness under the impulse of stimuli that shift him about the area, but leave him intact. He has neither antecedent nor consequent. He is an isolated, definitive human datum, in stable equilibrium except for the buffets of the impinging forces that displace him in one direction or another." (Veblen, in Seckler, 1975, pp. 52, 53)

One can see that the target of Veblen's attack is the idea that the only forces affecting individuals in their economic activities were selfish, hedonistic considerations. Veblen dismisses this view as very simplistic and unrealistic in the sense that it leaves out other important elements. Moreover, he argues that developments in psychology had undermined the hedonistic approach (see Coats, 1954, p. 530). Instead he proposes an entirely different psychology on which economics should be based. Veblen argues that people are not motivated by rational, selfish, hedonistic considerations but by a variety of instincts and habits. (The same idea can be found in subsequent Institutionalists like J. M. Clark, 1918.) As examples of instincts Veblen mentions the instinct of workmanship, the drive towards providing for the family and society (parental bent) and the drive to produce interpretations of the world (idle curiosity) (see also Rutherford, 1984, pp. 331-336). Moreover, Veblen points out that habits of thought are the other determinant of behaviour. In turn habits of thought give birth to institutions. The interaction of instincts and habits of thought produce new

institutions. The whole process is an evolutionary one. As D. Walker states: "Veblen formulated a general system which rests upon an instinct and habit theory of human behaviour, and upon the dynamic principle of technological change that alters ways of making a living and consequently generates conflict and evolution in the scheme of economic institutions" (Walker, 1977, p. 235). Thus, like Marx, Veblen's theory is a dynamic one with great emphasis on the context of economic phenomena.

Like Marx and the Historical economists, Veblen had a different view about the subject matter of economics from that of mainstream economists. Before he states his own definition of economics, Veblen makes another attack on the conventional view. More specifically, in an article in which he criticizes J. B. Clark's marginalist economics, Veblen accuses orthodox theory of not approaching questions of class which occupy the modern sciences (see Clark, 1899). (It can be maintained that they are the natural sciences like biology that Veblen has in mind.) The questions that occupy modern sciences are questions of genesis, growth, variation and process, but orthodox economics confines itself to the definition and classification of a mechanically limited range of phenomena. Veblen goes on to characterize orthodox economics as a taxonomic science:

"Like other taxonomic sciences, hedonistic economics does not and cannot, deal with the phenomena of growth except so far as growth is taken in the quantitative sense of variation in magnitude, bulk, mass, number, frequency."  
(Veblen, 1972, p. 178)

Veblen's own approach to economics involved the study of institutions, and cultural framework. (For a discussion of Veblen's methodology see Coats, 1954.) As he writes: economics should be "an inquiry into cultural or institutional development as affected by economic exigencies or by the economic interest of men" (Veblen, quoted in Walker, 1977, p. 215). Although he does not specify the meaning of the concept of economic interests, it is clear from his previous writings that his approach here is not hedonistic.

Apart from Veblen, Commons and Mitchell also attacked orthodox economics along the same lines. For instance Commons emphasized that:

"Political economy implies thinking of economic activity as a power system as well as an economizing process." (Commons quoted in Elliot, 1978, p. 107)

Mitchell concentrated on the assumption of rationality which underlies orthodox theory. To be more specific, Mitchell drew from work done by psychologists which revealed that in many situations human behaviour exhibits elements of irrationality (as defined by orthodox theorists). As we pointed out mainstream economists conceived economic agents as careful calculators of pleasure and pain (rationality, according to them). Mitchell points out that the rediscovery of man's irrationality revealed the artificiality of the hedonistic analysis (Seckler, 1975, p. 106). Mitchell gave an example of irrational behaviour in economic situations.

"The man who studies strikes and lock-outs, the shifting fortunes of business combinations, modern methods of overcoming 'consumer resistance' or business booms or depressions, does not confirm the impressions of human rationality conveyed by our theoretical treatises." (Mitchell quoted in Seckler, 1975, p. 106)

The methodology of the Institutionalist school has many common points with the economic methodology of the Historical school of economics. They emphasize the need to view economic phenomena not in isolation, but in context (especially in their institutional setting). Moreover, because they conceive all economic phenomena as essentially dynamic, Institutionalists strongly reject the mechanistic, formalist orthodox methodology. In particular, they oppose the identification of economic methodology with that of classical physics which as we discussed, was the case for the vast majority of hedonistic oriented economists. Commons is explicit on this issue:

"Yet the pure theory of economics cannot be identified with that of physical science, because physical materials have no purposes, wills, rights or interests. The economist is himself a part of the purposeful subject-matter of his science." (Commons, 1980, p. 103)

Most Institutionalists are willing to draw their economic methodology from biology because they think that the dynamic nature of this science with its functional rather than causal relations, is more appropriate to the study of economic phenomena.

In general, Institutionalist economists attack orthodox theory in

the following terms: first, they argue that the dualist conception of man's nature is mistaken. Second, they assert that orthodox economics is based on a crude, simplistic hedonistic psychology which ultimately makes economics a 'taxonomic' science with a mechanistic methodology and therefore unable to grasp the evolutionary and dynamic nature of economic phenomena. Instead Institutionalists suggest focusing on a particular realistic aspect of human nature (instincts and habits of thought). This in turn implies that the study of institutions -which are formed by habits- is the primary concern of economics. Moreover, Institutionalists point out the inadequacy of the rationality assumption in the understanding of economic events.

The placements of instincts, habits, and institutions instead of selfish, utility maximization as the basis of economic behaviour, constitutes the anti-hedonistic nature of the Institutional school. Moreover, its emphasis on evolution and dynamics instead of static equilibrium is another important difference of the Institutional school, which can thus be seen to differ in many important respects from conventional economics. As we shall see later, one can set the basis of an alternative consumer behaviour theory on Institutionalists' ideas about human behaviour.



## 7.5 J. M. KEYNES

Before we finish our discussion of economists and schools of economic thought which criticize hedonism, we should mention some basic points about the views on this matter of one of the most influential economists of this century, J. M. Keynes. Although our purpose here is not to engage in a detailed discussion about Keynes' views, we should point out that one can distinguish a clear anti-hedonistic attitude in his thought. One thing which is fairly clear in his writings, and especially his early works, is his dissatisfaction with the state of economic science. This can be seen when he very explicitly points out:

"How disappointing are the fruits, now that we have them, of the bright idea of reducing Economics to a mathematical application of the hedonistic calculus of Bentham."  
(Keynes, 1973, vol. X, pp. 184, 260)

Keynes thought that the hedonistic influence on orthodox economics was also responsible for the assumption of perfect knowledge which clearly characterized orthodox economics in the first decades of the century. Keynes rejects this as a "false rationalization that follows the lines of Benthamite calculus" (Keynes, 1973, vol. XIV, p. 122). Keynes' anti-hedonistic stance can also be seen in his autobiographical essay "My Early Beliefs" where he explicitly renounces the hedonistic approach (see Keynes, 1973, vol. X, pp. 445-450 and Bateman, 1988, pp. 1104-1106). Apart from rejecting hedonism, Keynes also was very clear in his position against the assumption of selfish behaviour (see Fitzgibbons, 1988, p. 65 and Hillard, 1988, p. 6). In addition one can find passages in his work where he strongly criticizes marginalist economics and especially the economic approaches of Jevons and Edgeworth -whose works were heavily influenced by hedonism- (see O'Donnell, 1989, p. 190).

