FOUNDATIONAL EPISTEMOLOGIES IN CONSUMPTION THEORY

Alan Storkey
VRIJE UNIVERSITEIT TE AMSTERDAM

FOUNDATIONAL EPISTEMOLOGIES IN CONSUMPTION THEORY

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor aan
de Vrije Universiteit te Amsterdam,
op gezag van de rector magnificus
dr. C. Datema,
hoogleraar aan de faculteit der letteren,
in het openbaar te verdedigen
ten overstaan van de promotiecommissie
van de faculteit der sociaal-culturele
Wetenschappen
op woensdag 17 november 1993 te 15.30 uur
in het hoofgebouw van de universiteit, De Boelaan 1105

door

Alan James Storkey

geboren te London
Promotoren: prof. dr. B Goudzwaard
            prof. dr. S Griffioen
            prof. dr. B Kee

Referent: prof. dr. D Th Kuiper
Preface and Acknowledgements

The genesis of this study was a period in 1966-7 when I was especially involved in epistemological issues, partly through attending seminars run by Popper, Lakatos and Winch and partly through discussions with Elaine on her work on Wittgenstein. One of the outcomes was a long paper on the different epistemologies embodied in the various movements of modern art circulated by Hans Rookmaaker. Elaine and I then continued to work through a variety of epistemological issues in relation to British and Dutch Christian philosophy, and to develop a Christian evaluation of theories of knowledge used in the social sciences. In the 1970s, partly in relation to Tony Cramp’s pathbreaking Cambridge lectures, it was articulated into a critique of some of the trends in economic and sociological thinking, expressed in embryo in chapter 3 of A Christian Social Perspective. This emerged as part of the background critique developed with the Calvin College Centre team of George Monsma, John Tiemstra, Karl Sinke and Fred Graham in 1980/1, and it was during this time that the ideas began to be shared with Bob Goudzwaard, whose thinking has deepened and opened the perspective considerably. At the end of that year Bob offered to supervise the study. The focus on consumption theory grew out of an interest at Cambridge, a later focus on the sociology of the family and the institutional reformulation which is present in the Calvin College team’s Reforming Economics. The study has developed over the last decade in work with Bob Goudzwaard, and also with Sander Griffioen and Bas Kee, who have also contributed much to its formulation. Although post-modernism has been slower emerging in economics, it is now beginning to be clear how deep the critical reflection will need to be, and this study is offered as part of that process.

Thanks for many of the resources of this study are due especially to the following libraries and those who work within them: Sheffield University, Calvin College, Gordon College, Oak Hill College, and especially the British Library of Political and Economic Science at the LSE and Cambridge University Library.

The privilege of working with Bob Goudzwaard, Sander Griffioen and Bas Kee on this topic goes far beyond the scope of the actual work itself and I thank them for what they have shared, for their insights, scholarship and friendship. I am also grateful to those mentioned earlier and to many others for discussions and insights, and to Calvin College and Oak Hill College for research time.

Finally, I give intimate thanks to my Father and Mother for long term encouragement, to Amos, Matthew and Caleb for the willingness to discuss issues and provide technical support, to Elaine for her love, faith, thought and commitment to this endeavour, and centrally to God as the source of knowledge, contaminated though it is by our weaknesses.
# Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preface and Acknowledgements</td>
<td>5</td>
</tr>
<tr>
<td>Introduction</td>
<td>8</td>
</tr>
<tr>
<td>Chapter one: Foundationalism and Consumption Theory</td>
<td>12</td>
</tr>
<tr>
<td>Theory as a Path</td>
<td>12</td>
</tr>
<tr>
<td>The Public Affairs Economists</td>
<td>21</td>
</tr>
<tr>
<td>The Search for Academic Recognition</td>
<td>23</td>
</tr>
<tr>
<td>Locating the Problems of Knowledge</td>
<td>30</td>
</tr>
<tr>
<td>The Failure of Foundationalism</td>
<td>44</td>
</tr>
<tr>
<td>Introduction</td>
<td>64</td>
</tr>
<tr>
<td>Rationalism as a Foundational Epistemology</td>
<td>66</td>
</tr>
<tr>
<td>Its Origins and Development</td>
<td>97</td>
</tr>
<tr>
<td>Subjective Kantianism</td>
<td>125</td>
</tr>
<tr>
<td>Chapter three: Positivism and Consumption Theory</td>
<td>144</td>
</tr>
<tr>
<td>Introduction and Background</td>
<td>144</td>
</tr>
<tr>
<td>Attempts at the Foundation</td>
<td>151</td>
</tr>
<tr>
<td>Logic and Positivism</td>
<td>170</td>
</tr>
<tr>
<td>Popper and the Break with Inductivism</td>
<td>178</td>
</tr>
<tr>
<td>Probable Certainty</td>
<td>187</td>
</tr>
<tr>
<td>Background</td>
<td>198</td>
</tr>
<tr>
<td>The Epistemological Base</td>
<td>202</td>
</tr>
<tr>
<td>The Cambridge School</td>
<td>207</td>
</tr>
<tr>
<td>Mill and the Foundation of Causal Epistemology.</td>
<td>210</td>
</tr>
<tr>
<td>Mill's Epistemology in Economics and Consumption Theory</td>
<td>213</td>
</tr>
<tr>
<td>Marshall's Consumption Theory</td>
<td>221</td>
</tr>
<tr>
<td>Behaviourism</td>
<td>240</td>
</tr>
<tr>
<td>Consumer Behaviourism</td>
<td>246</td>
</tr>
<tr>
<td>Review of Foundationalism</td>
<td>256</td>
</tr>
<tr>
<td>A Christian Diagnosis of Foundationalism</td>
<td>262</td>
</tr>
<tr>
<td>Bibliographies</td>
<td>314</td>
</tr>
<tr>
<td>Index</td>
<td>349</td>
</tr>
</tbody>
</table>
**Introduction**

This study has a shape which is unusual, and it is good at the beginning to share a strategic view of its scope and intentions. The subject matter is consumption theory as it has developed in economics from the 1870s to recent times, what could be called 'modern consumption theory'. The focus of the study is on the epistemological construction of that theory, and as such forms part of the growing interest in the philosophy of economic science which has been fostered by Hutchinson, Blaug, Caldwell, Carabelli and others. It carries the concerns of these theorists further by articulating the epistemological issues in relation not to a single theorist or period but to a subdiscipline of economics. It also has something in common with post-modernist critiques in bringing into question long-term orthodox constructs which have had authority in areas of academic study. The central thesis is that much of consumption theory has been definitively shaped by a drive to establish epistemological security, what is here called a 'foundational' drive, which has distorted its development. As a result the basis of this subdiscipline is suspect in a way which damages its ability to address the issues of consumption which are thrown up by the domain of study. However, the aim of the critique is to open up the possibility of a reconstituted view of consumption theory itself, and this is the intention especially of the last chapter. Such an initial terse account needs to be filled out by a more discursive narrative of the book.

The first chapter sets the scene by reinterpreting the dominant way of seeing the growth of modern economic theory, that is as a progressive refinement of scientific knowledge. This view, assumed by Schumpeter, Samuelson and many others fails to allow the possibility that the discipline has, in part, been developing on the basis of progressively compounded errors. To investigate this possibility the study steps back into the era of classical economics and identifies a series of problems which theorists of the time faced which added up to a crisis for economics threatening its very existence as a discipline. The response to this first crisis, it is suggested, was to develop a conception of economic science which would allow the discipline to survive in the academic climate of its day. This involved establishing some kind of unassailable authority for the theory advanced as knowledge. The early neo-classical theorists tried to do this by adopting foundational theories of knowledge which would guarantee the validity of the theory they developed. These foundational positions have become the dominant orthodoxies within consumption theory over the last hundred years or so, when it has seemed as though the foundational move was a resounding success. Actually, however, it may have been a flawed academic response which has left the discipline, and especially consumption theory, with a series of internal problems. These have developed into a second crisis no less serious than the first, and like the former it has not been consciously addressed in a systematic way. Only gradually have the underlying problems become more evident and their Étiology is traced in detail in chapters two, three and four.
The first chapter, to provide a basis for telling this story, articulates in some detail what this foundational move entailed. It was not only an economic response but picked up on wider trends in academic culture which followed from similar crises of belief and knowledge in other areas. The idea of ‘foundationalism’ needs some clarification. It is a concept which has been employed by a number of philosophers of science and increasingly by post-modernists with various meanings which involve family resemblances but are not identical. The meaning employed here shows similar concerns, but has a slightly different intent. It is used to bring together and define what in retrospect turns out to be an astonishing modern preoccupation of thought seeking to establish an indubitable basis for knowledge in the human sciences. It is not limited to economics, but can also be seen as having influence in sociology, psychology, linguistics, history, politics and other social sciences. This study does no more than touch on these possibilities, but it does raise the likelihood that studies in other disciplines and subdisciplines could reveal a pattern which is similar. The first chapter identifies and defines the foundational response and examines some of the key structural problems which follow from adopting it as a basis for (economic) theory. The tenor of the critique of foundationalism can also be described. It suggests that the problem in theory formation is deeper than can be met by combining different approaches; there are certain generic problems, like the otherworldliness of theory, methodological dogmatism, the exclusivity of data, boundary disputes, and value-freedom which create insoluble dilemmas for the discipline. After exploring these possibilities in principle, the first chapter finally traces the early emergence of consumption theory in the second half of the 19th century and suggests how it was likely to be influenced by foundationalism.

Consumption theory is perhaps a favourable case. It emerged when foundationalism, as here described, was also taking shape, and its whole career has therefore been shaped within this kind of search for economic knowledge. In other areas of economics like production theory or international trade the effect might have been less decisive because of the earlier crystallisation of theoretical issues. To some extent this study remains agnostic about the weight of the influence of foundationalism in other disciplines, in wider economic theory and even in consumption theory. By focussing on the developments in consumption theory which are more obviously foundational, it tends to give less substantive treatment to other streams of thought which are not epistemologically based. In so doing it "conforms" to orthodoxy while offering a critique of it. Post-Keynesians and others have sought to study an alternative tradition of theorists who have different perspectives to offer. This task is not undertaken here; the emphasis is rather on uncovering the fundamental epistemological mistakes to see what can be learned through them. Although they may be particularly relevant to consumption theory, others working in the epistemology of economics are convinced that the extent to which theories of knowledge have shaped the development of the discipline is still widely underestimated. (Carabelli 1988 1-13) This study merely suggests foundational theories have had a debilitating effect on consumption theory, but the
ramifications may be much wider.

The foundational move did not, however, result in one pattern of theoretical development. There were actually a variety of responses which theorists believed provided an infallible foundation for knowledge, and the next three chapters look at the main traditions exemplifying these responses - rationalism, positivism and causal-behavioural views of knowledge. Throughout each of these chapters a particular argument is mounted. The need for epistemological certainty is seen as pushing theorists to pursue their kind of foundationalism, often drawing on philosophers or philosophers of science who were available in their academic culture. This in turn shaped the kind of theory seen as necessary and valid, and each of these views of theory was then held dogmatically over against the other kinds which were also around. Thus, a picture emerges of a subdiscipline which fractured into more and more theoretical empires, each of which owed allegiance to its own foundation. Yet because the fundamental epistemological dogmatism of each of these positions was not recognized or admitted, the possibility of meaningful debate among consumption theorists was continually curtailed. Evidence is presented not just of noncomprehension across major epistemological traditions, but also between methodologies which seemed to be close neighbours.

However, the concern is not only the fragmentation of theoretical debate, but also the impoverished ability of foundationally-based theory to address its subject matter. Each prescribed theory excluded evidence, subject matter, modes of arguing and public issues and thereby reduced its kind of theory to a form which was empty of much significant content. The theory embodied its foundational weaknesses. Each of the positions, because it was self-referencing, cut itself off from a full engagement with the subject matter and even distorted the issues on which it did focus. The picture emerges, therefore, of a subdiscipline which has lost its usefulness. Indeed, within the literature we face a sharp fall off in relevant work alongside an expansion in the significance of consumption in economic life. It is, for example, astonishing that only 0.5% of members of the American Economic Association rate consumption theory as a major area of specialisation. (AER Dec 1989 573-5) Yet the analysis of these chapters is not all critique, for the detailed examination of particular theorists and positions allows a map to be drawn of some of the unaddressed areas and ignored modes of theorizing which can be developed in the final chapter. These are also available from some of the theories and traditions which have stayed outside a foundational approach. Thus, the analysis suggests, in varying degrees, that a radical deconstruction of consumption theory is needed, and in the final chapter a reconstruction is attempted using the insights gathered from the previous analysis.

This final chapter makes more explicit a Christian critique of the idea of autonomous theoretical knowledge and shows a way of reintegrating theory with the wider issues of consumption. It picks up on some of the post-modernist consumption theorists to construct a different map of the domain and uses an alternative theory of knowledge to develop new ways of understanding. It acknowledges important contributions
which are nonfoundational and give substantial insights to the discipline. It also recognizes the validity of epistemological issues in theory construction and honours those concerns as part of the growth of consumption theory, and above all it seeks in the final chapter to make some systematic suggestions for the reconstitution of this subdiscipline. When consumption seems to be the dominant concern and issue of contemporary economic life, this task is desperately needed.

The gulf between foundational consumption theory and substantive analysis is addressed in terms of a christian critique which touches and reunites them on a surer view of knowledge. It develops and exemplifies substantive areas which the consumption theorist should be able to investigate and harvest with appropriate methods of investigation and analysis. It especially suggests that post-foundationalist consumption theory needs to engage with the substantive and urgent issues raised by consumption - energy depletion, ecological damage, addiction, emulation and self-gratification to name but a few. It needs also to respond more directly to the way consumers live, both in gathering evidence from them and addressing the meanings which they give to it. Thus the study is not merely asking for a reaction to foundationalism into what happened before, or into a post-modernism which deconstructs the need for economic theory into various conflicting narratives. The aim is not reaction, but a reconstruction of consumption theory on a basis which addresses both the substantive and epistemological issues in an integrated way. This is a deep transition, because it involves moving understanding from an epistemological focus into relation with the lives of consumers. Yet without it modern consumption theory will largely remain, as it has in many respects become, defunct. With a fundamental reassessment, and with a new perspective, it is possible for consumption theory to address some of the most important issues of our lives with rigour and relevance.
Chapter one: Foundationalism and Consumption Theory.

Theory as a Path.
We take for granted the progress of economic science, but what if the discipline made some crucial mistakes in its early stages and is perpetuating and magnifying the errors? How would it know? The business of retracing to the wrong turning would be a long journey during which the landscape would be reinterpreted, and only at the end would it be possible to confidently break out in a new direction. This book makes such a journey, but because it is a book, it can take liberties with which bits of the journey it does first. This chapter goes straight back to the initial turning and tries to chart why it was the wrong direction and what induced us to take it. Like the Irishman asking the way, it says we should not start from here.

The journey is the development of consumption theory and it has taken something more than a hundred years. The following chapters will suggest there are serious flaws in the way consumption theory has been approached within the major orthodox traditions which cannot be rectified by technical adjustments. Rather it requires a reconsideration of the whole historical development of this subdiscipline, and a rethinking of one of the basic questions of its development, which is described in this study as Foundationalism. The term, as used here, has a different but related meaning to the other uses it has been given. It signifies a way of approaching knowledge which requires theory to be constructed according to principles which guarantee its certainty and validity. It has not resulted in one body of theory, because there have been varieties of foundational views of knowledge which have channelled theoretical work, including consumption theory, in their own particular directions.

This kind of exercise can only be undertaken in stages, and before we examine in more detail what Foundationalism is and how it has influenced economic theory, especially consumption theory, it may be valuable to go back to the second half of the 19th century to examine the preconditions for this journey and try to see why the direction which is now taken so much for granted was the chosen path. There are three levels of this sitzproblem which we shall examine.

We begin by considering a crisis which developed within classical economics after the middle of the 19th century. What had been taken as a stable orthodoxy within the discipline for much of the previous era became questionable and fragmented. This generated a need, when consumption theory was embryonic, for a new way of doing economics. It was the ferment of this revolution which was part of the context...
Second, the situation also changed as the practitioners of economics moved from a business, church and public affairs milieu to an academic one. This change in social context tended to demand a different kind of validation in relation to peers, in particular the need to have recognition of economic science alongside the other scientific disciplines. Thus, behind the early development of consumption theory lies the emergence of this new kind of academic economist. Normally this change is taken for granted, but here it is argued that it has had more profound and less beneficial consequences than are normally assumed.

Third, interwoven with these, was the question of the development of the philosophy of the special sciences. Previously philosophy had tended to be seen as the substantive core within which specialist thought developed. Social, political, economic and natural philosophy were tendencies within a broad cultural movement with antecedents in classical philosophy and an established tradition. After the middle of the 19th century this tradition of social and economic philosophizing became confused and inconsistent; it was out of touch and dogmatic and seemed not to relate to much of the more detailed knowledge which was being gathered. Many of the newer philosophers of science looked for different ways of approaching the issue. This revolution in approach is central to the emergence of Foundationalism and had a far wider cultural significance.

These streams helped to create the turbulence out of which the response of Foundationalism developed and in which consumption theory took shape. Still, however, the actual shape of this response needs to be examined in more detail. It converged on the difficulty of holding any belief about the economy or society with certainty. A widespread response was to be agnostic about the substantive beliefs which contemporaries held and to seek surety in a certain mode of understanding. Foundationalism was the response to this epistemological agenda. It was by no means the inevitable path and was opposed by many more at the time than have been recognized in many standard histories of economic thought. The path which struck across new country is now worn with generations of docile tourists. It is so much part of the scenery of the human sciences in the 20th century that it will take some time to escape from it. As part of this process of disengagement from these preconceptions we consider some major changes in the ways of approaching the question of how knowledge is to be understood.

We are then in a position to look at Foundationalism as a key movement in the definition of modern disciplinary knowledge and to see something of its pervasive influence within consumption theory. Its internal problems as a theory of knowledge are examined with the help of two philosophers, Nelson and Dooyeweerd, and the structure of its weaknesses are examined in systematic terms. In three subsequent chapters the articulation of this misdirected theoretical approach within consumption theory is explored in more detail.
The Earlier Crisis in Classical Economics.

The development of foundationalist economic theory did not arise from an automatic progression of thought, but was conceived in reaction to problems which occurred in mid 19th century Classical Economics - what could be called the First Crisis. It is to this period we must therefore initially turn. Earlier, despite the many different positions and conclusions within Classical Economics, it had a coherence which was widely acknowledged and identified. A self-confident vision grew out of the Enlightenment which was formative in the unfolding of economics, biology, sociology, psychology, politics and other disciplines. It involved facing Nature, and grasping by reason and representation its modus operandi. Confronting Nature was the motive of Enlightenment thought, and derivatively late 18th century British thinking was continually asking what the nature of the state, human understanding, man, society, the universe and law was. (Hazard 1946, Gay 1969 II 126-87) The driving faith was that, as for Newton, Nature would give up its secrets to triumphant human understanding. Automatically, therefore, the focus was on understanding the Nature of the economy. (Clark 1992) The first approximation was a vision of a natural system which produced wealth. (Appleby 1978 242-79) Part of the genius of Smithian economics was the detachment which resulted from stepping back and looking at the economy as a mechanism exhibiting a natural order. The Physiocrats had a similar naturalistic conception, and although debate and variation occurred in the later developments of classical theory, still there remained a belief in a system which ran itself according to certain natural laws to be understood by rational reflection. This optimistic hope for the future of economic reasoning ran strongly through the earlier part of the 19th century.

This study will not examine the internal debates of Classical Economics of these years but will identify a pattern of breakdown which occurred after its statement in Mill's Principles, when its hegemony, especially in English-speaking thought, was nearly complete. By the 1860s the dominant Classical model of the economy began to encounter severe problems, and by the centenary of the publication of the Wealth of Nations in 1876 there was concern about why the standing of the discipline had fallen so much in public estimation and was viewed with suspicion. (Smyth 1962 41-72, Political Economy Club 1876) Jevons and Ingrams were markedly hostile towards the orthodoxy, but this unease was shared by a much wider fraternity. The economic expansion and euphoria of the period from 1850-1872 had given way to agricultural depression, unemployment, money and trade problems which led people to ask more searching questions of the economic orthodoxy. Classical theory became internally weak, patching itself up against a series of attacks which wounded its assumed natural provenance. What had brought about this change?

The criticisms came from a number of directions. The first was the Comtean argument that Sociology, or more accurately, an integrated study of Humanity, was the crowning science under which economics was to be subsumed. Comte's work was available in English from the mid-fifties onwards, and he had corresponded with
Mill from 1844. If economics was part of a larger framework, it had to be prepared to adapt its categories to the greater science. Mill resisted this possibility, but it appealed to others. Perhaps the most influential economist was Ingram, who was later important for the American Institutionalist School. In his critique it was clear that the Positivist creed of an organic and systemic society was seen as superseding the System of Natural Liberty of the classical model. (Ingram 1888 53-190) Ingram emphasised the mutuality and trust reflected in a complex economy over against the classical emphasis on the efficacy of self-interest, a point made in different ways by Harrison, Spencer, Carlisle, Ruskin and Cliffe Leslie. This theme threatened the autonomy of economics which rested on self-interest as the self-subsistent economic motive, especially as nationalism provided a potent form of integration for economics.

The second critique had gathered round the free-trade/protection issue. The classical system's main metaphysical assumption was a natural economic order, of which (since the time of Smith) free trade was a part. The arguments of Hamilton, Raymond, List, Carey and others that protection might be a better policy at certain historical stages was not only a challenge to British national policy, but also to the presumed universality of the classical free trade system. (List 1841, Pribam 1983 206-7) By the mid 1850s List had been translated and was popular in the States and his ideas gathered enough weight to challenge the classical orthodoxy, especially as soon as agricultural protection became an issue, adding to the powerful German non-acceptance of free-trade.

Another key element of the classical tradition, indeed, its very definitional basis, was the concept, "wealth". The tradition saw the discipline in terms of "The Nature and Causes of the Wealth of Nations". Mill kept this concern central to the Principles, and defined wealth as things which possess exchangeable value. (Mill 1848 9, 436-40, but Hollander 1985 I 251-7) Ruskin seized on this definition and shredded it in Unto This Last. (1862 38-66) He showed that an important part of wealth is command over the labour of others, because things are useless without it. The supposed natural order of things therefore gave way to the question of whether wealth was fairly or unjustly acquired and used. Ruskin showed that this "wealth" could be malignant when it involved the power to control other people's lives and needed to be evaluated by more fundamental criteria than liberalism and utilitarianism could offer. Further, wealth was not mere possession, but required that articles be used, which in turn involved the question of who could use them and to what purpose. Thus Ruskin linked the theory of production and value indissolubly with distribution and the central purposes of humanity. The key concept of the classical tradition was left in some disarray, and Munera Pulvis and Fors Clavigera kept Ruskin's critique alive throughout the 1870s, although by then Mill had already admitted the limitations of his definition of "material wealth", and espoused a mild, pre-marxist, ideal Socialism. (Mill 1909 752-94, Harrison 1902 91-108)

A further plank in the classical system was the Ricardian wages fund theory, as
developed by Senior, Longfield and Mill. This also collapsed. Thornton in On Labour had broken down the idea that there is some inherent distinction between funds for profits and for wages, which had been used to drive distributional issues from the classical model. He showed that because employers paid below the price they would be prepared to pay for labour when supply exceeded demand, there had to be a range of possible distributional effects. (Thornton 1868 43-110) Mill's retraction brings out the framework within which the old model worked.

There is no law of nature making it inherently possible for wages to rise to the point of absorbing not only the funds which he had intended to devote to carrying on his business, but the whole of what he allows for his private expenses beyond the necessities of life. The real limit of the rise is the practical consideration of how much would ruin him or drive him to abandon the business; not the inexorable limits of the wages fund. (Mill1909 993 [1869])

Marx pushed this point further by arguing for an exploitative distributional effect which led to the wrong appropriation of wages, and there was no way back to Ricardian automaticity.

The failure of the natural order paradigm was also evident in its lack of a significant theory of choice. Senior and Lloyd made initial statements of the concept of diminishing marginal utility, but they did not draw the choice conclusions which came later with marginal theory. When the dominant political ideology was Liberalism, an economic model which gave choice or freedom so little scope was out of touch. Mill, who had no shortage of Liberal credentials, allowed utility only a temporary role within the more determinate concept of Natural Value. Mill, strong on Liberty, could not break through his naturalistic concept of "economic man" and "real laws of nature, dependent on the properties of subjects" (Mill 1873 234) to a more explicit recognition of economic freedom of choice. The failure of consumption theory to develop within the classical paradigm was a symptom of this problem which will be examined more fully later.

A further attack on natural order came from those who refused to see labour as merely a factor of production subject to ineluctable laws. They included the Christian Socialist Movement, the Chartist movement and the Evangelical philanthropists. The natural laissez-faire order did not work, argued members of this tradition, because it produced so many human casualties and degraded people. On moral grounds it was an unacceptable and inhumane economic philosophy. Maurice argued economic activity came within the scope of the Kingdom of God, rather than being a "natural" activity, Kingsley that rental income was often unjust, Shaftesbury that the terms of labouring could and should be redefined by law. This principle even applied to donkeys; as the costermongers learned, "With twenty-four hours' rest on Sunday, they would do thirty miles a day without exhaustion; whereas without it, they do not do an average of more than fifteen." (Hodder 1887 647) Although this critique was not fully developed theoretically, it had a pervasive influence and

© Alan Storkey
required a justification outside naturalistic explanations. By the 1860s the social improvements of the working classes, aided by legislation and social action, was shown to have improved the contribution of the workers; the French envied the level of art education evident in British pottery and fabrics. (Ludlow 1867) A commitment to workers and the quality of work, evidenced also in Guild Socialism, replaced the fatalistic views of subsistence labour present in Malthus and others.

Slightly later appeared the argument of the German Historical School that all economic forms were historically conditioned and shaped by the era and area in which they developed. The classical analysis of the economy was thus culturally relativised. What could be the correct policy for the British nation might not be for the German. Cliffe Leslie was the British economist who most strongly represented this position (1970 and 1888) and Mill was happy to some extent to go along with this relativism on the Irish Land reform question. (Hollander 1985 II 922-8) During the 1870s and 80s it gained more weight through the work of Ashley and challenged the classical idea of one natural model for the economy and its supposed universal conclusions. There were already enough differences in European economies for the point to be forcefully made, and its impact can be seen in the framework which Marshall largely adopted in Industry and Trade. (1919)

Yet another attack had its origins in the Common Sense School. Price, for example, questioned the superiority of the "scientific" ideas of economists over the common sense practicality of businessmen. In mounting this attack Price was undermining the classical economists' authority to make superior statements about what was happening in the economy. He showed that many of the arguments were circular and many of the definitions suspect. (Price 1882 1-31) The economic version of the Common Sense school continued the belief in the superiority of businessmen over economists, and the inferiority of economic reasoning to the understanding of the Manchester men.

A more weighty issue was the change in the relationship between economics and politics. The minimalist State view of late mid-century Liberalism had left the classical economy largely intact, but the nationalist state involved a different view of economic relationships, whether in Germany, Britain, Italy or the United States. Later when idealist philosophy came to dominate British political thought in the work of Green, Maine, Maitland, Bradley and Bosanquet, the conception of the State tended to claim priority in the organisation of economic affairs. The Socialists, Trade Unionists and Fabians similarly saw political issues as a prior concern in the economic debate. Consequently, the discipline faced a clear choice, or so it seemed. Either it must break with the political element of its nomenclature and establish itself as independent of political theory, or some overall philosophy which articulated politics and economics as a total framework had to be established. This was reflected in the increasing influence of Fabian and ILP Socialist economics on the one hand and economists who asserted their purity, but not in terms of laissez-faire naturalism, on the other. By the turn of the century it was accepted that the
polity necessarily influenced the economy, even if only by default, so that laissez-faire was a political choice. Those who wanted to maintain the purity of economics therefore had to find an extra-political ground for doing so.

An even deeper challenge was the ideological one. At the middle of the century the perceived issues had been the Anti-Corn Law League, the right to unionisation, commercial crises, the response to the Irish famine and the protection of the British farmer. With the elapse of another twenty or thirty years far deeper ideological differences were being expressed among the articulate public. Christian Socialists questioned industrial organisation. The Co-operative movement attacked orthodox marketing. Marxists attacked capitalism. Disraeli Toryism attacked liberal laissez faire policies on trade. Imperialism promoted a preferential alternative to free trade. Education and welfare developments undermined political laissez faire. These were not just differences of opinion but of conscience and principle. The commitments challenged at root the benign idea of a natural understanding rooted in the middle classes; the prescient knew that another basis for human knowledge in these areas had to be established which would hold against all ideological attack, especially for political economy.

The awareness of these attacks and criticisms grew piecemeal. The kind of unease expressed at the centenary of The Wealth of Nations poorly articulated only some of these points. But gradually the perception grew that the conception of the economy as a natural order which could be studied by detailing its anatomy and understanding how the components of the system worked was no longer tenable. No given natural order was discernible and no one rational understanding of it became evident. Although the consciousness of the situation developed very slowly, the end had come for the Enlightenment epistemological response which characterized the work of Smith and Ricardo. Their aim had been to examine the nature of the economy, which was seen in an analogous way to the solar system, through rational understanding uncovering the order of a mechanical causal system. The hope that this mode of understanding would issue in orthodoxy was now dead, because there was now such fundamental disagreement about the nature of the economy. The Historicism, the Socialist and the Laissez-faire Liberal each claimed to have rationally uncovered the nature of the economy, but with contradictory and irreconcilable claims as to what it was. Each and none was rational in the Enlightenment sense and the basic orientation of Classical understanding was in crisis.

If this analysis is correct, it suggests that the Neoclassical interpretation of the later response is less than accurate and rather disingenuous. Schumpeter and others focussed on the Marginal Revolution, happening more or less simultaneously in the Austrian, English and French/Lausanne schools, as providing a new development in Classical economics which has continued more or less uninterrupted to the present. (Schumpeter1954 825-9, 909-20) Yet the marginal revolution addressed so few of the criticisms levelled at the classical system. The challenge was far bigger
and deeper, requiring academic economists to move away from an ideational conception of the nature of the economy towards an epistemological consideration of how economic understanding is obtained. Mill, Jevons, Pareto, Walras, Weber and Marshall all had important early concerns with methodology and the theory of knowledge. Marginalism, it will be argued, was therefore part of this larger epistemological transition which attempted to remedy the deficiencies of the classical approach and establish a new orthodoxy.

The extent of its assumed success can be judged by the way the work of many of the economists who did not adopt an epistemological focus was sidelined in the "great tradition" of the history of economic thought. The contemporary position of Ruskin, Morris, the Webbs, Wallas, Beveridge, Hawtrey, Pigou, Cole, McFie, Tawney, Hobson, Veblen, Commons, Mitchell, Myrdal, Eucken, Hayek, Tugwell, Knight, Rueff and many others was far greater than the reduced significance they have been given in Neoclassical histories of economic thought. Sadly, this study cannot pursue the public, political and economic significance of these thinkers and the alternative traditions which they generated. We merely note the editing process has understated the extent to which neoclassical economists had to fight for their definitions of economic science to prevail.

In summary, the sitzproblem demanded a fundamental transition to a different way of approaching the issue: if the architecture of the discipline could no longer be constructed in terms of natural laws, there had to be a reliable way of establishing economic knowledge which could be defended against the charge of ideological bias, partiality and subjectivity. Crucial were the criteria for judging what well-formed or scientific understanding was. The groundwork for this approach had already been done by growing traditions of theorists, but now it was a movement come of age. If a certain kind of knowledge could be held definitively, or foundationally, correct then economic understanding was well formed and could allow a cumulative growth of economic knowledge. This shift allowed a relaxation of the need to have a view of the economy as a whole in favour of systemic agnosticism. However, it required confidence in the method of obtaining knowledge before one gathered the fruits of that method. This approach in principle therefore allowed a break from the dogmatic classical belief that the inner nature of the economy had been infallibly grasped by the mind; it allowed the failure of classical economics to be tenable, but it replaced it with the hope that correct methods of constructing theory would generate a new orthodoxy which would be beyond challenge.
The Epistemic Community of Later 19th Century Economists.

At the same time as Classical Economics was undergoing this crisis another transition was taking place which had its effect on the development of the discipline. The community of economists moved from a focus in public affairs to one which was academic. This change in subculture deeply affected the way economics was conceived, yet because the subsequent community of economic scholars has been largely rooted in academe the effects of this changed cultural milieu have scarcely been recognized.

This is partly because of a commitment to the idea of the purity of theoretical thought; ideas are to be examined in and of themselves, uncorrupted by the consideration of social, psychological, economic or political motives, which cast a slur on their integrity as ideas. We are examining an era when this idea of purity was given strong assent in the form of the assumed rational orthodoxy of neoclassical economics. Yet this approach fails to recognize the subcultural limitations of the views which are defined by the groups concerned as universal and necessary ones. The preoccupations and priorities of all groups are limited and focussed, and the subculture out of which those concerns grow is therefore an important aid to understanding what was occurring which the sociology of knowledge provides. Such an approach does not require a reductionist attitude towards the ideas involved; it merely enlarges the scope of the truth criteria to which they are subject and may explain their limitations and biasses.

There is a tendency for the history of economic thought to be conceived in terms of a progressive academic march towards the present. The critical tools of this position are those which belong to the present, which of course cannot criticize the growth of proto-orthodoxy; it detects a "pure filiation of ideas". (Blaug 1985 300) It also assumes that ideas are sifted purely on the grounds of their present "truth" value, rather than interest, self-validation and patterns of group loyalty and cohesion. If the present is wrong in some sense, this orientation is especially weak. Yet the idea of the progress of economic thought remains tenaciously strong. Samuelson has seen the recent past as progress to a golden age in the development of analytical economics with yet new frontiers of knowledge to conquer, (Samuelson 1965 xiii) and many other theorists automatically adopt this stance. Because economics is now strongly rooted in an academic community, it becomes difficult with this view to see its social location as problematic. In this section we shall consider how changes in the socio-cultural context of economists put pressures on them which could not longer be solved by the old liberal patterns of debate. Their response of fitting in with the academic ethos of similar disciplinary groups is by no means the automatic route to progress in economic thought which it is often supposed to be. Indeed, it may have been, and be now, deeply problematic for the discipline.

In the sociology of knowledge there is an awareness of the located and subcultural attitudes which have generated claims to science, knowledge and theoretical
orthodoxy. Science in one sense is a cultural idea promulgated by various interest
groups who may use it as a means of enhancing their own status, pay and authority.
(Mulkay 1979, Wallis 1979 49-66) The importance of the group in deciding what
issues receive currency, priority and acceptance is also considerable. Orthodoxy is
a powerful social force in science; it shortcircuits other forms of examination by
arguing that of course this view must be accepted. The groups who espoused the
idea of economic science had their own agenda and occurred in a situation where
many other views had as strong a claim to orthodoxy. By identifying the epistemic
communitiesin historical context it is possible to see the competition of ideas,
reference groups, interests and claims which were present in the generation of new
lines of thought. This need not discount belief, or veracity, but it can reveal special
pleading. (Code 1987 166-97, Barnes 1974, 1977, Weiller and Dupuinenet-
DÉsrousailles 1974 40-47) Finally, the different levels at which epistemic
communities operate need to be recognised; changes in theory, methods, paradigm,
epistemology, communication and recruitment can be quite dissimilar. (Butts and
Hintikka 1977 31-49) What, then, were the 19th century economists like as a
community?

The Public Affairs Economists.
At first economists in Britain were a small group without an epistemic focus. The
Political Economy Club, founded in 1821 was limited to 35 members, many of whom
were passive and only 4 of whom were ex officio academics. (Political Economy
Club 1 1860) A laissez-faire, free trade approach meant economists were
superfluous as advisors, planners and executives; if the economy ran itself, they
were redundant. James Mill and the other Board of Trade Free Traders had done
their kind out of a job by their doctrines. Thus the Civil Service was no strong source
of employment and usefulness for economists until the Imperial emphasis grew;
even then Keynes found it full of dotardry. (Barber 1975, Skidelsky 1986 178) The
result was to leave economics as a part-time, even leisure occupation for many
members of the classical tradition and to shift the emphasis to the practitioners of
economic life. The major full-time occupations of these economists were Parliament,
Banking and Commerce, Country Gentleman, Merchant and Manufacturer, the Civil
Service and the Church. (Fetter 1980 9-13, 243-59) Even J.S.Mill, dominating mid-
century economics, was not a government advisor and was heavily preoccupied
between 1851 and 1858 with his East India Company work. Of those who could be
called professional economists, Cairnes and M'Culloch depended on chairs
endowed by Whately and Ricardo, and Malthus held a Civil Service teaching post.
Senior at Oxford was, like Cairnes and M'Culloch, an avid supporter of the scientific
neutrality of economics, which suggests that the professionals were already more
concerned about the scientific status of their discipline than those who merely
traded opinions.

This was further reflected in the journals and forums of debate that economists
used. The main places for economic discussion were journals like The Edinburgh Review, The Fortnightly Review, The London and Westminster Review, Blackwoods, The Nineteenth Century, The Journal of the Royal Statistical Society and other, more popular magazines and pamphlets. Until the Economic Journal was established in 1890 the locus of debate was among the literate public, not specifically among economists. The patterns of contact were similarly diffuse. No university had a community of economic students and teachers before 1870. Jevons accounts of his early experience in London show that such a community did not exist. Walras and Pareto evidence a similar isolation. Marshall created such a community through teaching generations of students. The accounts of the early meetings of the Royal Economic Society show how slowly and painfully the community developed. The early pattern therefore was of isolated scholars in contact through letters, articles and book reviews, but in a context of wider social intercourse. Many of the forms of contact - Parliament, Committees and Commissions, Banking and Commercial gatherings, involved a more open pattern of discourse. In addition few of the participants in the debate depended in any way financially on their work as economists. In this situation they could disagree without it being of much moment to them professionally.

Economic issues were joined by scholars of other disciplines. Some of the most significant economic debate around 1850 came from the stimulus of Comte and Spencer (Sociology), Carlyle, Ruskin and Morris (Aesthetics), Maurice, Kingsley, Whately and Chalmers (Theology) and Sidgwick (Ethics). All of these were able to invade the domain of economics quite substantially, and expected to do so. Mill fended off Comte, but Ruskin examined Mill's technical terms with far more penetration. In a similar way Croce (Philosophy and Aesthetics) engaged in a detailed discussion with Pareto on his theory of value. (Int. Ec Papers No 3 172-207) Maurice was encouraged to apply for the Oxford chair, but in the end did not, and Sidgwick moved easily into the domain of economics. Thus, throughout this period the surrounding disciplines, some established and some struggling for identity, refused to accept the boundary which more academic economists tried to draw round their discipline and readily invaded its territory.

The boundaries were loosely and differently drawn, as we have seen, but that was because economists were unclear as to their court of reference. Was it the public, business, merchants, bankers, students, academics, scientists, government or the church? Manchester School industrialists, merchants and bankers knew their job better than economists and seemed to have no direct need of theorists, who obviously had an ambiguous role. Walras tried his hand at being a political advisor, but failed. Jevons was thrilled at being noticed by Gladstone over the Coal Question. (1865) By the late 1870s economists were expected to explain to the public what had gone wrong with the British economy and began to develop some kind of professional identity. But it was tenuous; in the 1880s public economic debate was being conducted along lines drawn up by the Socialists, (Pelling 1965

© Alan Storkey page 22
13-61) and by 1886 Beatrice Webb had articulated objections to a "self-contained, separate, abstract political economy". (Webb 1926 290, 437-44) In good time Marshall would make his worthy appearances before commissions, but the public and the government had a limited conception of the value and expertise of this group, especially as the old middle-class organs of debate declined with more populist politics. Socialism had effectively sidelined neoclassical economic contributions, as Pareto, Marshall and Walras frequently complained from differing contexts. They were ignored and seemed to speak without public authority.

The Search for Academic Recognition.

Nor did the economists fare much better with their fellow academics. Inclusion in the scientific community was difficult. In 1877 Galton proposed the abolition of Section F (Economic Science and Statistics) of the British Association for the Advancement of Science because the scientific content of the papers was so small. (Stone EJ 1980 720) In 1863 Owens College, Manchester could scarcely offer an economist a viable job, and the situation changed only slowly as the provincial universities began to take up economics. At Cambridge even in 1902 Marshall wrote to Neville Keynes as part of his agitation to set up an Economics and Politics Tripos which would not be swamped by the Moral Sciences Board:

Put yourself in my position. I am an old man.... I have no time to wait. Economics is drifting under the control of people like Sidney Webb and Arthur Chamberlain. [LSE and Birmingham School of Commerce] And all the while, through causes for which no-one is in the main responsible, the curriculum to which I am officially attached has not provided me with one single high class man devoting himself to economics during the sixteen years of my Professorship (quoted in Skidelsky 1986 45)

Thus the struggle to establish economics as an autonomous discipline with stature was a difficult one which daunted even the greatest figures until into the 20th century. (Hutchinson 1953 1-31)

The triumphalist history of the progress of economic thought which comes from some neo-classical scholars ignores how crucial this issue of establishing a domain was for the new professionals. For unlike the gentry, bankers, MPs and merchants, these new economists had to earn their living by writing and teaching economics. Walras searched for ten years for an economics professorship in France between 1860 and 1870, during which time he was a journalist, administrator and bank employee, and then he had to go to Lausanne to find a post. (Jaffé 1983 125) The practitioners required an area of expertise and authority which they could claim as secure professional knowledge, and this meant different points of reference for the development of the discipline than had obtained hitherto. They had to throw their lot in with the university as an epistemic community and break, to some extent, the old ties with banking, politics and trade. Thus the autonomous bounded discipline which tended to emerge may have done so in part because of the professional problems
which the early economists faced.