Although not all specialists on Keynes agree with this view, there are strong indications that in place of selfish hedonism, Keynes put a liberal political and economic programme whose purpose was "...to devise institutions that would reconcile prosperity not with utility, but with the pursuit of the good." (Fitzgibbons, 1988, p. 64)

The difference between Keynes's view from that of utilitarian oriented economist is evident. Moreover, one can observe that the replacement of the pursuit of utility with the pursuit of the good, places him philosophically in an anti-hedonistic framework. This can also be reinforced by the following quotation:

"In truth it was the Benthamite calculus based on over-valuation of the economic criterion, which was destroying the quality of the popular ideal." (Keynes, 1973, X:446)

It is clear that the "popular ideal" that Keynes had in mind was very different from Bentham's utility maximization.

In addition to the above points, the anti-hedonistic attitude of Keynes can also be seen by his actual economic theories. In particular, in his "General Theory", Keynes discusses the issue of consumption. Keynes begins by identifying two main factors which affect consumption: a) objective and b) subjective. In the subsequent discussion of the subjective factors, eight motives are put forward: enjoyment, shortsightedness, generosity, miscalculation, ostentation and extravagance (Keynes, 1973, VII, p.108). The strength of each of these motives depends on a number of factors. In Keynes's words:

"Now the strength of all these motives will vary enormously according to the institutions and organisation of the economic society which we presume, according to habits formed by race, education, convention, religion and current morals, according to present hopes and past experience, according to the scale and technique of capital equipment, and according to the prevailing distribution of wealth and the established standards of life." (Keynes, 1973, vol. VII, p. 109)

One can observe the sophistication of Keynes's analysis and its similarity with the discussions of Institutionalists. The contrast with the simple standard utility maximization approach is evident. This can also be seen in his discussion of saving behaviour where Keynes's non-utilitarian background is also obvious (see Bateman, 1988, p. 1105).

Although a thorough discussion of Keynes' views on hedonism would require a more detailed analysis of his work, our brief discussion here indicates that Keynes' thought is not only outside the hedonistic framework but also exhibits an alternative economic and political viewpoint.

## 7.6 ALTERNATIVE CHOICE THEORIES

### 7.6.1 Introduction

As was observed in the previous chapter, contemporary orthodox economists adopt a choice theory which assumes that economic agents are rational. The meaning of the term rational is that agents optimize and do the best for themselves. The specific variants of this general choice theories can be seen in the consumption and production theories. Optimization in consumption theory means that consumers always maximize utility (satisfaction) or minimize disutility (dissatisfaction); in production theory it means that producers always maximize profits or minimize costs. We have shown that although on the surface the above choice theory seems neutral, in essence it has been influenced by the hedonistic approach. As an additional indication of this, and in order to demonstrate the possibility of more sophisticated and non-hedonistically oriented theories, we will discuss alternative consumer and producer choice theories in this section.

### 7.6.2 Consumer Theory

As was discussed in previous chapters, the roots of contemporary orthodox consumer behaviour theory are to be found in the works of Edgeworth, Pareto, Hicks and Samuelson. The basis of this theory is that the economic agent is always assumed to do what is best for himself and to maximize utility or satisfaction subject to a budget constraint. Clearly, the only criterion of consumer's choice is the maximization of his/her satisfaction, and as we have mentioned, this is an important manifestation of hedonistic influence.

Institutionalists and Post-Keynesians reject the above as a simplistic, conception of individual behaviour. The most well-known attack on conventional consumer theory was made, as was seen, by T. Veblen. Although, Veblen's critique was launched several decades ago, it is still relevant because in essence the most widely accepted consumer theory is based on marginalist economics. Along with the attack, Veblen suggested a new basis for consumer behaviour theory. And as was noted, this new basis was Veblen's theory of instincts, habits and institutions.

The fundamental points of a non-hedonistic consumer behaviour theory are to be found in Veblen's "Theory of the Leisure Class". The central idea of the book was that the consumer is not an isolated, static individual who always maximizes his utility, but instead the consumer is motivated by instincts, habits and by the social environment. For instance, Veblen emphasized the habitual nature of consumption by stressing that the "features of the conventional scheme of consumption do not change easily" (Veblen, 1949, p.70). Moreover, other heterodox theorists expressed similar views, for example Commons, who also pointed out the role of habits and customs not only in consumption but in economic transactions in general (see Seckler, 1975, pp.127-129). In addition, Veblen's main example of a consumption which is not based on rational (in the marginalist sense) calculations of utility or disutility was "conspicuous consumption". According to Veblen, the consumer acts or reacts to the consumption pattern of other individuals. Veblen made a long analysis of the origins of conspicuous consumption in terms of habits, instincts and

institutions. He thought that every social stratum exhibits conspicuous consumption:

"The result is that members of each stratum accept as their ideas of decency the scheme of life in vogue in the next higher stratum, and bend their energies to live up to that ideal." (Veblen, 1949, p.84)

Veblen points out that conspicuous consumption is very strong even at times of dire necessity:

"No class of society, not even the most abjectly poor, forgoes all customary conspicuous consumption. The last items of this category are not given up except under stress of direct necessity...There is no class and no country that has yielded so abjectly before the pressure of physical want as to deny themselves all gratification of this higher spiritual need." (Veblen, 1949, p.85)

Of course Veblen did not believe that conspicuous consumption is the only canon of consumption. Instincts or habits also affect the pattern of consumption.

From the above it is evident that Veblen -and other heterodox theorists who reject pleasure maximization as the basis of consumer behaviour- recognizes the hierarchy of needs starting from physical needs up to spiritual needs. Apart from heterodox economists, other social scientists have supported the concept of the hierarchy of needs (see for instance Maslow, 1954). This is in contrast with orthodox consumer behaviour theory which implicitly assumes -in the indifference curve analysis- that all needs or wants are reducible. Moreover, according to orthodox consumer behaviour theory, habits and instincts are not accepted as factors affecting consumption. The only criterion affecting individual consumption is utility maximization.

However, if one takes into account the concept of the hierarchy of needs and also the effect of habits, instincts and social factors, the orthodox indifference curve analysis seems to be inadequate. In place of the indifference curve or map one can put the quasi-indifference curve or behavioural curve. This concept is closely connected with lexicographic choice models or the priorities-centered choice model. The formal description of a simple lexicographic model is the following:

Assuming that the consumption bundle consists only of two goods: good  $x_1$  and good  $x_2$

$$x = (x_1, x_2)$$

Then given two bundles:

$$x' = (x'_1, x'_2)$$

$$x'' = (x''_1, x''_2)$$

the consumer's preferences are such that:

a)  $x'_1 > x''_1$ , implies that  $x'$  is preferred to  $x''$

b)  $x'_1 = x''_1$ , and  $x'_2 > x''_2$  implies that  $x'$  is preferred to  $x''$ .

The consumer always prefers a bundle with more of the first good in it, regardless of the quantity of the second good; only if the bundles contain the same amount of the first good does the quantity of the second matter (see Gravelle and Rees, 1981, pp. 92-95). Unlike the indifference curve, lexicographic ordering cannot be represented by a utility function. As we shall see, this type of ordering does not satisfy the standard assumptions of orthodox consumer theory (i.e. continuity, strict convexity, differentiability), and this means that it is fundamentally different from the orthodox approach (for a discussion of the above see Gravelle and Rees, 1981, pp. 92-95; Elster, 1979, p. 124 and Fishburn, 1974; and Hodgson, 1985, pp. 830-831). Thus although lexicographic choice can not be characterized as stemming exclusively from an anti-hedonistic viewpoint, one can surely say that it is far less related to the hedonistic framework than the conventional choice theory. One can even relate it to Maslow's non-hedonistic psychological approach. So, lexicographic choice can be seen as an alternative to the orthodox, hedonistic-oriented consumer behaviour theory. But let us discuss this alternative model more analytically (Most of the discussion which follows is based on Lutz

and Lux, 1979, Georgescu-Roegen, 1966, and Gorman, 1971.)