The conception of the university varied. The personal authority and following which professors in Germany and Austria commanded tended to encourage the kind of schools of thought exemplified in the Methodenstreit, so that not being swayed by student popularity was an issue of conscience for Weber. (Weber 1948 129-56) Oxford and Cambridge faced less direct English language competition, and this kind of warfare was not marked. The governing bodies tended to be establishments of church, local government and older academics who exercised influence, controlled appointments and wanted to further their institution. (McAlister 1976 10-47) Disciplines vied for status, staff and funds. Academic debates tended to take place in their own terms through processes of acclaim and acceptance which were independent of the daily issues of political economy. This retreat from engagement with money, trade, banking, commerce, government data gathering and policy formation was considerable, because the daily agenda presented by lectures, tutorials and articles was the validation of one's academic position. Government was left to professional and popular politicians, trade to businessmen and detailed knowledge of banking was lost to many of the new economists; Maynard Keynes could find no treatise in any language dealing with money in his modern world. (Keynes 1930 I vii) The distance which economics travelled in moving from London to Cambridge was far more than 60 miles, and the same kind of journey was being undertaken by the discipline elsewhere as academic economics developed.

The change in priority which this move generated was considerable. Economists moved from being concerned with public affairs and the conduct of business, work and banking to establishing a corpus of knowledge which could be taught with authority. Immediately, it is clear that the new generation found themselves alienated from the old political economy; it could not work for them, partly because they did not have access to the responsibilities, decision-making and informal contacts through which the system operated. They could easily feel they needed a new kind of knowledge which gave them authority and status in academe. Again the sitzproblem for those who need to earn a living from economics is evident. They needed an established professional knowledge which would command respect and income, and this required a way of validating the status of this knowledge against all comers.

Yet, of course, these socio-economic needs neither validate nor invalidate the new kinds of discourse, debate and theory formation which were generated by the academic context of economic thinking. The central question is how the new academic community of economists redefined theory and whether their way of securing it against attack is justifiable. Nor does the fact that the old way was defended by such weak protagonists as Bonamy Price (1882) automatically validate the new view. The creation of a separate epistemic community for academic economists may have been one of the biggest problems of the emerging subdiscipline of consumption theory. Behind all these issues is the bigger problem
of how the wider academic epistemic community defined knowledge and whether the widespread claims to the scientific status of various disciplines were justified.
The New Human Sciences: Their Definition and Coherence.

A third issue which was current at this time was the formation of the newly emerging human sciences. Sociology, Psychology, Aesthetics, Pedagogy and other disciplines were just forging a distinct identity. Some, like History, Philosophy and Ethics had a longer pedigree, but were challenged by the changes brought about by new kinds of knowledge. At the same time the relationship among these different bodies of knowledge was ambiguous: were they part of a larger corpus, or autonomous or hierarchical? Again, they all faced the relationship which they had with the natural sciences; were they geisteswissenschaften, arts subjects or social science? Each of these disciplines therefore faced three major challenges: their identity, their relationship to the others and their status as science. Economics, as a relatively established discipline, yet with questions beside its identity, had its own path through these issues.

As "Political Economy", Economics had its identity within public affairs, but gradually, except at Oxford, this meaning waned with the 19th century. It also had links with Theology, History, Geography, Ethics, Sociology, Psychology, Anthropology and Linguistics, and was engaged in debates with many of them as to the relationship between them. This issue was really a philosophical one, because it contained questions which went beyond the competence of the discipline itself. The argument of this section is that by the end of the century the philosophical problems posed by these relationships had become seemingly insoluble; the impasse required another kind of solution. Such a solution was offered by Foundationalism.

During the 18th century Enlightenment humanism had promised that a direct confrontation of Reason with the Nature of man, society, morals, the state, the economy, the natural world and even of the mind would bring unequivocal understanding free from the trammels of revelation. Underlying this movement was the kind of hope which had generated L'Encyclopédie, namely that a comprehensive rational understanding of humankind would emerge. The universe of knowledge could be brought together in one coherent corpus or place, the university. Although a shadowy idea, for a while it seemed possible; there was a mode of thinking which emerged from the landed, leisured aristocracy which expressed general principles of rights, contract, freedom and self-interest as a basis for interpreting areas of human life, but by the time of the Revolutionary Wars these had disintegrated into conservative, nationalist, whig and radical modes of thought which were deeply at odds with one another. When the perspectives of romanticism and the evangelical revivals were added, there was no possibility of consensus about humankind. There were conservative historians, economists, political theorists and sociologists, but conservatism could not hold these disciplines together because it was a divisive view of humankind around which wars had taken place.

After this stage a number of systematic thinkers emerged who were committed to a
comprehensive vision of human study, often articulated from one area onto a more
general canvas. Hegel, Bentham, Owen, Comte, Spencer and Marx all had this kind
of vision, but they were resisted by many of the practioners of each of the new
"social" sciences. Ricardo ignored Bentham, Mill backed away from Comte, Marx
overturned Hegel and everybody resisted Marx. The problem is exemplified in
Comte, who while claiming to have developed the crowning positive science of
sociology within a general religion of humanity, failed to engage economists and
historians because of the sweeping claims made about their areas of study. (Comte
1875-7 557-9 [1822], Ashley in Mill 1909 xi-xxiv, Lenzer 1975 Introduction.)
Similarly, outside the historical school no economic author gave much attention to
Hegel's economic views expressed in his Rechtsphilosophie with the possible
exception of Marshall. (but see Schumpeter 1954 780) Each perspective tended to
view the other sciences from a vision which grew out of its own founding matrix: the
State for Hegel, Society for Comte and Production for Marx. The competitive
pervasiveness of each of these positions is well known, and in the end their
extravagant claims foundered on one another.

Perhaps the most dominant of all these comprehensive visions grew in the German
Historical School. The formative thinking of Herder in Auch eine Philosophie der
Geschichte (1774) and Ideen zur Philosophie der Geschichte der Menschen (1784-
91) initiated a pattern of German thought which focussed on historical causal
explanation as basic to all areas of study. It was further developed by Hegel's
Philosophie der Geschichte and many other works. Judgements of progress and
recess, evolution and regression, radicalism and conservatism were built into
analysis. (Goudzwaard 1979 151-161, Manicas 1987 53-72, Bottomore and Nisbet
1979 39-117) Historical study became a way of approaching other disciplines by
demanding of them the study of developmental processes as the founding meaning
of those sciences. Historical stages were central in economic, social, political,
geographical, anthropological and psychological thought. Origins became of the
utmost significance, not just in biology, and temporal direction shaped all analysis.
Retrospective essentialist causal explanations and utopian future ones were often
part of historicist analysis. (Popper 1957) Historical modes of analysis were seen as
methodologically central in other disciplines. Higher Criticism and the Quest for the
Historical Jesus gave a decisive slant to theology. This development was close to
the growth of Foundationalism, for the Historical movement developed into
Historicism, a view which claimed that the methods of history were a universal
method for all the disciplines of Geisteswissenschaften. These views were
developed by Ranke, Dilthey, Burckhardt, Schmoller, Weber and others into
perspectives which addressed the question of how historical knowledge was to be
constructed and sought to apply them throughout the human sciences. This
transition, from a comprehensive historical vision to a belief in historical method as
basic to the human sciences, was part of the Foundationalist move which we shall
be later examining, and it was, of course, the crucial component in the
Methodenstreit which then followed. For our immediate purposes, however, we only
have to note that Schmoller’s attempt to make the historical method of establishing
temporal relationships among particulars a general mode of scholarship applicable
to economics was on the whole firmly repudiated by the discipline. History also was
not going to be the unifying principle of the human sciences. (Pribam 1983 209-24,
Manicas 1987 216-21) Although Social Darwinism continued until Nazism, it and
other forms of historicism were being resisted strongly by other disciplines from the
1870s onwards.

Nor was metaphysical philosophy generally able to provide this framework of
coherence. Under the Third Republic in France philosophy was encouraged as a
potential source of moral order and authority to replace Catholic teaching. It
assumed a pivotal role in the educational system, from the …cole Normale
downwards, on the assumption that rational inquiry could develop a framework of
cosmic and social order around which the disciplines could develop. (Bottomore and
Nisbet 1979 192-203) A similar agenda occurred in other countries of Europe.
However, much philosophy was shaped by various forms of post-Hegelian
metaphysics which made competing claims about the nature of reality, and thereby
failed to offer any coherent base for disciplinary development. Before long the
metaphysics of Renouvier, de Biran, Lachelier, Guyau and Bergson within the
French tradition, Bradley, Green, Alexander, Bosanquet, McTaggart, Royce and
others in the English-speaking tradition and Haeckel, Brunschvicg and Bauch were
attacked as an obsolete mode of philosophy which was merely making assertive
claims about the world. (Walsh 1985 352-71, 408-44, 517-72, Copleston 9II) There
was also a more popular development in the work of Croce, Gentile, Langbehn, von
List and others which combined romantic ideas of soul, sentiment, intuition and
consciousness with the Absolute, realism and evolution to create all kinds of self-
serving and quasi-fascist philosophies. Indeed, by this time the metaphysical
philosophers tended to reveal their distance from and lack of grasp of the
disciplinary areas which they hoped to address, and the question than arose as to
which areas of knowledge philosophers could genuinely lay claim. They were no
longer the source of basic principles, views of the society, state and history. Nor
could they claim any kind of superior intellectual impartiality for rational reflection,
since in its name all kinds of dogmatic assertions were being made.

By the end of the century the misunderstandings and conflicts generated by
Philosophy and these quasi-disciplinary empires - the Historicists, the integrating
Science of Sociology people, the political Idealists and the Marxists, had created
enough confusion to generate their own reaction. This took the form of insisting on
the sui generis form of knowledge of each discipline. It is conveyed well by James.

Most thinkers have a faith that at bottom there is but one Science of all things, and
that until all is known, no one thing can be completely known. Such a science, if
realized, would be Philosophy. Meanwhile it is far from being realized; and instead
of it, we have a lot of beginnings of knowledge made in different places, and kept
separate from each other merely for practical convenience’ sake, until with later

© Alan Storkey
growth they may run into one body of Truth. These provisional beginnings of learning we call "the sciences" in the plural. In order not to be unwieldy, every such science has to stick to its own arbitrarily-selected problems, and to ignore all others. (James 1892 1)

James and other psychologists were concerned during this period with defining psychology as a science of mental states, of consciousness or experience. (Ward 1918 ch1) At the same time Durkheim was distinguishing the social and others the economic, political, historical and theological in more discrete terms. Although this approach defused some of the conflict and confusion, it tended to produce the conclusion that knowledge in each of the disciplines was sui generis and had nothing in common. As a statement about the university, and the universality of knowledge, this was extremely damaging. What, then, did hold human knowledge together?

This created a dilemma which grew more acute each year; the specialised disciplines were expanding their study base, were seeking to be more professional, were being located in academies and universities to constitute universes of knowledge, yet did not cohere in their understanding. Philosophy and Theology no longer claimed to provide the broader vision. Those whose awareness was wider than their own specialism thus faced acutely the question of whether the knowledge which claimed to be emerging from the special sciences had any coherence at all or was merely ad hoc. If they looked for coherence, they could not find it either in a philosophy of the nature of things, or in the subject matter of the particular sciences. Things fell apart; there was no centre. There had to be another kind of answer, and one possibility was to find coherence not in a substantive view of humankind, but in a common methodology of the human sciences. This Foundationalism purported to do.

Thus, after the mid century three levels of dilemma grew within economics calling for a solution. With the crisis of the Classical system there was no substantive orthodox view of the nature of economics which could claim wide assent, nor did any such view seem likely to emerge. At the same time the social locus of economic analysis was moving from public affairs to academic institutions, with the consequence that the audience for economic ideas was expecting a different kind of thinking centred on scientific analysis. Third, Philosophy as traditionally conceived did not seem able to provide the key to understanding each of the human sciences and their relationships with one another. These dilemmas converged on the issue of what kind of knowledge economists (and others) should be seeking, and it is to this broader issue that we now turn.
Locating the Problems of Knowledge.
The sitzproblem of economic theory in the late 19th century was therefore: What kind of knowledge can be treated as reliable economic science? This would now be treated as a classical epistemological issue. Yet this term is suspect in assuming a steady investment in the theory of knowledge down the centuries. It ignores the dramatic waxing and waning of epistemological concerns. At other periods, as we shall now see, alternative routes to knowledge have taken precedence. Nor has "the problem" of knowledge always been the same problem. In different eras the agenda which is addressed in epistemological terms has varied. As the title of this section suggests the question, How do we know? has been approached in substantially different ways, and it is necessary to have some grasp of the transformations in the approach to knowledge between the 18th and 20th centuries to see how different were the dilemmas addressed by the epistemological responses and the hopes they generated.

The epistemological stance is largely a modern nonchristian mode of thought. It involves trying to make the ego secure in what it understands and to establish a mode of knowing the world which is an infallible route to knowledge. This contrasts with a christian mode which identifies the ego as itself problematic, especially when it tries to establish knowledge independently of the God on whom all knowledge inevitably depends, and sees faith as a pattern of understanding with inherent limitations and patterns of fallibility. We shall explore this difference later.

The first great modern leap into this mode was made by Descartes' attempt to doubt everything until some indubitable basis for knowing could be established through rational proof. (1637) This made scepticism and proof for the knowing ego the epistemological focus with the key hope of the human mind taming the world through indubitability chains of deductive reasoning. (33) Already some themes emerge: certainty beyond any doubt is possible for the ego; understanding is dissociated from persons and from the world and is reified into a method; agnosticism is transferred to the meaning of the subject and the world and away from the process of relating one to the other; understanding and action are dissociated; and the dialectic between the subject controlling understanding and the object giving it begins to take shape. With Descartes the controlling deductive subject and the indubitability of its conclusions is the focus.

In 17th century Britain a different view was held by Newton, Boyle and other Puritan philosophers of science. They began much more directly from faith in God and an understanding of what the creation was like as God's handiwork. The knowing subject's response of faith did not have the primary role which it was given within the Cartesian framework. (Merton 1966, Hall 1963 316, Thayer 1953 65-6) The later eclipse of Puritanism resulted in an alternative approach to the nature of understanding. Locke and others believed that what was known could be elucidated by mirroring the natural processes by which knowledge was acquired and imprinted...
in terms of the deductive ego is evident; here the "objective" sense impressions are
dominant, setting up the objective/subjective dialectic which is so central to
humanist epistemology. (Coffey 1917 135-67, Woolhouse 1971 25-32) The
conception was of complex ideas being built from simple elements generated by
sense impressions which the subject received from the external world. This process
described the formation of knowledge seen in a wide sense, the kind that human
beings do and should gather from the cradle onwards. The concern, especially with
Hume, was to replace superstitious belief with an alternative. He saw dogma or
unjustified belief as that which did not properly grow out of experience and sense
impressions. At this stage in Britain and throughout the rest of Europe establishing
forms of knowledge which were independent of the Christian faith was important, as
Hume discovered when dining with other atheists over the Channel. The apologetic
orientation to the theory of knowledge was thus central and has been developed by
other philosophers later, although it did not remain the focus of later epistemology.
(Butler 1736, Berkeley 1713, Hume 1779)

Hume developed the theme of epistemological doubt by questioning the legitimacy
of conclusions which the perceiving subject could draw from sense impressions.
(1738 vol 1) It involved a radical deconstruction of much which previous rational
thought had taken for granted, especially the cause-effect analysis of much
materialist thought. This emphasis was a presentiment of the foundationalist
emphasis on constructing an infallible route to knowledge. It not only waked Kant
from his slumbers, but also transmuted rationality into logic, a "passive" mode of
understanding which draws necessary conclusions completely without reference to
the ego. (This is the origin of the distinction between rationalism and logicism which
is basic to the later analysis in this study.) At its deepest level this brought into
question the whole epistemological enterprise; the construction of a theory of
knowledge seemed to issue not in an infallible route to knowledge, but a degree of
scepticism which stifled the growth of knowledge. Hume asked men to be fully
persuaded "That there is nothing in any object, consider'd in itself, which can afford
us a reason for drawing a conclusion beyond it; and That even after the observation
of the frequent or constant conjunction of objects, we have no reason to draw any
inference concerning any object beyond those of which we have experience."
(Hume 1738 139) Accepting Hume's conclusions meant abandoning all but
descriptive scholarship and playing backgammon. Russell called it the "bankruptcy
of 18th century reasonableness". (Russell 1961 65) Most scholars sidestepped the
issue and proceeded in other terms. Indeed, in Hume himself there is a discontinuity
between his epistemological work and the History of England, the essays on
National Character and the Original Contract and the Natural History of Religion. In
the latter he adopts a conventional, sociological causal framework which is not
consistent with his epistemological conclusions, and it is this latter framework which
also fits the mode of analysis of Smith and the Scottish Enlightenment School. The
waning of the epistemological mode in Britain was therefore quite rapid and
complete, and the work of Hutcheson, Ferguson, Millar, Ricardo, Malthus and
Bentham had less concern with the process of validating knowledge and a more optimistic belief in its direct accessibility.

There were other thinkers who challenged this way of proceeding. Berkeley, by opening up the implications of subjectivism, was able to develop a more thorough scepticism towards sense-perception and materialism. (1710,1713) The Common Sense philosophy of Reid and Hamilton called into question epistemic scepticism as the key tool in the construction of knowledge; conclusions could be valid other than those drawn from systematic doubt. These positions suggested that the theory of knowledge was neither the indubitable route forward nor the necessary prior one; the question, how do we know, did not have to be answered before knowledge was possible. (Maund 1937) Within a relatively short period the approach to knowledge through establishing an indubitable process had given way to much more affirmative views. (Clive 1960 57-73)

The emphases in German-speaking areas, primarily under the influence of Kant, was different again. Kant placed a great emphasis on the problem of metaphysics, doubting whether it is capable of giving us knowledge of reality and even calling it "rotten dogmatism". Whereas previous philosophy had sought an ontological basis for metaphysical certainty, Kant's focus is on how reason can a priori establish the grounds of thought. He was convinced that synthetic a priori thought provided the necessary foundation for phenomenal knowledge. It was conceived as the structured categories of experience. The organisation of these categories thus became the central epistemic issue together with a formal elucidation of the rules of thought which governed this process. Along with these went a concern for the consistency of these categories as a basis by which empirical knowledge could be organized by the thinking ego. The external world was seen less in terms of sense impressions than phenomenally. (Kant 1787) Greek and Thomist conceptions of knowledge also had more weight further East. However, what is quite astonishing is how quickly sceptical epistemology gave way also in this culture to Idealist philosophies which were working from a different point of departure. (Copleston 6II 220-9)

In Britain Humean scepticism was rapidly short-circuited by larger trends like the Romantic movement and the Evangelical Revivals. They addressed more the question, "How does understanding change us?", asking how knowledge can be fully appropriated to human growth, rather than How do we know? The Romantics emphasised personal identification of the human spirit with that which is to be known. Evangelicals uncovered areas of personal distortion and blindness which called in question the ability of people to know God, themselves or people around them truly. They also emphasised belief and faith as the mode of knowing and the centrality of God in all true acts of knowledge. Both groups therefore challenged the assumption that knowledge was to be conceived as independent cerebral ideas and affirmed a more total personal involvement in that which is known. The events of the Revolutionary Wars and industrialisation seemed also to require this involvement.
The concerns of Wordsworth, Shelley, Wollstonecraft, the Wesleys, Whitfield, Scott, Paine and Burke were in different dimensions from the sceptical epistemological emphasis of the Enlightenment; the moves were from Reason to Feelings, Deduction to Intimation, Natural Goodness to Sin, Ratiocination to Living, Natural Rights to Innate Freedom, Natural Understanding to Revelation, Thinking to Faith and Sense Experience to Vision. The changes wrought by these perspectives were pervasive and eclipsed the writings of Locke and Hume for much of a century.

Post-Kantian developments in German thinking exhibited a similar pattern. Kant believed that he was eliminating metaphysics through a process of critically reflecting on the laws of thought but within a short time a number of new developments had bypassed this direction. Hamann was critical of Kant's seeming dissociation of thought from language and the distinctions which this generated. By contrast he sought unifying principles which emphasised the coherence of thought. (Beiser 1987 39-43) With Herder§ and the Sturm und Drang movement Reason was subsumed within a richer set of responses focussing on the Spirit. At the same time although metaphysics per se had to be abandoned, it was possible to see natural science as culminating in purpose, life and direction. Herder used Spinoza to develop such a pantheistic response. Even Reinhold, friendly and sympathetic to Kant, was soon trying to rework his foundations by developing an understanding of representation which could undergird the Kantian framework. (Beiser 1987 226-265) Philosophers moved on to what was largely a reawakened metaphysics in the thinking of Hegel, Hölderlin, Schelling, Steffans, Novalis and Schleiermacher. This group, it could be said, had been compelled by Kant to focus on the difficulty of grasping the ding-an-sich in rational thought; their response was to find ways in which the human subject could fully lay hold of the objects of her/his thought. This was possible by suspending the gegenstand of the knowing subject in relation to the world which was so central to the 18th century epistemological stance and, instead of addressing it as a problem, taking it as an inner relationship. Thus Hegel in the Phenomenology of Mind showed the gulf fixed between the self as absolute subject or consciousness and the object of knowledge in and of itself, and set out to bridge it. (Hegel 1807, Dancy 1985 227-30) This aroused hope that intuitively or rationally the nature of reality could be grasped, and the gulf to the ding-an-sich could be crossed. (Hegel 1812-16) Again, the epistemological mode of approaching knowledge was disavowed.

At about this time the growth of disciplinary knowledge in history, economics, sociology and other areas began to give yet another focus to the formation of knowledge. Scholars in these areas brought a more direct faith to their study. Despite repeated setbacks the underlying commitment throughout the late 18th to the mid 19th century was of progress in knowledge by exploring the relationship between Man and Nature: if the human mind could confront the nature of these realities, and unlock their structures and principles, then Man would understand the world in which he lived. The curtain would be thrown back and the true nature of the

© Alan Storkey
given reality revealed; each new version had this driving optimism. There was assumed to be an inevitable progress in knowledge; it could never be lost. Fact-gathering in the 19th century was gradgrindian, not 18th century epistemological empiricism. It was cumulative, subject to the law of addition, a conquest which would occur through an unequivocal direct understanding of the world. We have examined the way this optimistic faith foundered in Classical economics, but here and in other areas it had a period of hegemony when natural laws were expected to reveal themselves unequivocally.

The Foundational epistemological response in the late 19th century grew from the failure of this optimistic naturalism, as it produced a range of conflicting representations. Reality was variously seen in materialist terms, as a metaphysical system, as a spiritually intuited whole, as Nature, as an organism, as a system in conflict, as mechanical laws, as an historical entity or as an expression of the human spirit. (Mosse 1963 13-289) The jangle of sounds was confusing, the multiple images flickered. The promise of directly grasping reality to the soul which was offered by Romanticism, Realism, Materialism, Marxism and some forms of Christianity had degenerated into the problem of the dogmatism of knowledge. Heterodoxy was occurring everywhere; in art Romanticism, Neo-Classicism, the Pre-Raphaelite Movement, Naturalism and Realism vied to show different visions of the world which were not compatible. In Politics Liberalism, Conservatism, Statism, Marxism and Socialism all claimed a correct understanding of the nature of political life. Mechanical, Materialist, Creationist, Evolutionary, Vitalist and Organic views of Natural Science also produced conflicting views. Theology faced the competing claims to orthodox belief of Evangelicals, Tractarians, Catholics, Christian Socialists, and Theological Liberals and the growing numbers of sects. Sociology included Comtean Positivists, Marxists, Conservatives, Evolutionists and Utopians. These multivocal manifestations created a number of problems. The authority of each position was challenged. They were seen to be biased or ideological in their approach to the world and each other. Their central intuition after a while was seen as fallible, until finally the underlying claim which each made of grasping reality became suspect. Other visions could and would arise claiming the same status of understanding at least part of reality authoritatively. All, and none, of them were credible. Among some groups at least the heart went out of this mode of response; conviction receded and scepticism became part of the zeitgeist. In reaction and as a solution to this breakdown Foundationalism took shape. It sought to establish the proper foundations of disciplinary knowledge rather than push particular ideologies. For now ideology was suspect. Groups appeared who were ideologically committed to one view of the world which was radically and irreconcilably at odds with other views. They existed within the disciplines of economic, politics, psychology and sociology, and the epistemological challenge therefore became to establish some neutral ground on which knowledge could be established which was uncontaminated by ideology. All these groups, claiming or assuming to own the truth, could not simultaneously be correct. Each dogma was only right in its own

© Alan Storkey
eyes, sowing often bizarre ideas. Later with Fascism, Nazism and Stalinism the pus finally broke out in patterns of unreason. The fight of the foundational epistemologists of the late 19th and 20th centuries was therefore largely against ideology rather than, for example, religious belief.

For those in philosophy the assumed perspicacity of the enterprise of grasping the true nature of reality was called into doubt. Articulations of an answer in terms of appearance and reality (Bradley), intuition (Bergson), art (Santayana), absolute idealism (Royce), monism (Haeckel) and consciousness (Green) failed to command any long-standing support. Rather than carrying the conviction that they were addressing the new disciplinary issues, they conveyed the idea that philosophy was a separate mode of discourse from disciplinary knowledge. In reaction and as a solution to this problem with substantive views of the world younger philosophers were likely to look to the epistemological scepticisms of the 18th century. Within this reaction epistemological foundationalism took shape. Yet it was not just a reaction, for the knowledge around which the change in views took place was primarily that of the now strongly growing human and natural sciences.

This summary shows a number of different orientations to the "problem of knowledge". These include egoistic deductivism, the naturalist building of knowledge of Locke, the sceptical empiricism of Hume and the a priori rationalism of Kant. But it also shows that for other philosophers at the same time and later "the problem of knowledge" was not approached as the key question requiring a systematic methodological response. Especially it shows the eclipse of epistemological priority in much of the 19th century; this way of thinking can obsess a generation of thinkers and then recede from consideration with the next, showing that the question, How do we know? is only one way of relating to knowledge. The summary also identifies a range of responses which can arise within the rubric of the "theory of knowledge", a term which has its own limited location. It brings out the possibility of dissociating knowledge from understanding. It identifies an apologetic concern, which focuses especially on the questions of whether and how we can know God. It shows that subjectivity, objectivity, laws, process, rules, categories of thought, consistency and certainty can be key or recessed issues in considering the issue. Even this cursory study discountenances the idea of a continuous and equally weighted concern with the "problem of knowledge".

Foundationalism, as defined here, is therefore a study of a specific historical response to the issues of the late 19th century. Although it drew on earlier epistemological traditions, its concerns were with disciplines, not the ego, with knowledge, not understanding, with public validation rather than the process of human understanding and with the problem of ideological thinking, not with religion and apologetics. It is to this specific response that we now turn.

© Alan Storkey  page 35
The sitzproblem which generated Foundationalism is now clearer. Although it is articulated in this book in terms of economics, it was actually a wider phenomenon, reflecting a 19th century crisis in the belief that the nature of the world could be directly grasped and understood. Classical economics was one example, among other possible ones, where ideological grasp was in disarray. The particular epistemological issues which were at the fore at this time were the kinds of knowledge which were valid in the human sciences, and it was in these disciplines that foundational patterns of understanding most easily took root. The need for academic respectability and the collapse of philosophy and theology as possible sources of integration for knowledge created additional pressure for this kind of development to occur. Yet, of course, there was nothing inevitable about this move. How these problems were interpreted largely depended on what scholars were prepared to reconsider and what they retained as assumptions. The feebleness of Christian contributions at the time ruled out many possible re-evaluations, and the greatest tenacity was perhaps shown to the idea that human knowledge should in one form or another be unassailable. This led to a particular outcome which occurred on a wide scale in many different contexts in this overall post-Enlightenment cultural milieu.

The movement involved a switch to a driving concern with how knowledge should be gathered and evaluated, which allowed, it was believed, open agnosticism for the time being about what the world was like. It sought independence from subjective bias, from national, class and personal slanting of scholarship to a neutrality which was proof against prejudiced ideologies. It hoped to rescue late 19th century culture from a warring, self-validating relativism by establishing educational certainties which rested in the validity of the process by which knowledge was gathered. The transition was not automatic or immediate. The internal problems of the 19th century European world-view were so deep that it took time to meet such a dilemma in the culture of the era and fight for a new solution. Some people came to the issues early; others decades later.

The transition can be illustrated by one of its earlier forms. The advent of Impressionism was a major revolution in painting and is usually linked with the advent of Modernism. The Romantic and Realist schools of the earlier period had painted heroic scenes, socialist themes, everyday life, classical scenes, eastern subjects and political caricatures. They had different styles, but the main emphasis, as the label, "realist", indicates, was on what they painted. After the exhibition at the Salon des Refuses in 1863 a new emphasis was present. It can be illustrated by the great series of canvases which Monet did of haystacks, the front of Rouen Cathedral and his lily pond. He did not paint 40-100 canvases of these subjects just because he was obsessed by them as objects, the nature of which he was depicting, but because he was concerned with how one perceives and paints. The emphasis on direct perception, the new theory of colour and the method of painting
which later developed into Pointillism are well known. The Impressionist Movement involved a change from concern with the substantive subject matter of art to an involvement with the process of how one sees and paints. As such it was also part of this great transition.

In one sense the move was a retreat. It involved a new scepticism about the claims to understanding made by these multivocal positions, and its deliberate intention was to be agnostic about the nature of the world, society, politics, the mind or the economy. The self-confidence of statements of belief made by ideologues, metaphysical thinkers, churchmen, in art, theatre, literature and music prompted the reaction, On what grounds do they base their belief? This was the proper location of Yeats' "The best lack all conviction, but the worst are full of passionate intensity". Similarly, social theorists were retreating from ideological claims, committed statements, judgements and ethical principles, towards patterns of supposedly neutral scholarship, as the methodological studies of Durkheim, Weber and Pareto show. (Durkheim [1895], Weber [1904-18], Pareto [1906]) . If the status of knowledge depended not on what it asserted to be the case, about which there was, and could be, substantial disagreement, but on the mode of its formulation, then the ideological and metaphysical precommitment which generated so much controversy and failure to communicate could be obviated. In an era when ideological conflict was becoming more and more intense, this seemed no small gain.

In another sense it was a new optimistic movement making authoritative claims. If one could establish how one knows, sees, thinks, forms theories or makes propositions, then an unequivocal method was tooled up for well-formed knowledge. (Storkey 1979 93-106, 314-6) The productive metaphor is apposite, because this was the beginning of the era when knowledge was to become an industry. It was a question of reculer pour mieux sauter. The foundational method of knowing would in the end produce a range of well-formed and reliable knowledge which far outran the hotch-potch of opinions which was now available. The new emphasis was on a foundation which established what reliable knowledge was. This was the Holy Grail; there had to be some utterly trustworthy basis for knowing. If the kernel of the process of obtaining infallible knowledge could be prototypically built and properly used, then incontrovertible, scientific understanding would follow in spite of subjectivity, ideologies and opinions. Such a move would provide coherence in the face of the fragmentation of conclusions and would achieve the indubitability which would separate knowledge from mere belief. It was also needed as a basis for objectivity and value-freedom in the face of positions which seemed precommitted. And of course, the foundation would also be the way of establishing the integrity of the disciplines as areas of study on a similar basis to those of the natural sciences. Finally, it laid down a procedure of scientific distancing which human studies seemed to require for themselves as they moved into the academies and universities. Thus, independently, from all kinds of backgrounds, scholars began to search for this required foundation.
What, more rigorously stated, was the movement to Foundationalism? First, it was concerned with knowledge, usually that located in the sciences (rather than the Enlightenment concern with understanding, the relationship of the knowing ego to the world). This knowledge was generally conceived as theory, specialised propositions about an area of study which were seen as part of the public domain. The characteristic stance was therefore to seek to establish the nature of well-formed knowledge abstracted from the knowing subject and the nature of the world. This was done by establishing some basis or foundation through which knowledge could be validated and to which appeal could be made as a criterion of distinguishing it from unfounded opinion, hence the central use in this study of the term Foundationalism.

It should have some infallible or authoritative status as knowledge irrespective of the knowing subject and the given world. Crucial was the distancing which dissociated from the knowing subject to treat understanding and belief at one remove. The stance was of the onlooker who understood the process of constructing knowledge but did not have to adopt the position of direct understanding and belief. (Storkey 1979 94)

This reflexivity seemed to allow belief and understanding to be handled dispassionately. The thinking ego was subordinated to the foundational requirements in a way which eliminated subjectivity as something which might bias the construction of knowledge. The stance was concerned with the public accountability of knowledge irrespective of the persons involved. The question is less whether one person has inner certainty of propositions as true, and more whether they can be publicly validated; belief is dissociated from knowledge. We shall describe this as the objectivity requirement or the onlooker stance.

Another part is the understanding of knowledge as encyclopaedic and cumulative; it can be gathered into bodies which can be handed on and learned in appropriate ways. Thus, knowledge is seen as making progress, but of a certain kind. The
assumption is of a process which is almost additive whereby the building of knowledge will grow ever higher. This process must be more or less unassailable and guarantee the development of the science for its recipients. For knowledge to have these kinds of cumulative properties, it must have secure foundations and never incorporate error which might need demolition. This was the requirement for universality or generality.

When, as often happened, knowledge of the special sciences was challenged by an alternative view, there was a need to show how and why this knowledge was well-formed and authoritative. This, of course, also implied criteria for establishing theory which was reliable and repudiating that which was not. There were normally two levels of criterion; the first was concerned with establishing what propositions and theory had followed the proper procedure of construction as knowledge, while the second established whether, given that form, it was valid or defective theory. At least at the first level it should therefore be possible to be agnostic about the content of theory and propositions and merely concentrate on procedural criteria. The method insisted on epistemological priority; how knowledge is obtained was the question prior to what it was.

There was also strong pressure for knowledge to be neutral in relation to what were seen as a variety of potential biases. It was not to depend on or be beholden to anything else like metaphysics, religion, ideology or dogma which would shape it in a certain way, but was to stand sui generis. The charge of Marxist analysis that ideas reflected the relations of production seemed to require a defence against automatic bias. Similarly the pressure to change the world in socialist analysis was resisted by those who wanted to dissociate theory from understanding which required any kind of commitment or normative response; there should be a detachment, a take it or leave it quality about knowledge. This was not only a negative disposition, but also a positive commitment to the value of disinterestedness. The knowledge could be publicly traded with commodity status across all value commitments and ideologies. As a transferable resource it could bind together the fragmented commitments of late 19th century culture with a pattern of public understanding which was capable of being universal. Such an approach allowed, for example, the creation of textbooks.

Thus, Foundationalism understood in this sense denoted a genus of responses which have a common pattern. On the one hand they seek to remain agnostic about substantive claims to knowledge and to avoid dogmatism in asserting what is the case. But on the other they aim to establish sufficient grounds by which knowledge can be judged to be valid and stand as neutral, scientific and objective. It was part of a quest for certainty, expressed in a new way. (Dewey 1929, Aaron 1971 3-88) The older quests for what could be known about the nature of the world and for inner certainty in the knowing subject were substantially abandoned for a certainty that knowledge per se was certain. This is actually a momentous change. The hinge of the position was the optimistic conviction that a basis for obtaining well-formed
knowledge could be established which would consequently engender such knowledge. There must be a Foundation. It might be logical necessity, unassailable evidence, the definitive process of understanding, the method of science or a demarcation of knowledge from unfounded belief, but it has to be absolutely secure. It should offer freedom from ideological contamination through neutrality, objectivity, validation as scientific, a prescribed methodology and a basis for coherence in a corpus of knowledge. It should offer a way out of the diverging convictions of the late 19th century humanist worldview.

The epistemological concerns of the late 19th and 20th centuries are therefore different from the 18th century. For the earlier English empiricists the question of how we know was largely pre-theoretical and addressed to the individual psyche. In the later period it was posited of already existing bodies of theoretical knowledge, looking for criteria for distinguishing well and badly formed knowledge. The earlier context was concerned with establishing valid reasoning; the latter with the philosophy of science and specific disciplines. While the early philosophers were speculative and leisured, the later ones were busy setting the agenda for mushrooming disciplines and subdisciplines. The earlier reaction was against revelation as a source for knowledge, but the later against ideology. The early epistemological formulations were born of optimism about processes of generating "natural" understanding, whereas the need for a foundation for knowledge was the pressing result of the pessimism of late 19th century ideas.

There was no shortage of people committed to this direction. Indeed, the term itself was unavoidable and comes from the literature of the period. In psychology Wundt (1873), Mach (1875), Muller (1878), Lipps (1883), Kulpe (1893), Wundt (1896), Lehmann (1912) and Murchison (1929) all used the idea, "Foundations", in the title of their texts. (Flugel 1933 363-72) Similar patterns occurred in economics, politics, history, mathematics, philosophy and sociology. It was a concept that a lot of people began to use with meanings close to that defined above. Its use here follows from these dozens of earlier examples from Marx's Grundrisse onwards.

But more important than the term is the commitment which it expresses. Indeed, Marx's use of the term is not fully foundationalist in the sense meant here, because it is in part concerned with the substantive foundations necessary to understand the nature of the economy. He precedes the methodological commitment of later foundational moves of which there are many other expressions. "The unity of all science consists alone in its method, not in its material." (Pearson 1892 12) "This pure theory of economics is a science which resembles the physio-mathematical sciences in every respect." (Walras 1874 71) "In order to follow a methodical course, we must establish the foundations of science on solid ground and not sinking sand." (Durkheim 1895 46) "We shall therefore try to see whether we can arrive at a theory of all truth by starting from truths of fact" (Schlick 1909) "Moreover, transcendental phenomenology is not a theory, devised merely as a reply to the historic problem of Idealism, it is a science founded in itself, and standing absolutely
on its own basis; it is indeed the one science that stands absolutely on its own ground.” (Husserl 1913/31 13) "I am not prepared to admit that there is any problem which cannot be solved by quantitative methods." (Cobb 1927 921) These were but some of the assertions, but behind them were many others who assumed this was the direction forward. Gradually these streams of commitment gathered into rivers of orthodoxy, picking up adherents automatically with the currents of academic fashion. In time it was to become the mainstream which dominated much of the public production of knowledge for the next hundred years. If this way of viewing knowledge was flawed, it was indeed a serious problem.

Although the concept, "foundation", has been widely used throughout the period by theorists in the human sciences, those using it more recently in philosophy have interpreted it in a rather different way, focussing on the justification of belief rather than the validation of knowledge. They have used it in a variety of ways, which can broadly be classified as wider and narrower. There are clearly family resemblances between the definition in this study and a wider view, as expressed, for example, by Bernstein. He links it to "Cartesian anxiety" and a long tradition of epistemological concern. (Bernstein 1983 8-11, 16-19) In this definition the focus is somewhat more general, involving the search for "an ahistorical permanent matrix for grounding knowledge". (10) The vagueness of this definition, however, makes it less useful for the tasks undertaken here; this study suggests there is much distinctive about the last hundred years, like the disciplinary base and the retreat from ideology, which needs its own analysis. Wolterstorff similarly identifies a tradition including the Enlightenment era, Aquinas and even Aristotle. (Wolterstorff 1976 30-4) He defines foundationalism partly in terms of "theory" and "science" (which do not easily carry back to the Middle Ages) and proposes that the acceptance of a theory as part of genuine science is dependent on it being justified by a foundational proposition which is true in its own terms. Here the idea of scientific knowledge being dependent on a validation process is brought out, but the concept of "foundational proposition" is seen very widely; it includes Aquinas' "natural light of reason". (30-1) The explanation is that Wolterstorff's concern is with theistic belief and whether justification of it is required in terms which could be described as foundational. (Flew and Macintyre 1955 96-9, 109-30, Mackie 1982) This agenda within the philosophy of religion requires an apologetic frame of reference which is different from the focus on the philosophy of the human sciences in this study. (Plantinga 1975, Plantinga and Wolterstorff eds 1983) Its concern is much more with the justification of belief than the validation of knowledge. While foundational views have been used to attack belief in God in the philosophy of religion, in the human sciences they have normally not at all been concerned with that issue and have directed their efforts to establishing an agnostic position in relation to all ideological and normative views.

Alongside these wider views are a range of narrower philosophical uses of the term. For example, Lakatos discussed the problem of the foundations of knowledge, but his definition hinged on a distinction between foundations, that is the epistemic
infallible base of knowledge, and the method of discovery of knowledge, which proceeded on his view according to a different rationale. (Lakatos 1968 315-417) This distinction, owing much to Popper, (Popper 1979 378-82 [1930-3]) was part of a particular foundational view within the positivist tradition which we examine later. This focus fails to come to grips with the full range of foundational positions which occur outside the Falsificationist/ Hypothetical Deductivist development. Alston similarly does not look to a wider frame of reference for the meaning of foundationalism. He, Chisholm and others tend to have a deontological view of the term (Alston 1989 115-52) which identifies two kinds of belief, those which are non-basic and need the support of other beliefs through inference, and those which need no support and are foundational because given directly by the senses. (Albert 1985 12-38, Dancy 1985 53-84) This meaning, given currency by Chisholm and C.I.Lewis was criticised by Feyerabend in the paradigm debate. (Feyerabend 1961, Couvalis 1989) Its limitation in relation to this study is the way it does not address knowledge which claims to be founded on logic, testing, experiment, behavioural analysis or instrumental rationality and does not relate to wider methods of knowledge validation in the human sciences. The foundational model of directly justified beliefs is constructed around personal belief systems and does not usually relate to patterns of gathering knowledge in disciplines. Since this is our main concern, there seems no value in this context in retaining the narrower meaning.

It is also worth relating the concept used here to recent work in the philosophy of economic science. The concerns in this study are close to those of Caldwell, who looks both at the positivist tradition in the philosophy of science and its economic embodiments. There are differences in this study: in the identification of three major traditions, in taking foundationalism as the core problem and in seeing its expressions as more formative, dogmatic and destructive of economic knowledge. These points will be taken up in the last chapter. (Caldwell 1982) Boland uses the term, "Foundations", more directly but uses it to mount methodological critiques of the foundations of neoclassical and other forms of theory. The result is a different mode of analysis from that used by Caldwell or here. (Boland 1982) Wong's study of Samuelson is also explicitly foundational, but puts less emphasis on the formative role of epistemological stances in shaping theory. (Wong 1978) Carabelli's study of Keynes emphasizes fully the epistemological formation and this study comes to similar conclusions in relation to this theorist. There is therefore a good body of work leading in this kind of direction, identifying the word and the idea of foundation as of importance to the discipline.