A simple example of a quasi-indifference curve is given below:

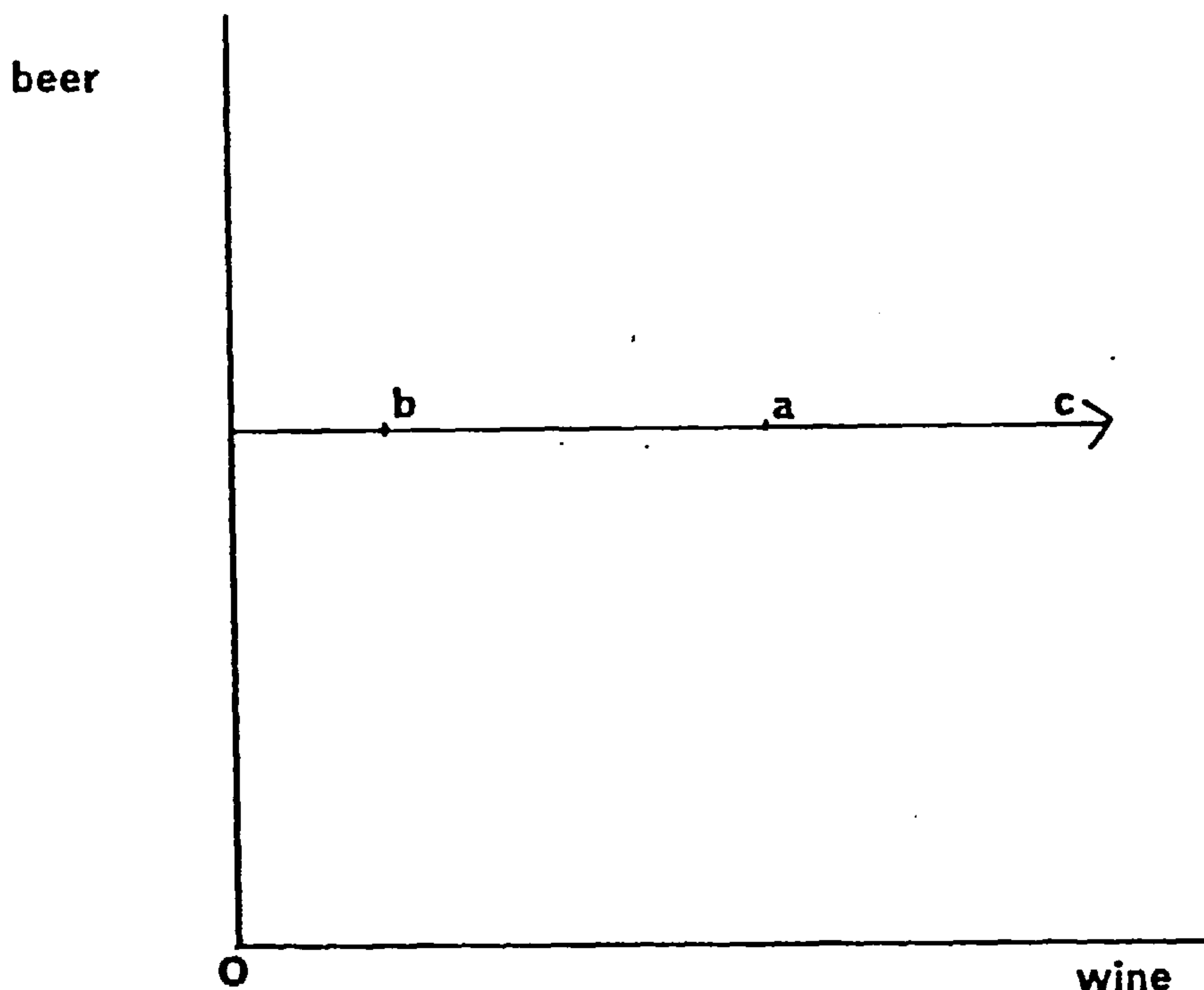


Figure 7.1

The individual here is first and foremost interested in beer which means that when there is a choice of beer or wine the individual will always choose beer. The horizontal line represents the fact that under no circumstances will the individual trade any beer for wine. Clearly there is a substantial difference from indifference curves. On the other hand, however, if the consumer's beer consumption is given, he prefers more wine than less. This means that point a is preferred to any point to the segment ab and also point a is preferred to any point below the line bac (this is a point of similarity with indifference curves). The important point here is the lack of indifference between b and a which distinguishes quasi-indifference curves.

The above quasi-indifference curve has been constructed with respect to a primary criterion (beer addiction). However, the essence of lexicographic ordering is that the bundles of goods are ordered according to the principle of words in a dictionary or lexicon: food

comes first (physical needs), concerts come after material needs and so on. And as we pointed out, in this kind of ordering "each bundle has no points to which the consumer is indifferent; indifference surfaces cannot be drawn and no utility function exists" (Deaton and Muellbauer, 1980, p.27).

Thus, if we take into account secondary criteria (the need for beverage of any kind) then this explains why a is preferred to b (given a quantity of beer, the individual will prefer more wine). One can illustrate that all points are ordered by two (or more) criteria by also drawing the contour lines for the secondary criteria:

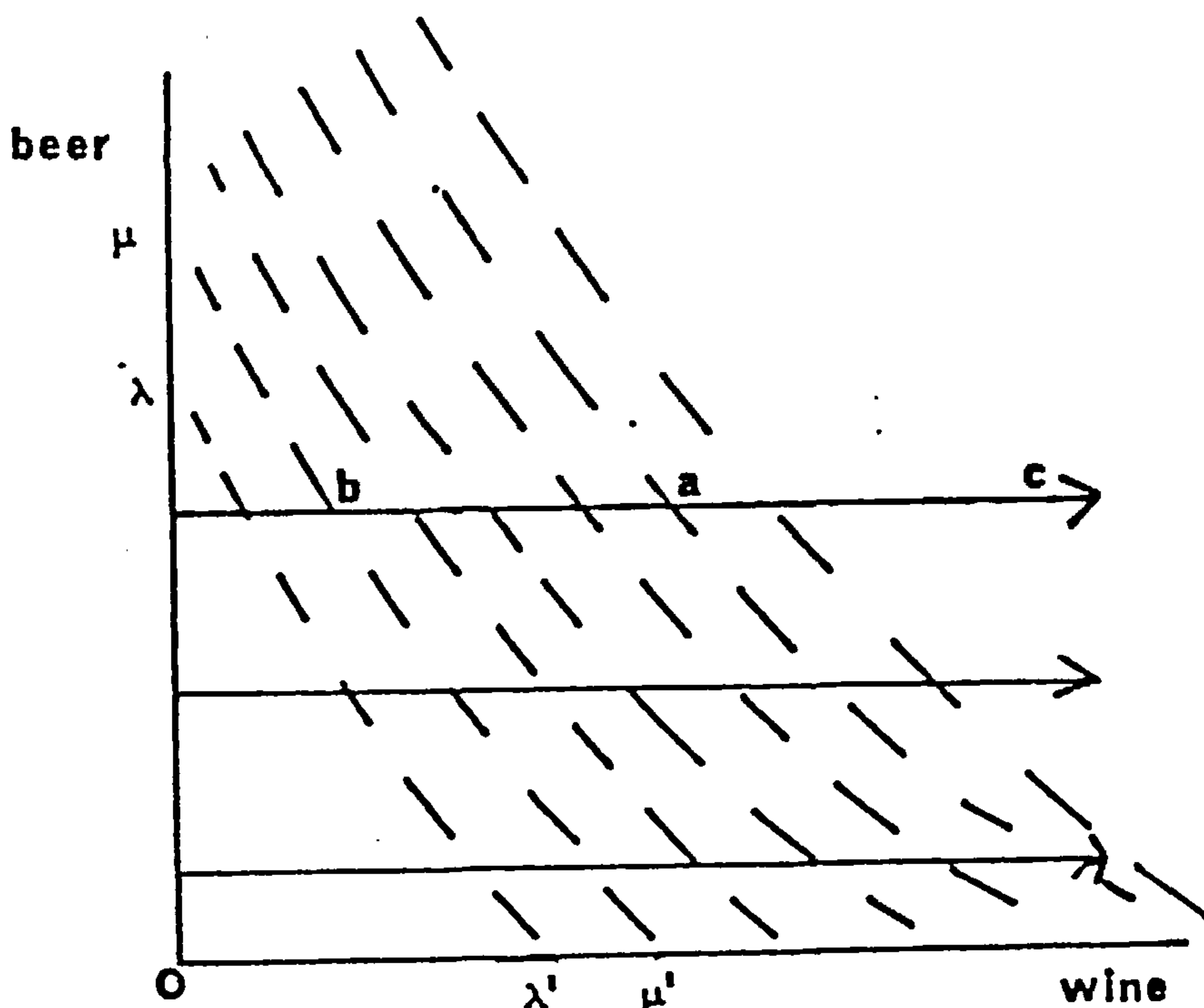


Figure 7.2

The broken lines (such as  $\lambda\lambda'$  and  $\mu\mu'$ ) represent the secondary criteria. Now if we introduce a third criterion the broken curves become quasi-indifference curves themselves. Now let us see a situation where we have four criteria. The first one is the most urgent, thirst. Beer is assumed to fulfil perfectly the need to drink. The second one can be a social need. Wine is assumed to be



valued as a more refined and socially acceptable way of drinking. The third one is taste; here it is assumed that the consumer enjoys the taste of beer. Fourth, is the consideration of after effects. Wine is considered to have less severe after effects than beer (hangovers).

The above can be represented with the following model (with the assistance of figure 7.3) :

- d: primary criterion (the need to drink)
- D: Threshold or the saturation level of the primary criterion
- s: secondary criterion (social need)
- t: third criterion (taste)
- h: fourth criterion (after effects)

Criterion d is represented by line bac. When  $d > D$  then s arises and gives rise to lines such as  $\lambda\lambda'$ . When the third criterion t appears then it gives rise to lines such as  $oo'$  and  $\pi\pi'$ . Finally, criterion h arises but it is implicitly represented.

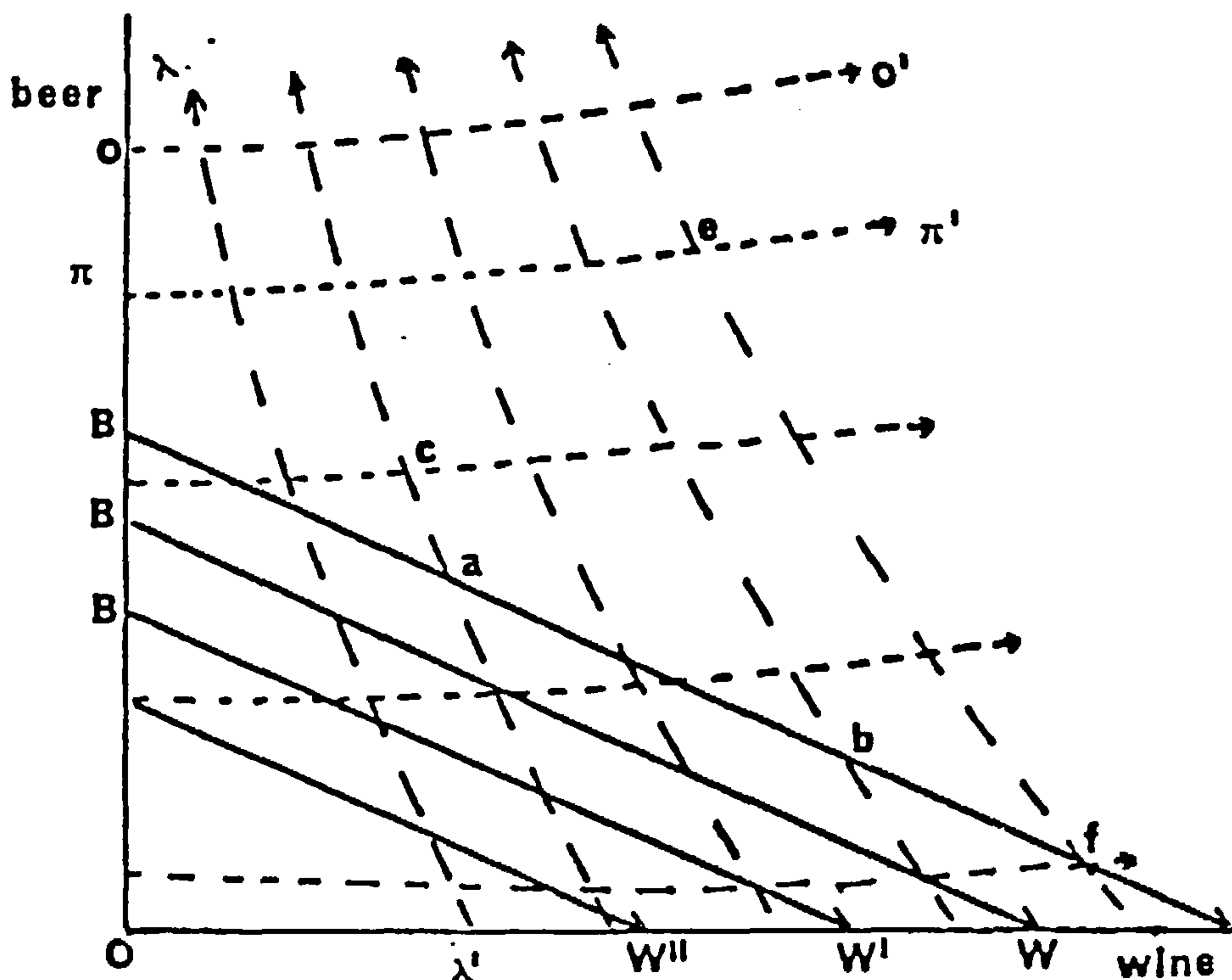


Figure 7.3

The solid lines in the above graph represent the first criterion: thirst (d). The broken contours represent the social preference for wine (s). The dotted curves represent taste (t). The fourth criterion (h) -after effects- is implicitly represented by making the taste curves with an arrow favouring wine. Thus after the first need is met (higher than BW) the individual is motivated by cultural or social habits and prefers wine. However, in the back of the mind the third criterion (taste) also operates now and so on. Thus, above BW points cabfW become a quasi-indifference curve but so does efW. One can observe that both curves touch at BW and each other. This implies that any point which is on a higher quasi-indifference curve is not necessarily superior to another point on a lower curve.

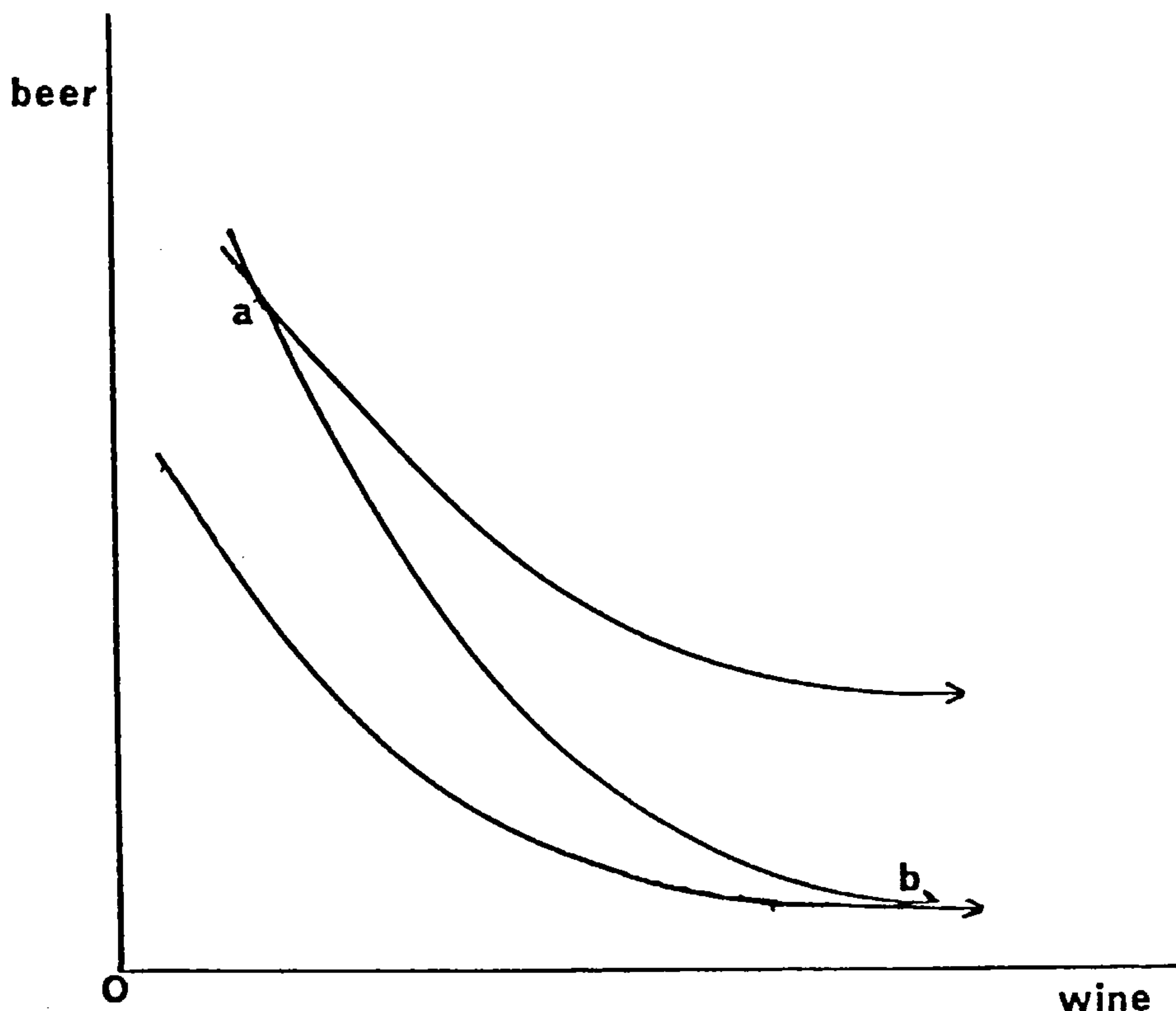


Figure 7.4

For instance point b is preferred to point a in the above graph. In addition, the existence of kinks (i.e. efW in Figure 3) will make choice more insensitive to price changes. This can be connected with the idea that the adoption of lexicographic choice will generate demand curves which will be characterized by kinks. Another characteristic of quasi-indifference curves is that they can portray irrational behaviour (in the orthodox sense) in a budgetary situation. They can also show 'neurotic' behaviour (not choosing any single combination of goods) (see Gorman, 1971, pp. 93-97).

Thus lexicographic orderings conform to alternative approaches to consumer behaviour. For instance, Veblen's idea that consumers are motivated by instincts, habits and social norms is best represented by lexicographic ordering. The basis of this approach is not a utility maximizer individual with reducible needs but an individual who has a number of different motives and a hierarchical structure of needs. Because lexicographic ordering cannot be easily accommodated to the hedonistic framework, most orthodox textbooks do not mention lexicographic ordering or quasi-indifference curves at all. Moreover, most of the few textbooks which mention this alternative approach reject them in a rather arbitrary way: "Although lexicographic orderings represent a perfectly reasonable system of choice, it is convenient to rule them out" (Deaton and Muellbauer, 1980, p. 27). This is another indication of the influence and convenience of the hedonistic approach on mainstream economics.

As a final point one can say that lexicographic choice is part of contemporary heterodox economic theories. For instance, Neo-Institutionalists and Post-Keynesians use the theory as an alternative to the utility maximizer consumer or to the profit maximizer producer (see for example Eichner, 1987).

### 7.6.3 Producer theory

In the previous pages we discussed an alternative approach to the orthodox hedonistic oriented consumer behaviour theory. Our purpose was to show the existence of an alternative to the utility maximizer consumer who is the basis of the theory. By the same reasoning, in this section we will attempt to show the existence of alternative production theories. As was pointed out, the implicit idea in the maximization of profits is that it leads eventually to the maximization of utility or pleasure. In essence, psychological hedonism is also present (although implicitly) in the other variant of orthodox choice theory, the production theory. At this point one might mention Scitovsky's demonstration that the orthodox general choice theory is inconsistent when it comes to production theory. Specifically, Scitovsky showed that utility maximization implies profit maximization only for a specific preference function. In other words, if one assumes that producers are utility maximizers then the maximization of profits is only a special case, not the norm (see Scitovsky, 1943).

One of the most well-known alternatives to the profit maximizing producer has been suggested by H. Simon. It should be pointed out, though, that Simon criticized not only orthodox production theory but orthodox choice theory in general. That is why he starts his critique with the general assumption of orthodox theory that decision makers maximize subject to their budget constraints. In an article entitled "Theories of Decision-Making in Economics and Behavioural Sciences", Simon casts doubt first on the idea of a utility maximizer consumer. He refers to experimental evidence which shows that when the individual is confronted with real life situations, he becomes much less consistent than the archetypical utility maximizer. His explanation of the empirical evidence is the following:

"We can interpret these results in either two ways. We can say that consumers 'want' to maximize utility, and that if we present them with clear and simple choices that they understand they will do so. Or we can say that the real world is so complicated that the theory of utility maximizer has little relevance to real choices." (Simon, 1959, p.259)

If one is to judge from Simon's subsequent ideas, then clearly he

adopts the second option. Simon's position against the idea that decision makers maximize utility (or profits) is based on two points. The first has to do with the complexity of the decision-making environment. As B. Loasby states: "The complexity of the decision environment places optimality beyond reach, and often beyond definition" (Loasby, 1985, p.5). The second point is related to the concept of rational agents. As we have seen, most orthodox theorists view economic agents as perfectly rational beings. This rationality enables them to achieve the highest utility or the highest profit given the constraints. Simon attacks the above conception by distinguishing two kinds of rationality: a) Substantive and b) Procedural. Substantive rationality is the rationality of the traditional maximizing models. On the other hand, with procedural rationality the emphasis is placed on the process by which the decisions are made. Simon is explicit in stating the difference between the kind of rationality assumed by maximizing models and the procedural rationality of every day life.

"First, I would like to expand to the theme that almost all human behaviour has a large rational component, but only in terms of the broader everyday sense of rationality, not the economists' more specialized sense of maximization."  
(Simon, 1978, p.2)

Simon believes that the most commonly observed behaviour is 'event matching' which of course is the result of procedural rationality. The individual examines a certain number of alternatives and chooses the best given his limited time and knowledge. In going back to experimental evidence, Simon again emphasizes that subjects fail to behave according to the theory of utility maximization: "The subject chooses the two alternatives (not necessarily at random) with relative frequencies roughly proportional to the relative frequencies with which they are rewarded" (Simon, 1959, p.260). In a subsequent article, Simon gives a specific example of a decision which is not based on utility maximization. In particular, he states that flood insurance is bought by persons who have experienced or who know persons who have had such experiences. Cost/benefit considerations do not influence the decision-maker. Simon emphasizes that utility maximization is neither a necessary nor a sufficient condition for

deducing who will buy insurance; rather the process that puts the item on the decision agenda is the important thing (Simon, 1986, pp. 31-32).