Foundationalism therefore occurs at the confluence of a set of influences. Its origins lay in the confusion of 19th century beliefs about the nature of the world, evident in the breakdown of classical economics. Its context was the professionalisation of the human sciences and their need for academic status. It took place when some disciplines had territorial ambitions on others and there were disputes about the boundaries. It occurred when disciplines first became self-conscious about their
methods of acquiring knowledge and were developing theory quickly. At that time the philosophies of Science and Social Science were emerging from general philosophy as an area of study, and it also happened when the massive 20th century expansion of universities and colleges was being shaped and extruded. Consequently, no one domain of analysis is adequate for its full study, and what follows will merely examine a limited part of the phenomenon in greater depth.

Finally, this study suggests foundationalism is fundamentally not what it claims. It involves a set of assertions which are not necessary epistemic conclusions and therefore constitute misguided beliefs which must be discarded in their own terms. Yet these beliefs are also ones in which the adherents live as a matter of pre-theoretical commitment. Despite the fact that various formulations of foundationalism were refuted or discredited, there were repeated attempts to re-establish the underlying premises. They therefore lack many levels of evidential support and have been often held as dogma in the sense of being beyond self-critical reflection and awareness. This kind of scientific knowledge, it was believed, did not have the dependent and responsive character of a faith, since it required no external referent. It believed it was beyond belief. Part of the credo of foundationalism was its commitment to the separation of belief and knowledge; the former could be categorized as subjective and probably ideological, while the latter was in some sense objective and ideologically neutral. In asserting the internal autonomy of such knowledge, foundationalism was therefore potentially repudiating characterisation as a belief or faith, but the failure of the foundational positions opens up the question of whether faith and knowledge can be so categorised, or separated at all. It may perhaps be that the formulation of the status of different kinds of knowledge and the criteria by which they are assessed can only be established in terms which involve shaking the foundations. Part of the task in looking at this supposed credo-free approach to knowledge is therefore to uncover its failure in self-description.
The Failure of Foundationalism.

Later in the study the failure of foundational claims will be examined in a number of specific areas. Here it will be examined in more general terms. Because of the widespread espousal of foundational scientific theory, there were few who stood outside it and were able to offer a critique of the direction which was being adopted. Only recently as the collapse of these positions has become more obvious have they begun to be critically addressed in more general terms. There are, however, a few scholars who have seen more strategically and systematically the weaknesses of this approach. Here we shall examine two who analysed some of the weaknesses of foundationalism during its earlier stages of development.

One of the first to identify some of the problems was Leonard Nelson. He did not fit easily into the mainstream of philosophy; his stance was that of a Socratic post-Kantian commentator on the developments he observed. In "Über das sogenannte Erkenntnisproblem" (1908) Nelson analysed the reversions of Schultz, Jacobi, Maimon, Schiller, Reinhold, Schulze, Fichte, Schelling, Hegel and others to various pre-Kantian positions, and found Fries different in avoiding their weaknesses and really carrying through Kant's critical method. In particular he liked he way Fries moved out of the epistemological dilemma of justifying each item of knowledge by an external ground of validity. (Nelson 1971 II 164-73). On the contrary Fries showed that knowledge always required specific justification and participated in metaphysical or world-view judgements. (Nelson 1973 59-393,esp 92-152) In grappling with Fries' argument Nelson stood outside many of the contemporary foundational developments, not merely as a reactionary, but as someone who had thought through in principle the epistemological stances to which others were now becoming committed. Thus he asked if Mach could be successful in formulating a view of natural science which was free of metaphysics. (Nelson 1974)

By 1911 he had reflected on this preoccupation with establishing the definitive science of knowing and asked if the problem of a foundational epistemology admitted a solution in principle. Could the theory of knowledge be securely established? He came to the conclusion that a foundation for knowledge was not logically possible. For in order to solve this problem there would need to be a criterion by the application of which one could decide whether or not a cognition was true, a validity criterion. This criterion would itself either be a cognition or not be a cognition. If it were, it would fall within the area of what is problematic, the validity of which is first to be established by the criterion, therefore it could not be a cognition. But if the criterion were not a cognition, it would still have to be known, that is, one would have to know that it was a criterion of the truth. But in order to gain this knowledge one would have already had to apply it, which would be impossible. The conclusion was that the problem is insoluble. (Nelson 1946 185-205)

Nelson's understanding of why the problem was insoluble is interesting and...
knowledge. If knowledge is always validated on the ground of another cognition, then no knowledge per se would be possible. Nelson therefore argued that all knowledge required a judgement by the subject. If, however, knowledge is always validated by a criterion which is a matter of noncognitive faith, no knowledge is without some, however small, substantive content of belief and breaks down the possibility of distinguishing in any fundamental sense knowledge from belief. It also means that the foundational position of principal agnosticism with regard to the substantive content of theory is ill-founded. The conclusion is interesting in the light it throws on the relationship between cognition and non-cognitive belief, for of course the whole argument hinges on the premiss that cognition and belief obey the law of the excluded middle. For those who hold this position the argument is a refutation of foundationalism, but a more sober conclusion might involve questioning more fundamentally the dissociation of knowledge and belief.

Another part of the weight of this argument lies in the way it fits problems which occurred as the search for certainty in epistemological terms developed within foundationalism. Thus, for example, Russell and Whitehead's attempt to reduce mathematical systems to a logical foundation faced G"del's demonstration that even within quite simple mathematical systems, the internal consistency of the system is not demonstrable without bringing in other equally questionable principles of inference. (G"del 1931 in Heijenoort 1967 592-617, Newman 1668-95) Russell's problems with classes which are members of themselves exhibits another such issue; there always seems to be an irreducible element or metalanguage which defines the classes under consideration in some other terms than they define themselves. Similarly, when members of the Vienna Circle and others set forward the Verification Principle stating that only propositions which could be verified by the senses were meaningful, it turned out to be self refuting and defied successful reformulation. (Ayer 1936, 1959, Feigl and Brodbeck 1953, Hanfling 1981) When Ayer and others tried to make the analytic/synthetic distinction fundamental to knowledge, they defined that which is analytically true by virtue of identity or synonymity, as true in all possible worlds and therefore beyond disproof, but because the terms in which the synonymity was expressed were part of a specific world and language, they could never be divorced from the framework out of which the analytical terms purportedly broke free. (Ayer 1940, Quine 1953) Wittgenstein at the end of the Tractatus, having stated an epistemological position which centres on the validation of propositions by the senses, has to admit that the propositions which he has formulated are themselves nonsense in the terms he has just proposed, and must be abandoned. One must, so to speak, throw away the ladder after one has climbed up it. (Wittgenstein 1921 151) In all of these cases the formulation of a foundation for knowledge seems to undermine itself; the criteria lose their status as knowledge and become arbitrary. This suggests there is substance in Nelson's critique; this move is one which does not deliver what it promises. If the basis for knowing is specified within the corpus of knowledge itself, something slips out as an extraneous judgement. If it is externally given, it has no
Nelson’s approach was within the Kantian tradition of critical philosophy. He was less directly concerned with theoretical knowledge in the special sciences. With the burgeoning of scientific conceptions of the disciplines and the philosophy of science a range of additional issues occur, in particular the status of theoretical knowledge within particular disciplines. Consumption theory involves this dimension. The Dutch philosopher Dooyeweerd, working in the 1930s to the 1960s when the disciplines were more developed, addressed this issue more specifically.

His first argument approached meaning or knowledge in a radically different way. As a christian he took the scope of meaning present in creation as given by God. Scholarship and indeed immediate day to day knowledge was therefore essentially responsive and dependent in nature. It was dependent on God in many different dimensions, although a lot of scholars did not acknowledge this, and it also had an inherent relational and dependent quality which was provided by the given meaning of creation. Because the meaning of knowledge and understanding was given by God and through the creation, knowledge which was truly articulated had to acknowledge this dependent status. The fear of God is the required beginning of wisdom. Yet those who did not acknowledge this dependence, Dooyeweerd argued, had to find an alternative source of meaning for their knowledge, which would undergird or support it, an origin or Archimedean point. Within most philosophies or views of knowledge this meaning base had to be located within the creation, or more specifically within a specific mode of thought about the creation. Because its locus was immanent to the creation, it had both to misstate its own meaning as self-sufficient and distort the meaning relationships of other parts of the creation by stressing their relation to the supposed Archimedean point. This point addressed much of what occurred in the period leading up to the first crisis of ideological proliferation; a range of different perspectives each seeking their origin of meaning in different parts of the creation were at war with one another. By not facing this fundamental religious issue, foundationalist thinking was obscuring the issue it had to face.

But this problem becomes further confounded when confronted with further supposedly neutral theoretical development. Dooyeweerd argued that religious forms of idolatry often present themselves as theoretical dilemmas, which are insoluble. The religious dialectic, in other words, entangles life and theory in a dialectic that is utterly incomprehensible when measured with the yardstick of the theoretical dialectic. Unlike the theoretical dialectic, the religious dialectic lacks the basis for any real synthesis.

Let no one, therefore, try to correct the religious dialectic by way of the theoretical dialectic - the method of the Hegelian school. That approach is an utterly uncritical form of dialectical thought, because at the root of its overestimation of the theoretical dialectic lies a religious dialectic that is hidden to the thinker himself.
Thus, attempts by the Hegelian dialectic or any other theoretical method, to resolve the problem of the false origin for the meaning of life in theoretical terms will not work. In the terms of this study, you cannot solve the problems of the first crisis, by some kind of epistemological revolution. This is because the supposed self-sufficiency of meaning of theoretical thought cannot hold. In claiming a "foundational" role (Dooyeweerd did not use this term), theoretical knowledge was mistaking the locus of many of the problems it tried to solve, which were more deeply religious. (Dooyeweerd 1935-6 I 1-21) Thus, for example, the idea of a logic of utility which is the basis of much consumer theory is not purely analytic; it is based upon a commitment to choice and satisfaction which rules out of consideration many of the factors which actually play into consumption decisions like shortage of time, greed and social conformity; choice and utility are (falsely) sanctified. The theoretical framework is therefore already locked into preconceptions which invalidate conclusions and misrepresent what is happening. He believed that the patterns of distortion could actually be mapped with reference to a coherent Christian perspective to avoid many of the theoretical errors we shall later be examining.

The second argument concerns the limited status of theoretical knowledge. This mode of thinking occurs as a result of a deliberate process whereby theory is put over against what is given, the Gegenstand relationship. Dooyeweerd distinguishes theoretical understanding from naive experience, which involves any direct response of human subjects to objects in the world in an undifferentiated way. The theoretical stance abstracts from other aspects of reality and addresses its subject matter inquisitorially, but it therefore remains relative to that over against which it stands. This distinction may be exaggerated, (van Riessen 1958, McIntire 1985 143-66, see different meaning of foundationalism 145n) but it points to a vast area which may make theoretical thought problematic. For example, it involves abstraction, the decision to treat as of no account vast areas of subject matter which may be relevant to the theoretical issue under consideration. Because the making of theory is an intentional act, not an ontological reality, all kinds of issues arise. (Dooyeweerd 1935-6 I 39) Theory ignores. It also addresses subject matter. Decisions are made about the domain of cases which it addresses. If the theory gets these decisions wrong, if the domain of cases is seen as too limited or too extended, or is misinterpreted, theory formation is distorted. Simply to assert the pretended autonomy of theoretical thought is to cover up all these issues and rule out the possibility of addressing them. The disjunction must be resolved with full respect to the subject matter which presents itself. Both the processes of disjunction, or gegenstand, and synthesis must be deliberative acts. Baldly, theory must be formulated with awareness of its limitations and its essentially responsive nature. By contrast when it pretends to self-sufficiency, it cuts itself off from real engagement with its subject matter. Theoretical syntheses, including those
generated by foundationalism, thus remain unselfcritical. (Dooyeweerd 1935 I 34-51) Later, this study examines some of the problems created by the assumed self sufficiency of theory.

The third argument begins with a recognition of various modes of human experience which are generically different and studied by the disciplines of the modern university. These modes or aspects are partial; a person may in one act of buying a good have a certain pulse rate, emotions, spatial and geographical location, a history of that act, energy transfers, ethical calculations, financial and work considerations, aesthetic evaluations, social relationships, legal constraints, patterns of communication, thought and calculation and levels of wisdom. Each of these aspects can be investigated by one discipline, but no one mode of study can grasp even this simple act. The geography, psychology, economics or aesthetics of buying are relative and partial studies. This requires, as we have already established, that the act of abstracting one mode of study, say the economic, be deferentially and cautiously made, so that respect for all the other aspects of the act of buying are maintained in the partial theoretical analysis. Dooyeweerd thus underlined the way in which all analysis is interdisciplinary, if even only by default. Defining theoretical analysis in foundational terms often compromised this inescapable truth.

This perspective of the modes of human experience also affected the way disciplines themselves were defined. The meaning of disciplines is not theoretical, but arises from the area of life which they address, and the central norms of this area infuse and shape the theory of the discipline. Thus Dooyeweerd refused to grant the autonomy of the theoretical domain and required the continual interaction of theory and life; this, as we shall see, addresses the underlying problem of otherworldliness which has beset consumption theory and other theoretical areas during the last century or so. Economics is a viable study because people plan the use of resources according to principles and personal priorities and not because general equilibrium models can be solved. He saw that this mode of life related to other areas; there is economy of thought and energy, (II 66-68) and therefore retained a basic integration between the way people live in all its varied richness and the theoretical constructs which respond to this pattern of living.

By contrast, foundational approaches, premissed on the autonomy of theoretical thought, require the meaning of the theory to be located within the disciplinary analytical frameworks. Often it will use disciplinary matrices, like psychologism, historicism, materialism, logicism, economism and biologism. These look to some Archimedean point which is partly located in an area of life, but also partly depends on the theoretical structures which have articulated this as a basic commitment. Thus, for example, we shall later study Becker’s claims for the power of utility maximization as a fundamental social analytical tool; I believe there is a link between the economistic belief which says money is the measure of all things and the belief that utility calculus is the key analytical framework for childbearing. Thus,
Dooyeweerd insisted on the pretended autonomy of theoretical thought; its commitments remain embedded in the analytical systems, but unacknowledged in a way which means the theory is other than it usually claims to be. (Clouser 1991)

But another problem is more straightforward. Because disciplinary theory is presented in foundational, or autonomous, terms, it loses contact with other subject matter which it important to the domain of study. For example, maximization is an important theoretical tool in consumption theory, but maximization only poorly comes to terms with all that is involved in eating; dieticians operates with the very different principle of "what is good for you". Thus, autonomous thought continually fails to relate to the full subject matter it faces, which functions by other principles. By contrast Dooyeweerd argued that the norms of living should infuse and shape the theoretical concerns of the various disciplines. They are life driven. But at the same time the theoretical domain must be comprehensively defined to allow all the relevant modal issues to be brought to bear on a subject. A comprehensive theoretical framework is necessary, one which only the biblical doctrine of creation is big enough to provide, but it is to be integrated with the underlying view of life which gives it meaning, not claim some kind of autonomous status. (Dooyeweerd 1935-6 II) This is part of the task of the fifth chapter.

A fourth focus was the failure of foundational thought in its pretended autonomy to reflect on the role of the subject in the activity of theoretical formulation. In no way could the relationship between the subject and the objects of theoretical reflection and analysis be reduced to a so-called objective, logical, neutral status. The subject always had ontological and epistemological commitments which shape all her/his thinking. Any assumption of neutrality prevented a deeper penetration to the character of the subject's contribution, especially in terms of the faith and worldview which s/he articulates. In bald terms, if the subject can be ideologically committed, s/he can no less be epistemologically committed in ways which reflect her/his beliefs. Nor are these commitments just personal, but reflect vast cultural trends, or ground-motives out of which people respond, whether they know it or not. (Dooyeweerd 1935-6 I 114-527, 1945-8) Polanyi and others have opened up the personal dimensions of the theory of knowledge, (Polanyi 1958) but Dooyeweerd formulated this point, like all the others, in a bigger context. It was the created necessity of a human response to God which required a faith response and denied its reduction to a neutral status. Similarly, the dependence of the creation on the creative law of God required acknowledgement of God in relation to all human knowledge; otherwise it misstated its origin and meaning. Clearly, this commitment to a specific view, both of the world and theory, was counter to the tenor of foundationalism, and needs further discussion.

The context of these points needs some elaboration. They were not constructed as a critique of foundationalism, but of the presumptions of autonomy in theoretical thought. This involved analysis of both the substantive weltanschauungen of theoretical perspectives and some of the epistemological positions which are
examined in this study in foundational terms. It is worth pointing out a difference of
approach between Dooyeweerd's concerns and those of the present study. His
philosophical aim was to identify the ways in which epistemological positions led to
a distorted or incomplete understanding of coherent reality seen in Christian terms.
This study remains more strictly concerned with following through the implications of
foundational positions. (Until the last chapter, when some of the gaps in
consumption theory are more directly explored from a Christian viewpoint.)
Especially valuable in view of the focus of this study is Dooyeweerd's continual
questioning of theoretical autonomy, the neutrality of scholarship and the
problematic nature of theory at a time when few others were doing it systematically.
Neither Nelson nor Dooyeweerd was in a position to study the later developments
arising from this basic move. With hindsight we are in a better position to spell out in
more detail the structural problems of foundationalism.
The Structural Problems of Foundationalism.

To conceive of knowledge in these foundational terms, whether to establish the scientific status of economics or to have an incontrovertible basis for theory was thus a big step. Here we attempt to examine more systematically what that step might involve. Each foundational position, of course, varies in its consequences, but the suggestion here is that there is a structural pattern to those consequences which can be traced through the position. Before the detailed examination begins, and without prejudging what it might find, these implications are explored.

1. Foundational Validity.

The foundational claim is that certain kinds of knowledge constitute valid (economic) theory; they are well-formed. By contrast other forms are invalid or not properly scientific, or not even knowledge at all. It is the ground of this validity on which the position rests. Normally, it is seen as self-evident, incontrovertible, or basic to a definition of economic science. "Analysis cannot but proceed from what is logically the case." "Economics must study the way people behave economically." "You can't argue with the facts; every economic theory must be judged against them." "All economic events must be the result of prior causes." "Of course economic theory has to be consistent." The grounds on which these claims are made vary, but they all assert some kind of validation which establishes what normal economic science is taken to be.

As Nelson has shown the claim to establish the ground or criterion on which knowledge is to be based is more ambiguous than it might seem. Often it involves a process of self-validation which can be examined in a number of ways. First, its own inner argument for irrefutability can be challenged as invalid; it is not the cognition it claims to be. Second, it can be shown not to have the consequences which it is deemed to have. Third, an alternative basis for knowledge can be brought to bear on it which shows up weaknesses and gaps which have not been considered before. Thus, positivism can be criticized by showing that the Verification Principle is self-refuting, by exploring the limited conclusions which can validly be drawn from positively defined "facts", or by showing that positive knowledge excludes most of normal science, as Popper argued. (Popper 1965 281)

The question arises as to what critique is deemed sufficient to invalidate a foundational position? Those holding a position tend to feel that only a refutation of the inner logic establishing the foundation is adequate. Although the failure of supposed inner certainty occurs in all the positions examined here and therefore invalidates them in their own terms, there are wider considerations to take into account. First, the phenomena to which these positions lay claim extend far beyond the foundation itself, and whether their characteristics are addressed with full integrity is a relevant argument. Second, the terms of the inner (self-defined) logic are open to question, since other logics, or consequential arguments, can at least
claim to be interpretations of the positions. Third, there may be consequences of the foundation which are not divined in the logic of validation which also need consideration as evidence of what that position implies. The way these positions have fallen apart therefore varies. Often with hindsight it is amazing how seriously the claim to authoritative forms of knowledge was taken by those who deferred to them. Some positions claim two or more kinds of knowledge based on different foundations. These positions face the question of what makes these different grounds for knowing, and only these, valid, and what is the relationship between these autonomously defined categories of knowledge.

Examining the foundation is not merely a matter of critique, but also of investigating why the position was adopted and what makes it false. This can be carried out in terms other than those in which the position is stated. In a sense we are always travelling back to the start of the journey, but with insight about where to go from there, and with a different map.

2. **Foundational Dogmatism.**

Because different foundational positions each have their own grounds of validation which are self-supporting and claim to be without external dependence, they stand in a dogmatic relationship to one another. The relationship between the competing bodies of theory which they generate or the authority which each claims for its kind of knowledge seemingly cannot be discussed except in terms of one or the other position. Often, the other position cannot be articulated and discussed in terms of the first, because the incontrovertible foundation of the first makes the second position unknowable. Thus a lack of communication is built into the theoretical enterprise at every level; as Blaug suggested, it is like playing tennis with the net down. (Blaug 1975)

For consumption theory this implies that the formative theorists, Jevons, Pareto, Marshall, Keynes, Hicks, Samuelson, Friedman, Becker, Scitovsky and Katona have had alien visions of their enterprise, and have largely been unable to articulate why they have these fundamental differences of theoretical definition. Because they are all supposed to be engaged in economic science, the presumption of a common enterprise is there, but the substance is not. The extent to which this is the case will be examined in the body of this study.

The dogmatism arises because there is are no theoretical grounds on which the incompatibility of the foundational positions can be discussed. The pretheoretical or prescientific commitments which shape the positions are ruled out of the domain of academic discourse. The positive task of this study is therefore to open up the modes of discourse through which these differences can be debated. Wong tried to do this through what he called the "method of rational reconstruction" which aimed to present theory as a solution to an epistemological/methodological situation. (Wong 1978 9-24) Caldwell, after some important foundational analysis, evokes
methodological pluralism as a way of crossing the divide, on the assumption that no universal, "logically compelling method of theory appraisal exists." (Caldwell 1982 244-52) This methodological pluralism involves rational reconstruction of the positions, critical assessment, an examination of the strengths and weaknesses of each position and a pluralist comparative response. Although Caldwell partly resolves the problem of dogmatism, to offer short cuts across the fields to other roads, this study concludes that a more radical examination of the problem of foundational dogmatism and its effects on theory is necessary if a rediscovery of open debate in consumption theory is to be possible. The reason is because the dogmas are embedded in theoretical constructions which prevent an easy disengagement to a pluralist position. Further, a pluralist epistemology must receive other sources of guidance than those hitherto provided by defective epistemologies.

3. Theoretical and Methodological Prescription.

The foundational emphasis on the process of obtaining well-formed knowledge also leads to prescribing the kind of theory which should be produced, and the methods and criteria which apply to knowledge formation. The differences are immense; theory either should, or should not, have structure, data, assumptions, testing, generalisations, historical and logical components. Its aim should be to predict, model, isolate variables, organise information, expose alternatives, be tested, construct a logical framework, determine behaviour or be capable of solution. Because the shape of the theory is potentially so different, it is difficult to relate one to the other. Nor can economists test one another's theory, because they differ in the methods by which theory is meant to be assessed and evaluated. This problem is reflected in the experience which economists often have when reading articles and papers; it is not a question of detailed criticism of the argument or conclusions, but a more general awareness that they would not have approached the issue in these terms at all. This perception is too widespread to be ignored any longer. (see Dow 1981, Weintraub/Dow 1982-3 295-308, Blaug 1975, 1980b, Weisskopf 1979) It has resulted in journals which address only their own methodological subculture and accept the fragmentation as normal. Because the methodologies are not neutral, they also encourage biases towards certain economic philosophies and ideologies; later, for example, we shall look at the congruence between positivism and laissez faire individualism. (Finn 1979, Friedman 1953 cf Friedmans 1979)

This prescriptivism constricts the potential for theory generation and theoretical communication, and the positive task is therefore to open up new kinds of theory, and to formulate ways in which the theories may be openly debated and evaluated which are not foundation dependent.

4. The Problem of Excluded Knowledge.

The exclusiveness of the foundational positions also involves rejecting much of what is on offer as knowledge which is not compatible with the foundation. What is
discarded, which of course differs for each foundational position, may include a rich variety of material which is important for understanding the area under consideration. The theorist goes fishing with a net having a certain mesh, and everything which does not fit the mesh swims off into the unknown. It may even be that what is caught is not fish, but only objects with a certain size square head...

This narrowing of the legitimate corpus of knowledge is actually one of the most serious consequences of adopting foundational positions. It suggests the task of incorporating the material which has been ignored may be a big one. At the same time competing methodological nets cannot be taken as plural contributions to a broader methodology because they are at root incompatible; they claim to be fishing in different seas! The problem of what dimensions of knowledge each approach excludes is therefore an important analytical task.

However, there is a process whereby the prescriptivism of the foundational positions can be used to identify the kinds of knowledge which are excluded. The richness which is available is not the sum of theories available from the different foundational positions, but it can be uncovered by reversing the constrictions which have been imposed by the exclusive positions and then constructing good theory. At the same time, however, ways of judging falsity, accuracy, interpretation, scope and location of theory are needed and must be provided on some other terms than those which foundationalism presents.

5. Non-scientific and Scientific Knowledge.

Another problem arises from the division which foundationalism creates between experience and scientific knowledge. There is a division between people's day to day experience, plans, values, reactions and assessments and the understanding which foundational views of science claim to offer. The latter approach deliberately cuts itself off from values or ideology as part of the response to the first crisis examined earlier. This engenders a basic division. Scientific theory, validated in its own terms, is a form of knowledge which has a different reference point from experience and cannot be expected to guide, inform or reinterpret that experience. Specifically the purpose and terms of reference of Consumption Theory are different from those of Marketing, Sales, Advertising and Consumer Education. It aims to present pure theory, data summaries, proofs of arguments or causal analyses which are valid in terms which are independent of the lives of the subjects of its study. This theoretical or scientific autonomy lives in tension with the polytechnic or pragmatic areas of study, which teach people how to respond to their daily experience. Because the division into the two kinds of knowledge occurs at the root definition of the academic enterprise, integrating the two kinds of knowledge often becomes difficult. (Storkey 1986 110-6)

This prevents two valuable kinds of relationship. First, the experience of those involved in the area of theoretical study is a rich potential source of knowledge. Yet consumers actually contribute little of their experience and understanding to many
of the theoretical perspectives which are examined in this study. Conversely consumer theory is not available to guide and inform consumers about this area of their lives, nor does it consider this to be one of its tasks. Why this is the case and the remedies for these two lacunae will be considered later.

6. **Otherworldliness.**

The autonomy of foundational knowledge in its forms of validation means that it is cut off at the root from daily living and experience. It has another reference point. Thus in economics the focus is often theoretical equilibrium, consistency, closure or elegance. This is not merely a product of theoretical abstraction, but arises from positing an independent scientific gnosis and operating within it. When knowledge is formed in these terms, it points to its gnosis and away from the world it purports to examine; it is otherworldly. Its point of reference is not that which it seeks to know, but that which constitutes valid knowledge. Hicks, by no means outside the problem himself, has described the effect on growth theory in the following terms.

For with every step that we have taken to define this Equilibrium model more strictly, the closer has become its resemblance to the old static (or even stationary) Equilibrium model; its bearing upon reality must have come to seem even more remote. It has been fertile in the generation of class-room exercises; but so far as we can yet see, they are exercises, not real problems. They are not even hypothetical real problems of the type "what would happen if?" where the "if" is something that could conceivably happen. They are shadows of real problems, dressed up in such a way that by pure logic we can find solutions to them. (Hicks 1965 183)

This problem of otherworldliness is replicated in different forms in consumption theory. The existence of the demand function becomes just such a problem area. There are a number of demand functions which satisfy the requirements of different epistemological positions, and the literature is full of discussions of these which do not touch what people do when they are shopping. Many issues in consumption theory, like the convexity of indifference curves, continuity of preferences and corner solutions are conceived within theory rather than with prime reference to what is being studied. The locus of reference is the gnosis rather than consumption.

This is no small matter. If consumption theory has its own reified terms of reference, then it will sooner or later be discarded by those directly involved with the subject matter. Already marketing, advertising, consumer protection and advice agencies, credit institutions, those concerned with consumption ecology, retailers and others treat consumption theory as of little relevance to their concerns.

The problem is rooted in the autonomy of theoretical thought, and the failure to deliberate over the gegenstand choices which are being made. It is important not to confuse this failure with the theory/praxis dualism growing within Hegelian and Marxist thought, which tends to have as its concomitant the devaluation of theory.
Here it is not Reason which is autonomous, but theoretical analysis; some of these frames of reference claim to be very practical, like Becker's utility maximization. Uncovering these points of autonomy and showing the failure to discriminate in the theoretical moves undertaken is another of the positive tasks which requires addressing at the end of this study.

7. **Economic Boundary Disputes.**

Another foundational problem arises when the positions define the boundaries of the discipline in contradictory ways and engender conflicting understandings of the scope and identity of the discipline. Thus formal and logical rationalists tend to see economic science in terms of pure theory surrounded by a penumbra of applied economics. They operate with fairly traditional and autonomous disciplinary boundaries. Means-ends rationalists obliterate the pure/applied distinction in favour of a boundary definition including all efficiency orientated behaviour, which can extend into social, political or psychological activity. Positivists tend to focus on observables like exchange or monetary transactions to define the discipline, and causal theorists have difficulty with any tight boundary. Because consumption theory is often seen as standing on the edge of the domain of economic theory, itself a peculiar and interesting idea, it is touched by these differences. We shall see how ambiguous its position actually is within the competing foundational positions.

The problem arises from the way in which epistemological and methodological positions are used to define the boundary of discipline and subdiscipline. If, for example, consumption theory is identified with the logic of choice of goods, what happens after choice, the actual utilisation of goods, is excluded from the subdiscipline, and also substantially from economics. Or if it is seen in terms of observable transactions, the economic strategies and motives which generate those transactions are largely seen as intruding on the analysis of relationships between the key variables. One way out of the problem is to focus boundary definition more fully on what the subjects give priority in their orientation to events and actions. The mode of address responds to the subject matter rather than to the methodological prerequisites of the foundation adopted.

8. **Disciplinary Autonomy and Imbalance.**

The problem is wider, because each epistemology posits different relationships among the disciplines. Logicists tend to see psychology as extrarational and therefore not capable of formulation as knowledge, while behaviourists see psychology, viewed in behaviourist terms, as firmly located close to the centre of economic analysis. Clearly, there is the potential for all kinds of distortions among the disciplines.

One is the process whereby the mode of analysis of one discipline is given a definitive or controlling role within the analysis of another. It is possible to reduce economic analysis to mathematical, logical, psychological, social, political or kinetic
terms. But buying a pair of shoes is not reducible to a calculus, the interaction of forces, or the resolution of feelings. The integrity of the economic act needs recognition together with the subsidiarity of the modes of analysis coming from other disciplines. Yet often the foundational epistemology dwells in other disciplines, or is predatory from economics on other disciplines.

Another form of distortion occurs when the prescribed theoretical mode is formulated autonomously within the discipline in a way which allows no contact with other aspects of human activity. Then the relationship between the disciplines is seen in terms of tectonic plates which rub up against one another only in interdisciplinary studies, but otherwise are isolated continents of meaning. There is no theoretical point of reference between economics, psychology, sociology and other disciplines. This contrasts with the intimacy which occurs between economic, psychological, logical, and other aspects of our actual behaviour. Buying the bunch of flowers involves an aesthetic judgement, a social relationship and an economic calculation more or less at the same time. Rather than just relating to the economic mode of analysis which the foundation requires, it may be that theory should translate to other modes. Ecological consciousness has made us aware of the intimacy between consumption, geographical and biological analysis and show the dangers of autonomous disciplinary theory.


Finally, the position and faith perspective of the economist tends to be obscured when a foundational position is adopted. It cuts economists off from a recognition of the way in which their values, culture, professional location and worldview mould their theoretical work. It requires them to ignore the reasons working within their minds and hearts which generate categories, research agendas, and arguments. This study will be full of the Lausanne School, Cambridge England and Cambridge Massachusetts, Austrian economics, the Chicago School and other geo-cultural positions which have often issued in disputes and misunderstanding. If this pseudo-neutrality was recognized, economists could relate their perspectives in a contributory way. Potentially this is a source of strength and creates a more healthy basis for theoretical communication within the discipline.

The subsequent analysis will follow through the implications of foundationalism at these nine problem levels, not in a neat, predetermined way, but as they are seen to be of significance. Repeatedly at least some of these levels of failure will be evidenced in foundational positions.
The Early Development of Consumption Theory.

The subsequent analysis will explore ways in which foundational views of theory have influenced the development of consumption theory. The influence seems particularly clear in this subdiscipline of economics, partly perhaps because its formative development occurs wholly within the era of foundationalist thinking. Here, in order to prepare for the later analysis, we look at the initial, slow growth of this area of theory.

The relationship between popular and academic awareness is very interesting. Popular awareness of consumption issues during the 19th century was strong. Britain was already known as a nation of shopkeepers to Samuel Adams and Napoleon. Especially with servants, domestic accounting was important and much talked about from Mrs Beeton onwards. More surprising was the Anti-Corn Law League, formed in 1838, as an urban consumer movement concerned about the price of bread, and concluding that trade restrictions were responsible for its high level. It was an articulate, nation-wide movement with detailed theoretical backing. On December 21, 1844 the Rochdale Co-operative opened. By 1851 there were over 150 substantial Co-ops which soon moved into manufacturing (1854) and wholesale buying (1863). This vast movement thus extended from a consumption base to penetrate the productive organisation of the British economy. (Kallen 1936, Webb 1920, Carbery 1969) In 1851 the Great Exhibition at Crystal Palace was an international display of the consumer goods which Britain was generating. At all kinds of levels therefore, especially in the classes of people who were generating economic theory, consumption was a substantive reality which generated much immediate interest.

By contrast classical theory seemed slow to respond. Much has been written about the bias of the classical model towards production and its relative deprecation of consumption. If urbanization meant a substantial movement away from subsistence forms of production towards purchasing, and if the new needs of the urban populations decisively shaped the development of industry and commerce, why did demand and consumption only have a desultory role in the classical model? It appears in Mill's Principles in a very subordinate role. (Mill 1848 37-9, 51-2, 436-50) He qualifies consumption as productive or unproductive; it is the former only if it is going to productive workers to help them do more work. He further insists, almost perversely, that consumption expenditure cannot increase the demand for labour, but only redistribute it. (79-90) Markets and purchasers were everywhere evident, but were obviously not considered significant within the economic framework. Why was this the case?

One explanation is epistemological and offers an introduction to the kind of themes we shall be examining later. The underlying epistemology of the classical tradition was causal; it is examined in more depth in Chapter Four. The Inquiry into the Nature and Causes of the Wealth of Nations gave primacy to production from which
followed consumption. The antecedent is used to explain the consequent through laws. This pattern left consumption as the effect. Sometimes, the consumer was seen as cause, as with Malthus' consideration of "unproductive consumers", but largely consumption was a dependent variable, the result of the system. Viewing consumption as consequence meant that the independent, purposive, directional activity which could have been associated with it had to be put aside. Jevons, in changing this pattern, felt he had to fling aside the English School and espouse the French. (Jevons 1871 xliv-v)

The change which allowed a consumption perspective to develop had, however, its own particular bias which was important to the developments described in the next three chapters. It was the new subjectivism which was evident towards the end of the century. After the aggressive macrotheory of Hegel, Comte, Marx, Mill, Darwin and Spencer there was a new intension of thought evidenced in many areas. (Hughes 1979 33-89) Neo-Kantian dualism emphasised subjective choice and ethics; Lange, Kroner, Windelband, Rickert, Dilthey and others all wrestled with this, and it later emerged in the emphasis of Troeltsch, Meinecke and Weber on subjective meaning. (Willey 1978 83-181) In Vienna Brentano developed an important awareness of intentionality, influencing both the Austrian School of economists and Husserl. Wundt and Freud developed within the same new awareness. (McAllister 1976 80-175) Sidgwick, Green and Bradley reflected a similar trend in England. Although Jevons broke through to a robust post-Benthamite view of choice, it is this subjectivism which filters through into consumption theory towards the end of the century. The individual's construction of meaning is significant in its own right in purchasing decisions, rather than just being classicist consequence. Later, this theme will be examined in more detail, but again the epistemological changes seep into the formative period of consumption theory.

It seems therefore that, like the marginal revolution, the emergence of consumption theory was less uniform than the Schumpeterian interpretation has suggested. Jaffé’s conclusion on Walras is clear: "It cannot be emphasised enough that what Walras was after was the completion of his competitive market model, and not the elaboration of a theory of subjective valuation in consumption." (Jaffe 1983 315) However, Menger's concern with individual valuation left him more open to develop consumption theory, and Jevons had to make a major change of frame in order to move to his new view of economics. Although marginalism was part of the framework, the key change was the location of his basic theory of value with the individual. As his Journal shows, he suddenly flipped from a labour to a consumption theory of value within a period of 16 days in 1860; a move like that only occurs when there is a major conversion in perspective, but it also does not usually happen at the underlying point of a person's thinking. (Jevons VII 120, LaNauze 1953) As Blaug points out, "there is more marginalism in Ricardo than Jevons or Walras. it took twenty or thirty years to complete...it was not a marginal utility revolution and it did not happen in the 1870s." (Blaug 1985 306-7) None of
this suggests a decisive breakthrough.

In Britain the change to consumption theory was subtle and long-term. It required the development of theories of consumer discrimination, which in turn required an action or choice frame of reference. Bentham's formulations had been largely exorcised from economic analysis by Mill, for whom choice was subjectively real, but not causally significant. The ethical limitations of the Benthamite position stood in the way of a more choice orientated frame of reference being developed. Only with Sidgwick did this possibility occur. In The Methods of Ethics (1874) Sidgwick looked at egoistic hedonism, a priori intuitionism and utilitarianism as three different methods of ethical argument. He thus drew back from the dogmatic claims of Bentham towards a more behavioural and relativist ethical position which allowed that individual choice could be premised on utility, duty, benevolence and impartiality and studied with greater detachment. All of this was vital preparatory work for Marshall, who more radically moved over to consider human action and decision making as the raw material of his analysis. Laws were to be defined as regular patterns of activity which could be premised on moral, collective, altruistic and selfish activity. Sidgwick's position allowed Marshall to be open to the ethical aspect of activity and to treat the decision-making processes involved in consumption with rigour. By separating psychological and ethical hedonism, and establishing the independence of ethical propositions, he also gave Marshall the scope of an ethical position and room for direct economic analysis. Jevons relationship with utilitarianism was a good deal tighter and more problematic, because he was more closely tied to the Benthamite inheritance.

Yet the main point which arises from these considerations is much more straightforward. When a particular branch of theory develops affects how it develops. The early development of international trade theory and production theory, and the late development of income theory, have effected their concerns and articulation. Consumption theory seems to have developed slowly in relation to the phenomena it studied and had no classical orthodoxy to which to appeal. It was also formulated when a concern for the professional status of economics was dominant. The scientific status of the discipline, independence from ideological contamination, the autonomy of the domain, incontrovertibility and the need for an epistemological foundation therefore featured strongly. Because these, and especially the last, shaped the development of consumption theory so decisively, it is to examine them in detail that we must now turn.
Foundationalism and Consumption Theory.

We are now have the tools in place for the subsequent analysis. In the next three chapters evidence is set out that consumption theory during its formative period has been decisively shaped by foundational epistemologies. In their professional concern with well-founded knowledge economists constructed consumption theory according to theories of knowledge which have subsequently turned out to be invalid; each version has tended to create dogmatic theory and produce results of limited usefulness. The task now is to describe the different kinds of foundational consumption theory and examine the consequences of this way of constructing theory.

Yet the analysis cannot be too neat; in the transmission of the idea of foundationalism there was no one pattern. Some, like Pareto, Weber and Robbins reflected directly on epistemological issues and developed their own responses to them. However, in Anglo-Saxon circles this was not very common. Others developed their approach to consumption theory in the light of the broader popular conception of science about at the time, using the ideas of philosophers of which they became aware. This often involved a time-lag in the transmission of positions in the philosophy of science of a decade or more. Others related to a tradition of economic thought which already embodied a foundational view and articulated their own position in relation to it. Others adopted two incompatible positions without realising it and tried in a variety of ways to effect a compromise. The description will not therefore always work neatly through from the epistemological base to the consumption edifice. Yet whatever the route of transmission, the concern for the development of neutral, value-free, economic science has been so great that the ground plan can usually be read from the finished building.

In the next three chapters we shall be looking at nine positions which have had a great importance in twentieth century consumption theory. They can be grouped into three broader categories, rationalist, positivist and causal, which are the organising categories of the next three chapters, but within each of these broader classes it will be evident that there are substantial disagreements.

Modern foundational rationalism is examined in Chapter Two, where it is shown to have three powerful developments in consumption theory. The first is associated with the rebirth of pure logic, hence the term Logicist, in the mid-nineteenth century. The figures who led this development into British economics are Boole, De Morgan and, obviously, Jevons. Although it was a powerful influence in economics with Edgeworth and others, and in philosophy in Britain, it was to some extent eclipsed in the early decades of this century. However, Pareto pioneered a similar development at Lausanne, and it was through his influence on Hicks and Allen especially that logicism most directly impinged on modern British consumption theory. Within this tradition consumption theory is seen to be founded on the logic of choice. The second tradition had Kantian and Cartesian roots and aimed to
establish the synthetic a priori framework for economic knowledge, including consumption theory. This tradition is described as Formal Rationalism and its pioneer was Walras, who despite his philosophical naiveté drew on his father and Cournot to create a new understanding of economic knowledge. Its main aim was to create a consistent analytical framework which provided the basis for all pure theory. It was transmitted via Schumpeter to Samuelson who used it in the Foundations of Economic Analysis. Within this perspective the focus of consumption theory is the stability conditions which are the sine qua non for the whole rational system.

The third position grows out of the neo-Kantian epistemological debates in Germany at the end of the century and is best described as Means-Ends Rationalism. Its rational focus is not systemic, but takes as its foundation the instrumental calculations made by the purposive subject as a universal process within economics which can be studied objectively and neutrally. A key transitional figure was Max Weber, but it was fully brought within the corpus of economics by Robbins and into consumption theory by Gary Becker.

Four positivist developments are examined in Chapter Three. They occurred around the beginning of the century, despite earlier roots, with a strong foundational programme developed initially in relation to the philosophy of the natural sciences by the Vienna Circle and other groups. The first position, which is designated Crude Positivism, argues that the key conceptual constructs of consumption theory can be obtained directly from the data. From the early philosophical positions of Schlick, Wittgenstein and others this is transmitted via Bridgman's operationalism to Samuelson in his Revealed Preference mode, although by this time the position had already been destroyed philosophically.

The second position is Logical Positivism, developed by Carnap and others which identified protocol statements and logic as two independent epistemological bases. (Suppe 1977 6-27) From the Vienna Circle it spread to be quite influential after the Second World War, and Samuelson in a later epistemological reincarnation was also affected by it.

The third retreats somewhat from the total claims of crude positivism by dissociating theory and data; It establishes its foundation in the process of testing the former against the latter. One version is described as Hypothetical Positivism. Hempel and Oppenheim develop it philosophically. Another is Popper's Falsificationism. Hutchinson was a key interpreter of it to economics, and Friedman was its strongest early proponent within consumption theory. The "F-twist" debate between Friedman, Samuelson and others is seen as largely a clash between the second and third positions in this positivist tradition, and the failure in mutual understanding is explored in these terms.

The fourth tradition can be called Frequency Inductivism, or Probabilistic Positivism and grew out of the work of Carnap, Reichenbach and Richard von Mises. It issued
in the kind of inductivist theory developed especially in econometrics, where data is used within an inductive predictive framework. Here the belief was that probability theory would provide a secure basis for coming to conclusions which, although not certain, were scientifically reliable within probabilistic terms.

In Chapter Four a tradition which has been less fully identified than the positivist one is examined. It goes back to the Enlightenment and nineteenth century reformulations of naturalism, and is also evident in the classical economic concern with causes. But it receives a new foundational emphasis, first in the epistemological work of John Stuart Mill, who espoused a form of Causal Determinacy. Although his economic theory remained largely classical in conception, Mill's System of Logic moved over to a foundational method in the social sciences, which was taken up by Marshall, W E Johnson, John Neville and John Maynard Keynes into some of the most significant developments in consumption theory. This epistemological position is the defining characteristic of the Cambridge School in the 20th century.

Another expression of causal analysis was Behaviourism, which focussed on experimental procedures in the mechanical sciences and saw them as definitive for scientific method in psychology and the other social sciences. Behaviourism is examined in consumption theory through the work of Scitovsky, who moved from the logicism of Welfare and Competition (1952) to the psychological behaviourism of The Joyless Economy. (1976) Finally, the work of Katona and the Michigan School is examined, to show a tradition which espoused causal methodological research but moved beyond foundationalism in many of its approaches. It was able, for example, to be open to the sociology and psychology of consumption.

Although these categories are not exhaustive, they do include most of the foundational emphases which have shaped 20th century consumption theory. Another example of a causal foundational position is methodological Marxism, but this has not become so direct a contributor to consumption theory in the West. By examining these positions and the way they have been articulated into consumption theory we shall be able to see the scale of the problem created by this approach. There is an historical dynamic to these developments. One of the recurring themes is the attempt to eliminate problems created by earlier foundationalist positions. Consequently, there is a retreat from the dogmatism and assertiveness of the early positions which is more marked especially during the last decade or so. Nevertheless, the underlying problem is not thoroughly understood and stays gripping consumption theory throughout its modern history. Only when we have travelled through these vicissitudes will a more promising way for consumption theory become evident.
Chapter two: Rationalist Foundations in Consumption Theory

Introduction.
The main argument of the following three chapters is that the content of various kinds of consumption theory is deeply structured by the epistemological precommitments of the theorists, whether they acknowledge it or not. This chapter traces the impact of the positions which can be described as rationalist; they may be broadly defined as ones which see the construction of mental categories as basic to understanding. Three traditions can be identified, not because they are the only philosophical positions which exist, but because their impact on economics is the most evident. They are Logicism, Formal or A priori Rationalism and Means-Ends Rationalism. In each of the sections sketching these positions a number of tasks will be undertaken. First, the epistemological basis of each position is outlined together with some of the consequences which follow from it. These include some of the structural problems outlined in the previous chapter - foundational dogmatism, theoretical prescription, otherworldliness and so on. Second, the longer term historical development of the positions is opened up so that the modifications of each view can be explored. Third, the implications of the positions for the consumption theory of different economists are identified, and fourth the problems which each of these views of theory generate are analysed. Since the story of each tradition is different, there is, however, no one neat way through each development.

In this chapter, as in the later two, we find the epistemological differences have many of their roots in national philosophical traditions. The Logicist was mainly British and Italian, the Formal, French and the Means-Ends tradition Austrian and German. Yet part of the story is the way these traditions travel through migration, personal contact and scholarly conviction. Sometimes, indeed, there is no obvious pattern of transmission, but a situation where different theorists arrive at similar conclusions because it is one of the most attractive options in the face of an underlying problem. This is effectively the conclusion which these three chapters adduce. Foundationalism was not a response which was always directly propagated, but one which sprang up at a lot of different points as a seeming solution to problems in substantive economic theory.

Although the focus of this chapter is Rationalism, this too is more problematic than is often assumed. It is easy to forget how recently the conviction has grown that human rational understanding is the key to knowledge. In the not too distant past revelation, experience and various kinds of wisdom have been seen as central. The recent dogmatic weight of rationalism has obscured how tendentious the idea of rational understanding might be to other ways of understanding. It is important to
recognize that the character of the basic positions described in the next three chapters is not of theoretical options which can be used as alternatives, but of epistemological empires which claim prior allegiance. Just as the Marxist-Leninist philosophy of Russia and Eastern Europe deliberately outlawed most forms of rationalism, like for example the Polish tradition of logic, so, albeit more politely, rationalism has also engaged in patterns of intellectual conquest. It has often been assumed by rationalists that the territorial gains are justified, but whether intellectual conquest is fair is a more difficult question, and we now have, so to speak, the advantage of post-colonial hindsight. This chapter will be probing whether the rationalist empire which has undoubtedly grown has always understood how it has fought or even what territory it should own.
Rationalism as a Foundational Epistemology.

The Greek tradition of using reason to discover the truth was reintroduced during the Renaissance and spread again throughout Europe, reinforcing earlier scholastic patterns which had the same origin. Over a period of time it hardened into a doctrine which can loosely be called rationalism, suggesting human thought was the central and authoritative source of understanding. The scope of this movement was vast, influencing the culture of Europe deeply. However, our concern is more limited. It is with the rationalism which took a more epistemological turn, which implied that mental categories were the necessary basis for constructing valid knowledge. This approach had a patchy development throughout Europe. The impact it had in France, especially through Descartes, was considerable. In Britain the tenor even during the Enlightenment was largely antirationalist, favouring Common Sense, Empiricist and Naturalistic forms of understanding. In Germany there was a strong tradition including Leibnitz and Wolff before Kant, but he became the great impetus to this kind of thinking throwing up waves of development through the next century and a half. In this chapter, therefore, we are looking at three quite dissimilar patterns of origin for the forms of rationalism under examination. In Britain the philosophy of logic and logicism grew in quite hostile soil largely in the 19th century. In France strong Cartesian roots fed a formal rationalism which was also influenced by Kant in the mid 19th century, while in Austria and Germany post Kantian epistemological developments fired another foundationalist form. Let us look at each of these developments in turn.

In Britain, although much thinking was rationalist in a broader sense, there was little epistemological rationalism either in philosophy or economics. British classical economics espoused a naturalist style of reasoning about the economy; it made sense of it as a natural system, the mechanism of which could be uncovered by reasonable men. Rational principles or logic were not important as the source of understanding, but only a kind of systematic common sense. Adam Smith believed there was a natural order holding together the motives and transactions of the economic system which understanding could uncover. The Utilitarian tradition opened up an optimistic expression of rational individualism; Bentham's calculus presumed to show how individuals acted and thence to provide the deductive key for wider economic policy, but it was not strongly developed. Despite James Mill's advocacy of Bentham, Ricardo did not really move away from a Smithian framework. (Hollander 1985a 1-46) Other economists like Malthus were critical of this tradition as imposing too much of a rational order on the working of the economy. (Pribam 1983 169) John Stuart Mill continued Ricardo's emphasis on a given natural order of the economy. More seriously for our concerns in The System of Logic Mill hijacked the meaning of logic to make it into a causal crunching machine which had no rationalist point of contact at all. (see ch 4) Although this emphasis was shaken by Jevons, it was not really challenged while Marshall was the dominant influence in British economics. Rationalism therefore remained much
The tradition which did develop in British philosophy was marginal. The place of Hamilton in the Scottish school of philosophy exemplified this weakness of rationalism in Britain. He was quite an isolated voice, out of tune with Hutcheson, Hume, Smith, Reid and Stewart and one of the few in Britain to come to grips with the Kantian school. Yet he did establish more than any other at the beginning of the 19th century a concern with the philosophy of logic. (McCosh 1975 415-60) This discipline, which he, De Morgan, Boole and others developed largely in terms of analysing the limits of what could be determined by logic, was taken up by Jevons in an entirely different sense. Only in the 1860s does this foundational meaning arrive, and then dramatically in Jevons work. For him it became the basis on which scientific knowledge was constructed. A similar understanding of logic then influenced Pareto and Pantaleoni through whom it came back to England in the work of Hicks and Allen in the 1930s who very self-consciously imported it. Throughout this period logicism had been largely peripheral to the development of economics, and only through Hicks in post World War Two textbooks did it become orthodox consumption theory.

The other two forms have many of their origins in Kant. It is worth even at this stage dwelling on how deep a foundational emphasis he had. This is clearly evident on the opening of his Berlin Academy Prize Essay of 1763, "The Only Possible Basis of Proof", where he states the following.

The question posed is of the sort that, if it is properly solved, higher philosophy will have to take on a definite form. If the method by which the utmost certainty in this sort of knowledge can be attained is established, and the nature of this conviction is well understood, an unchangeable methodological rule will necessarily aid thoughtful minds in similar endeavours, in the place of the everlasting instability of opinions and schools, just as Newton's method in the natural sciences transformed the confusion of physical hypotheses into a sure procedure guided by experience and geometry. (quoted in Cassirer 1981 66-7)

This change away from Wolffian metaphysics to focussing on the underlying rule by which understanding is established in human thinking was fundamental to most subsequent rationalist foundational positions. Kant's influence spread in geographical circles rippling out over a period of a century or so, reaching its greatest influence in France and Britain at the end of the 19th century. At the edge of the expanding circle around the middle of the 19th century an epistemological form of Kantianism mixed with French deductivist and scientistic thought was absorbed by Cournot, Auguste Walras and LÉon Walras. Just as Kant claimed to construct the necessary a priori categories of thought, so this tradition believed it could construct the necessary fundamental categories of economic thought. LÉon Walras developed it into a powerful foundational approach to economics which shaped consumption theory strongly. Strangely its main apostle in the second half of the 20th century has been an Austrian, Schumpeter, who has suffused this approach through the English-speaking world and made it one of the dominant
orthodoxies. We shall examine its influence on the consumption analysis of Samuelson, Wald and others working in the General Equilibrium tradition.

Meanwhile at the centre of the circle in Germany Kant's epistemological rationalism gave way to the more metaphysical forms of Hegel, Lotze and Fichte which were dominant for many decades. In turn this way of approaching philosophy was attacked by a number of positions which questioned the centrality of the mind: the economic materialism of Marx, Hartmann's emphasis on the unconscious will, Darwinist evolutionary thought and historicist views. They all undermined the idea that rational categories gave definitive shape to life. Although many of the idealist philosophers continued to exert influence, it was evident to the leading thinkers that metaphysical constructs had no compelling rational justification. Those involved in the Geisteswissenschaften focussed more directly on the kind of human understanding which is sought in the human sciences. They wanted a method of obtaining knowledge which took account of subjective motives and values and yet focussed on the logic of purposive action in relation to these values. Gradually statements of these concerns emerged from the work of Dilthey, Weber and Husserl§ in Germany, and Menger, Brentano, Meinong and others in Austria which were more subjective than the formal rationalist tradition. Rather than being concerned with a macrocosmic rational order, they delineated the way human beings organize their thoughts as a basis for action. Rational categories denoted what true efficient behaviour would be and therefore created the necessary foundation for analysis. There were hints of this foundational position in Brentano and Menger. We shall focus more on the transmission of these Austrian and German traditions to the English-speaking world through Robbins conception of economics as a science of rational means-ends calculations. From Robbins it received fuller expression in Becker and some members of the Chicago School who have made many contributions in consumption theory.

Thus, even in these traditions which could be loosely described as rationalist there were divergent visions of what constituted well formed knowledge and what kind of theory economics should generate. Let us therefore examine each in turn to see where their foundational faith lay.
Section 1 The Logicist Tradition.

Jevons and the Changing View of Logic.

The British understanding of logic grew out of the dominance of empiricism, which gave it a different flavour from the views coming from a more Aristotelian view. Bacon's New Organon emphasized learning from nature, and both Locke and Hume, by emphasizing that impressions and ideas came from experience, left logic as essentially an empty, formal science. (Locke 1690 344-55, Hume 1739 180-7, 1748 40-53, Ayer 1980 60-1) Hume was clear that "relations of ideas", or logic, was without dependence on "what is anywhere existent in the universe" (1748 40), or as Ayer puts it later but in the same tradition, "So far as logic is concerned, anything may produce anything." (1980 60) This was the origin of the British idea of analysity, the tautology which was true in all possible worlds. Seen in these terms logic was a thin science with little impact on anything, and it is therefore not surprising that it had a difficult time within the British traditions of philosophy. This meaning of logic shaped much of its 19th century development, but there were some thinkers who pushed against this trend.

Whateley's Elements of Logic (1825) marked a renewed interest in the subject, but Hamilton's work in Scotland really opened up a new direction. He emphasized moving to an analytical logic which made propositions into equations and thus made subject and predicate necessarily identical. A few years later he criticized Whateley on the grounds that the other's approach to logic was not scientific enough, because it still included important elements of judgement. Hamilton wanted logic to be the science of the laws of thought as thought. "Of the truth or falsehood of propositions in themselves, it knows nothing, and takes no account." (Hamilton 1833 249) However, the emphasis of De Morgan, Thompson (1842), Boole and others was to move yet further in the same direction. They wanted logic to be a pure science, uncontaminated by any covert assumptions and therefore able to stand incontrovertibly on its own terms. This is the first introduction to the idea of purity which we shall see is important in the construction of foundational thinking.

Yet the development of pure logic received a massive jolt with the publication of Mill's System of Logic, for it was operating on entirely different principles. Mill, whose position will be examined in more detail in Chapter Four, was largely the foil against which Boole and De Morgan took their stance. He had developed his position in opposition to Hamilton's opening up of formal logic, because he wanted to retain it as a process of ascertaining inferred truth (Mill 1828, 1865, 1872 book 2 ch 3). Although he meant logic to be the Queen of the Sciences, the science of science itself, his approach to logic undermined its rational foundational intent, for he allowed inductive and a priori reasoning and even presuppositions like the law of universal causation to be part of its corpus. (Mill CW12 78-9) These left logic interwoven with beliefs about the world and dependent on external givens. De Morgan especially set out to purge the discipline of these elements and saw himself
as opposed in principle to the approach adopted by Mill because it undermined the absolutely incontrovertible basis of logic.

De Morgan was a mathematician and logician, and probably the predominant influence on Jevons who adored him as a teacher. In his calculus course Jevons would have covered its application to geometry of two dimensions and partial differentiation. (De Morgan 1842 341-87, 709-36, and 1852) He would have all the technical equipment which he would need later for marginal utility theory. But more important was De Morgan's overall conception which moved to another basic foundationalist tenet. He believed in logic as a method and was agnostic about its truth claims.

The study of logic, then, considered relatively to human knowledge, stands in as low a place as that of the humble rules of arithmetic, with reference to the vast extent of mathematics and their physical applications. Neither is the less important for its lowliness: but it is not everyone who can see that. Writers on the subject frequently take a scope which entitles them to claim for logic one of the highest places: they do not confine themselves to the connection of premises and conclusion, but enter upon the periculum et commodum of the formulation of the premises themselves. In the hands of Mr Mill, for example (and to some extent of Dr Whately) logic is the science of distinguishing truth from falsehood, so as both to judge the premises and draw the conclusion... (De Morgan 1947 46)

He saw the method as neutral, objective and pure.

Logic is the science, the act, the theory and the practice, of the form of thought, the law of its action, the working of its machinery; independently of the matter thought on... Logic is formal, not material: it considers the law of action, apart from the matter acted on. It is not psychological, not metaphysical: it considers neither the mind in itself, nor the nature of things in itself, but the mind in relation to things, and things in relation to the mind. (De Morgan Syll 117, 153)

Thus logic could be separated from all psychological and metaphysical issues and was not modified by the content of the terms and operations. This opened the way for logic to be seen as the indubitable formal framework of the sciences, the substance of which was given by the specific disciplinary content. When Jevons had absorbed this conception from De Morgan, he was then in a position to give it a stronger foundationalist expression.

It is worth at this stage considering the relationship between logic and mathematics in the thinking of De Morgan, Boole and Jevons. De Morgan saw logic as considering the laws of thought, while mathematics was concerned with the necessary matter of thought. (De Morgan 1860 184) Boole, however, despite his desire to formalise logic, moved slightly in a different direction, seeing arithmetic as the way of constructing a logical language of symbols, signs of operation and expressions of identity. (Boole 1854 58, 1855/6 232-3, Frege 1979 12) This
assumed a more foundational role for mathematics. Although Jevons was unsure exactly what the definition and relation of mathematics and logic was in Boole’s thought, he was clear where he stood.

But I do not care to pursue the subject because I think that in either case Boole was wrong. In my opinion logic is the superior science, the general basis of mathematics as well as all the other sciences. (Jevons 1874 156)

Jevons was thus stronger than De Morgan in insisting that logic was the foundation of all science, including mathematics. Within the logicist tradition this remains a central principle; theory is basically logical, while algebra and geometry enter as developments or illustrations of that logic, and numerical, statistical or econometric analysis belongs to the area of applied theory. Although this point is somewhat obscured by Jevons championing of mathematical economics in the Theory of Political Economy, (1871 13) his view of the relation between logic and mathematics was quite clear.

I cannot assent, indeed, to the common notion that certainty begins and ends with numerical determination. Nothing is more certain than logical truth. The laws of identity and difference are the tests of all that is certain throughout the range of thought, and mathematical reasoning is cogent only when it conforms to these conditions, of which logic is the first development.... Number is but logical discrimination, and algebra a highly developed logic. Logic resembles algebra as the mould resembles that which is cast in it. Boole mistook the cast for the mould. Considering that logic imposes its own laws upon every branch of mathematical science, it is no wonder that we constantly meet with the traces of logical laws in mathematical processes. (Jevons 1874 I 153-6)

and

But logic treats of those principles and forms of thought which must be employed in every branch of knowledge. It treats of the very origin and foundation of knowledge itself.... There is in short something in which all sciences must be similar; to which they must conform so long as they maintain what is true and self-consistent; and the work of logic is to explain this common basis of all science. One name which has been given to logic, namely the Science of Sciences, very aptly describes the all extensive power of logical principles. (Jevons 1870 5-6)

Thus Jevons ascribed a triumphalist foundational role to logic in its relationship to mathematics and the other special sciences. His Pure Logic (Jevons 1864), with its distinction between quality and quantity had given him the first vision of this view of the sciences, and he carried it with him throughout his later work as the basic view of knowledge which he espoused.

It is worth dwelling on the change of outlook which Jevons experienced during this period, because it was something akin to conversion. He describes it thus in a letter
to Henrietta in early 1859.

To attempt to define the foundations of our knowledge of man, is surely a work worth of a lifetime, and one not excelled in usefulness or interest by any other. Why then should anything beyond my necessary moral obligations debar me from it? While I should never consent to sacrifice them, why should I care to sacrifice my own present ease and amusements? Why should I care for money, for fine possessions, for present name and position, or even for the real pleasures of scientific study, while there is such an important and interesting work evident to me? Others will not for years know or appreciate my real purposes, but it is not to be expected that they should. (Jevons II 362 my italics)

Thus we see, explicitly, the foundational drive, and the place which logic had in it. Inevitably this vision shaped his economic theory. At the same time as he was reporting the new “true theory of economy, mathematical in principle”, he was also stating the crucial conclusion which spelt the end, for him, of substantive metaphysical philosophy. “The ultimate question of philosophy, that between idealism and materialism, is necessarily an insoluble one.” (Jevons 1973 I 410-11) Logic, based solely on the likeness of things, was to provide an alternative way forward. “I cannot disbelieve, yet I can hardly believe that in the principle of sameness I have found that which will reduce the whole theory of reasoning to one consistent lucid process.” (Jevons 1972 II 179, 185-6) The Principles of Science are but an extension of that basic vision matured into a philosophy of science.

Our immediate concern in the next section will be with the way Jevon’s logicist vision was taken up into his economic theory, but the later influence of this philosophic tradition is also important and is best sketched here. The position taken up by De Morgan, Boole and Jevons developed much more strongly at the end of the 19th century in the work of Venn, Peano, Frege, Russell and Whitehead. One of its aims was the incorporation of mathematics into logic. If it could be shown that logic is the foundation of mathematics, one of the greatest puzzles of human knowledge would be solved. Mathematics is merely a construction of logical consequences based on self-evident definitions; there was no need to recur to intuition, a priori assumptions, metaphysical ideas of number or to statements about the relationship between mathematics and the universe. Frege pushed this line of development forward in a series of studies which allowed definitional concepts to uniquely define specific numbers. (Frege 1894, 1969 203-250) In his view of logic Frege was especially keen to emphasize its independence from the subject and its purely assertoric nature. (Frege 1969 1-8, 185-202). He developed this emphasis by insisting that the referent of every sentence was its truth-value, and by making the latter the focus, its coherence was guaranteed. (Frege 1892 214-8esp.) The development of Frege’s approach in Russell and Whitehead’s Principia Mathematica incorporated the claim that pure mathematics could be developed from logic. Its aim was to construct a formal system of uninterpreted signs which was noncontradictory and which would generate the formulas needed for arithmetic.
They were expected to be true in all possible worlds, not depending on independent axioms. It was the crucial test for the logicist foundational position.

Gödel's exposure of the limitations of this position are well-known. (Gödel 1929-36) He showed, by mapping meta-mathematical statements about the formal system into the system itself, that if the axioms were consistent, formulas would be undecidable and the system would be incomplete. Yet we could also ask why this foundational hope fails? At this stage it is not possible to discover a full answer, but there are some clues. If a move to state arithmetic or other mathematical systems were possible which had recourse only to logical necessity, then those systems would be inherently analytical. Whatever the systems claimed to "represent" in specific applied situations as theorems would therefore have analytical form, and the claim to represent number and operations would be open to question at every point. Second, to introduce metamathematical statements which are making claims (at another level of statement and syntax) about the original statements is to ignore the significance of this new level of interpretation and the relationship it has with the original. The construction of metastatements is the construction of this relationship, and its interpretive significance cannot be reduced to logic. Third, the emphasis on formal and uninterpreted systems which have only analyticity means in the end that the signs and other components of the system have only the character of being posited, and they become in that sense arbitrary. As Quine puts it: "In the end it is perhaps the same to say, as one often does, that the laws of mathematics and logic are true simply by virtue of our conceptual scheme." (Quine 1952 xiv) What is necessarily the case is, so to speak, neither here nor there. Thus the promise of an indubitable foundation is seen to founder into mere convention, and some of the internal contradictions which this approach generates begin to become evident. At the very point where foundational logic seeks to become unassailable, it fails, either because there is a chasm between itself and what it seeks to interpret or because other assumptions and interpretive commitments are necessary.

The later development of modern symbolic logic has actually undermined the foundational claims which Jevons' and Russell's programme involved. Initially it developed strongly within the analytic/synthetic divide which is characteristic of this position and which has had such a profound effect on economics. Ayer, although not a symbolic logician, popularised this position in England. (Ayer 1936 96-115) However, Lukasiewicz and others came to show the variety of systems which share the tautological form which is seen to be basic to logic. (see Haack 1978 for a presentation of this development.) Tarski tried to find a way out of the impasse by moving to a semantic framework where the metalanguage could both refer to itself and the object language, but the inability of this tautological framework to discriminate sense and nonsense showed the problems of this consistent metalanguage. ""Snow is red" is true if and only if snow is red."' remains metalinguistic unless it is used as a criterion, when its validity becomes open to question like any other correspondence theory. (Tarski 1944 cf Popper's claims
Quine's demolition of the analytic/synthetic divide similarly marked another departure from the view that pure analytical statements exist. (Quine 1953) Thus the more recent development of symbolic logic has recognized the compromised independence of the foundational view. No longer can logic provide a method which is the basic framework for generating knowledge, because the specification of the meaning of signs is far more complex and depends on so many other assumptions. Its greatest contemporary strength lies in the far more humble role which it has traditionally adopted of specifying the limits of what we can conclude from any propositions or signs.

Although modern symbolic logic is much more circumspect in its claims, the foundational impetus which developed philosophically was very powerful and has continued to influence economic theory, including consumption theory. We shall examine these developments later, but first we must examine how Jevons logicist vision played into his economic theory.
Jevons and Consumption Theory.

Jevons was obviously one of the founders of consumption theory; his *The Theory of Political Economy* (1871) jerked classical English economics out of a snoring indifference to consumption by developing a marginal utility theory of consumer choice and making it basic to his system. How, then, do we see his significance?

At this stage it is worth querying whether the interpretation of Jevons' part in the "marginal revolution" as seen by Schumpeter, Stigler and others is correct. (Schumpeter 1954, Stigler 1950 307-27, 373-96, Black 1973 305-20) On this view the marginal revolution is seen as an important technical advance in the discipline which was discovered independently but roughly at the same time by Menger, Jevons and Walras with Gossen as antecedent. The discovery was then incorporated into the discipline and allowed the incontrovertible development of modern utility theory as neo-classical orthodoxy. However, Howey has pointed out that "marginalism" was a neologism of 1914 (Black 1973 15-36) and Blaug has suggested that the coherence of the revolution is less marked than is supposed and is related to the professionalization of economics. (Blaug 1985 294-327, Black 1973 3-14) Others see the change as more epistemological and related to the philosophy of science; Fisher has interpreted it in Lacatosian terms, which maybe uses a late 20th century agenda anachronistically. (Fisher 1986, Black 1973 59-77) We have already examined the way in which the crisis of substantive classical theory and the professionalisation of the discipline put pressure on economists to develop a scientific foundational approach. This study suggests that although the views which shaped the work of Jevons, Menger and Walras remained distinct in many respects, the coherence in their approaches grew out of the common need to develop a rationalist foundational method. (It might even be that the problems Jevons and Walras had with one another's economics lay in the different kinds of rationalist epistemology which they espoused...) Let us begin to explore these possibilities in more detail.

How did Jevons' consumption theory develop? By about 1860 he had been deeply affected by De Morgan's views on logic, "the laws of action of thought", and mathematics, "the necessary matter of thought". He had been imbued with the notion that "inference has nothing to do with the truth or falsehood of antecedents, but only with the necessity of the consequences." (De Morgan 1966 184 [1860]) But he, unlike De Morgan, made this idea central to his academic perspective and faith. During this time he had two major themes running concurrently. The first was a reworking of Boole's Algebraic Logic (1847, 1854), which allowed inferences to be expressed by manipulating a "logical alphabet". The study was published in 1864 as *Pure Logic*, or the Logic of Quality Apart from Quantity, and reflected Jevons conviction that logic was foundational to all thought. As he stated it later, "[the laws of identity and difference] are the prior conditions of all thought and all knowledge, and even to question their truth is to allow them true". (Jevons 1870 7, Wood I 11-25, 167-187, 212-32, 251-67) With this key he was ready to unlock the other big
challenge with which he was involved.

For at the same time, but at a more basic level, he was also working at Political Economy, with a nagging feeling that there was something wrong with the discipline and he was the one to sort it out. If we accept the diary date of early 1860 for the breakthrough and the paper to the British Association meeting at Cambridge in September 1862 as the early statement, this was the crucial transition. Why did Jevons base the whole theory of value on utility? The diary tells us that he moved in his work on Political Economy on February 3-5, 1860 from basing value on labour to a "true" comprehension of value, presumably basing it on utility, by February 19th. (Jevons VII 120, LaNauze 1953 357) This complete about-turn in his central substantive concept suggests consumption was less central to his concerns than the method he was employing. Indeed, he never really showed a detailed interest in consumption as a subject - what people bought, when, why, with what and for whom. Utility was a solution to a foundational problem, not the first step in opening up a subdiscipline.

By 1871 the theory with the mathematical functions which show the logic of consumption had been fleshed out. Using Bentham as his substantive philosophical base, he was able to describe economics as a calculus of pleasure and pain. (1871 vii) He may also have been influenced by the work of Macleod, who had a strong commitment towards a scientific view of the discipline involving a single central conception focussing on exchange rather than wealth. (Macleod 1862 215-30) Using a mathematical logic of utility he had turned the classical system on its head. Beginning with the theory of Pleasure, Pain and Utility and the logical relations which followed in Exchange, he was able to banish the classical concerns of Labour, Rent and Capital to the end of The Theory of Political Economy. It was an amazing revolution, not because it had explicitly included a theory of consumer choice in the main corpus of economic theory, but because it had created a different kind of economic theory which had an essentially logical form.

Jevons was quite precise about the relation of logic and mathematics in his theory. Economics as a science must be mathematical simply because it deals with quantities, and calculus provides the tool whereby the measurements can be scientifically worked through. But the logic of more and less, of discrimination, provides him with the basis for analysing utility; when the ratio of the intensities of the last wants is proportional to their prices, then equilibrium is established. Mathematics is necessary, but logic is basic. He is often charged with retaining cardinal, and therefore Benthamite utility, but this may be a failure to understand his logic, mathematics and economics. His logic had excluded all such metaphysical assumptions and merely differentiated more and less. His use of arithmetic was largely because goods and money were numerical, and if the utility calculations of more and less had in the end to be weighed against the relative prices of goods in the thinking of the consumers concerned, there was no special virtue in eliminating the cardinal utility merely to establish a foundation which was presumed free from
metaphysical judgement but no better conveyed what consumers actually do. For consumption must do with number, because it always does involve numbers of goods and amounts of income. In this particular Jevons awareness of the place of mathematics in consumption theory, which later post-cardinal logicism lost, had some value; whereas consumer preference has universally fled into algebra, every consumer remains with the arithmetic of counting and accounting, and it is a loss to theory that this is not recognised. Cardinal utility may have no special virtue, but no consumer has yet escaped from cardinal prices and accounting.

However, the overwhelming drift of the position was foundational. Jevons was strongly convinced of the correctness of his formulations and did what he could to establish it as the new orthodoxy. The drive was to a scientism of logico-mathematical certainty which offered a perfectly general mode of reasoning. In The Theory of Political Economy other areas of theory are developed in only a sketchy way, but it is worth assessing what this way of doing theory implied.

One of its consequences was to cement a number of assumptions into this mode of theorising about consumption. For example, there was the individualism of the analysis. The logic of utility maximization was always predicated of an individual and summed into aggregate market responses, although Jevons failed to show how utility functions could be aggregated. In part it reflected the Benthamite origins of Jevons’ calculus, but, as MacLennon suggests, (Jevons/Wood I 260) he was not inside Utilitarianism, but just using it methodologically. The dominant reason for adopting it grew from his logical method; a person-thing logic could not cope with other-person referential frameworks and retain its status as an infallible foundation, because taking other people into account introduces values which are less than self-evident and spoil the conclusive outcome of the more-less logic. (Sen 1982 84-106) It was the method which required the assumption of non-relational individualism. It is only with the work of Sen (esp 1970), Collard (1978) and others that the arbitrary nature of this assumption has been fully exposed. Previously, it remained a tenet of the logicist tradition through Jevons, Edgeworth, Pareto, Slutsky, Hicks, Allen, Arrow and Lancaster. That this approach, allowing a neat determinate consumption map, ignored the social relationships involved in consumption decisions seemed not to worry theorists within this tradition. Logical closure was their concern.

Another assumption was the centrality of the margin, the logical margin, as the locus where decisions were supposed to be made. Yet many decisions are not made at the margin, especially in income-glutted economies where many people do not feel they have to engage in a marginal calculus, but just buy goods anyway. Of course, later logicist theory recognises closed preference sets and "bliss points", but even this modification does not address the deeper issue. Purchases change people; they demand subsequent commitments and even set the terms for later patterns of substitution. Thus, for example, the new owner of an expensive car with high fuel consumption will probably relax his terms of substitution in relation to
petrol, and the overeater will continue that way. This again is an important lacuna in the theory. Many of the most important consumption decisions do not take place at the margin, but much earlier, and a methodological system which is tied to the margin introduces its own bias. Again the centrality of the prescribed logic rules out of consideration consumption activity which may be very important.

It was similar with normativity. Foundational logic knew no norms, except those of utility discrimination; it was anormative and ethically neutral except with respect to the logic of more and less. It was this logic which circumscribed consumption theory and (other) normative prescriptions (for more and less are prescriptive) were banished to the end of the book, ready to be hived off into what later became welfare economics. Here then was the beginning of the chasm between pure theory and welfare judgements, with the latter always seen as ex post and external to the main body of theory. Since we shall observe a number of different is/ought divides, it is worth noting that this one is based on the logical impossibility of drawing normative conclusions from nonnormative premisses. The problem with Jevons and later theorists is the unjustifiable privileged status given to the "logic" of more and less; their chosen logic was impure, but claimed to be whiter than driven snow.

The framework also excluded any need to consider which actual goods and services were bought and consumed. The abstraction from any specific analysis of kinds of consumption was subsumed under the philistine idea that more of anything with positive utility is better. That the economics of consumption does not vary significantly with the items bought is one of the underlying assumptions of this frame, and of much modern analysis. (cf Norris 1941 107-8) Only the variations in the marginal utilities of the subjects buying need to be considered. It is curious to compare this abstract framework with Jevons' very specific analysis of The Coal Question (1865) Here, of course, on the basis of extrapolation he comes to the conclusion that coal reserves will be totally depleted by the demand for coal by 1965 (261-74) It is understandable at this time that these two modes of analysis did not mesh, but it could be argued that this was the origin of the lack of engagement with specific areas of consumption having widely different characteristics which has marked later logicist theory. The rigid abstraction required by the logic of marginal calculations dictated that this was not relevant.

In conclusion, we note that the "logic" of more and less, which is, of course, a conventional logic, has imposed its terms of analysis deeply on the subdiscipline. The "logic" does not fit subjects who have finite needs and physical and cultural limits to their consumption, for whom enough is often enough, yet it has continued to dominate analysis and possibly define marketing strategies. It involves ignoring what people consume, consumer economizing activity aimed at reducing consumption, and the interdependence of goods and services in lifestyle. The presumed foundation in logic has allowed a particular partial and limited mode of analysis to claim to be the central theoretical construct of the subdiscipline. Of course, Jevons merely started out along the trail, but the foundational claims made
this approach into an intellectual empire builder.

These may seem harsh judgements to bring to Jevons work, but they are not addressed to his oeuvre as much as to the direction of this mode of foundational analysis as a basis for consumption theory. Because the logical appeal was accepted as necessary and authoritative, other issues were sidelined. For Jevons the logic of choosing more and less prescribed marginal analysis as the method of the discipline. Because of this foundational vision, the shape of the subsequent theory developed and influenced others, especially Edgeworth, who was also beholden to Boole. (Creedy 1986, Edgeworth 1881, 1891) Without the foundational commitment other possibilities could have been theoretically significant and other paths taken, but they were not.
Pareto's Consumption Theory.

It seems a big jump to move from an English logician and economist to a different tradition in Italy, yet Pareto was a logicist in a similar sense to that of Jevons. The meaning he attaches to the idea of logic is slightly different from that of the tradition of De Morgan and Jevons, but there were substantial links between the Italian and English schools. Pareto's close fellow scholar, Pantaleoni recommended at the beginning of his text on Pure Economics, "the best training in logic for students of economics is supplied by such works as those of A. De Morgan, E Schr"der, J Venn, W.S. Jevons, A Bain, W Wundt, M.W. Drobnisch, J.N. Keynes." (Pantaleoni 1889/1898 7, Pareto 1984 I and II) Pareto's route into logic was a severe alienation from the ideological developments in his own culture, especially socialism. He sought a kind of knowledge which was free from this contamination. Logic gave him a basis for knowing free from metaphysics and without subjectivity, which was scientific and impartial with respect to beliefs and opinions, and which was individualistic in its applications.

At the same time he was a scientist with a fully articulated framework for economics and sociology, and with a background which made him no pale reflection of English logicism. He received a good training in mathematics at Turin Polytechnic, working in his graduation thesis on "The Fundamental Principles of Equilibrium in Solid Bodies" (1869), and in one sense mechanics was his model of good science. He wanted a procedure which would achieve a science, pure economics, which was equivalent as a science to pure mechanics. (1896 I 2) This theme of following the procedures of the natural sciences was much stronger than in Jevons thinking, and it issued in a fully developed understanding of abstraction as a process which is necessary in the study of any concrete phenomena. This abstraction was notional, and simplified, but it was normal to all the sciences in the generation of theory. Pure theory was weaker in the social sciences than, for example, in celestial mechanics, because it corresponded to people's behaviour only within certain limits. (1909 190-1). Thus, Pareto did not expect pure economic theory to be testable or to fit the facts, because it was only a first approximation to reality, and the process of abstraction required an awareness of the limits and stages of theory formation. (1916 II 27-9)

One way into the methodological issues was through consideration of laws in the human sciences; they were obviously different from mechanical laws. But the models which Pareto had for social scientific laws were not very satisfactory. For a while he was influenced by Comte, but Comte's law of the "three stages" lacked any kind of rigour. (Tarascio 1966 30-55, cf Cirillo 1979) He was aware that theorists create their own categories. In this sense he was a "nominalist of the nominalists" and displayed a greater awareness of the limitations of theory than those who used his work. (IEP 1953 172-207) Nor did he believe in any metaphysical laws which are part of the nature of things. Apart from his contempt for the "metaphysicalists", he also had a strongly worked out view of the relationship between economic...
phenomena and theory; the theory must arise from the phenomena, not be imposed upon it. Thus, it was not easy for Pareto, along with many others at the time, to decide what economic laws were. His answer was to claim they were logical in form, and his argument for doing so was quite idiosyncratic.

Pareto's view of logic begins with the actual relations among phenomena, what he calls the facts. These "objective" relations, he argues, cannot but be logical in the sense that they must be consistent with one another, an appeal which Wittgenstein also makes in the Tractatus. (1921 6-17) This allows Pareto to believe that logic is not nominal theory, but something of central objective theoretical validity. However, these objective relations are only sometimes correctly perceived by human subjects. (Pareto 1909 31). Thus they may be either logical or non-logical. If they are the former, then they may mirror the objective relations; they deal with verifiable or real phenomena. Yet still they may only be logical in appearance and not in reality, especially if they deal in imaginary facts. In this case they are theoretically unsound and experiment and observation will in time reveal the error of the theory. Non-logical relations are metaphysical, mythological or self-justificatory in what they posit, and can be ruled out of the scientific arena (Pareto 1909 35). The relations posited by the subject which are non-logical Pareto described as sentiments; they are subjective feelings for which there was no obvious external referent. Included in this category were sentiments of morality, religion, law and custom. (Pareto 1909 38-82) What remains after these are excluded is understandings of the relations between persons and things which are objective, or logical, and which therefore work in daily experience, and this is the domain of economic science. It is objectively assessed, value-free, anormative and logical. Questions of sentiment and value are to be considered within Sociology. This is an astonishing move. By using logic in this global sense, as corresponding to reality, Pareto is able to say that logic is what people actually do in economic life including consumption theory. Having made the assertion, like Wittgenstein, he draws up the ladder he has just mounted and becomes fully foundational. The idea of logic is asserted as characteristic of human economic behaviour and the central method of economic science.

The sense that Pareto had of departing from the old metaphysical way of doing things into a new neutrality comes out most clearly in his debate with Croce. (IEP 3) The latter had an overtly metaphysical post-Hegelian position and is criticized by Pareto for not being scientific and introducing his own metaphysics. Croce's response is a counter critique. To claim economics could be treated on a par with mechanics was, he argued, to ignore the valuations which people made in their activities which were necessarily metaphysical. (IEP3 1953 172, Croce 1966 661-70, 1949 140-52, 1913) It was not possible therefore to make a distinction between hedonism as a substantive philosophy and the scientific logic of economics; egoism and morality are two kinds of orientation to practical economic activity which variously shape what happens. Economic choices must necessarily involve

© Alan Storkey  page 81
valuation and judgement. Pareto's position left no room for valuation. And, claimed Croce, this was a metaphysical postulate:

The accusation of being metaphysical will seem to you the last that could ever be brought against you. Your implied metaphysical postulate is, however, this: that the facts of man's activity are of the same nature as physical facts; that in the one case as in the other we can only observe regularity and deduce consequences therefrom, without ever penetrating into the inner nature of the facts. (IEP3 1953)

Pareto's response to this was to emphasize the process of abstraction which is involved in theory construction and to underline his own commitment to rigorous scientific analysis. But the point was not really answered; his method had ruled out arbitrarily the consideration of the way subjects orientate themselves to public behaviour. In the Manual Pareto's position had hardened into one where valuation was included in the subjectivity of sentiments and therefore excluded from theoretical consideration. How was he able to do this?

The key move was, of course, the identification of economic actions with logical ones and the study of sentiments with sociology and politics. The latter are looking at the effect of events on the sentiments of the people involved. (Pareto 1909 82-3, Finer 1966 33-51) Economics is comprised of logical actions because repeated trials ensure that the subjective relations mirror the reality. Mistakes will be rectified and made logical. Thus although Pareto takes illusory behaviour seriously he concludes that it can be ignored in economics, while being fundamental to sociology. Yet whether the logic of marginal substitution has the converting power in consumption activity which Pareto claims of it is an open question; he seems to acknowledge the opposite.