After having discussed the idea of utility maximization, Simon moves to his main theme which is the maximization of profits. He sees a vital connection between the two ideas, and thus his observations regarding utility maximization also hold for profit maximization. Procedural rationality and the closely connected idea of the complexity of the decision environment (because of complexity agents engage in event matching) imply that businessmen do not maximize profits. In Simon's words:

"If we seek to explain business behaviour in terms of this theory, we must expect the firm's goals to be not maximizing profit, but attaining a certain level of rate of profit, holding a certain share of the market or a certain level of sales. Firms would try to 'satisfice' rather than to maximize." (Simon, 1959, p. 263)

Thus, the maximization assumption is replaced with satisficing. The implications of satisficing are very important for the theory of the firm. Some economists like Cyert and March developed a behavioural theory of the firm which is based on Simon's concept of satisficing. The starting assumptions of this theory are the separation of management and ownership and that the firm is a coalition of groups (i.e. managers, workers) with conflicting interests. The above means that there are a number of conflicting demands in the firm which take the form of aspiration levels. These lead to the concept of firm's goals (production goal, sales goal, market share goal, profit goal) which again take the form of aspiration levels. The firm then seeks to achieve a 'satisfactory' performance as defined by its aspiration levels. The important point here is that the firm does not simply attempt to maximize profits, sales or revenue. The concept of maximization is replaced by satisfactory performance (for a detailed discussion of the above see Cyert and March, 1963). In the process of attempting to attain its goals, the firm considers only a small number of options and chooses the best given its imperfect information and limited time. In other words the firm is not maximizing but satisficing. As is known, the assumption of profit maximization means that there is a unique equilibrium of price and output. However, if

satisficing is assumed, then we do not have a unique equilibrium. This can be shown with the following diagram:

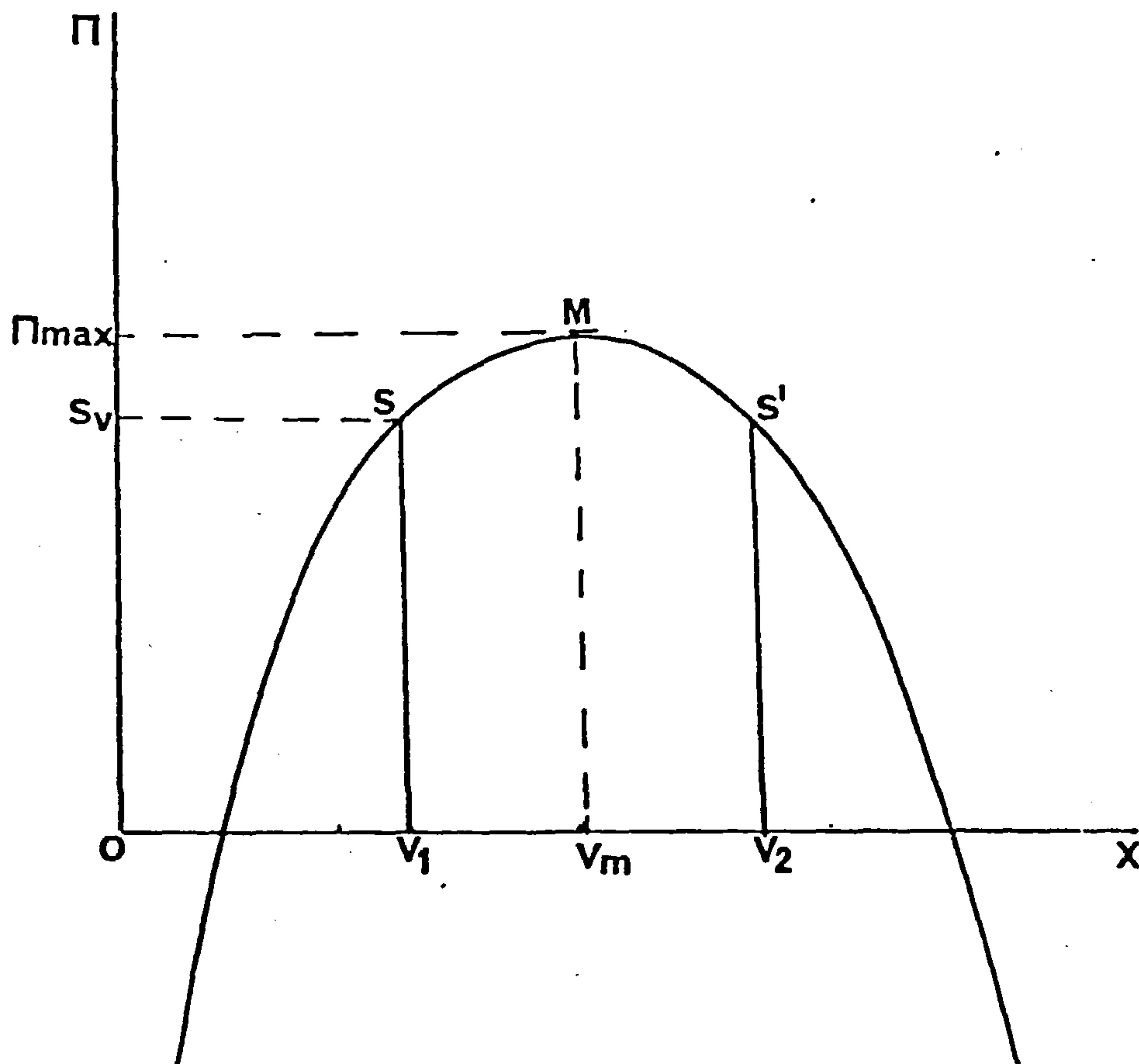


Figure 7.5

If  $\Pi$  is profits and  $X$  a variable (price, output) then if we assume that profits are maximized ( $\Pi_{max}$ ) the value of the variable is  $V_m$ . If satisficing is assumed then profits would be at  $S_v$  and the value of the variable would fall anywhere between  $V_1$  and  $V_2$  (see also Boulding, 1955, p. 600). The value of  $S$  and  $S'$  are established by taking into account the firm's aspiration levels. (It should be mentioned, however, that this point is not very clear in the behavioural theories.) Thus it can be seen that the existence of the above alternative approach, means that the concept of maximization (which in the final analysis is connected with hedonism) is not the only basis

of producer theory.

Before we finish this section, we should point out that Simon's critique of the profit maximization hypothesis and his suggestion of adopting an assumption of a non-maximizing business behaviour is supported by other economists also. For instance, G. Katona in his work: "Psychological Analysis of Economic Behaviour" has questioned both the utility and profit maximization assumptions. Instead he emphasizes the existence of a number of interactive motives: "Multiplicity of motives, some reinforcing one another and some conflicting with one another, is much more common" (Katona, 1963, p. 71). At this point one can observe the similarity of alternative choice theories (both consumer and producer theories): the fundamental assumption is that there are a number of different motives, goals, needs, not just a universal one of utility maximization.

Apart from the above mentioned theorists, there are some other economists who have suggested other non-maximizing models of firm's behaviour. For instance, S. Winter's approach is based on the concepts of satisficing and evolution (see Winter, 1964). Moreover, A. Eichner and P. Earl have attempted to apply the general theory of lexicographic choice to firm's behaviour (Eichner, 1987 and Earl, 1983).