Men follow their sentiment and their self-interest, but it pleases them to imagine that they follow reason. And so they look for, and always find, some theory which, a posteriori, makes their actions appear to be logical. If that theory could be demolished scientifically, the only result would be that another theory would be substituted for the first one, and for the same purpose; a new form would be used, but the actions would remain the same. (Pareto 1909 95)

He is in a bind. Either actually this sentiment influences and shapes all areas of behaviour and therefore needs to be taken into account in economics, which he will not admit, or the distinction is merely heuristic, allowing "logical behaviour" to be dumped in economics and the rest ejected to sociology. Pareto largely accepts the latter position; so his economic theory seems logical, objective and scientific, but on the basis of being in principle cut off from the way people behave. He establishes a logicist boundary to the discipline, which has subsequently been widely accepted, albeit on this faulty arguing. His own commitment to ejecting ideology from economic theory helped generate this arbitrary conclusion; what is surprising it is subsequent widespread adoption.
The next step was to develop a framework of pure economic theory, and Pareto does this around the notion of equilibrium. The movements necessary to reach equilibrium are "real" and logical; those which lead away are "virtual" and can be treated as incidental. (Pareto 1909 109) Thus a logical map is a ground for establishing equilibrium in the pure theory. The science of economics is to be regarded as pure in the sense that it establishes abstract maps of the relations among phenomena. Because the logical equilibrium was timeless, it was designated "static". Movements of equilibria were dynamic. So the inner core of the logicist model was established. Pure theory was logical and static, because everything which was extralogical was treated parametrically. Finally tastes per se were extralogical, noneconomic and were part of the world of subjectivity and sentiments. Only the logical indices which map those tastes are a necessary part of economics.

Hence the entire theory of economic equilibrium is independent of the notions of (economic) utility, of value in use, or of ophelimity. Only one thing is needed, that is to know the limits of the ratios....(Pareto 1909 394)

He now had a framework purged of metaphysical concepts expressed in mathematical logic which was foundational and pure, despite the weaknesses of the process through which he arrived there.

But this attempt to create a pure foundation for theory had consequences for what could be called the deep structure of Pareto's theory beyond his immediate concerns and the issues of which he was directly aware. One involved a new conception of the boundary of economic science and its relationship (or lack of it) with other disciplines. Interestingly, consumption is on the boundary, because it is the place where subjectivity of tastes and the objective relations of logic meet. Subjectivity consists of sentiments which sit outside the logic of choice as parameters. Thus consumption occurs in two stages, first, the given set of sentiments and tastes which are rooted in subjective desires, and second, the rational calculations which are part of the actual domain of economic science. The former is part of the general category of religion, metaphysics, ideology and sentiments which is based upon asserted but not verifiable understanding, and the latter is a neutral pattern of calculation which can be considered without the interpolation of values. Because other economic activity tends towards consumption, the latter is often conceived as circumscribing totally the boundary of economics with the social sciences. Actually, of course, the purchasing of goods is no closer to the edge of economics than work, investment or trading, yet this dogma of the boundary has become orthodoxy in many texts. Similarly, the identification of values with the study of society and of "objective logical relations" with economic science has become widespread. Thus the relationship between economics and sociology is defined in terms of logical and non-logical subject-matter, which cannot be considered jointly within the same methodological framework. Questions of welfare and interpersonal valuation are really extra logical and extra economic, as
Arrow showed, reflecting this position. (Arrow 1951) Thus, the logical methodology is supposed to show what the edge of economic science is, but because this methodology is (necessarily) contaminated, it goes on to dogmatically define the content of the discipline and what is excluded. Values, ideologies and views of the world, however central to actual consumption decisions, are defined ab initio as outside the domain of economic analysis.

This position has also moved on from the individualism of Jevons to become subjectivist. Persons are excluded from the analysis. "The individual can disappear provided he leaves us a photograph of his tastes." (Pareto 1909 120) Thus the person appears in consumption theory only through the tastes which represent her/his subjective sentiments; otherwise only the logic of choice remains. The subjectivity of tastes, and the fact that they were placed at the edge of economic theory, meant that many causal relationships were removed from consideration. James Mill, for example, had distinguished between productive and non-productive consumption, bringing out the point that much consumption was needed to allow productive activity to take place. Many people do spend a considerable proportion of their income getting, doing and keeping their work; mining estates usually have very good butchers. Yet because tastes have been reduced to subjective sentiments, it is not possible to consider these economic reasons for consumption or other careful strategies which are part of people’s orientation to consumption as part of economic theory. Tastes were beyond the realm of ordered logical analysis and had to be exogenous variables if the framework was to hold. For Pareto this depersonization was a great virtue in terms of supposedly constructing a neutral science; actually it impoverished the base from which theory could be formed.

The framework also established a special meaning to the idea of equilibrium. Pareto’s background in mechanics made him at home with the idea of equilibrium as the solution to problems, and his treatment of "obstacles" was almost Newtonian in conception. Pareto saw equilibrium as not only possible but necessary, because the logic of choice reflected reality and the indifference curves could exhaustively specify the domain. It consisted of the logical possibility of an infinite number of indifference curves, which were linear and continuous. Thus the whole fabric of equilibrium analysis rests on the logical necessity that the set of indifference curves can be resolved, which further rests on the assumption that the individual prefers a given combination of goods to any combination which is infinitesimally smaller and nothing else is relevant to choice. This gives the idea of logical equilibrium as the central concern of static economics its weight. Thus the only consideration of an unstable equilibrium revolves around the situation where two bargaining individuals do not have a unique logical outcome to their encounter. (Pareto 1909 142-5) Because logically unstable trading and maximizing positions are difficult to conceive within this framework, disequilibrium becomes an afterthought for this mode of analysis.

The artificiality of this justification for equilibrium as a behavioural assumption is
evident if we stand back and question it in terms of daily life. In many areas price calculations do not enter into consumption decisions; people do not know the prices of goods they buy, will buy them anyway or have a range of indifference over price variations as high as 50%. If this is the case the "logic" of price and substitution effects is normally indeterminate and the possibility of equilibrium must include other factors like shortage of time, tastes and limited interest; the limitation of the idea of equilibrium to this logical categorisation is therefore a major category mistake. It also excludes from consideration another issue which is an important consumption variable; the extent to which people are indifferent to marginal variations. Inflationary processes may be partly understood in terms of a decline in price sensitivity of consumers. Yet the Paretian model gives a pre-emptive determination of consumer equilibrium which rules this possibility out of consideration. Later in the study we shall examine this indeterminacy more fully.

The logicist approach also meant that the conception of equilibrium was atemporal. Logical equilibrium was instantaneous. Although Pareto sometimes saw logic as the objective realization of the links between means and ends in human behaviour, he normally saw it as a system of preferences. The foundational characteristic of a logic of choice is that it should be supertemporal, it should be necessarily true at any period. Consequently, the theory is developed outside time which is brought in as an unrelated postscript. The definition of static analysis is that which is able to treat temporal matters in ceteris paribus terms. Pareto does not try to establish the process whereby equilibrium might be attained, as Walras did with his t,onnement theory, but merely assumed that the logic was compelling. Dynamic considerations, like having reliable sources of supply, speculation, consumption strategies, life-stage consumption, the influence of mobility on consumption, personal investment policies, bargaining, situational gratification and the interaction of different logics of consumption are all pushed into the shady area of dynamic analysis, about which, as Pareto conceded, (Pareto 1909 104-5 ) almost nothing was known. (Pantaleoni IEP5 1955 26-57) Pareto's method of incorporating time in his analysis was to combine successive (logical) equilibria, but only a few "notions" were available in this branch of theory. When he considers changes in tastes, Pareto has to say that the long-term indifference map may be very different from the short-term one. The necessarily static framework thus comes to dominate pure theory. If the basic equilibrium framework is atemporal, then any temporal elements which are introduced are extrinsic to the analysis. A parallel criticism can be made of the way this foundation cannot take spatial influences on consumption into account either. (cf Frege 1979 148 [1897]) The implications of making logic foundational to economic method and thereby excluding consideration of space-time are so considerable that it will frequently recur. We shall see Hicks in his relationship with Keynes struggling for decades with this issue.

This foundational position also raised the question of how theory should be validated. Here we note the importance of the pure-applied distinction, which
became basic to Pareto's and later logicist thinking. (Baumol and Goldfield 1968 52, 63, 83) Pure theory was assessed in terms of its logical consistency. Its validity was to be understood in terms of formal identities and inference, and it had the qualities of pure mechanics. (1896 II ch1) Testing was not an appropriate way of responding to this level of theory. It was only applied theory which was to be assessed in terms of its interaction with and correspondence to reality. Applied economic theory was like engineering. However, this latter category had a number of problems in relation to Pareto's overall framework which need to be made explicit. Pareto acknowledged that his theoretical constructions were only one way of looking at the phenomena.

When the results of theory pass into practice, we can be sure that they will always be somewhat modified by other results which depend on phenomena not considered by the theory. (Pareto 1909 11)

This later process was messy, but it was also residual, an afterthought to the main business of theory formation. Fundamentally, economic behaviour will conform to the logic of theory, and the basic method of evaluating and establishing theory was a consideration of its logical integrity. Pareto believed he had established this, and he has therefore to be met by the central refutation that his logic was not pure because it asserted one conventional way of viewing consumption. Later critiques which bring post-Popperian views to testing to bear on Pareto's thought are in part working with a different conception of theory testing. (Tarascio 1966, Cirillo 1979) It was in his own terms that Pareto failed.

Thus Pareto was able to construct a position which he believed was objective, logical and free from metaphysics. Although it failed to be these things, it was seen as offering a new way forward. As a result the consequences were adopted into traditions of theory as dogma. It excluded the consideration of interpersonal differences, the consideration of time and space, the influence of personal values and principles, independent personal reasons for consumption, strategies for the organization of consumption, criteria for purchasing and many other potential areas of theoretical development. Yet it gained enough support as an economic method to become a central tradition in Italy with Antonelli, Boninsegni, Barone, Valenti, Supino and Ricca-Salerno. It influenced the Russian economist Slutsky, and then among others had a deep impact on Hicks and Allen. It therefore spread a mode of consumption theorizing which was severely impoverished.
Hicks' Logical Foundationalism.

Because this study focusses more on Anglo-Saxon traditions of consumption theory, the study of Pareto is in part an introduction to the work of Hicks and Allen. Harcourt records that "Hugh Dalton put Hicks onto Pareto because he 'read Italian', so that he was deep into Pareto before he got much out of Marshall." (Harcourt 1986 17) Pareto had a formative role in the position Hicks developed, probably more so than Edgeworth, Johnson (EJ 1913 483-513) and, of course, Slutsky (Allen RES 1936 120-9). Hicks' interest in Pareto was methodological (Hicks 1934, 1939 1-19), rather than philosophical or epistemological. Indeed, during this earlier period Hicks had little awareness in these areas, but merely abstracted from Pareto the technical apparatus of indifference analysis and the foundational conception which was lodged there. The power of this framework had an immediate appeal.

That there are a great many such extensions appears at once when we consider how wide is the variety of human choices which can be fitted into the framework of the Paretian scale of preference. What begins as an analysis of the consumer's choice among consumption goods ends as a theory of choice in general. We are in sight of a unifying principle for the whole of economics (1939 24)

Moreover the foundation of the new method was logic. Hicks contrasts Keynes "superb intuition" with his own "pure logical" method.(1939 4) He saw logical analysis and the survey of economic institutions as comprising most of what economics required. (1939 7) In particular this method involved the purging of ideas of utility from Marshallian analysis, a task which Pareto is decisive in forwarding and which issued in the Marginal Rate of Substitution formulation. The development which Hicks independently pursued was the logical distinction of the substitution and income effects of changes in price, associated with Johnson (1913) and Slutsky (1915). This has, of course, become standard text book analysis. However, it was only a stage in the more logical formulation of demand theory, which was fully completed in A Revision of Demand Theory (1956).

In this study Hicks is uneasily aware of the epistemological gulf between his own tradition and the "econometric" approach to demand theory, which broadly means positivist approaches. In the process of clarifying his orientation he moves behind the substitution formulation to its logical foundation.

The consideration which decides me in favour of the new method, at least as an essential complement to the old, if not as a substitute, is its greater effectiveness in clarifying the nature of the preference hypothesis itself. The demand theory, which is based upon the preference hypothesis, turns out to be nothing else but an economic application of the logical theory of ordering; if we begin from the logic of ordering itself, instead of starting from the geometrical application of it, we begin by getting to our credit a number of distinctions, which will be of much use to us, and will save us from falling into some notorious pitfalls, later on. (Hicks 1956 19)
The foundation seems incontrovertible. Hicks is careful to distinguish between weak and strong ordering; the former allows sets which are not differentiated and is therefore the basis of indifference curve formation. (1956 19-21, 36-46) The assumption of transitivity makes sure that unordered items will not occur.(33) Then, as his logical foundation requires, Hicks focusses on consistency, showing which responses are consistent with changed prices and constant preferences. Using the method of compensating variation (compensating for the income effect) he shows that the logic of choice yields the normal demand curve. The theory is then articulated to consumer surplus, secondary substitution and reciprocity effects to complete a restatement of demand theory in logical terms, devoid of mathematics.

Because the revision is logical it is believed to be of complete generality and benign in its relationships to other formulations. Yet it requires us to accept the logic of ordering. Ordering is a human activity undertaken with the help of certain criteria. A logical ordering takes place when those criteria are consistently applied. But logic has nothing to do with whether one, two or more criteria are chosen. The logic of ordering which Hicks considers is the single one of more and less, but this excludes other criteria of ordering which produce their own logical patterns and will be important in consumption decisions. Criteria of more or less fair, more or less trouble, more or less durable, more or less aesthetically pleasing, higher or lower quality and more or less helpful enter into the way people live and buy. Most families would see the idea that two paintings or two lorries are better than one as ridiculous; aesthetic criteria and nuisance value weigh more heavily than more and less. To put it another way many situations exhibit very weak ordering in Hicksian terms for entirely logical reasons; indifference curves can be very, very thick. Thus, despite its claims, the foundation is not logical, but assertive.

Many of the directions charted by the Paretian approach are also evident in Hicks’ elaboration of his consumer theory, which is primarily conceived in terms of statics. His concern is only with "current prices, prices ruling during the same period as that in which the commodities are purchased." (Hicks 1956 16) The logic of ordering creates a static framework, which rules out what was happening earlier - "his choice may depend, for instance, upon what he was doing previously. From the standpoint of a static theory, such as ours, such decision is a matter of chance." (21) This in part explains the peculiar relationship with Hicks has with econometrics, which is seen largely in terms of analysis of cross temporal data. Hicks seems to imply that logical (static) theory is needed to define the framework for a dynamic econometric approach, and his normal method of dynamic analysis is time period equilibrium analysis, again following the Paretian mould. (1965 58-113, 1975). Thus the logic of ordering means that the preference map is by definition logical, while what goes on between those periods is extralogical, or as Hicks puts it, a matter of chance. Of course, he was too good an economist to be fully trapped inside his position, but its static equilibrium bias on logicist grounds is clear.

The problems with this position and Hicks' ingenuity are evident when we consider
the introduction of income as another potential mode of ordering. If the logic of ordering allows Hicks only to consider current price effects, how is he able to move from the logic of substitution to consider income, which really involves another frame of reference and cross temporal considerations? Hicks avoids this problem by redefining income in terms of the commodities which are being substituted. One of the casualties of this approach is the demise of the concept of income-elasticity; the income-consumption curve is not really the same thing. Hicks has to find a way of logically sublimating income, and he does this by treating income in commodity terms and then defining a commodity as "general purchasing power". (1939 33)

Such a move avoids introducing an actual measure of income, varying from one person to another, to the analysis, but this is not acknowledged within the abstract framework. This, for example, means that how poor people cope with changes is not normally a matter of concern within this framework; it only addresses income as what can be purchased.

There is a similar weakness in the way the income effect is identified. Hicks constructs a move along the indifference curve to a hypothetical point at which the consumer is supposed to be price indifferent, defining the income effect as residual. There are two fallacies here which need examining. The first concerns Hicks' belief in the weak logic of ordering. If P is neutral to Q and Q to P, what kind of relationship do they have to one another? Hicks suggests that because neutrality is reversible, they have some kind of indifferent relationship, but he then assumes this is a relation of ordering (1956 31). Yet this can only be established with a transitivity condition. Here, however, he has a basic problem. How can a transitivity condition which is premissed on the possibility of ordering be applied to phenomena which the subject has not ordered. The transitivity of neutrality which he presumes to have established may be no more significant than the statement that neither pigs nor nails nor beauty are Swiss rolls. All logical attempts to make them comparable must fail, despite the comfort that a full domain of indifference curves gives. This presumption is important because many of the situations which consumers experience are ones where no logic of ordering makes sense. They ignore substitutionary comparisons or do not need any more of one good and are therefore indifferent to a change in its price. It is only the spurious linear picture of indifference curves which rules out these other possibilities and artificially creates the required transitivity.

The second fallacy is more straightforward. It is clearly not valid, when non-ordered items are assumed to be indifferent with respect to price, to treat the residual movement as income effect, because the preferred position is strictly (logically) not comparable to the other in income terms. What seems to be income effect may be other things - a change of convenience, search time, more or less complementary purchasing and a loss or increase in security. A logic of ordering can be good fun, but Hicks assumes the income effect is a statement about the real world. Often in the dynamic situation the fall in the price of a single good reflects falling incomes,
changing exchange rates, the emergence of new alternative forms of consumption or lower quality goods or services which mean that the consumer needs to take other things into account. To say that what is left when the substitutionary effect of changes in relative prices is removed is the income effect is fallacious and unwarranted in real life. Again the weakness of this logical framework is evident.

The move of this position to high orthodoxy in many textbooks over the next fifty years does not need documenting. Many economists have bought this logic wholesale and not considered its foundational weaknesses or the constrictions which it has placed on theoretical development. Often, too, they have only been dimly aware of the difference in the meaning of theory created by this logicist approach. Far more instructive is the development of Hicks himself. This logicist position dominates the early Value and Capital and A Revision of Demand Theory and forms Hicks’ underlying perspective for much of his work. Yet he also wrestled with the limitations of the position and with the challenges which other perspectives brought to his own. The deepest challenge was from Keynes whose underlying epistemology, examined in chapter 4, was very much different from his own.

Hicks faced Keynes theory, probably unaware of Keynes own earlier epistemological struggles. He initially saw Keynes as intuitive over against his own logical approach (1939 4), but soon came to grips with the fact that Keynes model was dynamic with income effects central rather than residual. It challenged the static equilibrium micro and macro models of Value and Capital. (1939 11-111) Hicks initial response was a temporary equilibrium model, and then a growth equilibrium framework. (Hicks 1939 245-282, 1965 58-75, 131-197) This allowed him to see most markets as conforming to a fixprice model rather than the price flexible form, and on this model the adjustments take place through stocks and balances of work in progress. Consequently, the consumer often may not face price changes, but rationing of supply, a salient part of the consumption map which was ignored in the earlier logicist pattern. Hicks also introduced a non-logicist dynamic element to his understanding of consumption when he investigated the way in which future plans and expectations can have a causal effect on the current situation. (Hicks 1979)

Although Hicks has shown a wider perception, especially at the macroeconomic level, of how limited the logicist framework is, it has still shaped much of his theoretical development as it grew from the static logicist equilibrium framework. (Hicks 1985 1-10) His withdrawal from the IS-LM formulation signalled the fuller penetration of dynamic equilibrium thinking into his analysis and indicated the extent of his withdrawal from the primacy of static logical constructs as basic to theory. (Hicks 1980 139-53, Weintraub S 1977) Sadly, it was just undoing some of the consequences of logicism in fixing consumer theory in indifference analysis for decades.

During this process Hicks also orientated himself to positions which were not so far away from his own logicist rationalist basis. He considered the means-ends framework, or the means-objectives framework, as he called it, arguing at first that a
reformulation in these terms would not make much difference compared with substitutionary analysis. Yet he acknowledged that shifts in demand, hardly a peripheral issue, create wider problems. He saw objectives as a level of analysis operating behind the actual demand for commodities which act as means to meet these objectives. Obviously changes in means or objectives interact with the price system, but in a way which would be "very complicated" and lead to unmanageable analysis in applied economics or econometrics. (Hicks 1956 167-8) Thus the rejection of means-ends rationalism takes place on the ground that the logical simplicity of consumption theory would be undermined. Hicks failed fully to empathise with the perspective adopted by Robbins because of his prior logicist commitment.

More intriguing still is the way Hicks relates to the revealed preference of Samuelson, which he ambiguously links with "the econometric approach" and empiricism. (1956 4-7) In Chapter Six of A Revision of Demand Theory he looks at preference in terms of the direct consistency test, and reworks the revealed preference idea of recorded behaviour in terms of the responses of an ideal consumer and whether they are consistent. In terms consonant with the Paretian view of testing he feels "obliged to conclude from this that there is in practice no direct test of the preference hypothesis." (Hicks 1956 58) This is obviously at odds with Samuelson's attempt to move from the actual revealed preferences of consumers to general theory. Indeed, Hicks is somewhat dismissive of attempts to relate to actual behaviour at all, (1956 55) and throughout the impression is of two theorists who, although they come to similar benign conclusions, are operating on fundamentally different models of theory construction.

The dominance of the Hicksian logicist framework during the 50s, 60s and 70s in consumption theory has been marked. Yet gradually the weaknesses and limitations of this base have been exposed. Later we shall examine Scitovsky's move from logicism to a completely different foundation, as he found the logicist framework not addressing important aspects of the way consumers behave. (Scitovsky 1952, 1977) But the problems also arose for those who stayed within the logicist framework. Lancaster recognised one of the limitations of the perspective and tried to solve it in logicist terms. As a result of a response by Johnson to a paper "Revising Demand Theory" (Lancaster 1957), he came to see orthodox logicist theory as asserting that "all intrinsic properties of particular goods have been omitted from the theory....goods are what consumers would like more of... goods are what are thought of as goods..." (Lancaster 1966 132) Many goods, he recognized, were actually bought on the basis of characteristics which they possessed, which were more strategically basic than the goods themselves, like taste, beauty, security. Courageously he set out to reformulate the theory in logicist terms. He tried to move the logic of choice back from the actual commodities to the "characteristics" which generated commodity choice. This focus is different from the view treating goods as instrumental to consumer ends, which we shall examine later, but it does
see beyond the actual choices to some of the strategic considerations involved in purchasing. Because the logical framework now involved different criteria, corner solutions appeared in the indifference mapping, and as soon as multiple characteristics and criteria developed Lancaster found the whole framework crumbling in amazing complexity. Because the logicist framework had to be unidimensional, it could not cope with the complexity of the analysis. Yet uneducated consumers handle this problem every day with the simple idea of priority. When one accepts that consumers can have competing criteria of value, each with its own logic, the logic of ordering becomes unrealistic as the necessary framework for consumption analysis. (Lancaster 1966, 1971)

Gradually, the sterility of this framework and its lack of contact with the real world of consumption has lost it adherents. At the same time there are still many economists who have grown up within this framework and cannot escape, because they have not yet defined what it is which grips their theoretical development and claims their loyalty. In view of this it is worth examining the problems more systematically.
The Structural Problems of Logicist Consumption Theory.

Logicism thus constitutes a foundational drive in consumption theory which has deeply influenced Jevons, Edgeworth, Pareto, Pantaleoni, Slutsky, Hicks, Allen and Lancaster. It claims to establish an indubitable logical basis for the development of well-formed theory, but actually it has failed to validate that base and the consequent development of the theory has been flawed. The theoretical problems which it has encountered are structurally related to the logical foundation, and in summary we will identify the links.

The authority of pure or formal logic as self-evident rested on conclusions being necessarily the case in all possible worlds. This incontrovertibility made its statements seem uncontaminated by dissent or the possibility of seeing things different ways. It gave such knowledge appeal as a foundation for scientific work. If the incontrovertible base could be constructed, free from controversy, then sound and well-formed theory could be built on it. Yet this certitude was not available in reality. "A is not non-A" is based on particular symbolic conventions. Any propositions which were theoretically relevant had to import assumptions. Either the "logic" was certain, but cut off from the world which it must claim to address, or it was contentious, but without acknowledging its assumptions. What actually happened was that the dogma of constructing consumption theory around the logic of more and less was not properly faced. The foundation was not incontrovertible, nor was it discussed and subject to analysis, but stayed as an unstated dogma standing over against other positions.

When this problem was embodied in consumption theory, it was normally expressed in the form of a disjunction between pure and applied. Whatever logic is constructed is deemed to be pure theory, and incontrovertible as the basis of theory as a result. Indeed, the use of the word, "pure", has been characteristic of all the economists in this tradition. In another category, because it brings in assumptions about the real world, is applied theory which is really seen as a residual. The importance of the category "pure" in consumption theory is immediately evident. It is conveyed by Pareto.

First we separate the study of ophelimity from that of the various forms of utility; then we direct our attention to man himself, stripping him of a large number of accretions, ignoring his passions, whether good or bad, and reducing him eventually to a sort of molecule which is susceptible solely to the influence of the forces of ophelimity. By following this procedure we shall achieve a science: pure economics, equivalent as a science to pure mechanics." (Pareto 1896 II 2)

It betokens the process whereby ideology, subjective understanding, metaphysics and philosophy are supposedly cleansed out of the subdiscipline, which can then become uncontaminated science. This is the drive evident throughout the tradition, yet it fails to achieve the uncontaminated science and actually impoverishes the
theoretical responses which can be considered.

Indeed, the logic is routinely flawed. One of the key assumptions is transitivity. In any consumption domain, if A is preferred to B and B to C, then A must be to C. This foundational, seemingly self-evident, assertion however only holds provided a single logic of preference is used. But this is actually a very restrictive assumption, certainly one which has no logical status. When consumers have different dimensions of preference, like time-saving, aesthetics, fitness, saving money and buying something which lasts, then A<B<C<A is not only possible, but likely. This is one reason why consumers are often unsure about what to buy; they are not being illogical, but using different logics. Health warnings attached to goods can effect sales substantially by appealing to another preference set. Ice cream does not sell well on a cold day, however good it tastes. Any open consumption theory must allow multiple criteria, or logics, of choice.

The assumption of complete specification of the choice set which follows from transitivity, similarly asserts on the basis of an assumed logical necessity the possibility that consumers are fully able to map goods in single logic preference terms. Yet the possibilities are wider; the rich seldom have to make a preference choice, but widely use the logic of both/and. Most of us find preferential comparisons of goods with radically different characteristics difficult. Indeed, much advertising aims to teach completeness; third world aid compares the trivial levels of luxury consumption which it is necessary to forgo to keep people alive, because it seems people do not make the calculation. A holiday is advertised through the small number of meals which would purchase it, presumably because people have an automatic luxury category which otherwise rules it out. The size of the comparative domain is itself an interesting subject of study, which should be part of consumption theory. Thus the theory prescribed is defective and limited, ruling out possibilities which should be considered.

In order for a position to be dogmatic, it must see itself as non-dogmatic, and this is exactly the pattern which logicist theory displays. Because the logic of choice is completely general, it is not possible for a consumer's actual or observed choices to be inconsistent with it. (Green 1971 25) How could such generality raise any objections? Introducing later more limiting assumptions means that they can be questioned and contradicted, but against this incontrovertibility. Other approaches to consumption theory which start elsewhere than with this kind of logic of choice are assumed to be of peripheral relevance, and relegated to later stages of applied analysis. Further the considerations which weigh most heavily are those of self-evidence and consistency in theory; its relationship to the subjects of the theory may be tenuous, and usually are.

Its relationship with other disciplines is also compromised. The exclusion of values and tastes as subjectivity by Pareto began a tradition of seeing pure consumption theory as hard and rigorous science, compared with soft sociological and
psychological studies with which consumption theory had no inner connection. When Scitovsky breaks with this model he has to describe it almost in terms of a pilgrimage and conversion. (1976) Within this tradition therefore there has been little commitment to the study of the social, psychological, aesthetic and ethical life of consumers. More recent studies which have recognized how important they are have had to break through walls of indifference.

At its deepest level this mode of analysis has also lost touch with the lives of the consumers it is studying. This is not merely because a person becomes Pareto's sort of molecule, or in Veblen's terms, "a lightening calculator of pleasure and pains, who oscillates like a homogeneous globule of desire of happiness..." (Veblen 1915 73-4) It is more because the scientific mode of validation of theory, its logical reference point, has no inner point of connection with the lives of consuming subjects. The foundational logical form which must be imposed on the domain of analysis requires the elimination of norms, time, space, persons, faith and priorities. In the failed search for neutrality the analytical framework becomes anormative, not as an exclusive barrier, but as a disinterested framework. (see Sen 1987 1-28, 1982 74-106) Most important in subsequent theory is the way Pareto optimality requires the prior operation of the individualised logic of more and less before any normative issue is allowed to be considered. (Monsma 1984, Arrow 1951) All wider issues of justice, social responsibility, ecology and the use of consumer power do not even appear on the agenda of this approach.

Nor are these social dimensions external to consumption activity. It is merely that the logicist logic of choice is premissed on a person-thing relationship, and rules out of consideration person-person relationships, because these are too complicated to be incorporated into a logic of choice which offers mathematical resolution. Interpersonal comparisons have been the subject of a large literature in welfare theory, although within a framework stifled by Pareto optimality and other assumptions brought from this logicist framework, yet really much of it belongs in consumption theory. So little notice has been taken of the fact that care for other persons is one of the big motivators for consumption; concern for others - medicines for the ill, presents for friends or journeys for company - constantly shape what people buy. Yet because these relational networks cannot possibly be taken into account within a single-valued logic, they are ignored. The altruism literature is a healthy reaction to this constriction, but it is a reaction. (Collard 1981 xiv) Similarly, if the persons buying and selling form a relationship of trust, it may override the logic of more and less. This bracketing of the presumed ubiquitous logic, which may occur in 10-20% of transactions in some societies, cannot be acknowledged by the foundational position. Another person-person choice is the collective decision, often taken politically, that services should be corporately provided free or at subsidized rates. The logical analysis of these situations also cannot be made in logicist terms. (Sen 1982 109-200, 264-81) A logicist framework therefore rules out all these and other interpersonal considerations which deeply affect consumption behaviour.
The result is otherworldly theory. This can be appreciated in the drive to extinguish the word, "value", from logicist consumption theory. It is subjective, ideologically loaded and open to dispute, and therefore it should be omitted. Weak and strong systems of ordering have so abstracted from time, income, wealth, family, work, age, location and all the other things which influence people's consumption choices that they have little relevance or point of contact with people's daily consumption. Further, because pure inference has only limited possibilities, it does not touch the deeper issues of consumption which people can recognise but not logicize. Thus, the foundation generates its own implications, which have formatively shaped the development of these theorists and have gradually become evident. These implications for consumption theory have been largely unrecognized by the optimists who set out to formulate a neutral and scientific kind of theory in the early stages, but gradually the internal implications of the position adopted have become more recognizable, because this kind of theory has nowhere to go. Sadly, a similar pattern is exhibited in other foundational traditions.
Section 2 The Formal Rationalist Tradition.

Its Origins and Development.
This tradition is less neat than the one which we have just been examining. It does not have such a straightforward national home, and although the pivotal figure of Walras is no less important than Jevons, he did not have as developed an epistemological awareness as the latter and there is a greater need therefore to interpret the perspective from which he and later theorists in the same tradition were working. There were also two roots which were somewhat distinct, a kind of systematic French deductivism which grew from Cartesian roots and Kantian a priori rationalism, of a kind no longer found in Germany in the 19th century. In order to obtain a clear perspective on this tradition is as well to work with the pebble in the pond analogy. Kant's Critique dropped in the water in the 1780s and the ripples spread. At the centre in Germany other Hegelian and Idealist emphases developed which will be more our concern in the next section. Our interest now is in the ripples, and especially as they spread into France.

First, we look at the water before the ripples arrived. French culture had a number of facets which are relevant to this foundational view. Descartes' Discourse on Method focussed on epistemological issues and had a deep impact on French ways of thinking. Protestant commitments to science also shaped a part of French culture from the Huguenots onwards. Especially important was the contribution of Malebranche (1638-1715), whom Pribam describes in the following terms.

Malebranche was a disciple of Descartes, but in his work De la recherche de la verité (1675) he modified the Cartesian philosophy by combining it with some features of Augustinian Neoplatonism. According to his epistemology, true knowledge could be derived only from cognizance of ideas existing in reality in the mind of the Creator, whose concept of an ideal universe had been materialized in the actual world, though in an imperfect form. Malebranche attributed to the human mind the faculty of grasping this ideal conception through a form of intuition. (Pribam 1983 103)

Pribam introduces Malebranche because of his influence on Quesnay, who similarly believed in an ordre naturel which represented God's objectives for humankind, which could be demonstrated geometrically and arithmetically. This conviction was reflected, he suggests in the mathematical character of the Tableau Economique. (Pribam 1983 103-4) Thus, French philosophical thought and the Physiocrat school of economic thought represented an approach which looked for an overall grasp of an ideal world, originally approximating the mind of the Creator, but later just expressed in secular, mathematical terms. Although the more specific doctrines of the Physiocrats dropped away at the end of the 18th century, the underlying rational mathematical methodology remained an important part of French consciousness.
As the ideas of Kant spread the primary message was the epistemological interpretation of the Critique. As opposed to metaphysical speculation which came to unwarranted conclusions, here was an approach which addressed the basic categories in terms of which well-formed thought was possible. Alongside the heaving mass of opinion which characterized the revolutionary period there were those who held to a scientific commitment, and for them setting out the basic rational and mathematical conditions of thought was crucial. Thus Humboldt felt as early as the 1820s and 30s that the atmosphere in Berlin was unscientific and felt a more congenial response in Paris for his scientific work. When Kantian epistemological emphases spread to France they therefore hit still water. There were groups of scholars who were tired of ideological claptrap and wanted to establish the underlying rational structure of the world in keeping with the kind of ideas represented by Descartes, Malebranche, Quesney and now Kant. One such group involved Cournot and Auguste Walras, and this is our longer term concern. First, however, we must explore in more detail how Kant's Critique gave a foundational vision.
Kant's A Priori Foundational Vision.

Although there is much discussion over Kant's philosophy in detail, the driving commitment of the Critique of Pure Reason is clear. He wanted to rescue human reason from the complexities and contradictions which had arisen from the endless controversies of metaphysics. The use of reason had become confused and confusing, and Kant wanted to re-establish it on a firmer footing. His way of doing this was to examine the faculty of reason in itself, independent of the experiences on which it usually works. This stance of examining reason per se was accompanied by a determination to pursue only certain understanding and the objective validity of a priori concepts. Already many of the stances of what has here been called foundationalism are in place. Kant sought to avoid routes which were ideationally dogmatic, that is, which were not based on pure concepts. The emphasis on pure reason underlined the necessity of not having thought contaminated with ideas which had a metaphysical origin. The route to well-formed reason was through an agnosticism about the content of thought and a concentration on the process by which thought was constructed; this was the transcendental route. Further, he was concerned about a universal mode of reasoning irrespective of the matter considered. Thus, the underlying intention of this great work is to establish the valid foundations on which a priori knowledge can be constructed. It is, before its time and before the development of specific human sciences, following a foundationalist agenda. (1787 7-67)

Unlike those in the Empiricist tradition Kant anchored knowledge, not in external givens, data or sense experience, but in rational activity. The priority of a priori knowledge, especially synthetic a priori knowledge, was fundamental to his epistemological position, but he was also insistent that this kind of knowledge must be held together in an absolute unity which he followed through in the Transcendental Analytic. (Kant 1787 102-256) This created two possible foci which are important to later interpretations: the structure of rational thought itself or the human subject as a rational actor. (1788) The first, and major theme, focusses on the rational categorisation of the theorist (the economist). He is not concerned with external givens, data, or whatever, but with the coherent understanding of (economic) phenomena within a framework which observes the necessary conditions for knowing. There can obviously only be one such framework, otherwise it would not be necessary, and its synthetic a priori conditions are the sine qua non of (economic) thought. Economics is an epistemic system at its foundation. This is the position described here as formal rationalism. The other possible focus is to explore the rational categorical world of the (economic) subject - the consumer - rather than the economist. The subject is then perceived as an inescapable rational unity whose decision-making is carried out within the necessary a priori rational framework. This subjectivism was important in the Austrian School and received its most extreme statement in the foundationalism of von Mises (1960, 1963, 1978) This expression we shall examine more fully later as the third rationalist tradition of
means-ends rationalism. It presumes to establish as a basic categorical framework the rational calculations, seen in means-ends terms, of all economic actors including especially consumers. In this section we focus only on the first theme and its formal rationalist articulation.

Kant's position was, as has already been noted, crucially a transcendental one. He stood back from metaphysical dogmatism, the content of knowledge and of science to ask what the necessary conditions of knowing were, irrespective of its content. The power of this process of discrimination was evident in its later foundational use in economics. It was translated in roughly the following terms. The primary concern of the discipline of economics is not with the content of the theory, but with having the correct epistemic framework. This is the necessary basis for well-formed knowledge, and all that is carried out within the discipline should conform to this pattern. The validation for inclusion within the corpus of well-formed knowledge was the necessary truth of the fundamental laws on which the discipline was built. (Kant 1781 138-40, or 170-3) The corpus of the discipline was therefore given in a necessary foundational form by these fundamental laws which were perceived through synthetic a priori intuition and were therefore beyond question when their necessary status had been established.

Crucial, too, to the Kantian position was the identification of pure categories of thought. The Kantian distinction was more careful than the crude contemporary distinction in economics between pure and applied. Pure thought involved establishing the categories in which experience had to be expressed; these categories were themselves irreducible. Thus, synthetic judgements were necessary and provided a fundamental distinction between the necessary structure of thought and its proximate content. In this sense the distinction was one between form and content, where the latter gave phenomenal knowledge. The basis on which the pure foundation was to be judged was not some higher and more universal mode of knowledge, because there is no such objective ground of proof. (1781 188) The principle of non-contradiction is a conditio sine qua non for the validation of the pure categories of thought. Kant interpreted this principle analytically. (1781 190-1) The principle of non-contradiction is thus the foundation on which the synthetic a priori categories rest. The system is validated by internal consistency; by implication this is the basic ground on which economic theory is to be judged.

The position is also non-normative. Phenomenal thought is able only to handle thought about appearances and cannot penetrate to the thing in itself. But this has as its corollary the conclusion that the noumenal is not intelligible from within the phenomenal framework. (1787 272) Since Kant identified the noumenal with judgements, imperatives and the moral law (383, 471-3) one result of adopting this framework is to declare moral considerations non-intelligible in phenomenal terms. Or, to put it another way, since the will acts on the basis of judgements made through transcendental reason, its oughts are not amenable to phenomenal

© Alan Storkey
analysis. The themes of the Metaphysic of Morals and the Critique of Practical Reason (1785, 1788) remain inaccessible to this framework. Personhood, morality, will, values, choice, conviction fade out of the picture. It is important to distinguish this form of is-ought division from the ones generated by other foundational positions. The ought becomes an inner judgement which is not accessible to phenomenal investigation and to handling in terms of synthetic a priori categories. Since these include time and space the problem is not just that the ought cannot be comprehended by sense data, but the deeper one that the structure of thought which handles appearances cannot penetrate to the moral ought. This form of rejection of the normative shapes the subsequent economic response decisively. (The Austrian School is again more concerned with the judgements of the acting individual and departs from this tradition in eschewing systemic neutrality and relating to moral decisions in a different way.)

This approach also provides a blueprint for the conception of economic theory. Rather than theory being a set of assertions made on the basis of various assumptions which are tested against data or experience, the Kantian approach implies that the theoretical framework is pure and has not yet engaged with the issue of data, specific content, assertions about experience and phenomena. The Austrians, Amonn and Strigl developed this orientation into the concept of the data-circle, where all the confusion of historical, psychological and political conditions are made into parameters which allow economic relations to be treated as invariable. (Amonn 1911, Strigl 1923, 1937, Menger 1889, Pribam 1983 420) Thus, within the pure theoretical framework external testing remains unmeaningful and refutation has to be systemic. The crucial distinction is between the necessary laws which hold unconditionally and are treated a priori within the system and the conditional concepts which are adduced from experience. Counter examples of the latter by no means invalidate the former.

Another key element in this approach is the fact that mathematical understanding within this framework is synthetic not analytic. Kant explains this to be true of all mathematical judgements without exception (1787 52). This is a marked contrast the logicist tradition and its emphasis on proving the pure analytic basis of mathematics, especially in the work of Jevons, Boole, Russell and Whitehead. The Kantian view, although it also denies any empirical content to pure mathematics accepts the necessity of synthetic a priori intuitions which may be part of the necessary foundation of the discipline. It leads explicitly to the acceptance, therefore, that economics may be in its very foundation a mathematical science, especially if the latter provides the necessary categories of thought. This tradition therefore often gives primacy to mathematical over logical formulation. We can further note that the view of mathematics most congruent with this approach is the axiomatic formalism of Hilbert, Fano, Fieri, Allesandra Padoa and others. Obviously this postdates Walras, who relied on Cournot, Fourier, Helmholtz, Isnard and Piccard, but they were already moving in this direction. The axiomatic view of
mathematics focussed on establishing the consistency requirements of the system and included the kind of pure-applied distinction which we have already examined.

Finally we note that Kant in resolving Hume's basic problem of causality is able to consider the sequence of appearances and the alterations which take place in phenomena, but within the context of a law of cause and effect which must be a priori. (1781 218-33) This makes causality part, but only part, of the synthetic a priori framework which provides the necessary conditions for structuring economics; it is one of the conditions of thought and not that which is externally given to which the thinker responds. The tendency of this position is therefore to ignore causal patterns which are not contained within the theoretical framework of analysis and to remove other factors as parameters.

Thus, in summary, the key philosophical moves made by this position were as follows. First, it remained detached from positivism by insisting that all thought required categories and frames of reference which are a priori. Second, it retained the Kantian belief that the ding-an-sich was not accessible to human reason except through phenomenal analysis, thus distancing itself from all forms of realism, absolutism and metaphysics. Third, rather than seeing logic and mathematics as only analytic, and therefore without content, it saw them as in essence synthetic and therefore as part of the phenomenal process of making statements about the world. Fourth, it was not subjective, but concerned with the objective categories which frame its construction of the world. It retained the Kantian belief in the validity of the Transcendental Critique and the establishment of categories of understanding which were necessary ground for all phenomenal study. In this sense it claimed to be scientific and to construct the necessary framework for theory. Fifth, the criterion for judging the framework for thinking was its synthetic unity or inner consistency; the a priori system was a framework which was comprehensive and necessary, within which the testing, evidence and observation took place. Finally, the relation of the system to detailed theoretical work was the movement from pure theory to application. The pure-applied distinction is thus different from the logicist view of analytic-synthetic, because on this view both the pure and applied are synthetic and make statements about (economic) reality.

This delineates some of the characteristics which the Kantian framework might be interpreted as having for those engaged in the development of economic theory in a context where a foundational epistemology was required. The question arises as to whether, and in what way, this framework was grafted into the discipline. If it was, as is argued below, the resultant branches should display the characteristics of the parent twig. Before we examine the case in more detail, we must note that the model can be transmitted philosophically or in an embodied form.
Cournot and Auguste Walras.

Léon Walras was born in Normandy in 1834 and grew up trained for an academic or, more accurately, scientific career. His father was a committed social scientist and by 1858 Léon had decided to follow Auguste's direction. As Jaffé explains, there are two generations of continuous scientific activity in Léon's work. (Jaffé 1983 20, and 17-51) In both generations burned this commitment to making economics a mathematical science. This was not just a family thing, but a wider cultural phenomenon. Comte was also pushing the idea of a science of society, but since the founding of the Institut de France in 1795 there had been a flowering of French scientific endeavour. The Académie des Sciences Morales et Politique, the …cole Polytechnique and other Institutes reflected this commitment to science. But what kind of science? There were many on offer, some positivist, some socialist and some just triumphalist. Yet within this melange there was a tendency mixing Cartesian views of philosophy and science, a love of mathematics and a filtering of epistemological Kantianism which took root in Cournot and Auguste Walras.

This tradition was weak beside the ideological conflict which took place in France in the early 19th century between the conservatives, liberals and socialists. The Physiocrats had collapsed before the Revolution. Say and Condillac inspired a group of conservative economists, centred round the Société d'Economie Politique, founded in 1842, which had a theory of value focussed on exchange, utility and scarcity. (Pribam 1983 190-2) Dunoyer, Bastiat, Guyot and others defended a liberal competitive economy, (Ingram 1888 158-75, 286-92) while Simonde de Sismondi, Blanc, Proudhon and Saint-Simon developed the socialist attack on private property. (Pribam 1983 196-200) These disagreements were seen by Auguste Walras as a debate which inhibited the proper opening up of economic science, and he was therefore largely an outsider in the positions which dominated the orthodox confrontations through the middle of the century, and Léon even found this outsider role in part prevented his academic employment in France.

Léon was clear that his debts were to his father and Cournot. Because his own epistemological thinking was not well developed, much of what he picked up in this area he owed to them. Since his father had followed Cournot's work closely more or less since they were at school together, the latter's perspective was crucial. Cournot represented part of this penumbra of formal rationalists, indirectly influenced by Descartes, Leibnitz, Malebranche and Kant. He gained mathematical awareness from Fontenelle and LaPlace, and Condorcet's Mathematique Sociale opened up the possibilities of wider mathematical implications. His key work, especially in its influence on Walras, was Recherches sur les principes mathÉmatiques de la thÉorie des richesses.(1838) Apart from developing the theory of demand, monopoly and trade away from the classical concerns towards a price centred formulation, the book seeks to establish a near foundational role for mathematics in economics.
Basic to Cournot's views was the distinction between form and matter. This, of course, has its origins in Cartesianism, where mathematics was considered more important than logic. Intuited mathematical truths were seen as certain and self-evident forms of rational understanding, which could be universally established. Descartes' philosophy also contained a thoroughgoing materialist view of cause and effect. In an extended study of Materialism Cournot looked at the various causal processes which are discussed in the material sciences, and especially considered the way in which chaotic states of affairs settle down into an established order. (Cournot V p50-1) Recognition of this order was the basis of scientific activity. Cournot made a fundamental distinction between absolute, necessary truths and those which were contingent and the result of observation. The former was the domain of pure reason and was firmly distinguished from experience, which was gathered later.(160-6) So with a combination of Cartesian, Leibnitzian and Kantian themes Cournot built up an epistemology which involved establishing the mathematical form of knowledge, and then gathering the material which would give it detailed, or applied, content. His contact with LaPlace and Poisson gave him a firm grasp of the importance of statistical inference, but always within the governing or universal principles of understanding. (Recktenwald 1973 171-89)

Even more interesting in view of the tradition we have just examined was Cournot's firm disjunction between rational order and logic. Rational order abstracted the important from the incidental, the essential from the accidental and opened up pure understanding. Logic, however, was just a technical apparatus for ordering the thinking and had a less foundational role. Cournot saw rational order as the basis from which phenomena were identified and saw the ability of thought to penetrate beyond appearances as important; he was not too far from the later idealist distinction between appearances and reality. In this sense Cournot was a foundationalist. He saw rational thought as creating the architecture of the sciences, as having this central ordering role, and he criticized the positivist view which saw the metaphysical or philosophical stage as being transitory and immature. (V 208-16) Although he was deeply interested in substantive issues, he had a faith that reason could uncover the basic order of a science in a formal mathematical way, which could and should act as the foundation for disciplinary work. (Cournot II 378-400) It was in this context that Auguste's work took shape.

Auguste's position had a number of similarities. First, he was opposed to the Physiocrats with their mechanical view of the economy. In contrast to them he espoused a much more rational view which aimed to elucidate the structure of the economy. Second, he was very much caught up by the ideological conflict of the era between the Socialists and Conservatives. He could see the irreconcilable conflict between the two positions, and his aim became to transcend these by giving economics a scientific base. Third Auguste adopted a certain stance towards the treatment of economic phenomena. His method was to look for the ultimate meaning of an important economic category. This is very evident in his treatment of...
the problem of value in De La Nature de la Richesse et de l'Origine de la Valeur. (1831) Here he identifies the meaning of value in the idea of scarcity and sees it as the necessary a priori concept for the discipline. Jaffé comments.

The question of the ultimate source of value in some absolute, rather than relative sense, loomed large in Auguste Walras's mind because of his point of departure when he turned from philosophy and law to economics (Walras 1908, 171-2). His interest in economics was first aroused when he attempted to clarify the concept of property in order to meet the challenge of the socialists of his day who were denouncing the institution of property with more vehemence than understanding. Seeking guidance from economics and not finding it there, he came to the conclusion that both property and value in exchange have a common origin in the limitation in quantity of certain objects of desire. (Jaffé 1983 100)

That is, Auguste went for the underlying concept, a process close to the procedure of establishing the synthetic a priori categories of analysis, or the universals of economics. Cournot similarly pointed the way beyond relative appearances to the deeper point of reference and defined the problem as one requiring an absolute frame of reference for knowledge. (V 197-202). Auguste also saw mathematics as basic to the new science of economics in a foundational sense. It provided the necessary framework for the discipline and was to be understood in terms of offering proof of the underlying validity of the economic framework.

The epistemological architecture of the …lÉments now becomes clear. In the tradition of Cournot and his father, LÉon constructs the synthetic a priori architecture for the discipline, expressed in a mathematics which is synthetic rather than analytic, and organised around the principle of scarcity. Jaffé mentions the note he found where Walras had scribbled, "I am not an economist, I am an architect; but I know economics better than the economists do." (Jaffé 1983 129) This structure is seen as universal, representing the pure, permanent core of the discipline to which contingent varying observables were loosely related. The view is foundational; it does not recognize an alternative view of the economy to be necessary or open to consideration. It prescribes a certain kind of knowledge, defines methods, creates boundary conditions for the discipline and in the end produces its own kind of otherworldliness.
LÉon Walras' Formal Rationalism.

The traditional view of Walras focusses on his development of general equilibrium theory and the marginal revolution. The interpretation here suggests these developments were subsequent or secondary to the main agenda, which was to establish the foundational framework of the discipline. The system of general equilibrium is important, but important as a way of reconstructing the disciplinary framework, rather than as a statement of what the economy was like. The general system was not only general in the sense of providing a comprehensive set of equations which covered all the phenomena which needed to be taken into account, but also in articulating the framework which was the necessary rational basis of the discipline. This, perhaps, was Walras view of the major significance of his own work. (Walras, 1874-7 Preface)

Let us begin by sketching the argument of the Elements of Pure Economics. Walras is concerned initially to define the science of political economy. He judges Smith to be wrong in focussing on aims, for a science must pursue pure truth with an indifference to consequences. Smith's definition sees political economy as an art, and therefore misses the scientific point. But Walras similarly criticizes Say for seeing the discipline as a natural science which is seen as taking place independently of the will of man. (1874-7 54) This view, growing out of the Physiocrats' naturalism, does not face the issue that man is endowed with reason and freedom and acts on nature in an obvious and important way. Walras then focusses more directly on science, art and ethics. Science, we are told on the authority of Plato, "does not study corporeal entities but universals of which these entities are manifestations. Corporal entities come and go, but universals remain for ever. Universals, their relations, and their laws are the object of all scientific study" (61) Specific sciences are defined by the subject matter they study. He thus steers his way through Smith and Say to his version of the science of political economy, rather crudely using Plato but working within the epistemological framework of his father and Cournot.

Phenomena which are studied are either natural or human; the study of the former constitutes pure natural science and that of the latter pure moral science. But there is another category which examines the relationship between persons and things, where the human will is exercised over things in a complex of co-ordinated activities, similar to Cournot's sciences of combination. (Recktenwald 1873 181) It is also different from applied science or art which is seen as the process of bringing the human will to bear on natural forces. Economics is a science within this category, concerned with the relationship between people and things. Science, art and ethics have the respective criteria of truth, usefulness and goodness or justice; economic science is therefore dissociated from the latter two criteria.

Walras then goes on to identify the a priori concept which is basic to the study of social wealth and therefore economics. Scarcity is generated by things which are
useful and in limited quantity. It is the synthetic a priori concept on which the whole of pure economics is grounded, the universal of economics. Because the scarcity of things is registered in exchange value, theory is also fundamentally mathematical, not in an experimental sense, but sui generis. Through mathematics the pure theory can be constructed which is then applied to the whole system providing the solution to the theory of exchange. This pure theory is foundational and is to be followed by a consideration of how in practical terms industry pursues production, the division of labour and technology, thus providing the applied science which follows the pure. This précis of his argument uses some Kantian categories, just as Walras did, but his epistemological position is hardly philosophically aware.

He was driven by the conviction that the approach to economics should be rational, should follow the methods of the physico-mathematical sciences and be purged of the dogmas of ideology and metaphysics. The central task was the construction of pure theory, because pure reason was the basis of knowing. This position is strongly stated in the following section.

this pure theory of economics is a science which resembles the physico-mathematical sciences in every respect.... The mathematical method is not an experimental method....... From real type concepts, these sciences abstract ideal-type concepts which they define, and then on the basis of these definitions they construct a priori the whole framework of theory and proofs. After that they go back to experience not to confirm, but to apply their conclusions. Everyone who has studied any geometry at all knows perfectly well that only in an abstract, ideal circumference are the radii all equal to each other and that only in an abstract, ideal triangle is the sum of the angles equal to two right angles. Reality confirms these definitions and demonstrations only approximately, and yet reality admits of a very wide and fruitful application of these propositions. Following this same procedure the pure theory of economics ought to take over from experience certain type-concepts, like those of exchange, supply, demand, market, capital, income, productive services and products. From these real type concepts the pure science of economics should then abstract and define ideal-type concepts in terms of which it carries out its own reasoning. The return to reality should not take place until the science is completed and then only with a view to practical applications. (Walras 1874-7 71)

Despite the rather loose philosophical base, it is clear that Walras' concept of pure economics is quite close to the Kantian conception of pure reasoning. This has as its corollary the necessary nature of the pure concepts, obtained through a process of a priori analysis, and the fact that counter examples are not seen as a basis for invalidating the framework, but merely for redefining the phenomenal content of the study. Applied economics means practical both in Kant's ethical sense and through studying detailed social economic issues. These themes were covered in …tudes d'economie Sociale (l896) concerned with social ethical issues like communism, individualism and land nationalization and …tudes d'economie politique appliquÉe.
(1898) which focussed on policy issues like the monetary standard and stock exchange speculation. This distinction between pure and applied is different from Pareto's, who disapproved of the "metaphysical" content of the latter two studies; Walras' "practical" was mainly ethical/social, not empirical. His underlying commitment to the pure theoretical structure of the discipline cannot be overestimated. Many economists have automatically picked it up without any reflection on what this implies for their theoretical work. It stands or falls on the possibility that basic synthetic a priori categories can intuit the underlying realities of economic activity and express them mathematically.

This framework explains, too, the abstractness of the Walrasian model. It is a programme which withdraws from changing details to identify the underlying form. Once value in exchange is established it becomes a natural phenomenon, a set of objective mathematical relationships which are potentially universal in their application. Thus the form of the Elements is essentially one of theorem and proof. Establishing the mathematical necessity of the theoretical structure was its process of validation, and the prime methodological requirement of the system was the solution of the equations. This explains the care that Walras took to eliminate anything which seemed like an arbitrary assumption. In his correspondence with PoincarÉ and his agonising over the cardinal utility assumption Walras was aware of this problem and aware of why it should be so important to him. (Jaffé 1965 III 161-2, Jaffé 1983 213-20) He had not yet worked through to the solution which his system demanded, namely that the definition of utility should be independent of any specific valuation and therefore of "universal" significance. To assert that satisfaction was capable of being measured was arbitrary in precisely the way Walras was seeking to avoid. PoincarÉ gave him the route of bringing everything under the universal principle of scarcity and maximization, expressed mathematically.

If mathematics was to be the basic form of the system, it had to be solvable, which required equal numbers of equations and variables, a very arbitrary convention unless one is solely concerned with a mathematical solution. This raises the question of what the relationship is between a mathematical solution and an economic one. The Walrasian system assumed an identity between the two because the calculus was taken to represent the functional relationships of scarcity which constituted the economy. But how valid is this assumption? The functional relationships involve traders and patterns of exchange and the variables are prices and commodities; using one price as numÉraire the equations and variables produce a solution, which is consistent with equilibrium, although it might imply no or multiple equilibria depending on the conditions and variables. Much of the mathematical energy in Walras' work and subsequently has focussed on whether there are stable equilibria, but a question underlies this. When do marginal conditions operate in economic decision-making? The answer is probably some but not all of the time, and often in subsidiary roles. If this is the case, the Walrasian
model, rather than being the model of the economy and consumption, is only a part of the picture which needs to be integrated with other approaches, and is mistaken in the universal systemic position which it claims. This problem emerges more with the development of the perspective.

It is not difficult to see ways in which this foundational view dogmatically confronts other positions. One is its insistence on being correct independent of any experimental or empirical evidence. The assumption is that reality confirms what theory states, because independent methods of assessment are not possible. Indeed, Jaffé at times seems to interpret Walras as creating an ideal-type economy which does not need to have a realistic relation with existing economies, but demonstrates a rationally consistent system. (Jaffé 1983 326-370, Morishima 1977, Blaug 1985 584) He cites this as the reason why the Walrasian system is not understood. However, this categorisation is not quite adequate. Much of the Walrasian system, including t'tonnement, is making claims to establish what the economy is like in a universal form, and it is this which other economists operating on different epistemological principles cannot take. The Marshallians, Positivists and even the Logicists have not understood, or been misunderstood by, those operating within these Cartesian/Kantian formal definitions of rationality. This becomes clearer as we follow the tradition through.

The boundary of the discipline given by this approach is also different from the logicist one. It is not the logic of choice which constitutes the boundary but the limits of the exchange equations, more specifically in consumption theory the actual demand curve which registers the principle of scarcity. This approach is therefore also not concerned at all with the psychology or choice mechanism of the individual consumer, but only with the process of registering solutions to scarcity. This changes the meaning of utility. Extensive utility is measured by the quantity which will be taken at a zero price (Walras 1874-7 115) and intensive utility by the relative urgency with which the consumer desires commodity A in relation to commodity B. The latter determines effective utility without any resource to a psychology of the consumer. Neither the logic of choice not the subjective tastes of the consumer enter into this formulation.

Thus we are left with a very distinctive view of consumption theory. Walrasian economics ruled out interpersonal comparisons of utility. Each rational individual reaches equilibrium and it is a part of total systemic equilibrium; the order is negotiated and never involves valuations which are transpersonal. Second, the a priori framework gives unquestioned (and total primacy) to the price equilibria of consumers. Other factors than price necessarily receive a subsidiary role. Further, Walras did not really envisage the consumer as an independent source of economic change. All that was required of the consumer was that s/he closed the system through scarcity, whether or not scarcity actually is the defining reality for consumers. The framework was dynamic only in the sense of positing t'tonnement adjustments, otherwise it remained a static equilibrium one. The result of this formal
structure is an extremely impoverished or "sterile" (Blaug 1985 585) framework for analysing consumption. The insights that markets interrelate and that the whole economy needs to be considered in a integral way are eviscerated by the formal expression which they receive. The result has been to harm the development of consumption as a substantive area of study.
Schumpeter and the Transmission of Economic Culture.

Walras, of course, moved to Lausanne. Although he was of influence there, Pareto was a very powerful subsequent leader of the Lausanne School, taking it, as we have seen, in a different direction. It is difficult to identify a tradition which followed directly from Walras' teaching. However, his indirect emphasis was huge, and part of it was the place he has come to have in American economics, and that largely through the influence of the Austrian, Schumpeter, at Harvard. Schumpeter became the interpreter of economic theory to an epoch of scholars, and partly because of his own Kantian background, found Walras' formal rationalism the most congenial. His own work in consumption theory was limited, but as an interpreter of the traditions of economic theory to a new generation he was important. Schumpeter's breadth of awareness of theoretical approaches was unique in his generation in North America, partly because he had access to languages closed to most North Americans and partly because the isolationism which did not really break down until 1945 had substantially cut North American economic culture off from all but English speaking economics. Schumpeter was therefore a decisive interpreter of European economic theoretical culture when he moved to Harvard in 1932, especially through his half course in the History of Economic Thought given from 1939 to 1948. During his working life his thinking developed from the analysis given in Epochen der Dogmen- und Methodengeschichte (1912), written for the first volume of Max Weber's Grundriss, through to the History of Economic Analysis nearly completed on his death in 1950, but throughout that period he displayed a consistent sympathy in his orientation to theory which fits closely with the formal rationalist tradition of his background. This led him to see Walras' achievement as the greatest in economic analysis and to evaluate theory in terms which are closely related to this foundational position.

The approach adopted in this study is at odds with Schumpeter's own understanding of the relationship between philosophy and economics. He granted that economists were interested in methodology, but as a process of reflecting on their own practices. He believed in the autonomy of economic analysis and saw methodological and philosophical questions as largely peripheral to the development of economic analysis. This comes out most clearly in his judgements on the influence of the philosophical developments with which we have been most closely concerned, the developments of the New Logic. Schumpeter comments as follows:

Finally, we must ask the question: What did any of this mean to the period's leading economists? With the utmost confidence I answer: very little indeed - still less than it meant in the two preceding epochs and that, we know, was not much........ no philosophy can be proved to have influenced the economists of the period in the sense that they arrived at or failed to arrive at any analytic conclusions which they would not have arrived at or failed to arrive at without guidance from any philosopher - except in their methodological investigations and squabbles. It is
natural that, when trying to clarify their ideas about their own methods of procedure or when engaged in controversy about them, economists should invoke not indeed philosophical teaching in the strict sense but the teaching of methodologies written by philosophers - Max Weber affords a conspicuous instance. But it would be nothing short of ridiculous to aver that economists allow philosophers to teach them their business when they were investigating the conditions in domestic industry, or railroad rates or trust problems of their time, or merchants' guilds in the twelfth century, or, for that matter, the validity or otherwise of Bohm-Bawerk's theory of interest. Edgeworth professed utilitarianism in season and out of season. Yet analysis shows that these professions may be struck out from his economic propositions without being missed. (1954 779-80)

It is evident from this quotation, as from many other statements by Schumpeter, that he saw the various schools of economic theory as contributing to the central classical and neo-classical stream of scientific economics. He defined that stream ambiguously. He saw scientific economics as "tooled knowledge", and in terms of verification and inductive logical inference (6-11). This makeshift definition showed both his lack of concern for epistemological rigour and the priority he gave to the autonomously developing body of economic analysis. He makes clear that there is no claim of "absolute validity" for scientific economics, but that it needs to be appraised according to the professional standards of the period. In this sense Schumpeter is a methodological relativist and committed to a kind of theoretical historicism, but at the same time he saw the formal theory developed by Walras as a way of moving on beyond ideological statements towards an incontrovertible formal core of economic theory around which all other theory took shape. (Schumpeter 1949 345-59)

However, we are not so much concerned with Schumpeter's position as a methodologist, where he remained deliberately agnostic, as with his position in interpreting the history of economic analysis. Here he put his weight firmly behind the Kantian tradition in which he had largely grown up, but without acknowledging that he was doing so. The influence of Kant is firmly discounted. On classical economics he says,

Yet the influence of Kant, which on the surface - as regards definitions in general, attitude towards life and State, etc. - was very noticeable, hardly influenced the concrete economic conclusions at all. (Schumpeter 1954b 86)

and of German economics,

Nevertheless, whatever else this influence may have touched or shaped, it did not extend to the professional work of German - let alone other than German - economists. Many of them no doubt would have described themselves as Kantians. But their professional methods and results were just as compatible with any other philosophy. (1954 412)
Thus the position whose influence he discounted in terms of his view of the autonomy of pure economic analysis, he actually espoused, because it was the position which allowed that autonomy to be the crowing glory of the discipline.

The detailed elements of this position can be described fairly briefly. He believed in the centrality of pure economic theory, in common with the Kantian/Walrasian tradition. This is evident in the very structure of the History of Economic Analysis where 19th century Pure Theory is considered at the core of the study of that period (575-687) and the same for the period after 1870 (951-1073). More specific is the route by which Schumpeter gets to this position. He does it by positing a fundamental underlying unity in the 1870-1914 period of economic theory. Since his view is in contrast to the position outlined in this study and much of the evidence, it is worth stating it at length.

With much more confidence can we aver for the period under survey that there existed by about 1900, though not a unified science of economics, yet an engine of scientific analysis whose basic features were the same everywhere.... This (practical and empirical) majority, which was reinforced by the historical and institutional groups, had little use for "theory" and did not welcome a new type of it. They never accepted it as an engine of research but looked upon "marginalism" as a sort of speculative philosophy or as a new sectarian "ism" which it was precisely their business to eliminate by what they considered truly scientific and realistic research (see ch 4 above). Hence they passed, in methodological and programmatic pronouncements, all sorts of sweeping judgements upon it. On the surface, the result was bedlam, especially in Germany and the United States - a multitude of discordant voices, all of which seemed to testify to the presence of an impasse. The reader must try to understand, on the one hand, how very natural this was and, on the other hand, that it did not mean what it seems to mean. Below the troubled surface, there was no impasse. (954)

Here we see how despite the breadth of his scholarship Schumpeter can premiss his conclusion on the assumption of the coherence of analytical thought. When that assumption is removed, it is possible to view the discordance about economic science as of far greater significance than Schumpeter does.

Thus Schumpeter, carrying Austrian Kantianism in his blood, and espousing a Walrasian approach which he found congenial, carried an epistemological tradition into Harvard, and became one of the influences who played on the young Samuelson. He taught a position which gave mathematics a foundation role and conveyed a unified rational conception of theory, and Samuelson was more than ready to assume the mantle of pushing formal a priori theory to its next level of authoritative expression.
Samuelson's First Epistemological Base.

The interpretation of Samuelson's epistemological position has been the subject of some disagreement. (Boland 1982 129-40, 148-152, Wong 1978, Caldwell 1982 149-50, 189-205) Perhaps this confusion arises more from Samuelson than the theorists who have studied him; it is possible that he contained within his own development massive epistemological inconsistencies which were never fully resolved. On the one hand he espoused a form of Schumpeterian Kantianism in the period up to the mid 1940s, including writing The Foundations of Economic Analysis, the title of which gives hint of its foundational intent. On the other he adhered to kinds of positivism and operationalism which he picked up from other epistemological sources; these led him to formulate consumption theory in terms of revealed preference, especially in the late 1940s. At the same time he distanced himself from the logicist tradition of Hicks and Allen, because of the different basis of his rationalism. This divided epistemological response needs explaining. The epistemological culture of the period was a belief in liberal scientism, especially over against the ideological precommitment of Fascism, and Samuelson conveyed throughout his belief in scientific economics as his credo, using mathematics as its basic language, although this was not seen as a matter of belief, but as naturally what was the case as part of the march of the human sciences to conquer knowledge. Thus Samuelson, convinced already of the superiority of scientific and mathematical economics, then looked around for the patterns of justification which would validate this commitment. This was during a period when the consideration of epistemological issues within economics was very limited, especially in the United States. He found an appeal in positivism and the ideas of Bridgman, and he also picked up from Schumpeter the Kantian themes which we have already examined in his work. He wanted both the certainty of working from the facts and the unassailability of mathematical knowledge. Gradually the inconsistencies of this position began to emerge and slowly Samuelson began to renegotiate his own position. But the initial commitments were so well established that this process was never completed. In this section, we shall therefore be abstracting one element in Samuelson's epistemological base, showing its foundation, the direction it required for the theory and its implications for consumption theory. (cf Wong 1978 46-66) We shall also be examining the problems this posed for the development of this branch of his theory.

Like Walras Samuelson was not a philosophically educated economist. This means that at certain times what he said has to be carefully sifted. Thus, for example, when he stated,

In this study I attempt to show that there do exist meaningful theorems in diverse fields of economic affairs. They are not deduced from thin air or from a priori propositions of universal truth and vacuous applicability. They proceed almost wholly from two types of very general hypotheses.... (1947 5)
Samuelson was not saying that he had deliberately rejected the Kantian a priori, but only that there were certain kinds of deductive framework which he did not like. With this in mind let us try to reconstruct the epistemological premises embodied in the Foundations and other works.

Samuelson's approach can be distinguished from that of the logicists. He made this clear in his definition of a meaningful theorem. It must be refutable, even if the refutation cannot actually be carried out. It must not be true by definition. (1947 4) In Kant's terms it must not be an analytic construction. This contrasts with the logicist commitment to a logic of choice in consumption theory which was true by definition and only carried into empirical theoretical form by the addition of substantive assumptions. Samuelson adopted the synthetic a priori (4-5). It is also clear how far away he was from the operationalism which he espoused in revealed preference. To discuss hypotheses "which could conceivably be refuted, if only under ideal conditions" is light years away from requiring than all concepts be specified in operational terms, although he makes a nod in that direction. (5) Thus Samuelson does believe that he is engaging directly with economic reality in his analysis, but at the same time he is constructing the conditions necessary for systemic economic work. The generality of the framework is repeatedly emphasised, and it is based upon what are taken as the two universal and necessary conditions for economic phenomena - maximization and the stability conditions of a system. This is a restatement of Walras' scarcity, except it is not a substantive universal principle of economics, but the principles of the mathematical statement of the system. These, he argued, generate a range of meaningful theorems, which have "empirical validity". These theorems have the character of necessary conclusions. Initially the restrictions on the demand functions which follow from the consumption theorems were that the functions must be single valued, homogeneous of order zero and that behaviour is consistent. (Samuelson I 70-2, 1947 111) Later, not surprisingly in view of the Kantian drift of the theory, the underlying consistency condition was seen as the only necessary one. This conclusion followed from the necessity of a synthetic a priori assumption, which would mathematically govern the domain. It can be argued that Samuelson did not conceive his maximization and stability conditions as a priori in a Kantian sense, but merely as useful hypothetical ones. This, however, is scarcely tenable, since the absence of these two methods of analysis would invalidate the whole theoretical procedure, not just detailed results. What Samuelson calls "general hypotheses" are really synthetic a priori conditions of the subsequent analysis. They are systemic procedures which dictate the framework of analysis, and only subsequently are they of "applied" relevance to substantive behaviour, as he largely admits (1947 116-7). Throughout this analysis Samuelson's concern with the non-empirical bent of his framework is observable. (1947 90-2)

Samuelson saw his preferred method as universal in scope. It is not limited to economics, or specifically economic in content, but one used throughout the sciences.
This method of comparative statics is but one special application of the more general practice of scientific deduction in which the behaviour of a system (possibly through time) is defined in terms of a given set of functional equations and initial conditions. Thus, a good deal of theoretical physics consists of the assumption of second order differential equations sufficient in number to determine the evolution through time of all variables subject to given initial conditions of position and velocity. Similarly in the field of economics dynamic systems involving the relationship between variables at different points of time (eg time derivatives, weighted integrals, lag variables, functionals etc.) have been suggested for the purpose of determining the evolution of a set of economic variables through time. (1947 8)

Thus the method is prior to its economic content. The boundaries of the system may be broad or narrow, depending on the purpose in hand, and incorporate or exclude matters beyond or inside the traditional domain of economics. This again underlines how the framework is pre-empirical.

This framework also approaches causality in a fundamentally Kantian sense. It is the necessary prerequisite of the system, not a specific postulate which can be refuted in Humean terms. It must be understood systemically. Thus the use of the idea of causation is admissible to refer to changes in parameters or external data, but strictly it is not possible to talk of the system changing, since it necessarily remains the specified system which provides the mathematical outcome, or as Samuelson calls it, "a complete causally determinate system". (1947 317 referring to a dynamic, time sequence model) Within the system of thought once the relationships between the variables are specified, the whole system is simultaneously determined. System determination and mathematical completeness rule out underdetermined economic analysis, and anything which would threaten this is pushed out as parameters, similar to the data-circle idea of Strigl and other formal rationalists. The orientation refuses, along with Kant, to make claims about the things in themselves, about personal choice or about overriding causal processes. Its systemic bias also rules out the partial frameworks of analysis found in the Marshallian tradition.

This element in the framework also produces the important distinction between statics and dynamics. The requirements of the system are that there must be a stable solution to the conditions posited, so the approach, as with most of the rationalist positions, is inherently weighted towards statics, a presumption of return to a necessary state given by the system. Yet, as Samuelson realises, the division between statics and dynamics is an arbitrary one. To posit a static system one must adopt some view of the way in which the equilibrium situation is reached, a dynamic process (1947 5). Samuelson tackles this issue by developing what he calls the "Correspondence Principle". The definition of the difference between static and dynamic becomes important here. Dynamic systems are those where the equations and initial conditions determine variables which function explicitly in time. In the
static formulations functions of time are constants. (1947 284-5, 313-7) But, says Samuelson, a system may still be dynamic and yet be structurally identical with a static system in terms of its equations and parameters. In other words it is possible to select dynamic systems which comport with the static framework of analysis. (285) This allows the dynamic stability of the system to be assessed. (351) Although this is indeed useful, it also allows the bias of the a priori frame of analysis to continue unchecked. The analysis can still focus on theorems producing necessary conclusions without being required to consider cases where the system might actually change. Thus the inbuilt conservatism of the method remains.

Samuelson does move on to consider comparative dynamics where initial conditions, some external force or an internal parameter are varied. Inevitably the result in these cases is to create a framework of analysis where each period is considered separately unless the system simplifies drastically through damping or other assumptions. But the tendency is always to prefer analytically stationary states. (329) Samuelson argues that the stable equilibrium is actually the general case, the case to which all motions tend. It is important to realise that these are statements about the mode of analysis, not substantive ones about the economy. It is always possible Samuelson argues to work within an equilibrium framework. It is the view which sees a cannon ball as in equilibrium at every point on its "trajectory" and on impact... (331-2). On this view the Second World War can be viewed as an equilibrium state. Yet, although this position claims to be merely nominal (or more accurately phenomenal), in the end it is also applied to and makes statements about economic activity.

When we turn to look at Samuelson's view of mathematics, we also find that its comports well with the Kantian tradition outlined earlier. It is not within the empiricist tradition of organising data. Nor it is logicist in its foundation. The maximization and stability conditions provide constraints which are systemic. As Samuelson repeatedly makes clear, he believes mathematical language is able to describe more efficiently what is the case than literary forms, because it is the correct theoretical language. The mathematics goes beyond the Walrasian calculus method of maximizing into the use of finite inequalities, maximum conditions for multi-variable functions, difference equations and convex set theory, but the underlying concern is that the framework of analysis admits solutions. Initially this was a question of counting variables and equations and making sure that the assumptions allowed the system to be solved in principle. Further problems like discontinuities, dynamic instabilities, non-transitivity conditions and uncertainties were introduced, but broadly within a framework which was mathematically stable, and to show that solutions were still possible.

Thus, for example, in Samuelson's work on integrability conditions (Samuelson I 75-105, 1947 ch9), it is possible to ask if the problem is an economic or just a mathematical one. The issue in the former case is whether consumers can come to rest with consumption decisions which are not capable of being resolved into one
coherent field of priorities. If there are black holes in consumption maps like buying cars, new house, taking drugs, reading a book or requiring peace of mind, then integrability is a real economic problem. The mathematical question of integrability, whether considered in topological or other terms, remains divorced from the economic question, unless the mathematics is prepared to model what may be happening economically. This Samuelson does not intend to do. Thus he raises the issue of small and large changes, an important economic one, because consumers probably find it difficult to make consistent choice judgements about large changes of situation; lottery prize winners are notoriously unreliable about their new consumption patterns. But Samuelson addresses the problem by redefining small in terms of the mathematical idea of finitude and dismissing it. (93) Clearly, the mathematical frame excludes important economic considerations. Although Samuelson's empirical search does lead him to raise some issues like the "threshold effect", whereby consumers fail to respond to small changes until they reach a trigger level, overall the mathematical problem of an integrable field dominates the economic issues and obscures them. Because commodity space defined mathematically has already abstracted from the consumer, strategies, changes of priority, reassessment, group decisions, patterns of price indifference, lifestyle considerations and many other issues which automatically lead to "contradiction" and non-integrability, the discussion is not substantive consumer theory, but merely an exercise in hypothetical applied mathematics.

Another similar area is the use of partial derivatives. These are, of course, part of the rationalist general equilibrium framework, and were used extensively by Walras, Pareto, Slutsky and others to express changes in demand with respect to changes in the prices of all other goods and income. However, it is interesting that Hicks within the logicist tradition focusses much more on cross-elasticities and in the 1951 lecture on the "Integration of Demand Theory" succeeded in restating Slutsky's results without using partial derivatives. Samuelson, of course, is fully committed to partial derivatives as the mode of expressing these functional variations. However, there is an interesting economic difference in meaning between cross elasticities and partial derivatives. The former have immediate economic relevance; there are related goods where changes in prices can have supposed effects, positive or negative. It may well be difficult to eliminate other effects, but the calculation has economic meaning. Partial derivatives are much more tendentious. First, most of them have no economic referent in terms of identifiable relations of complementarity or substitution, and it may well be that the indirect relations through employment or investment are more important than the price consumption ones. Second, it is difficult to know what mathematical meaning partial derivatives have when many of the other variables involved may not be identified (or be economic) but yet influence prices. Holding constant what might not be so makes the expression of the partial derivatives erroneous. This is especially likely when the solution claims on the one hand to be systemic, but on the other ignores institutional, stock, expectations, wealth and income patterns of stability or change. Thus the technique of partial
differentiation is mathematically suspect as a means of system closure in this situation and has almost no economic relevance at all.

Moreover, it is clear that the drive for this orientation is Samuelson's foundational concern with establishing the definitive basis for consumption theory. The 1938 paper on the "Pure Theory of Consumer's Behaviour" claimed that postulate 3 alone was necessary and sufficient for most of the empirical meaning of utility analysis, (Samuelson I 71) and repeatedly Samuelson returns to this foundational task.

Being then full of Professor Leontieff's analysis of indifference curves, I suddenly realised that we could dispense with almost all notions of utility: starting from a few logical axioms of demand consistency, I could derive the whole of the valid utility analysis as corollaries. My fundamental axiom I borrowed from modern index-number theory... I soon realised that this could carry us almost all the way along the path of providing new foundations for utility theory... (Samuelson I 90)

This foundational drive dictated the kind of theory and validation which was seen as normative for consumption theory: the construction of mathematical theorems capable of solution which were analogues of economic situations. It believed this kind of pure (mathematical) theory was at the core of consumption analysis, and it created dogmatic distance with other epistemological positions. These we must now consider.

If we look generally at Samuelson's relationship with Hicks on consumption theory, it would seem at first that they have very little to disagree about in terms of substantive economics, and Houthakker and others worked during the late 40s and early 50s to show the equivalence (Houthakker 1950, Wong 1978 25-45) Yet throughout their careers they continued to formulate their consumption theories in distinct terms which can be traced to the different epistemological foundations which they had espoused. Thus Samuelson reformulates Hicks' indifference analysis in Slutskian compensation terms (Samuelson I 106-114). Hicks declares his independence in ambiguous terms at the beginning of A Revision in Demand Theory (4) Only if the differences of Logicism and Formalism are recognized can this divergent theoretical development be properly understood. Samuelson concentrates on the statement of the maximization and stability conditions in the most general possible form, with the result that this general foundational statement has little possibility of developing into substantive micro-consumer theory. Hicks by contrast continued to refine possibilities arising from the logic of choice and the partial equilibrium framework. In comment after comment and in the need to translate various points into their own epistemological framework both economists reveal the difficulties created by their seemingly similar positions. Even between two quite congruous forms of foundational rationalism there are considerable problems of theoretical translation.

Finally, this position was fundamentally otherworldly in terms of its substantive contribution to consumption theory. The supposed indubitable base which
Samuelson believes is the summa of all consumer analysis (Economica 1938 n and 111) is no more than a very empty price quantity constraint which does not begin to address all the issues which abound in consumer activity. The indubitable foundation, established on a quasi-Kantian process of abstraction, is not necessarily true in all possible worlds, but it certainly intends to ignore those where it might be relevant, and where a great deal more remains to be said about the economic activities of consumers.
Evaluation of Formal Rationalism.

The commitment of Walras, Samuelson and others in this tradition to foundational economics is evident, but how structurally does this a priori commitment stand up? The claim to an indubitable framework is actually tendentious. There is no necessary formal equilibrium structure for economic theory; it is only one way of looking at things. The establishment of the a priori is a process of arriving at the supposed irreducible universal principles of economic analysis. But this process in a selective one. It involves selecting out, as relevant to the process of establishing the epistemological foundation, the categories which then provide the supposed necessary basis of knowing. With Walras the focus was scarcity, which needs questioning. Scarcity and abundance are often important, although in many areas of economic activity and decision making they also can be peripheral, but they sit alongside many other dimensions of economic life which are also important, like innovation, lifestyle, market structure and knowledge, work, production and the provision of services. Ignoring these in the name of the foundation limits the consumption theory which results. Samuelson changes his ground from a substantive principle to a methodological one. Effectively he says that you cannot argue with mathematics; it is the language of science (Samuelson 1970 vii-xiii). So much is true. You cannot argue with the calculus on its own terms, any more than you can argue with a stone, a cow or a banana on its own terms, but if a cow is being put forward as the foundation for economic analysis, we would want to know why, and to what extent it might be the foundation.

The dogmatism of this position arises, as Schumpeter's statements partly show, from the lack of awareness that it participates in an epistemological tradition. Perhaps this is because the Kantian and Cartesian roots of this mode of thinking are now inaccessible to most economists, who just presume this approach to be an unequivocal scientific method. Once the rails are laid down, the trains just run on them. Dogma and nonselfawareness are often closely related. Already we have seen the relative puzzlement between the Hicksian and Walrasian schools over the use and kind of mathematics to be employed in economics. But this problem will mushroom. Positivists use a different kind of mathematics, and Samuelson in his alter ego flipped to econometric frames of reference. Why are these different views of mathematics present, and why is the justification of their use in a particular branch of economics so crude and unthinking? This points to the danger of the foundational mode; in presuming to have an incontrovertible basis of knowing, it cannot uncover and debate its own particularism.

But the epistemological dogmatism (which in no way implies that it is a personal dogmatism) is more pervasive. It presumes the shape and nature of theory. It must give unqualified assent to one universal principle of analysis, which is seen as involving mathematics of a certain kind. Its method is static and requires either equilibrium, or more recently mathematical solutions. It is a general, system-wide method which therefore requires the simultaneous resolution of all variables. Its
characteristic form is theorem and proof, and its confirmation is consistency. It is synthetic in making claims about the real world, but is not testable in a phenomenal sense, because it remains a priori. This mode of theorising has departments and research students in its thrall. It requires journal articles to follow hallowed forms of theoretical presentation, and it rules other kinds of theory out of court because they do not follow the procedures of formal rationalism.

The mathematics which can be used in this approach are also restricted a priori. There is no room for statistical or econometric treatment which begins with extant data and does not acknowledge the necessary form. There cannot be more or fewer variables than the number of equations needed to solve the system. Prices are almost always expressed in relative terms, and money must be seen as a numéraire, the a priori veil, which does not have to take account of cardinal levels of income, wealth and poverty. But most of us do not shop with a numéraire...

The position also leads to a systematic exclusion of knowledge about consumption. Theory does not have as its reference point the economic activity which is the subject matter of consumption theory. Scarcity, maximization and system-consistency become within this tradition foundations for well-formed knowledge which exists in and for itself. The mathematical theory becomes self referential and subordinates consumption activity to itself. Economists in this tradition have rarely actually been interested in consumption activity per se, because the theoretical reference point claims priority. As a result consumption is thinly treated, for only very limited aspects of that activity fit with the theoretical framework. It therefore becomes important to identify what is eliminated.

What does this position not address? First, because it is rooted in the Critique of Pure Reason, it excludes noumenal man, man as an end in himself, "Zweck an sich selbst". The cause of the noumenal is the pure will and it is exercised practically under the categorical imperative of a decontextualised absolute moral law. The root discontinuity in this view of the person also produces its fruit in the abstraction of all normative or moral considerations from the phenomenal examination of human economic behaviour, including consumption theory. The result is on the one hand the formal rational analysis of consumption behaviour, and on the other the utterly dissociated realm of welfare economics, which has as its foundation some categorical imperative which directs the ethical analysis. Since Kant found no problem in having a concept of the highest good for all, so within this tradition there is no problem in having a social welfare function which addresses the issue of interpersonal welfare judgements, such as Samuelson developed but remains outside the sphere of normal consumer analysis. (Samuelson 1947 219-28) Formal rational consumption theory disallows the possibility that consumers could take into account the welfare of others as well as themselves.

Further, the person per se, as subject, is inaccessible to phenomenal examination. All subjective patterns of understanding in the area of consumption, what the
subjects believe themselves to be doing, are ruled out. Characteristically this formal
approach constructs a system of price-quantity functions which in themselves shape
consumption theory in abstraction from the people who live and make decisions
behind the purchases and choices. This removes from consideration, for example,
what people value, their aesthetic judgements of goods, services and property, their
notions of thrift and efficiency, the effects of different levels of wealth and poverty,
attitudes of loyalty, subjective consumption strategies, relationships in consumption,
psychological motives in purchasing, addiction and many other aspects of
consumption activity which have their origin in the subject's will, not just as directed
by an overriding moral imperative, but as it responds to the economic world in daily
life.