The ideas of J. K. Galbraith are also close to the non-maximizing theories of the firm. More specifically, Galbraith begins, like Simon, with an attack on the conventional hypothesis of profit maximization. Galbraith asserts that the separation of management from control of the firm undermines the assumption of profit maximization. According to him, firms place much more emphasis on security of earnings and growth (Galbraith, 1975, pp. 106, 116). The managers of the firm are people with specialized knowledge or in Galbraith's terminology the technostructure. The first concern of the technostructure is to secure the minimum acceptable earnings for the shareholders. After accomplishing this, the technostructure strives for growth, and the main way of achieving growth is by manipulating consumer demand (mainly through advertising) (see also Galbraith, 1967). It is evident that Galbraith's analysis differs substantially from the orthodox theory of the firm.

The general implications of alternative non-maximizing theories



of the firm are very important. As we pointed out a central consequence of adopting non-maximizing theories is the non-existence of a unique equilibrium of price and output. The consequences of non-maximizing theories of the firm are summarized by Lipsey as follows:

"Non-maximizing models imply sensitivity of the price system to large but not to small changes in signals caused by changes in demand, costs, or public policy."  
(Lipsey, 1983, p. 338)

The origin of alternative, non-maximizing theories of the firm can be traced back to the 1950's. As we observed a significant number of economists have done considerable work in developing non-maximizing theories. In spite of this however, the vast majority of orthodox microeconomics textbooks pay very little attention to the existence of non-maximizing theories. Many textbooks ignore completely these theories and unquestioningly adopt profit maximization as the central assumption of the theory of the firm (see for instance, Ferguson and Gould, 1975). Others just mention the existence of such approaches without going further (see for instance Braff, 1969). This is another indication of the bias towards maximization which characterizes mainstream theory. As was the case with lexicographic choice, non-maximizing theories are essentially ignored. According to our view, this is due to two reasons: the first has to do with the influence of the hedonistic framework (the maximization of profits is closely connected with the maximization of utility). The second is that the idea of a profit maximizing firm or a utility maximizing consumer, greatly facilitates the application of mathematical techniques. Lexicographic choice and non-maximizing theories involve important non-quantifiable elements, or make the application of mathematics more complicated (hierarchy of needs, procedural rationality, influence of social factors, emphasis on firm's structure etc). Moreover, these alternative theories are not capable of predicting exact or unique levels of prices and output the way that orthodox theories do. However, these theories can give results which can be empirically tested. In the case of lexicographic choice for instance, this might involve simulation of demand functions (see Drakopoulos, 1989, pp. 18, 19).

In general, however, one can say that non-maximizing theories of the firm, provide a reasonable alternative to the profit maximizing firm. They can again be seen as an alternative to the notion of a profit maximizing producer just as lexicographic choice can be seen as an alternative to the utility maximizing consumer. Their small influence on contemporary economics assists in the understanding of the role of the hedonism in the formation of orthodox theory.

## 7.7 CONCLUSION

The purpose of this chapter was to demonstrate the possibility of alternative, non-hedonistically oriented economic approaches. In order to do this, we started discussing Adam Smith's and K. Marx's ideas and the views of two heterodox schools, the Historical and Institutional schools. In addition, we provided brief indications of J. M. Keynes' rejection of Benthamite hedonism. Subsequently, we gave examples of alternative choice theories which are not based on the idea of utility maximization or profit maximization. We indicated that these alternative theories do not stem from the hedonistic framework (or at least are far less related with hedonism than orthodox theory), and thus they can be seen as examples of a non-hedonistically oriented economic theory.

More specifically, we observed that Adam Smith's view of man was far more sophisticated than Bentham's selfish, pleasure maximizing beings. Smith emphasized the role of sympathy and other motives (such as a sense of duty) and established a connection between self-interest and sympathy. Moreover, Smith advocated an open, pluralist methodology, something which contrasted with J. S. Mill's, Senior's and Cairnes' physical-science oriented economic methodology. Because of the above, Smith's approach was seen as opposed to Bentham's utilitarian economics. Our next section which dealt with Marx showed that Marx's ideas also were not based on utilitarianism. In addition, Marx's emphasis on the social nature of man and his idea that selfish behaviour is a sign of an alienated individual places Marx outside the hedonistic framework. Marxian economics, which is based on Marx's views, provide a distinct theoretical scheme with different explanations of economic phenomena than those of utilitarian economics (as a starting point, Marxian economists do not associate prices with marginal utility).

The Historical school of economics was seen as the heterodox alternative to the late classicals and to the first marginalist generation. The attack on Bentham's utilitarian views, the emphasis on the idea that all motives of human behaviour affect economic activities, the different conception of the discipline of economics and holistic methodology, constituted the main differences from the

hedonistically oriented economists.

In the same way, the Institutional school provided the alternative to the hedonistic economics of the second marginalist generation. The basic notion of the Institutional school which was that institutions are a major factor affecting economic phenomena gave a dynamic, evolutionary nature to the school, and this was in contrast with the static, isolated approach of orthodox theory. Moreover, the Institutionalists' analysis of consumption which was done in terms of habits, instincts and modes of thought (especially proposed by Veblen) was in marked contrast with the utility maximization based orthodox theory. The final part of this section was a brief discussion of Keynes' attack on the hedonistic orientation of orthodox economic theory which again provided additional evidence of the hedonistic character of this century's orthodox economic thought.

If one takes into account heterodox economic ideas and non-hedonistic psychological theories (i.e. Maslow's), one can accept more easily alternative theories of choice which are not based on hedonistic assumptions. More specifically, it was observed that if one considers instincts, habits and social norms and also the irreducibility of needs (hierarchy of needs), instead of only utility maximization, indifference curves become irrelevant and quasi-indifference curves based on lexicographic choice come into the picture. Lexicographic orderings provide a perfectly acceptable alternative system of choice to the maximizing model. In the same way, we observed that the idea, related to utility maximization, of profit maximization which constitutes the basis of the orthodox theory of the firm, can be replaced by non-maximizing assumptions. Heterodox theories of the firm like those of H. Simon, and Cyert and March take into consideration social influences in the production decisions and also postulate that the perfect rationality which is assumed by orthodox models should be replaced by bounded rationality.

Generally, although the economic thought of Smith, Marx, Historical and Institutional economists differ in many respects, they also exhibit some common points: they place emphasis on the social context of economic phenomena and of economic decisions. They reject the dualism of orthodox theory which isolates man's motives.

Instead, they pay attention to all human motives (and to their hierarchical structure) in the study of economics. They follow a dynamic approach with emphasis on historical-institutional factors. As a consequence, their economic methodology is not an abstract, physical-science-type methodology, but an open, pluralist one. This means that contrary to mainstream theories they do not sacrifice relevance for formalization. But above all, the idea which places the above outside the hedonistic-utilitarian tradition, is the rejection of man's image as a selfish (in the economic sphere at least) perfectly rational, utility (profit) maximizing being.

Another observation of this chapter was that in every phase of the development of orthodox economics (since Bentham), there was a parallel alternative approach which provided a non-hedonistic viewpoint. Today, apart from the existence of heterodox schools like the Neo-Institutionalists, the Post-Keynesians or the Neo-Austrians, there are concrete, heterodox inspired alternative developments from orthodox theory like the lexicographic choice and the non-maximizing approach to producer theory. These latter theories appeared in 1950's, however, one can safely say that they have not had any significant effect on the structure of orthodox theory. This seems to demonstrate that non-hedonistic economics is possible, but the unwillingness of orthodox theorists to consider seriously this possibility, is an important indication of the influence of the hedonistic/utilitarian mode of thought on contemporary conventional economics.