This framework, because it is essentially a static atemporal calculus, also excludes
purposive, end-orientated consumption behaviour from analysis. Since much of
what people do occurs within plans or in furthering aims, the restriction to multi-
variable, present-orientated maximization impoverishes the view of time built into
this model. Ignorance and risk are difficult to consider, because the framework is
necessarily one of rational solutions. Issues like this are characteristically seen in
stochastic terms; because they are extra-rational, they are seen as chance or
random exogenous variables. Profound cultural and situational variations are also
excluded because the required a priori rationality must have no rivals. That a
theoretical framework can abstract so strongly from so much of the extant subject
matter of consumption shows how powerful the commitment to the epistemological
foundation is.

In the name of the theoretical system and its own requirements as a form of
scientific knowledge, the theory also cuts itself off from consumers and their
understanding. Consider, for example, the fact that people make mistakes in their
purchasing strategies. Some of these are mere calculation errors, others mistakes
of policy, others mistakes like committing themselves to patterns of addiction which
do them damage. But what are we calling mistakes? What place for mistakes in
consumption is there in this framework? In reality people have a variety of strategies
which may be validated according to a number of different criteria and which require
different formulations. To assume they can really be subsumed under the single
pure theorem is to isolate one's consumption theory from day to day state of affairs.
Similarly, a priori rationalist consumption theory has nothing to say to consumers
who are concerned about environmental issues and their response to them.

The rationalist foundation also cuts the discipline off from engagement with the
social, psychological, political, geographical and other aspects of consumption.
Changes in the level of marital and family stability, and in the level of co-operation in
family consumption are ignored. Family savings and wealth and the way this is
interpreted into a purchasing strategy become part of the undifferentiated demand
functions. Giving contradicts the principle of scarcity and is therefore ignored.
Consumption reference groups have no explicit place in this analysis. Patterns of
consumption which are undertaken to meet people's psychological problems are beyond the pale, whether it is overeating or slimming aids. Obsessive consumption is ignored. The mentality of age cohorts, and the cultivation of personal image, are moved into the ghostly hinterland of the extraeconomic, while consumption economics only requires the proof of the system's stability and existence.

Thus again we see that although the position claims to establish a foundation which neutrally and rationally examines this area of economic life, the method which it prescribes has the effect of severely restricting what it is legitimate to consider within the ambit of consumption theory. The foundation was so sterile that it provided no opportunities for consumption theory to open up, and this was one of the reasons why the position dried up in the sixties. There was just no further good work which could be done within its constraints. This might also have been the reason why Samuelson's work within this area diminished and why he felt compelled to adopt another extreme, but compensatory, foundational epistemology even as he pursued this one.
Section 3 Means-ends Rationalism.

Subjective Kantianism.
In this section we are identifying another foundational epistemological tradition, which also in part has its origins in Kant, but is influenced by the Austrian school of economics and the school of value theory associated with Franz Brentano and Max Weber in Germany. Behind these influences is also that of Aristotle, who continued to be taught in the universities of the Austro-Hungarian Empire into the 20th century. This standpoint was translated and codified in a foundational form by Robbins and has later become influential in consumption theory in the work of Becker and those who adopt his model of analysis. The cultural transitions from Austria to Britain and the United States are considerable, and consequently the tradition has less inner integrity. Despite this the foundational solution, with its attendant structural problems, is evident at each stage of the development.

The formal rationalist position had internal weaknesses which were already evident in its Kantian source. The synthetic a priori rationalist framework for knowledge failed to come to grips with the personal aspects of human decision-making. Either they were treated as external phenomena which were examined within an a priori framework or the human ethical stance provided an alternative total framework. The problem was mirrored in Kant's work by the very fundamental distinction between phenomenal and noumenal approaches to the human subject. Kant himself describes the issue in the following terms.

In this way I can also understand why the most weighty criticisms of the Critique which have come to my attention turn about these two points: first the reality of the categories as applied to noumena, which is denied in theoretical knowledge but affirmed in practical; and, second, the paradoxical demand to regard one's self, as subject to freedom, as noumenon, and yet from the point of view of nature to think of one's self as a phenomenon in one's own empirical consciousness. So long as one had no definite concept of morality and freedom, no conjecture could be made concerning what the noumenon was which should be posited as the ground of the alleged appearance, and whether it was possible to form a concept of it, since all the concepts of the pure understanding in their theoretical employment had already been assigned exclusively to mere appearances. Only a detailed Critique of Practical Reason can set aside all these misconceptions and put in a clear light the consistency which constitutes its chief merit. (1788 7)

Although Kant's response to this problem needs to be examined in detail, there is no doubt that he required the will to be wholly independent of the natural law of appearances in their natural relations (1788 28). Freedom is transcendental and unconditional in reaction to the empirical relationships of phenomena. This underlying antimony in the structure of Kant's philosophy poses a fundamental problem for economic science. If it is to be a study of human choices, then it must
move away from the phenomenal study which we examined in the last section to a study of human freedom. The alternatives were, and are, quite irreconcilable. Kant was clear that transcendental freedom could in no way be "explained" by proximate determining effects. The use of pure practical reason is therefore entirely posited on the freedom of the will and the intellectual analysis of what follows from it as effect and the conditions in which it operates. This is the fundamental distinction which produced two very different epistemological traditions in subsequent rationalist thinking and in economic analysis.

Because it is valuable to see this position in its most articulate form we will examine some of the other elements in the Kantian formulation of practical reason. First Kant is quite clear that the will is concerned with good and evil. If it were merely the product of material desire, then it would in no way be transcendent. It must therefore proceed in terms of a moral law as its necessary frame of reference. This position is thus thoroughly dissociated from hedonism. (1788 64)

In the doctrine of happiness empirical principles constitute the entire foundation, but in the doctrine of morality they do not form even the smallest part of it.(1788 95)

This position also dissociates itself from the logicist one examined earlier, where the empty logic of choice allowed subjective hedonism to be the content of choice, although this substantive metaphysical content was slowly evacuated in line with the foundational neutrality. Here, however, there is a basic aversion to hedonism, because it compromises the transcendence of the will. This has important consequences in the later development of the tradition.

A second characteristic of this position is its conception of time in relation to the will. Because of the absolute nature of freedom and choice, the temporal orientation can never be retrospective. The principle of morality is seen as a law by which reason directly determines the will which in turn shapes action. (1788 137) Consequently, consideration of external reasons as to why people have made certain choices is normally ruled out of consideration; the reason lies within their own will rather than because things happen to them. Freedom is at the same time rational necessity. Kant's own formulation of this moral law is one which is in no way contingent on circumstances, otherwise the rational necessity would not be absolute, a categorical imperative which fulfils the condition of consistency which is Kant's overriding concern. The futurity of moral principle remains undisclosed within the Kantian framework because the categorical imperative is a constant present absolute duty. When, however, this specific part of Kant's system is relaxed, the search arises for an absolute end which can claim the similar unconditional allegiance of the will.

Within the tight framework which Kant imposes, the demand for rational consistency in the categorical imperative has an immediate appeal, but it does not really have the necessary quality which Kant implies except when rooted in a christian framework of God's equal respect for all people. It is true that there are many proximate reasons why, if one does not want others to practise deceit, one should
not do so oneself, but given the absolute transcendental nature of personal freedom, there is no need for that constraint to be self-imposed. Gradually it was relaxed and other orientations to the will were formulated within the prior deeply embedded assumptions of the Kantian framework. The substance of this framework was that the whole of economic activity was regarded as part of the practical outworking of the human will, which is known in itself, and not phenomenally. What is known in this framework is subjective reasons for acting, and this became the foundation for Austrian economics.

Although Kant was influential in Austria, so also was Aristotle. Resistance to Germanism in the late Austro-Hungarian Empire was expressed through Scholastic and Aristotelian philosophy, which was also given weight by the stronger Catholic traditions in Austria. Menger, Böhme-Bawerk and von Wieser all showed Aristotelian influences. Brentano studied under the Aristotelian scholar Trendelenburg in Berlin and wrote widely on Aristotle. Arleth, Kastil, Kraus, Lotze and others all reflected elements of Aristotelian thinking. There are some themes which we should quickly state. The first was the emphasis on ends identifying the good at which men should aim, and fulfilment (eudaimonia) as the meaning of life (The Nichomachean Ethics). This purposive or end-directed emphasis was missing from the two rationalist traditions we have already examined, but was given full consideration within the Austrian tradition. Second, was the distinction between what is good for itself and what is good for the sake of something else: intrinsic or instrumental, an end or a mean. Since all ends were personal and intrinsic, practical activity like those involving economic commodities was always instrumental. This contrasts with the logicist emphasis of identifying goods directly with utility through an assumed correspondence, where to have the good was to have a greater utility. By contrast, the Aristotelian emphasis placed a distance between goods and their use to the consumer, and opened up the ambiguity of this relationship. Kraus in his 1929 Selbstdarstellung recounts how he came to see the correspondence theory as a disastrous error and recognised that “there can only be ‘immediate values’ inside states of consciousness.” (quoted in Grassl 1986) Third, Aristotle was deeply concerned with thinking desire, or reason directed towards an end (Ethics138-40). Or to put it in more contemporary terms, people have personal strategies which involve coherent thought. This recognition contrasts with the logicist view of taste as extralogical and corresponding almost to an internal subjective magnet. Aristotle allowed thoughtful motivation in which calculation could be present. It was in the context of this Aristotelian perview that the Austrian school of marginalism took shape.

It is well known that Menger’s route to marginalism was not mathematical. Nor was it just, as von Mises’ later writings were, positing a Kantian a priori subjective science of action (von Mises 1949 62). He did operate with a strong Kantian commitment to individual subjectivity and its ability to construct its own willed responses, but Kant had not really provided the tools for practical analysis. The
latter had reluctantly introduced the idea of ends as a way of moving toward human action in the Preface to the Metaphysical Elements of Ethics, but his treatment of utility, empirical ends and advantages was dismissive when compared with his loftier aims (1788 299-308). It was really from the Aristotelian tradition that Merger got the tools for instrumental analysis and the conception that consumers could weigh at the margin the usefulness of various commodities. This view of marginalism focussed on what was going on in the consumer's mind as part of his practical processes of ethical judgement. For the subject the issues of consumption therefore became amenable to judgements of good and bad, better or worse, and contrasted markedly with the anormative positions we have just been examining.

The fuller development of the position in the work of Menger, B’hm-Bawerk and von Wieser was to a considerable extent influenced by the school associated with Brentano, who went to Vienna in 1874. Brentano developed a theory of value in which he argued that mental phenomena were not just ideas, but also judgements and affective responses, or interests. The latter categories intermingle and involve values, some of which are absolute and are organised by judgements of good and bad, right and wrong. Brentano distinguished between values which are an end in themselves and those which are instrumental. The primary or intrinsic good is always personal, and all economic goods are therefore secondary or extrinsic. Interests involve comparisons and the idea of preference, which of course can also be attached to economic goods. (Brentano 1874, Grassl 1986 37-101) This creates a non-hedonist psychology for valuing economic activities and commodities, which was further developed, especially by Meinong and Ehrenfels. It was to this psychology that Kauder claims Menger turned to provide a psychological basis for his own later work. (quoted Grassl 149)

The word, "foundational" now begins to come into the picture, but slowly. It is introduced by the Methodenstreit, but it is important not to predate its arrival. Menger and Schmoller grew out of traditions which had substantive beliefs and commitments. From these positions the debate about the kind of knowledge which was valid for the human sciences emerged. The historicists' initial claim was that disciplinary scientific knowledge was not possible, because to claim general patterns of knowledge in disciplinary areas was to subvert the unique direction of history with its particulars of nation, time and space. However, in this debate the method of obtaining knowledge became central, and slowly the argument changed to one which asserted the supremacy of historical methods as the correct ones for all the Geisteswissenschaften. The process was slow. The Austrian school had still substantive views of the person as a purposive actor and valuer which were far away from the agnosticism of proper foundational belief. The early historicists similarly believed in history as the unifying underlying reality for human understanding, and it was only later that historicism as a general theory of the construction of knowledge came to replace the idea of ongoing progress. (Manicas 1987 73-96) By the time of Menger's Untersuchungen (1883) the foundational
issues were more fully joined. the historicists arguing that historical particularity was
necessary in all explanations of the human sciences, while the opposition focussed
on foundations for knowledge which went beyond the particular. The debate
generated the search for foundations which continued for several decades in all of
the emerging special sciences. Their concern was to establish value-free and
incontrovertible methods of establishing knowledge, while at the same time
recognizing the importance of human values, direction and history. Already with
Menger the concern was with methods of analysis as much as with objects of
inquiry, (Sommer 1960 1-38) and gradually methodology moved to the centre of the
stage and with it a concern for the foundations of the discipline. Particularly
important in the development of the notion of value-freedom was the work of Max
Weber.

Weber's methodological position was part of a Germanic reaction against
historicism. As with the Austrian tradition he gave full weight to the subject's own
valuation of action, and had a neo-Kantian emphasis on the integrity of individual
choice and subjective meaning. His approach to analysis was in a sense an
attempted resynthesis of the Kantian dichotomy in that phenomenal analysis of
causal processes was seen as incorporating subjective meaning systems and the
effects these had on human actions, whether social, psychological or economic. He
distinguished different types of motivated action, one of which was means-ends
rationality, which by his time had become seen as the standard form of economic
activity, as the Austrian view became more widely accepted. (Weber 1914-20 I 22-
26) He also defined "utility" in these terms.

By 'utilities' will always be meant the specific and concrete, real or imagined,
advantages of opportunities for present or future use as they are estimated and
made an object of specific provision by one or more economically acting individuals.
The action of these individuals is orientated to the estimated importance of such
utilities as means for the ends of their economic action. (1914-20 I 68)

In some ways Weber seemed personally alienated from this view of activity,
perhaps because the ends were seen in materialist and calculative terms and did
not partake of the larger meaning systems which were "wertrationalität" rather than
"zweckrationalität" defined. But at the same time the means-ends activity could be
studied from an ethically neutral and scientific position.

It would be superfluous to repeat that it is obviously possible and scientifically useful
and necessary to establish propositions of the following type: in order to obtain the
end x (in economic policy), y is the only means, or under conditions b1, b2 and b3,
y1, y2 and y3 are the only or most effective means (Weber 1917 45)

So economics had largely become a process of value-free analysis, just as
sociology through the use of the ideal type had a similar method for examining
value-laden behaviour, and psychology through examining the gestalt or meaning
complex of feeling was able to obtain its own perspective of neutrality. Weber hardly
espoused this position as other than a useful mode of analysis, occurring within his broader sociological frame. Here, ideal-typical analysis allowed him to examine the implications of vast cultural systems which shaped the meaning of economic activity in decisive ways. Yet the means-ends orientation to economic activity was to become another way of defining economics as a neutral domain. Given the value theory developed within the Austrian tradition, it seemed to provide a methodological framework which established the proper foundation for scientific study.

However, the instrumental view placed important restrictions on the view of consumption behaviour. Purposive, or means-ends activity, is necessarily future-orientated. Weber, of course, recognised the significance of traditionally orientated social action (I 25), but his definition of economic action was much more tightly tied to the means-ends future orientation. (I 63-8) The interdisciplinary sophistication of Weber's categories - so, for example, he sees the market economy as social action - minimises the effect of this narrowing in his analysis. Yet when others analyse in purely economic terms on the basis of this restricted purposive framework, its constraints become more acute. For in economic activity not only do people do what they have learned to do or what is historically established in an institution, but they also have present orientations in their decisions. They stop work because they are tired now, or they make a choice because something is right or wrong to some extent irrespective of the consequences. The future orientation is necessarily an impoverished typology of human action, because it does not take into account the full richness of human temporal responses.

This approach allowed Weber to accept utility as a normal aspect of consumption behaviour, but not in the sense of the subjective hedonists and the British utilitarians. Utilities (Nutzleistungen) are not the ends per se, but the instruments which contribute to the achievement of the ends. They are specifically goods and services as utilised to the human agent. Thus Weber's position is not utilitarian. The foundation is the weighing of ends; utility is concerned with the available means.

If anything, the most essential aspect of economic action for practical purposes is the prudent choice between alternative ends. This choice is, however, orientated to the scarcity of the means which are available or could be procured for these various ends. (I 65)

This significant difference in understanding and definition of utility has been important to the subsequent development of consumption theory. Logicism is present orientated; means-ends rationalism is future orientated. Logicism focusses on choice; means-ends rationalism is concerned with means constrained purposes. The two cannot be reconciled, for behind the means-ends approach lies the Kantian individual's practical reason, his will.

The question arises as to whether a means-ends perspective allows action to be seen as rational. This depends crucially on whether the means are consistently
weighed in the light of one or more ends. If the economic calculation in relation to one end is carried out, then it is a rational maximizing exercise. Thus rationality in this sense is a teleological calculation of the optimum solutions to scarcity problems. But more than one end raised problems with the idea of rationality, as Weber well recognised, for it was possible for ends per se to be inconsistent. If they were, either through incompatible wertrationalitat systems, or just through the demands of the sovereign will to eat a lot and be fit, then contradictions were introduced into the patterns of behaviour and their consequences. This meant that the idea of rationality was relativized and had to give way to a broader concern with the cultural systems which generated conflicting views of the world. Weber's sociology did just this. Thus, competing and conflicting ends are the general case in a far fuller sense than is ever allowed. We shall see how this problem remains unrecognised and unfaced in later developments of this tradition.

The perspective also influenced the way in which theory was evaluated. Weber was sceptical of the positivist orientation to verification. Subjective meaning was either directly intuited or conveyed through language and culture, and to assume that this could be adequately grasped through an external process of verification was a category mistake. We understood through a long and complex process of interpreting what people meant and what led them to act in certain ways. Although Weber accepted and worked within an overall causal framework of interpretation, it was subjective meaning which explained why action was such as it was. He similarly rejected any experimental framework of explanation. Only a minimum of experimental situations were possible in the social sciences, and the voluntaristic framework (giving ultimate validity to the will) did not comport well with a method which presumed to encapsulate human activity within an externally imposed set of conditions and results. His approach was therefore antipositivist and took seriously people's own explanations of their actions.

In the period after the First World War the question of the methodological foundations of economics became a dominant concern, especially among the Austrian school. Strigl (1937), Eucken (1940), Amonn (1927) and others worked at dissociating what was given as economic subject matter from the values that obviously penetrated the economic domain. Some, like Stonier and Morgenstern, focussed on the new work on logic being done in the Vienna Circle (Stonier, 1934, Morgenstern 1936), but they were criticized by those wedded to this different tradition. (see Amonn's attack on Stonier's wrong way of solving the problem of methodological foundations, Amonn 1935) One could say that because the Austrian school saw economics more in terms of an orientation to decision-making, rather than an area of subject matter, the question was how this process could be seen in ways which were not ideological and value-laden, but neutral, objective and deserving the name of economic science. This concern was widespread and transmitted to the international community of economists with which the Austrians were in contact (see H Mayer 1927 passim). This focus was there already in the
early 1930s as its impact on Robbins shows, but as the Nazi movement drove scholars out it spread rapidly into the British and American community of economists. Hayek, von Mises and others spread Austrian economics in different forms throughout the English speaking world.
Kaufmann's and Robbins' Instrumental Activity.

The transmission of Austrian economics was quite an amazing and complex process. There are strands represented by Hayek and von Mises which were important, but not central to the response we are to consider here. For with Robbins' statement in The Nature and Significance of Economic Science the foundational position of this epistemological tradition finally emerges. To a large extent Robbins is able to ignore the Aristotelian complexities of the Austrians and Weber's complex categories of economic action in order to focus on the task he had at hand.

Robbins' essay was written during a time when, as the recession bit, socialist and normatively guided economic perspectives were becoming stronger. Hawtrey, Hobson, Pigou and others were moving into normative, policy and welfare economics with increasing prescriptive weight. In this study we have not examined this tradition because it is not our subject matter, but in the post-war orthodoxy its weight has been ignored because it stands outside many of the foundationalist attitudes which are studying. Yet at the time it had great weight. After the 1929 Crash the question often was, What should be done? Robbins felt the economics profession was compromised if it was drawn into commenting on these issues professionally, and saw a more neutral scientific role for the discipline, especially at the LSE, where the spirit of the Webbs and Laski was keenly felt. As he responded to this challenge, the essay took shape with a heavy dependence on the Austro-German traditions with which he was familiar at this time. (Robbins 1927, 1971) To show the currency of ideas out of which it grew, we refer first to an article by Kaufmann, "On the Subject-Matter and Method of Economic Science". (1933) Kaufmann had come recently from Austria and developed independently and more explicitly within an Austrian framework the arguments used by Robbins.

He pointed out that the widely different definitions of economics in terms of subject matter suggest that most of them must be wrong and imprecise. The inadequate definitions arise because economics is a science which deals chiefly with purposive human activity. He then uses an analogy to show levels of analysis we normally employ. Speech is an instrumental activity used to convey messages and information.

Nevertheless the act of conveying information can be investigated and its content examined, independently of the further purposes which the information in intended to serve. To return, it is easy to see that one reason why the various definitions of economic activity differ from one another is that they include different definitions as to which ends are, and which ends are not, to be considered an essential part of economic activity (383)

Kaufmann then identifies the twin issues of the scope of the discipline - what facts can be described and explained by economic science - and its appropriate methods. He rejects an independent logical rationale for method and shows that
there must be an inner connection between subject matter and method, which he says he finds in the subjective theory of value of the Marginal Utility School.

Its fundamental principle is to regard every economic action as being completely determined by an economic plan. This principle contains two assertions, firstly that there exist such economic plans, and secondly that economic activity takes place entirely according to them. Every economic act is, therefore, regarded as purposive, i.e. as an application of means to ends. (392)

The central assumption of the position is clear. But then Kaufmann shows that by using Weber's method of verstehen, the analysis can be left effectively value-free. For "It should be noted that the subjective theory defines economic activity as right only relative to a given plan" (396) and leaves out of consideration the Weltanschauung behind the plan.

Robbins follows this Austrian path, but gives it an even more foundational structure in his essay on The Nature and Significance of Economic Science. (1932) Initially he criticizes all definitions of the discipline which focus on substantive areas of subject matter, especially those which adopt a materialist boundary for the subject, and brings out the alternative means-ends-scarcity definition. This conception is "analytical" (16), not classifying a kind of behaviour, and as such it is independent of the subject matter, whether that be the production of philosophy or potatoes. (17) It thus creates the basis for an area of pure economic theory which handles these basic analytical questions, albeit in a different way from the pure conceptions of logicism or synthetic a priori theory.

He has now, therefore, arrived at a foundational view of the discipline. It "is a science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." (16) It is value-free because these are entirely instrumental relationships. It is anormative, because there is no need to study ultimate ends within the framework of economic science, and it is a publicly accountable and testable process, because these instrumental relationships are objective, in the public domain, and continually open to scrutiny and re-examination.

After defining the domain of economics Robbins goes on to look in more detail at how economics is a "positive" science (24f). He did not use this term in the Anglo-Saxon way which we shall examine in the next chapter, but in the German and Austrian sense of the positive sciences. The "facts" or "data" are not sense-data, given in an uninterpreted sense, since human culture has already given meaning to them. The historicists had continually emphasised the difference between Anglo-Saxon economic development and that occurring in Germanic areas, while Weber, Troeltsch and others had already done enough work on the differences in economic cultures to show that the data in one area or period have a different meaning elsewhere; there is a difference between beef and sacred cows. Eucken developed one foundational response to this problem and the Great Antimony, as he called it, between theory and experience, by developing pure ideal types which could be
applied to the variety of stages of development and of economic system (Eucken 1940) Robbins followed more closely the route taken by Strigl. For Strigl the economic data are given outside the hypothetical relations, and insofar as these relations are invariable, economics can be exact in its theorizing. (Strigl 1923, 1927) Robbins was able to take technology, political and other factors as given in this ceteris paribus sense. They were the externally given data circle for economics. Ends were seen as inscrutable and given, which left a series of calculative relationships on the relations of means and ends which were the domain of economic analysis. Economics was the study of what it is possible to do given resources, technology and the limits imposed by scarcity and patterns of organisation. Thus the primary meaning of "positive" for Robbins, was the exclusion of unconditional normative or ethical issues and the concentration on instrumental possibilities. These possibilities were in the heads of economic participants as calculations.

In adopting this position Robbins had to make a crucial move away from ends as broad cultural goals towards an individualistic conception of them. (cf Weber 1914-20 I 68) The reason, although Robbins of course did not express it in these terms, was that if conflicting and inscrutable ends were acknowledged as part of the economic system, situations were accepted which had no economic solution. Justice or maximization, profit or aesthetics, bulk or quality each produce discrete directions to economic life if they are held and followed communally. Ends cannot be neutralised when they are the directing principle of collective actions. The Austrian and Weberian traditions had this kind of cultural awareness of ends and wrestled with the issue of different cultural principles of valuation and different goals. Robbins, however, puts a great emphasis on Crusoe analysis (10-15, 18-21, 31-8) and the principle of not making interpersonal comparisons of utility, and thereby reduces all the problems of conflicting ends to questions of individual ethics which must be solved subjectively before the economic domain is entered (Robbins 1938). Individualizing ends is a way of moving them out of the economic domain and creating the required neutral analytical framework. It also opens the way to rational utility analysis, where the utility remains subjective and outside the economic domain, but the calculative apparatus remains within consumption theory. Although this route promises much, the problem remains that actually many ends are held collectively and do adhere to economic activity; the conflict between unions and firms, competition between companies, job changes, bankruptcies and different financial policies reflect irreconcilable ends which cannot be pushed out of the economic domain.

This raises the basic foundational problem for this position. To retain the separation ends have to be given some intrinsic virtue, but this can only be done on the basis of their relation to some greater good, while means must be deprived of intrinsic virtue, which can also only be done on the basis of their relation to some greater good.... which implies that means-ends distinctions are arbitrary. (Laird 1929 1-68
and passim) Moore from another direction wrestled with the intrinsic good, but purified it only by resorting to unmixed goods which were idealistic in the extreme. (Moore 1903 183-225) When this problem is worked out within the discipline, ends per se are outside economics, with the result that the whole of economic activity has no meaning in itself but only with regard to its possible instrumental significance for extraeconomic ends. As an interpretation of economic activity this is a stupendous dogmatism. First, it assumes temporally that economic activity is always future orientated rather than past or present orientated. Ends have tendency to require ever more ultimate forms of future validation: the purpose of this good meal is to keep me alive for next week. This squares neither with much economic behaviour, nor does it make sense to say that all economic activity can be so construed. Keynes comment that in the long run we are all dead belies the possibility. Second, it ignores non instrumental values which adhere to economic activities and products. Work, while it can be seen instrumentally also for many people contains values and ends which are beyond instrumental calculation; when the dentist goes wrong, he does not pull out of the operation when it ceases to be profitable. McFie shows that economy must be a value. (McFie 1936 30-49) Thus the attempt to exclude ends from the economic domain fails because the values by which we live are coursing through all kinds of so-called instrumental activity.
Once norms are attached to the means of achieving ends, as they are in most of our activities, then the artifice of the position breaks down. When the ends do not justify the means, as they usually do not, because much of our lives are lived in means-ends orientated activity which has meaning through deeper values, value invades the supposed neutral domain and permeates all economic activities.

There is also a consumption bias of the means-ends framework. The point of all economic activity, it tends to imply, is the provision of goods and services which will meet the private or public ends of the population. Or, to put it another way, the only exit to the economic system is provided by the utility of goods and services in meeting ends. We note, this position rehabilitates utility as a concept. The logicist and formalist positions see "utility" as a pre ordinal relic, but within the means-ends framework it becomes literally an estimation of the usefulness of items in realising personal ends, or as Robbins expresses it, "the foundation of the theory of value is the assumption that the different things which the individual wants to do have a different importance to him, and can be arranged therefore in a different order." (75) Although, as we shall see in more detail later, this makes the massive breakthrough of considering human activities rather than goods as objects, the implicit focus is predominantly towards consumption orientated activities. It ignores the relationships which consumption has to other areas of activity like education, service, work and technology.

Robbins is aware of the change this foundation view of economic science brings to the boundary definition of the discipline. The old materialist conception is dead and any area where instrumental calculation enters becomes economic. How radically different this demarcation was only slowly emerged. Instead of economics being a domain, it became a mode of relating to life, a universal method. As such it was much more intimately orientated to other areas of life. It was a part of political or aesthetic calculations, a question of either bread or a lily (30), but the neutral, non prescriptive, scientific part. Interestingly, this left the areas of politics, aesthetics, psychology and sociology either to retreat into an ethical domain, leaving means-ends economic calculations to dominate much of its field, or to accept a similar instrumentalist foundation for knowing as its modus operandi. This struggle becomes evident at about the time of Becker's work, and we shall examine it later. Despite the gain of this interdisciplinary response, the tyranny of making this mode of relating to life the necessary framework of analysis foreclosed all kinds of other approaches in economics and the other disciplines.

The approach also claimed to be nonnormative. It was possible at all times to dissociate the instrumental calculus from the ends. This involved purging the calculus of all alternative values, as we have seen, but it also meant presuming a certain relationship between means and ends. For the relationship is not automatic and is open to ethical evaluation. "The end justifies the means" is one extreme statement of the relationship. Ellul points another where the means dominate the ends. (Ellul 1964) Normally, however, techniques and means have normative riders,
like provided it is fair, does not hurt anyone, does not commit us too far ahead or
does not pollute much. These are specified as incidental, yet they are rich normative
signs for the way economic activities should be carried out. To obliterate the
normative context of instrumental behaviour is to come to a shallow conclusion
about the ethical relationship between means and ends. This matters especially in
consumption behaviour. For many the well-being of the producer is part of the
buying decision. There are legal controls on safety and pollution built into
consumption decisions. Many people buy because they are well-disposed to the
organisation selling the wares or because they trust them to be fair. These cannot
be ignored or expelled to the consideration of ends without distorting how
consumption actually is.

Finally, we note how this perspective contains its own form of rationalism. Essentially, theory is a flow chart; it may also be a maximizing flow chart, but the
structure of this rationalism is: in order to do Y, A,B,C and D or L, M and N are
needed. Because economics is seen as a science which definitively posits the way
human behaviour is constructed, namely, as relating ends and scarce means which
have alternative uses, economic theory can be read in two ways. The first is to say
that consumption and other behaviour in principle has this form, and to ignore the
fact that often these calculations are unavailable to the participants or are ruled out
by past policy decisions or are wrong. The "rational" calculations miss out on what is
actually happening, the failures in expectations and the mistakes of economic
actors. The other way of reading the theory is in terms of the way economic actors
should make decisions. The prescription arises from the fact that this is the most
efficient calculus available. These forms generate the rational expectations literature
of later generations, but the idea is already present in Robbins. "Rationality in
choice is nothing more and nothing less than choice with complete awareness of
the alternatives rejected." (152) Conceived this way it retreats from the economic
reality which it purports to study.

In his later work Robbins drifted into more Anglo-Saxon ways of seeing things, but
without ever really relinquishing this initial framework. (Robbins 1981 1-10) More
immediately his perspective was overwhelmed by the debate surrounding Keynes in
Britain, but when calmer times can after the World War the appeal of a position
which established the scientific nature of the discipline and showed the possibility of
a value-free domain of analysis was great, especially to those who had some
exposure to the Austrian school and needed a straightforward English version. In
particular those who were not happy with either the Logicist or Walrasian forms of
rationalism, found another direction in which they could take their analysis. They, of
course, were even less aware of the epistemological roots and just used the
perspective as a valid scientific method. The key figure in this development was
Becker, to whom we now turn.
**Becker's Means-ends Utility Function.**

The implementation of this approach in consumption theory is only fully developed in the work of Becker. Again his conception of it is foundational; it is the economic approach. In The Economic Approach to Human Behavior (1976 3-4) he firmly espouses Robbins definition of economics in terms of scarce means and competing ends, but switches the focus from the scope of the discipline to the method or approach which this seems to imply. He argues the point which was implicit in Robbins, namely that the means-ends analysis can be applied to all areas of human behaviour and not just to what was previously seen as economic. As such it becomes a foundational method.

Indeed, I have come to the position that the economic approach is a comprehensive one that is applicable to all human behavior, be it behavior involving money prices or imputed shadow prices, repeated or infrequent decisions, large or minor decisions, emotional or mechanical ends, rich or poor persons, patients or therapists, businessmen or politicians, teachers or students. The applications of the economic approach so conceived are as extensive as the scope of economics in the definition given earlier that emphasizes scarce means and competing ends. It is an appropriate approach to go with such a broad and unqualified definition, and with the statement by Shaw that begins this essay. ["Economy is the art of making the most of life."] (Becker 1976 8)

This definitive way of approaching human subjects, repeatedly described as "the economic approach", is the necessary basis for theory construction.

At the same time Becker is firmly within the Chicago tradition of maximization, and this involves him in the problem faced by maximization procedures when competing ends are faced and it is impossible to make purely economic judgements across them, but he solved this with a magnificent simplifying assumption. Preferences are not referring to specific goods and services, but are directed to underlying ends which relate to fundamental aspects of life, like health, prestige, sensual pleasure, benevolence and envy. These ends or preferences are taken as stable, which requires the relationship between them to remain consistent during the analysis in a way that allows the set of preferences to be expressed in one comprehensive utility function. (Becker 1976 130-49) Thus, his utility function is different in meaning from the ones which we have examined thus far: it is teleological or end directed; it involves policy, calculation, planning of the fundamental aims of the individual into an integrated package; it is egocentrically conceived; it assumes ends cohere in a consistent and permanent configuration, and it moves away from the subjective conception of tastes as the definitive consumer response.

Becker and Michael are critical of the tastes approach, which is, of course, the irreducible subjective irrational core which remains when the logicist framework has done its best to order consumer choice. They argue that using this subjective
concept to explain consumer behaviour when there are systematic effects like family size, age structure, education and occupation means ignoring important patterns in the articulation of consumer choice. (1976 132-4) Without doubt the break with the logicist tradition allows Becker and those who work within the same framework to explore far more fully the articulation and planning of consumption, and especially to take it inside the family. Hence the emergence of the family production function. This approach conceives of fundamental entities, which are essentially realised ends, that result from a combination of market goods and services with the time of the household. Becker and Michael see traces of this approach in Bentham, Marshall and Lancaster, but the framework in which it is cast remains that of Robbins, although they may well not be aware of the epistemological antecedents. This utility function is maximized subject to the household production function and the time and money income constraints. (Pollack and Wachter 1975) This allows the more personal planning of life within the family to be explicitly considered and opens up to consideration decisions like those of marriage (Becker 1973b, 1974), having children (Becker 1973, 1976b, Schultz 1974), moving, the sexual division of labour and divorce (Becker 1977) to be brought within the purview of analysis, for the calculus involves a co-ordinated view of personal ambitions. These are systematically presented in A Treatise on the Family (1981). This approach seems more fruitful than, for example, Lancaster's, because the strategies involved in family economic decision making are opened up more fully than the logicist choice framework allows, even in Lancaster's reformulation.

But Becker is claiming more than this. He is not only seeking to penetrate into the family's economic decision making, but to use the method as the way of analysing interpersonal, social, legal and political relations. (Rosenberg 1979) He was in no doubt about the scope of this approach and its wide foundational relevance.

Subsequently, I applied the economic approach to fertility, education, the uses of time, crime, marriage, social interactions, and other "sociological", "legal", and "political" problems. Only after long reflection on this work and the rapidly growing body of related work by others did I conclude that the economic approach was applicable to all forms of human behavior. (Becker 1986 8)

Becker's "discovery" of this position, despite his attempts to cite economic antecedents, is less than historically accurate. We have already seen Weber formative role in the definition of means-ends rationality, but the approach had also been developed independently within sociology in the theoretical perspective of Exchange Theory. This looks back to the work of Simmel (1907) and more recently to Homans, who defined his "rationality proposition" in the following terms:

In choosing between alternative actions, a person will choose that one for which, as perceived by him at the time, the value V, of the result, multiplied by the probability, P, of getting the result, is the greater (1974, 47)

This rationality principle could be applied to relations with things and with persons.
and was developed as Exchange Theory by Homans and others in the late 50s. (Homans 1958) It was subsequently applied by Scanzoni to the family in a way which paralleled Becker's approach. (Scanzoni 1973) A similar development is evident in Dahl's utilitarian approach to political theory, where voting is seen as a process of buying maximized political utility within a pluralist democratic framework. (Dahl 1956,61) These developments and similar ones in Psychology suggest Becker's "economic" conception is not quite as pathbreaking as it is portrayed in the wider social sciences, but they also show its significance in the social sciences. The method of maximization of a coherent utility function knows no necessary economic boundaries.

How does this affect the presentation of consumption theory in detail? First, Becker is able to explicitly talk of utility; it is not an empty concept, for what people are maximizing is the usefulness of goods or policies in achieving certain ends. Because he believes he is able to adopt the Robbins framework of neutrality, he does not have to worry about the possible metaphysical content of the concept "utility" which so concerned those in the other two rationalist traditions we have observed. Second, it allows a much more fruitful analysis of time than the other two positions. Time enters both the utility function and the constraints as an explicit variable, allowing its undoubted significance to be developed in terms of human capital, the efficiency of time utilisation, the work-leisure trade-off and other temporal decisions. (Becker 1965) Third, it opens up the way for a consideration of shadow prices in terms of other benefits which are forgone in order to pursue certain ends. Fourth, it requires specific commodities to be seen in instrumental terms; it is not the goods themselves which give utility through some direct hedonistic intake, but their contribution to some more strategic purpose. Fifth, although the approach is egocentric, it is not locked in on subjective hedonism, but can, for example, take note of altruistic motives. Altruism is seen by Becker as registering that a person's utility function depends positively on the well-being of another. (1981 173) Thus, other people's well-being in terms of income, resources, access to facilities and other more personal forms of benefit form part of the utility maximization process. This perspective allows externalities of the effect of family members' behaviour on one another and outsiders to be taken into account, and also leads to the conclusion that selfish maximizers can be induced to act as if they were altruistic given a co-operative altruistic context (1981 179). Thus, the break from the logicist foundation does open up a consideration of aspects of family consumption patterns which have hitherto been foreclosed.

But at the same time the approach involves its own very severe constraints. First, the assumption of relatively permanent preferences means assuming away conflicts and variations among the basic ends or objects of choice in life. Yet health, prestige, sensual pleasure, security, service and right living are competing motives which vary widely with groups, in individuals and from time to time. The adjustments taking place as a result of AIDS between the health and pleasure motives in the 1990s are
considerable. The Weberian problem of the potential incompatibility between ends and the consequent incommensurability of means cannot be so easily dismissed. The approach also has problems with its rigid conceptualisation of time. The future orientation of the means-ends perspective creates a number of basic problems. One is that time functions as a variable which is both a constraint or cost and a form of utility; the time units are of course distinguishable (1976 91) and are also really non-comparable, but this problem is not really acknowledged by Becker. Further, since strategies of the utility functions are often not realised, the dynamics of failed expectations seep through the analysis. There are also other orientations to time, traditional, normative gratificatory and faith-directed, which are fundamentally different from the means-ends framework. Again, the coherent calculation of this rational utility maximization strategy is obviously something which very many consumers, through ignorance, mixed motives and other limitations do not do. These are specific blinkers which arise from this perspective, but the central problem surrounds the inner meaning of the means-ends conception.

The basic "commodities" or ends which persons pursue, and the utility maximization which individuals must construct in their heads, are all self-referential rational constructs; the question remains, therefore, how do they touch and relate to the daily economic world. Expressed in the language of Kant there is an antimonony between the human ends which are defined within the self-sufficiency of the homo noumenon, man as an end in himself, the pure will, and the practical faculty of judgement. But even the latter is not carried out in phenomenal and empirical terms, but only in logical form within the understanding; this calculus is therefore out of touch with the phenomenal world and remains within the head of the subject. (Dooyeweerd 1953 I 373-9) Neither the end per se, nor the practical judgement, is open to empirical examination. The calculus remains an internal construct which is egocentric in form. This can be seen from the fact that other people can be seen in instrumental terms as a means of meeting the subject's utility. This compromises the normal principle that the well-being and rights of other people stand in objective relation to the subject and requires that they be not used in relationships. Yet Becker and others are quite prepared to bring this egocentric instrumentalism as the definitive way of analysing what is happening in family and other kinds of relationships. The idea of ditching a spouse when utility maximization leads elsewhere is not many people's frame of reference in wider-decision making, even when divorce is involved. Thus the frame of reference of instrumental rationalism continues in Becker to show both an exclusive narrowness and a withdrawal from many aspects of the humane behaviour which consumers actually display.
Conclusion.

This third rationalist trend charts a very different path which has been taken by another branch of consumption theory. Again the direction of the theory, what its form should be, is signposted by an underlying epistemological direction. It occurs within the rationalist tradition, but insofar as it views the foundation for knowing to be rooted in the means-ends framework and the instrumental calculus, it cannot really communicate with the other rationalist positions. Logicist logic is atemporal and involves preference ordering with subjective tastes. A priori formal rationalism is a systemic pattern of marginal adjustment to scarcity, but means-ends rationalism is a forward-looking mental plan of the optimum subjective outcome. The foundational development of each of these positions is quite rigorous and involves many detailed differences in the consumption theory of Hicks, Samuelson and Becker; it explains the lack of coherence in their theoretical frameworks and the quite stringent requirements which seem to be posited for well-formed theory by each. They involve different boundaries to the discipline and relationships with other human sciences. They have different criteria of validation, mathematical expression and relationships to norms. Although all rationalist, they still show foundational incompatibilities which have limited theoretical synthesis and understanding. There is one sense in which the three forms show some of the limitations of the others. The means-ends recognition of consumption activity suddenly reveals how passive and good centred the logicist and formal rational frameworks are. Yet merely to view these problems as one which can be resolved in a wider pluralist framework incorporating insights from any or all traditions will not work, because each of these positions embodies knowledge within a foundational framework which is flawed and misdirects theory.