## NOTES TO CHAPTER 7

1) Having in mind the discussion of lexicographic choice and the analysis of non-selfish preferences that we discussed in the previous chapter (The theory of rational consumer), one can represent a lexicographic altruist. This simple model can portray the preferences of extreme altruists (i.e. mother and child). In the case of one good  $x$  and two individuals  $i$  and  $j$ , and assuming lexicographic utility, we can write:

$$U_i(x_i, x_j)$$

$$\frac{\partial U_i}{\partial x_i} > 0, \quad \frac{\partial U_i}{\partial x_j} > 0 \quad \text{and}$$

$$\frac{\partial U_i}{\partial x_j} > \frac{\partial U_i}{\partial x_i}$$

This implies that individual  $i$  has lexicographic preferences of the following form:

$(x_j, x_i) P (x_j', x_i')$  when

1)  $x_j > x_j'$

2)  $x_j = x_j'$  and  $x_i > x_i'$

Thus if  $x$  is food for instance, the mother ( $i$ ) has a lexicographic preference to feed her child ( $j$ ) first and then herself.

## CHAPTER 8

### 8.1 SUMMARY AND CONCLUSION

The prime objective of this thesis was to show that, contrary to the common belief of historians of economic thought, the hedonistic approach has played a central role in the development of orthodox economic theory. In the process of demonstrating this, we discussed the work of influential economists over a long period of time. Our approach was mainly historical covering approximately two centuries of economic thought, starting from the classicals up to modern developments. Before this, however, a section was devoted to the origins of hedonistic ideas.

Thus, the opening chapter was concerned with the origin of hedonism in Ancient Greek thought, especially in the ideas of Aristippus and Epicurus, who were responsible for the first systematic formulation of the hedonistic approach. During that time the first important elements of hedonism appeared: the idea that life is centred on two opposing concepts: pleasure and pain; that the purpose of life is the maximization of pleasure; the attempt to find a method of measuring pleasure; and finally the combination of hedonism with egoism (selfish behaviour).

The next chapter was concerned with the reappearance (after a long break of several centuries) of the basic hedonistic characteristics mainly in the thought of Gassendi, Helvetius and Hobbes and its subsequent introduction to the field of economics with the work of Bentham, Mill, Senior and Cairnes. It was during this period that the hedonistic paradigm started to become an important influence on economics.

The main elements of hedonism (although somewhat modified) were observed in the economic thought of the marginalist school, the subject matter of the fourth chapter. It was also observed that the hedonistic influence became stronger and more explicit, and that it was combined with an increasingly formalistic economic methodology. This was especially true in the theory of consumer's behaviour where economic agents (economic men) were portrayed as selfish, pleasure-maximizing beings. Moreover, during the same period, hedonistically-

based terms became central to marginalist economics. For instance, one of the basic terms, 'utility', was identified with satisfaction or pleasure. In addition, the extent of the hedonistic influence can be illustrated by the fact that the non-hedonistic elements of Marshall's work were completely ignored or distorted by contemporary marginalist and subsequent orthodox economists.

This very explicit hedonistic orientation aroused strong criticism by heterodox economists, and led to an attempt towards the minimization of the hedonistic image of orthodox economic theory. This attempt was also strengthened by the increasing dominance of positivist scientific philosophies which called for 'value-free' social sciences. Wicksteed, Pareto and Fisher were mentioned as indicative examples of this tendency. Our discussion enabled us to argue that in essence hedonism did not disappear but was pushed into the background of mainstream economics.

The trend towards the 'neutralization' of economics continued into this century. Our main observations were the replacement of utility theory with an allegedly neutral theory of choice and in general the 'purification' of orthodox theory from philosophical or psychological connotations. This was in accordance with logical positivism, the new brand of positivism, the prevailing scientific philosophy until the first half of this century. Logical positivism called for value-free social sciences with formalistic methodology in the image of physics. However, in spite of the tendency towards neutralization, we were still able to trace signs of hedonistic influence which could be mainly found in the psychological assumptions of the theories (especially in the theory of choice). Moreover, apart from the implicit presence of hedonism in those theories, we observed its explicit presence in the majority of orthodox textbooks, mainly in the form of a selfish, utility maximizing economic man or in the idea of collective maximization of pleasure or economic welfare.

Finally, as a further indication of hedonistic influence on orthodox theory, we mentioned examples of alternative economic approaches and schools which stem from non-hedonistic paradigms. Stoicism and Maslow's psychological theory were given as examples of non-hedonistic conceptual frameworks. Adam Smith, the



Institutionalists, Marxians and Keynes were mentioned as examples of non-hedonistically oriented economists. Lexicographic choice and non-maximizing theories of the firm were suggested as examples of theories which are at least far less related to hedonism than the orthodox approach.

Thus our discussion points to the fact that hedonism has been and still is an important influence on conventional economics. However, a word of caution should be added at this point. In our work we have attempted to establish a common pattern (or common points) over a long period of time. Inevitably, changes in the meaning of concepts and terms occur over such a long historical period. It is clear that the meaning and significance of hedonistic concepts have changed since their appearance in ancient Greek thought, and also that different theorists do not have the same conception about apparently identical ideas. Moreover, there has been a tendency to shift from philosophical to psychological hedonism. However, in spite of all this, we believe that there are some general common ideas which constitute the hedonistic framework. The maximization of pleasure or satisfaction as something central in human life, is one of these basic common ideas. This enables us to speak of a 'hedonistic paradigm' in the Kuhnian sense or of a 'hedonistic research programme' in the Lakatosian sense, which characterizes the development of orthodox economic theory.

But what are the significance and implications of the hedonistic influence? First of all, evidence of hedonistic influence challenges the claim of many modern orthodox economists to a 'positive', 'neutral' or 'value-free' economic science in the sense that modern orthodox theory is not based on any particular philosophical or psychological framework. It is quite clear that the underlying presence of a particular conceptual framework undermines the above claim. More specifically, many mainstream theorists would endorse the view that at least, large bodies of orthodox theory can be thought of as value-free, especially consumer's behaviour theory or value theory. The hedonistic presence, which is a value-system -according to many philosophers, psychologists and orthodox economists who, for this reason, deny its presence- clearly undermines the above conception. One could argue that egoistic hedonism is a positive basis if one

accepts as a fact that people always seek maximum pleasure. However, there is very little support from psychology or anthropology to justify this claim. On the contrary there is an evident tendency by the majority of psychologists and anthropologists to reject the hedonistic approach (see Laing, 1960, Masters, 1978, Peters, 1958, and Titmuss, 1971)

Naturally, this issue brings us to the question of a possibility of a positive economics (independent of any particular mode of thought). As was mentioned at some points in the text, the whole concept of a positive economic science comes from the influence of positivist philosophies of science which supported and justified the idea of positive economics independent of any psychological foundations as opposed to normative economics based on explicit value judgements. However, modern developments in the philosophy of science point to the impossibility of such clear-cut distinction (Kuhn, 1970, Toulmin, 1961, Lakatos, 1978, Feyerabend, 1975).

If indeed the idea of a positive economics is impossible, this can be seen as an explanation why, in spite of the attempts of economists to expel hedonism, it remains an important underlying paradigm of orthodox economics.

The above arguments do not imply that orthodox economics be rejected because of its hedonistic orientation. They indicate, however, that despite the common belief, conventional economic theory is not a positive, value-free discipline, because (as other economic approaches) it is influenced by a particular research programme or paradigm, in this case the hedonistic one.

It is beyond the scope of this thesis to discuss whether hedonism is the appropriate framework for explaining and predicting economic phenomena. Most historians of thought have neglected the role of hedonism in the history of economics. Our main purpose was to show that contrary to this common belief, hedonism has been and still is, an important underlying conceptual framework of conventional economic theory.

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