A deeper problem occurs because of the otherworldly bent of all three foundational positions. The logic of choice, conceived in its necessary unidimensional terms, or the formal a priori structure of mathematical equilibrium or the egocentric future-orientated calculus not only rule out the kind of theory which each of the others develops, requiring the kind of negotiation which Houthakker and others have been carrying out between these positions, but they also rule out of consideration a richness of issues which directly impinge on economic consumption. Just how impoverished this rationalist consumption theory is few of us recognize because foundational forms of theory have been so dominant. Now we must consider another major epistemological tradition which also has foundational expressions.
Chapter three: Positivism and Consumption Theory.

Introduction and Background.
This chapter examines the second great epistemological perspective which has influenced economics. Again it discerns several semi-independent foundational positions which have partly succeeded one another and partly been concurrent. Each of these positions has seeded its offspring into economics and particularly consumption theory. Yet before we consider Crude Positivism Logical Positivism, the Popperan view and Frequency Inductivism it is worth considering in a more strategic way the development of positivism as an approach to knowledge.

There is a problem in addressing empiricism and positivism which no English-speaking person can fail to encounter. It is understandable that rationalist formulations of theory should be capable of distorting the study of consumption. The mind can get things wrong, can construct categories which are misleading and can believe in itself in ways which lead to mistaken constructs and false modes of addressing the subject matter. If there are epistemological tendencies in certain cultures, then the Anglo-Saxon has long tended to mistrust rational constructs because they are always capable of being tendentious. By contrast the emphasis on direct perception, on examining what is the case, on the empirical has always been, it is thought, safer. It guarantees that the knowledge is on the ground, rooted and not merely a construct of the subject. It is self-effacing in talking about what is there, rather than what is in people's heads, and it is less ideological in relating first to what is there as common experience before introducing questions of the different ways in which people feel and think about the data. The problem consists in considering that an approach which focusses on what is the case out there could finish up misrepresenting and distorting what is the case. How could consumption theory be misrepresented by a movement which above all is committed to accurately picturing what is there? These cultural attitudes go deep: the detached male who can weigh the data and remain untroubled by emotions or prejudices is an important part of especially British/North American culture, and we are therefore now moving into a different cultural domain in examining this second great epistemological tradition.

However, it is both an epistemological tradition and also one which took a foundational turn in the era under examination. The epistemological weight of empiricism needs no emphasizing, because in the work of Locke, Hume and others it has been taught to generations of Anglo-Saxons as normal and benign. Yet it is worth dwelling on how decisive a move this is. Locke, for example, defined an idea as "whatsoever is the object of understanding when a man thinks" (1690 15) There were no innate principles of the human mind and all ideas were impressions from external givens and reflections on them. It is not the purpose of this study at this point to rehearse the debates which followed from this epistemological stance. The
we have already implicitly examined. The Humean response to causality will be
crucial in relation to Chapter Four. These issues are part of the long-term
epistemological debate which has developed through the subsequent nearly three
centuries. What is also significant, but is more often ignored, is the package of
assumptions which have gone along with these basic empiricist moves in the 18th
century, the assumption that knowledge is gathered atomistically, that moral and
valuational issues have a different source, that misconception and bias is unlikely
and that the relationship of the senses to knowledge is largely primitive. People
within this epistemological tradition, in all its manifestations, have bought into ways
of understanding which are considerably less self-evident than most of them have
supposed down the centuries.

But in the late 19th century the pace quickened. Mr Grandgrind was part of the
Victorian culture, but as the new disciplines began to emerge the question of their
basis for knowing pressed as a foundational issue in the way which has already
been described. As we have seen many of the responses to this issue were not
empiricist or positivist. But some were. The moves which were philosophically
foundational seem initially to have come from Austria and Germany - Mach, Schlick,
Wittgenstein, Carnap, Reichenbach and Popper - to mention but a few. Yet they
gathered disciples and fellow travellers like Ayer, Braithwaite, Russell and others
who planted the seeds in the fertile soil of Anglo-Saxon empiricism and during the
early decades of the 20th century this foundational perspective flowered and
reseeded. When Nazi and Fascist ideologies raged in Europe many of the great
positivist leaders migrated or fled to Britain and North America and bedded down in
receptive soil.

The impact of positivism on philosophy generally and economic theory in particular
since the Second World War has as a consequence been more weighty than any
other epistemological tradition. There are reasons for this. The defeat of Germany in
that war was also seen as the defeat of ideologies and patterns of thought which
were dangerous and destructive. Thinking, it was argued, could often lead to
extremes. There was an inner link between rationalism and irrationalism. Not
surprisingly the attitude more characteristic of an Anglo-Saxon tradition, empiricism,
was seen as providing an antidote to the kinds of views which had helped to create
Fascism. Popper’s books, The Poverty of Historicism (1957) and The Open Society
and Its Enemies (1945), exemplify one argument in this general line of thinking, but
it had wider significance still. It was believed that finding out about the facts and
keeping ideology out of the discussion was both more scientific and more civilised.
In this context the epistemological tradition which was strongest in Britain and the
United States was likely to and did hold increasing sway.

The approach also fitted the development of university economics departments after
the Second World War. Previously, the view of departmental development whether
under Menger, Walras or Marshall was essentially one of apprenticeship, of
introducing new staff to a living tradition and training them in the craft. This personal
model became very difficult to sustain with vastly growing numbers of staff and students, and with the level of specialisation which became normal at that time. Staff were expected to develop specialized knowledge to validate their position, and one of the best ways of doing this seemed to be through empirical research. So a model of empirical research became the automatic initiation process for many staff, who may consequently often have had a vested interest in positivist methods of empirical research.

Another impetus to positivism was provided by the need during the Second World War to find out what was happening in the economy in order to organize the war effort effectively. Thus in Britain the publication National Income and Expenditure was first issued in 1941. (Stone and Stone 1961) The centralisation of economic information involved training a generation of economists in data collection and these skills were retained in later decades. Government became the greatest patron of statistical work and many of the developments in statistical techniques and econometrics took place under its aegis in Britain and the States.

But the appeal was not just institutional and contextual. There were path-breaking individuals who had opened up econometrics in the early 30s, but they were hardly a major movement. But the changes which Keynes had introduced raised a new set of issues which were not easily addressed within the rationalist orthodoxies. This was evident within consumption theory. The logicist formulations of Hicks and Allen which had tended to be orthodoxy before the War were incurably microeconomic and did not address what seemed to be the key consumption issue after the General Theory, namely the relationship between income and consumption. Indeed, the logicist focus on the income and substitution effects of a change in prices shows just how marginal income analysis had been to their pattern of analysis. Although there were later logicist Keynesian reactions to this macroeconomic challenge, it was largely positivist responses which filled the obvious vacuum of knowledge about this important economic relationship. Constructing a Consumption Function was largely seen to be an positivist task (although Keynes did not define it that way) and armies of econometricians were created to fight this war for the economy.

However, at this stage we have to recognize the distance between two epistemic communities: on the one hand the newly emerging positivist economists gaining awareness and strength in the era after the Second World War, on the other hand the philosophers and philosophers of science who since the beginning of the century had been working through the issues of foundational positivism. The economists, with a few exceptions of whom the most notable is probably Hutchinson, were less epistemologically aware than economists of the era of Pareto, Jevons and Robbins. They picked up their theories of knowledge second or third hand and until the last two decades were often lagging far behind what had already been thought through in the philosophy of science. Thus, in particular the foundational triumphalism which had been present in the philosophy of science in the early decades of the century was more evident in the economic community in
the 1950s and 60s. Partly, this was the result of the geographical movement of ideas, the most important of which was the dispersal of the Vienna Circle and the German positivists under the Nazi threat after the murder of Schlick. Their movement to the United States, and Popper's to Britain, involved changes of language and cultural expression which slowed down the transmission of their ideas. Caldwell, in his important study recognizes this in the structure of Beyond Positivism, where the first part deals with the emergent positivist philosophy of science and the second with the later economic manifestations. (1982) There is also some epistemic distance between the philosophers and those who are more strongly committed to the philosophy of science which we must also note.

There are so many different positivist movements, meaning different things, that it is important both to grasp the breadth of the cultural movement and also to identify precisely what meanings of positivism are our concern. There was in France a strong positivist movement in literature (Charlton, 1959) and art, for Impressionism and Pointillism mirrored very closely the positivist creed. Historicism in Germany actually had a strong empirical bias, insisting on the uniqueness of each fact. There was a undercurrent of disciplinary positivism in history, economics and the natural sciences in Britain, and Pragmatism in the United States also had strong affinities. Physicalism, Operationalism, Induction, Empiricism, Descriptivism and a number of other terms were used to describe forms of positivism (Wilkes 1978) These were all different from the Positivism associated with Comte a century earlier which had been a more general historicist faith in the triumph of science. The underlying concern in these movements was with basing knowledge on sense experience or directly representing the world as it was perceived rather than relying on reason and metaphysics. Towards the end of the 19th century this diffuse movement took a tighter and more articulate form which was foundational. Individuals and groups began to assert that only knowledge which was founded on sense experience could be treated as reliable and scientific. We shall be concerned with the articulation of this foundational epistemology and its expression in a number of forms which tied all knowledge to the incontrovertible validation of the senses.
The Foundational Move and the Three Stages of Modification.

Positivism neatly fits the definition of foundationalism outlined in Chapter One. It rejected metaphysical views of the world. It disliked the idea of realities behind appearances. It wanted to be scientific, and it distrusted all beliefs which seemed to be held on inadequate grounds or without publicly identifiable justification. Participants in the movement were also concerned at the way much philosophical and scientific debate seemed to involve people talking past one another, using different frameworks of meaning and failing to have a public accountable linguistic and theoretical frame of reference. Scientific and linguistic progress was only possible if people meant the same thing. The positivists therefore sought to define a way of knowing which would be definitive, objective, scientific and allow meanings to be tested irrespective of the subject matter which was being addressed. They argued that the basis of all knowledge was a process of correspondence between propositions and states of affairs in the real world which could be recognized by the senses. If statements didn't correspond to anything in the real world, then they were meaningless; if they did correspond, they were either true or false.

It is difficult to recapture how radical a move this was. Positivism claimed to sweep aside as garbage cluttering the courts of knowledge ideas, philosophy, religion, ideology, principles and values, everything which was making knowledge so complicated and convoluted, and substitute for it one simple principle: could this statement be verified by the senses? If God could not be recognised by the senses, then "god" was a meaningless term and should not be used. If social or natural scientists were using concepts which were unverifiable, then they were engaging in something other than science. In its purest form this movement said, "There is no theory, only description." The whole weight of the position was therefore directed towards establishing the criterion for distinguishing meaningful propositions from those which were not, to making the great epistemological metwand which would judge the meaningfulness and validity of knowledge.

There are four key positions in the development of this foundational perspective which constitute the four sections of this chapter. The subsequent three involved a principal reformulation of the foundational idea, and yet each of them continued with the basic intent and hope of foundational positivism. Because it was an underlying faith, the failure of one particular form meant not the rejection of positivism, but its reformulation. These four positions, although they exhibit some pattern of development, have often been evident at the same time among different adherents.

The first consists of those who retained an idea of basic facts or data as the sole foundation for substantive knowledge; they could be called the Descriptivists. They recognize only knowledge which can be verified by the senses as valid, and see more complex forms of knowledge as being built from these elementary or "protocol" statements. The approach received its first modern formulation with
Mach, but was rediscovered by others including Bridgman in the States. In consumption theory we shall examine Samuelson's Revealed Preference Theory as an example of this view of knowledge. Because it was also the view which shaped many early formulations of statistics, including those involving consumption, we shall also look at some of the problems surrounding the process of getting statistics on the standard of living.

The second consists of those who recognize two independent bases of knowing, verified sense data on the one hand and logic and mathematics on the other. They were forced to concede these two independent foundations for knowledge because they became convinced that logic and mathematics could not be reduced to protocol statements. Many who held this view tended to see mathematics as analytically based, making it, like logic, true by definition. So this other kind of knowledge created an analytical body of knowledge which was true without reference to sense experience. Quite a few, but not all, of the Logical Positivists held this position, and this is the label we shall use for this group. Here we shall look at Samuelson's reformulation of his descriptivist position, it could be called Samuelson Mark III, and the disagreement with Friedman which followed from this.

Third, there is the tradition which sees independent sources for the generation of theory, but retains a form of positivism for the validation of the theory, either to confirm or refute what has independently been put forward. Usually this position claims as a principle of demarcation for scientific theory that it must in principle be capable of coming to the bar of empirical testing. This view we shall call Hypothetical Positivism. It includes Popper's falsificationism formulated in the 1930s, the kind of hypothetical-deductive model proposed by Hempel and Oppenheim, and yet more paradigmatic models of theory, provided they require the theory to be brought to the bar of factual testing. The prime example we shall focus on in this respect is Friedman in his theory of the Consumption Function, although we shall also look at some developments in consumer econometrics.

The fourth position recognizes that building the required kind of knowledge from data cannot be an infallible process because of the problem of induction, and it therefore transfers the foundation from the process of inductively building knowledge to the theory of probability which will guarantee the level of certitude which can rightly be imputed to states of affairs from the data available. It maintains that knowledge is built from data verified by the senses, but rather than being certain, it always retains some probabilistic content. The foundation is sure, but the vision is a bit blurred. This position will be labelled Qualified Inductivism. Within this perspective we shall examine a range of assumptions which have been brought to econometric theory developed in relation to consumption.

Each of these positions has in intent claimed to avoid bias and the distortion of the subject matter by the observer. Scholars following this perspective have dominated the research budgets of most universities which have been able to focus on
consumption information. What shape have these perspectives given to the theory which has been formulated within their ambit? The following sections will suggest that positivism has generated its own forms of dogmatism. Its foundational commitments have also led to breakdowns in theoretical communication similar to those which have already been examined. It will even be suggested that the perspectives which purport to concentrate exclusively on what is the case have generated their own form of otherworldliness, cutting them off from the subject matter which they claim to examine. Behind these weaknesses lies the fact that the foundations for knowledge on which these position presume to base the validity of their knowledge are not well-founded. Thus, we are examining traditions of theory and data gathering which have been deeply influential, which have claimed to be essentially well-formed and scientific, but which are flawed at their very basis. Although these weaknesses have been evident for a long time, it will be clear that the repeated reformulations do not get to the root of the problem; they do not uncover how the positivist foundational commitment directs the whole theoretical enterprise in ways which distort the domain of study. As a consequence it is likely that the concerted work of hundreds of scholars over half a century will have relatively little to offer succeeding generations. In what follows we shall examine the four foundational positivist positions in epistemological terms and then consider economic theorists and researchers who have worked within the theory of knowledge which each represents.
Section 1 Simple Positivism and Descriptivism.

Attempts at the Foundation.

The words, "data", "facts", "statistics", are so armoured with certitude that we can scarcely see them as problematic, weak or even barriers to knowledge. The infallibility has become part of our culture, and those who gather "data" are automatically adding to the heap of human knowledge. This presumption has been widely questioned, and the critique mounted against positivism from various sources will be set out below, but the starting point has to be the certitude that factual knowledge is incontrovertible. The foundational drive for neutral epistemological certitude has given this approach its inner dynamic and its weaknesses. To see this possibility more clearly, we go back to the original assertion of the view when it was not widely received.

The first modern statement of Positivism was Mach's Descriptivism. Mach's critique of a mechanistic view of science in The Science of Mechanics [1883] expressed the view that all theoretical terms were actually descriptive. He took up Goethe's cry, "One should not seek anything beyond the phenomena; they are the lesson themselves." He rejected absolute space and time as unobservable and moved away from the idea of causality towards functional connections between phenomena. His views helped Einstein to get away from the old mechanistic conceptions of the universe, and also inspired a number of philosophers, mathematicians and scientists who were looking for a new philosophy of science. This group became more formally constituted with Schlick's organisation as the Vienna Circle which made it their directing programme. They interpreted Einstein's theories of relativity as a crushing defeat for the Kantian synthetic a priori understandings of space and time. Reichenbach in Berlin especially saw space and time as a relational system expressing certain features of physical objects and undertook to explicate the theory of relativity in these terms in The Theory of Relativity and A Priori Knowledge [1920] and Axiomatization of the Theory of Relativity [1924]. Thus the breakdown of the mechanistic view of the universe was interpreted as vindication of the new Positivism by its proponents.

If we return for a moment to Mach and the fount of this development, its foundational inspiration is evident. In The Analysis of Sensations Mach was able to examine the phenomena more exactly, distinguishing sensible qualities from sensations and avoiding the old metaphysical notions of things-in-themselves and mind-body dualism. In contrast to them Mach emphasised the physiological link between seeing and knowing. Indeed, his representational or reproductive view of concepts and theory tended to emphasise the generation of theory as a direct impulse to perform a familiar sensory operation. Theories allowed economy of description and did not move beyond this fundamental form of response. He describes his basic point thus:
On a bright summer day under the open heaven, the world with my ego suddenly appeared to me as one coherent mass of sensations, only more strongly coherent in the ego. Although the actual working out of this thought did not occur until a later period, yet this moment was decisive for my whole view. (Mach 1905)

This moment was the pivot from which he viewed the process of knowing. He articulated it further.

Each individual finds within himself a view of the world... everyone must begin here. No thinker can do more than start from this view, extend and correct it... What then is this world-view? I find myself surrounded by movable bodies in space...My body, likewise movable in space, is for me a visible and touchable object." (Mach 1905 4)

Immediately it is obvious how this sensate experience is for Mach the foundation of all possible knowledge. In one way the response appears to be ego-centred, and dependent on what the ego is fed by the senses, but in another way when each of the sensations is thoroughly relativised with respect to its point of reception, it allows a more universal view of knowledge. There is no knowledge outside the sum of all these perceptions. At this stage Mach's response was a personal vision and very much in the 19th century British empiricist framework of considering how the world is presented to the subject as knowledge. Berkeley's question of whether the tree exists when Mach is not looking at it arises. There is also the problem of whether one is mistaken about sensations. (Alexander 1963). Nevertheless, Mach moved from the ego's sensations as the foundation for knowing to formulate the position as a philosophy of science. Science on this view was basically descriptive, building more complex descriptions from elementary sensations and eschewing all concepts which did not describe. Suddenly all kinds of conventional science of that time was brought into question, especially the mechanical frames of reference which operated on the principle that all phenomena within a frame of reference could be described the same way from anywhere in the system. For Einstein it was a source of liberation and others began to adopt the sensate, descriptive reference point for the construction of scientific theory.

In Britain Russell slightly later led a similar declaration of independence, but Russell's formulation of positivism or atomism took a slightly different route which is instructive, because he refused to finally go the foundationalist route and retained a belief in the objectivity of the physical world as something which could be perceived, albeit imperfectly. Russell was reacting to the idealism of Bradley who argued in Appearance and Reality [1893] that the world of qualities which we sense, primary qualities, is contradictory when viewed in their own terms. They must therefore be understood in terms of reality which is noncontradictory, unified and capable of rational experience. This Absolute is the object of the search for truth which is the philosopher's metaphysical task. In the face of this kind of view and other forms of metaphysical teleology which were then fashionable, Russell reacted to assert the primacy and reality of appearances. His position was different from the
sensationalism of Mach, in that rather than identifying what the senses receive as data as the basic foundation for all our knowledge, Russell saw atomic facts as objective and independent of our thought and opinion about them. As he said,

We are often misled as to what is happening, either by peculiarities of the medium between the object and our bodies, or by unusual states of our bodies, or by a temporary or permanent abnormality of the brain. But in all these cases something is really happening, as to which, if we turn our attention to it, we can obtain knowledge that is not misleading. (1927 106)

Thus Russell reserved the belief that something was out there and did not put all his weight on the foundation of perceived knowledge. In doing so he was, of course, creating problems for himself, for he was implicitly assuming that what was really there was atomic facts, the stuff he normally saw with his positivist theory of knowledge... His aim was to maintain that the categories of true and false were more fundamental than our perceptions and constructions of knowledge. There were, he argued, two variants of the Correspondence Theory of verification. An epistemological one implied that we could only state the truth of propositions which were actually perceived; knowledge was therefore prior to the truth claims of that knowledge, and propositions which made "false" claims were therefore meaningless rather than false. This essentially was Mach's position (and Wittgenstein's in the Tractatus). Russell preferred the alternative logical version, which said that facts which were not related to experience cannot be known, but that propositions can be either true or false actually or in principle. Russell's concern, therefore, was with the objectivity of facts rather than with the central mode of verification. He recognised the problem which occurred when the observer became the full validator of meaningful propositions or knowledge was that the limits of human knowledge were largely ignored. He held to a belief in the objectivity in facts, while most of the positivists succumbed to the foundational solution which tied all possible knowledge to propositions which could be verified by the senses.

There remains an interesting antimony in Russell's thinking. He states: "the world contains facts, which are what they are whatever we may choose to think about them, and there are also beliefs, which have reference to facts and by reference to facts are either true or false." (Russell 1918 182) This requires him to assert that facts stand alone and are completely self-subsistent and thereby undermines the correspondence principle. He cannot claim 1. that propositional beliefs map or picture facts, 2. that facts are objective and 3. that beliefs may be true or false, without undermining the positivist assumption that there is a necessary correspondence between states of affairs and what they picture. His search for objectivity compromises the positivist faith as a principle for verifying observables. It is this problem which Wittgenstein tackles in a slightly different way in the Tractatus.

Wittgenstein's atomism is yet more rigorous than Russell's. In the Tractatus Wittgenstein sees the world as being the totality of facts; these are what we picture
to ourselves; they have logical form, because we could not say what an illogical world would look like, and from these facts we build thoughts and propositions. Only such formed propositions make, or show, sense, and any other subjects must be passed over in silence. Thus Wittgenstein allows only a descriptive language and refuses to grant independent status to metatheoretical propositions by insisting that a proposition fully expresses its content (Wittgenstein 1921 3.3). On this view a statement purporting to be about a proposition is part of the proposition, and since no proposition can make a statement about itself, Wittgenstein eliminates the possibility of higher order languages. The correct method in philosophy is therefore to say nothing except what can be said, i.e. propositions of natural science, and even the description of the method of knowing in the Tractatus must be thrown away. (6.53-54) Thus for Wittgenstein the “theory” of science is no more than the totality of propositions about the world and these will be true or false by reference to what they picture. An hypothesis is merely that which we do not yet know and not a necessary procedural part of science. Wittgenstein’s atomistic positivism is thus so complete that the foundation cannot be stated. It is a mystical reality represented in every proposition about states of affairs in the world. Again we see the problem which occurs when a systematic attempt to state a foundational position is tried.

The problem is repeated with the positivist attempts within the Vienna Circle to establish verification as the criterion for meaningful statements or even to say that the meaning of statements is their method of verification. The Verification Principle was seen as a criterion for deciding which propositions were meaningful, and it asserted that only those propositions which were capable in principle of being verified by the senses were meaningful. (Schlick 1925-36 309-69, Ayer 1936 48) The Principle turned out to be self refuting, because it could not itself be verified by the senses and was not therefore meaningful. This dilemma showed again the impossibility of a foundation for positivism; any attempt to state that verification by sense experience was the criterion for meaningful propositions or scientific knowledge turned out to undermine itself. The autonomous basis could not be found.

Another attempt to make the foundational move was through the Correspondence Principle. This stated that if a proposition uniquely described a state of affairs then it could be said to be true and provide the incontrovertible substratum for later knowledge. The description pictured or corresponded with the “facts”. Correspondence was to be established through rules which stated the required relationship between observation terms and their use in the theory. If the observation terms referred directly to physical objects or attributes of physical objects, then their use had to exactly correspond or be identical with their observational form. (Suppe 1977 17-27) The problem here was that there was no good reason why the observational form should relate to the theoretical context, or even the rest of the sentence, unless it has been conceived in a theoretical or experimental form. There is no observational reason why we should not say, “The
sun rises in the East and sets in the evening.", but we do not. Thus the correspondence principle is compromised.

Moreover the correspondence rules assumed that every state of affairs was uniquely mapped to a statement about that state of affairs. (Schlick 1979 259-84) Yet sense experiences, like "I have a stomach pain", can be multiform, corresponding to having indigestion, cancer, an ulcer, constipation, dysentery, hunger, food poisoning or diarrhoea and each of these could be a simple description of what remains undetermined by the statement, "I have a stomach pain". As Duhem pointed out most observables correspond to many theories about them and cannot per se discriminate among the many interpretations given of them. Hanson similarly showed that sense perceptions were capable of multiple interpretations. (Hanson 1969 69-198) Thus one fact can map to many theories or vice versa. If a correspondence principle presumed an unequivocal interpretation of states of affairs, it could be a dogmatic assumption that only one interpretation was necessary. Given the problems caused by the sun moving across the sky, this dogmatism is obviously serious. Thus the idea of description or correspondence as the basic, infallible method of constructing knowledge founders.

A further such attempt at establishing a similar scientific foundation for knowledge was made by Bridgman who developed the idea of Operationalism. Members of the Vienna Circle had often framed their approach to positivism in terms of the meaning of propositions, and stayed within a philosophical framework. Bridgman, like Carnap, Hempel, Popper, Nagel and others was explicitly following through a scientific programme. He carried the idea of verification a stage further. Wittgenstein's slogan, "The meaning of a proposition is its method of verification" was interpreted as saying that a scientific concept is identical with the set of operations which are carried out when using it. (Hanfling 1981 27-43) Concepts are labels which happen in experiments and can always be defined by the procedures they represent. Bridgman hoped he had finally created the utterly verifiable method of scientific procedure. (Bridgman 1927 1-31) Sadly, either this labelling of operations was arbitrary or it had to include interpretations which reflected views about the way the experiment was drawn up. Otherwise they just disintegrated into a series of peculiar activities which had no meaning in terms of science and claims to make universal statements. Or, to put it another way, labelling experimental operations provided no basis for constructing empirical knowledge because experiments obviously have meanings outside themselves. Bridgman was claiming to label objectively what he had already constructed.

So we see a number of attempts to state a basic positivist foundation: Mach's descriptivism, Russell's objective facts, the correspondence rules of Carnap and others, Wittgenstein's atomism, the Verification Principle and Bridgman's operationalism. Each of them attempted to establish a way of knowing operating through the senses which would be an incontrovertible method of gathering knowledge, but they failed. The presumption of being able to map propositions to
states of affairs turned out to be tendentious, or even unstatable. The foundations did not hold, perhaps because the supposed autonomy of the positivist criterion of knowledge never allowed the dependent character of empirical knowledge to be recognised...
Positivism, Otherworldliness and other problems.

The attempt at providing a foundation for positivism failed in a number of formulations, but the overall commitment took with it a range of implications which were epistemologically imposed on the idea of proper science. In some respects this view of knowledge seemed to offer a more benign model of science. All disciplines could have facts and build from them, and in that sense it was a democratic model which allowed multidisciplinary pluralism. Durkheim used positivism in just this way in Suicide and Rules of Sociological Method. Yet the kind of foundational constraints which were observed in principle in chapter one and in the rationalist constructions of chapter two also operated here.

It seems astonishing to claim that a position which made a primary virtue out of only taking note of data given by the world and eschewing metaphysics could fail to relate to much of what is there. Yet it is possible. If you go trawling with a certain size net, fish too big to get in or small enough to swim through do not exist in the flopping database. What is it which positivism might edit out?

The first criticism, made most strongly by Popper, was that all law-like universal statements, the basic building blocks of natural science, were not properly part of positivist knowledge. Because it was impossible to get from any number of facts inductively to law-like, predictive statements, these were excluded from the corpus of normal knowledge by the positivists. (Popper 1934, 1965 52-59, 97-119, 253-92) It is especially important in relation to prediction, because without such universals there is no deductive necessity for predicting any future event. As Wittgenstein said, "We cannot infer the events of the future from those of the present. Belief in the causal nexus is superstition." (1821 79) Because prediction has played such an important part in natural scientific procedure, this weakens the content of positivist science considerably. When this point is applied to economics, we see the inability of the approach to recognize law-like structures. Thus, "equilibrium" becomes an impossible concept to the rigorous positivist, because every purchase is observed as a sale and expectations do not enter into the data. "Demand" cannot be seen as having any law like qualities, because it is not possible to infer from data anything which might happen. The problem arises because nothing follows logically from the foundational datum; having supposedly established its unassailable facticity, no inference will stick to it.

Second, positivism entailed a certain view of mathematical analysis and data. At a crude level because algebra and calculus did not refer to observables, but arithmetic and statistics did, there was a bias in positivism towards the latter. These predispositions are important in structuring many branches of theory; they led positivists towards aggregative macroconsumption models and income accounting in a way which has not fully been recognised. (de Marchi/Gilbert 1989 108-114) The Phillips Curve, looking at data on employment and prices, and the Consumption Function, relating consumption and income, were largely formulated in positivist
terms, and it has not always been easy for these conceptions to be related to other epistemological traditions, like that of Keynes who only had two fundamental units of quantity and whose propensity to consume was very differently conceived. (Keynes 1936 41, 89-131) The requirement of the position was that data should yield self-evident patterns, trends and relationships, and this conception of analysis dominates much of what follows in this chapter. Usually observables were the database, and dimensions, like the quality of goods, which were not, disappeared. The net effect of this approach was a strong bias towards anything which could be counted and away from that which could not. Concepts like utility, purpose, satisfaction, maximization and need which were the concerns of the rational consumption theorists tended to drop out of this frame of reference. Accounting became dominant.

Another problem concerns the basic and equal status accorded to all data as the building blocks of knowledge. Facts are equal, and all consumption data must therefore be treated as equally basic and significant. In some senses this is true; one person's money is as good as another's (much of the time). But in other senses there is a great deal of inequality in the phenomena of consumption. Positivists could not really talk of "important" purchases or of "dependent and independent variables", but only of relations between data. Excluded was the possibility of levels of data interpretation. Strictly, for the positivist, these disappear; disguised unemployment, forced saving, pent-up demand and speculative demand embody the idea of priority, yet for the positivist all data stand as equivalent. Yet people behave differently from this. Individuals tend to view some consumption as more strategic or necessary, and this affects their reaction to reduced income. Some companies view certain customers as more important than others; if and why this might be the case is a necessary question. Some consumption is crucial because at the margin it induces substantial changes, and some consumption is incidental, in being a by-product of whim and circumstance. Awareness of the depths of consumption rather than just seeing it in two dimensional terms is important, especially in predicting reactions to change. Thus, for example, knowledge of the proportion of houses in an area which were second homes would probably be valuable in assessing local housing markets. Positivism in principle requires us to ignore these questions. The presumption of monocular observation has deeply gripped the process of data collection in positivist consumption theory.

Third, the position had great problems with regard to statements about the past. Normally, the observational survey carried out at one point in time assumes great importance as a basic measure from which other observations and comparisons can be made. The data are seen as primary and theory-free, and the underlying scientific drive is to get figures which correspond to the economic reality without any ideological or interpretative contamination. Number of course is such an uncontaminated medium of information and allows comparisons to be made across observational results without seeming to bring in the kind of dynamic issues which
occur when time is explicitly recognised. However, the protocol observational
language of positivism allows blick statements but gives no categories for relating
across time, other than observational ones. (Ayer 1936 101-2, Foster 1985 137-44)
It is unclear whether statements about the past can be verified at all. A series of
observations, or time-series data, can be comparatively related to one another only
by bringing in assumptions about sameness. Normally these are expressed as
trends which have no internal or necessary relationship. We note what is usually
dropped from consideration within a positivist conception of time: consequence,
extpectations, policy, decision-making, historical development, cultural change,
psychological dynamics, optimism/pessimism and other orientations towards the
future, various time horizons, shock, systemic breakdowns, changes of value and
categoric shifts. Thus the perspective tends towards an innate temporal flatness, a
consideration merely of patterns of succession.

Another major characteristic of the position is the implicit attitude towards persons.
Because persons are not per se observable, but only their actions or characteristics
there is a tendency for them to drop from consideration. As Wittgenstein said, "The
subject does not belong to the world: rather it is a limit of the world." (1921 117)
Thus, the matter of consumption study has tended within this positivist bias to be
sets of information about observables: prices, sales, income and savings. The
persons who consume with their attitudes, principles, priorities, needs and
weaknesses have been absent from the theory of consumption. One lacuna which
we shall consider in more detail in the last chapter is the different response of
consumers to thrift. Some are careful in buying, price assessment and the care of
goods, others relatively careless; this personal attitude must have some effect on
family, class and national consumption patterns and levels of inflation, but it has
received little attention because it does not concern observables. Other personal
qualities like discipline, self-pity, status-seeking, adaptability, respect, greed and
neighbourly love tend to get ignored, important though they are to consumption. We
only need, for example, to consider the vast expenditure which now occurs among
some members of the population on personal security in terms of locks, surveillance
systems, health insurance, personal insurance, bodyguards, dogs, alarms and other
defence systems to see how deeply fear enters consumption patterns. Yet it is
ignored. Some of the last chapter will be concerned with rectifying this omission.

Another no less important aspect of this perspective is the way it has no place for
things. Facts or states of affairs describe functional relations which are perceived by
the observer. As Russell noted, this position involves a basic departure from the
Kantian idea of thing-in-itself. Yet in rejecting the Kantian view, the positivist also
loses the response to the objects which constitute an important part of the
consumption scenario. For example, a crucial part of the consumption of housing,
cars and other consumer durables is the care which is taken of them after purchase.
Their existence as objects affects replacement, design and marketing. Many
producers emphasise durability. The fact of purchase has tended to lead to the
continuing significance of these objects being ignored. Especially in mature economies consumption is increasingly organised around things which have already been "consumed", or are transmitted among consumers; a housing market may be 98% second-hand and an antiques market is possibly higher. This facticity in the economic milieu is one of the most important givens in consumer responses, but it remains a dimension inaccessible to demand data processing.

Further, positivism presumes an atomic conception of data; they are independent phenomena which have no necessary relationship with one another but act as the fundamental units out of which knowledge must be built. As Wittgenstein said, "States of affairs are independent of one another. From the existence or non-existence of one state of affairs it is impossible to infer the existence or non-existence of another." (1921 13) Perceptions must be independent basic units out of which more complicated knowledge is constructed. Thus, units of consumption which occur can be summed, but neither the units nor their summation can include the possibility that they were already co-ordinated according to principles, structures or relationships in which each of the unit purchases participates. It is not surprising therefore to find that positivism sits well with individualism, because the atomistic epistemology requires self-referring and self-contained units to be summed, and implicitly requires the frame of reference of those decisions to be individualised. Yet countless consumption decisions are made with a broader awareness - this is a good facility for the community, or this service needs supporting. Swimming pools, pubs, schools, and other forms of club consumption usually evoke this response. The decision to have delivered milk in Britain includes the awareness that it needs wide communal support to work efficiently. Structured meanings, like conservation, conspicuous consumption, public welfare and consumer boycotts have no place in this individualist data framework.

This position also systematically excludes norms, principles or ethics from consideration. Since it is impossible to move from what is observed to be the case in a positivist sense to a statement about what ought to be the case, there has been a strict division between positivist economics and normative (Welfare) economics. (cf Schlick 1930) This conception of the relation to the normative area is different from the rationalist one. Within rationalist positions it was possible, especially with means-ends rationalism to consider the logical consequences of various normative positions, but with a positivist conception, the consideration of ethical propositions on the same terms as protocol or observation statements just was not possible. (Skillen 1980) As Wittgenstein said, "Ethics cannot be put into words. Ethics is transcendental." (1922 147) This otherworldly, segregated view of ethics had already taken shape in Moore’s critique of naturalistic ideas of the good in Principia Ethica, and the various movements in ethical theory in the 1920s and 1930s, Emotivism, Prescriptivism and other positivist ethical theories, operated essentially within this framework (Foster 1985 73-84). What was ethical in relation to consumption theory could not be spoken about, because it was not part of the
observational semantics which were held to characterise meaningful language.

This had far reaching implications. Some leniency was shown by positivist economists to the norm of maximizing utility, but even this prescription has tended to have little place in their formulations. The norms of how the consumer believes he or she should relate to the producer, say through commitments of loyalty, do not enter into consideration. Norms of priority in purchasing, of saving, of giving, aesthetic standards, concerns of fairness among different consumers, self rationing, the proper level of stability in markets and what it is right to consume all receive scant attention. When we consider how consumers do actually surround their purchasing decisions with a very elaborate code of ethical principles, priorities, values, meaning, motives, goals and judgements it becomes evident how stifling this theoretical framework is. When Wittgenstein says that the solution of the problem of life is seen in the vanishing of the problem (Wittgenstein 1921 149), he shows how little consistent positivism is able to interact with the deeper issues of consumption; they are effectively declared not to be issues.

Thus the epistemological preconceptions of positivism shape quite substantially the kind of knowledge which is required by the prescribed method. There is an exclusivity about this method in ruling out all kinds of knowledge which could be available. The insistence on a range of observables and theoretical categories reduces the richness of the evidence which is considered and induces a kind of otherworldliness. Gathering data and organising it into what are supposed to be self-generated categories leads to a bland penetration into the issues, however technically competent the handling of the data may be. It even creates detailed theoretical problems when a positivist approach is used in microeconomic consumption theory, and it is to an example of this that we now turn.
Samuelson, Revealed Preference and Descriptivism.

Hitherto one economist has been seen as primarily representing one epistemological position, but some economists are exposed to a variety of foundational epistemologies and do not always resolve them into one coherent position. Such is the case with Samuelson. He was orientated towards formal rationalism from the Schumpeterian tradition, but also attracted by various forms of positivism, including operationalism, the frequency probabilistic approach and falsificationism. It is the foundational difficulties of these positions, together with their contradictions, which shape the emergence of his consumption theories.

Since Wong has completed a thorough study of the revealed preference aspects of Samuelson's position, it is worth stating the main differences in approach here. (Wong 1978, 1973) First, Wong's method of rational reconstruction emphasises understanding the problem-situation of the theorist as he saw it in terms of aims, constraints and solutions. The analysis here looks at the parts of Samuelson's consumption theory relevant to a foundational epistemology. Although Wong seems to suggest that a theorist's failure can be examined in its own terms, he does have his own external basis for critique. (1978 22-4) Nevertheless, his main emphasis is on the theoretical problems which operationalism created for Samuelson through its embodiment in revealed preference theory, and this we in part follow here. However, it has to be set against the changing character of positivism, and the fact that operationalism was passé after World War II. Thus the operational phase is, perhaps, best seen as part of a longer epistemological war between Samuelson's a priori rationalism and his positivism which took a number of forms; this study focusses on the inconsistencies of these different epistemological positions more strongly than Wong.

This transition explains something of the ambiguity of Samuelson's position in relation to the logicism of Hicks and Allen. On the one hand he saw and rejected the potentially tautological basis of logicism. (Wong 1978 25-45) But on the other hand his own Schumpeterian rationalism, reflected in the Foundations of Economic Analysis, was not far away from that same problem. The problem of having substantive empirical content to theory was initially solved through the synthetic a priori of the Foundations, then through operationalism, then through a classical logical positivism, then through econometrics and falsificationism. The transitions mirror the epistemological developments of the time, and the theoretical problems which followed were merely those of the positions which he espoused. On this view I see distinct differences in the papers which Wong sees as part of the same epistemological movement. The 1938 Economica articles and the Foundations are partly Schumpeterian, The 1938 Econometrica, 1948, 1950 and 1953 Economica articles are operational, while the early 1960s' papers are logical positivist, and later ones falsificationist. The extent to which they were consciously so is open to doubt. Let us consider the methodological drives which Samuelson's work evidences.
First, he identified with the old foundationalist concern of getting rid of metaphysical notions, especially from the concept of utility. This involved purging the crude psychology of cardinal utility and all other substantive claims of psychology, which Hicks and Allen had already done. But he was also concerned with the possibility of expressing in general form the features of specific theory, an agenda coming from Kant, Walras and Schumpeter, but also from Russell and Moore. (Samuelson 1947 3) This is Samuelson's concern in 1937 when most of the Foundations was conceived and written.

He was also concerned to get away from the empty logicism of Hicks and Allen, and it is here that he makes his decisive move and embraces positivism. The concern is already there in 1938. "That some modern formulations of the utility concept are empty, circular and meaningless in the above (operational) sense, is hardly open to doubt." (Samuelson Vol I 1966 21) It is obvious from the operationalist language which he sometimes used that Bridgman was a partial influence in this direction (Bridgman 1938), but much more it must have been the influence of general positivist notions which were moving into vogue at the time. Thus, in the Foundations Samuelson uses positivist language, but it does not affect his theoretical perspective. He talks of "operationally meaningful theorems"(1947 3), "analysis which is meaningless in any operational, empirical sense" (91), "I wonder how much economic theory would be changed if either of the two conditions above was found to be empirically untrue. I suspect, very little." (117) but continues to work within the synthetic a priori framework of maximizing behaviour already outlined. But then he takes off in a totally different direction: from what is actually the case, he will construct consumption theory; he converts to descriptivism.

Rather than beginning with rational or logical constructs, he formulated on the basis of what, it is presumed, actually happens. The consumer chooses one batch of goods in preference to another which could have been purchased at the given level of prices and income. The preference is revealed in a concrete operation and therefore conforms to Bridgman's conception of method. Samuelson then moves from the "facts" to Revealed Preference theory. He believes that the choice exhibits the preference which rationalist microtheory struggles so hard to achieve, and he presents the argument in the following terms. Since the actual choice can involve a range of other factors which would lead to different interpretations, this must be an "idealised" empirical choice. The assumption of homogeneity of order zero is made, because cross-price effects are to be ignored, before Samuelson moves on to claim consistency in the choice with a pseudo-empirical move. We are asked to consider "In any two price and income situations and corresponding quantities of consumer's goods given by equations (1.0) the individual must always behave consistently in the sense that [batch A is chosen in preference to B and B is chosen in preference to A (interpolated)] cannot hold simultaneously.... In words this means that if an individual selects batch one over batch two, he does not at the same time select two over one." (Samuelson I 65) The statement is, of course, arrant nonsense, because
the choice is simultaneously the same choice. It is what it is and not another thing. What Samuelson means is that batch A was preferred over B, and if batch B at batch A prices costs no more than batch A, it could have been preferred to A but was not, therefore the consumer will act consistently in his later preferences. However, this is an imported assumption which contains no empirical necessity. If two actual buying situations are under consideration, they will necessarily be different in a whole range of particulars, and the hypothetical comparison becomes a complex and theoretical one. But Samuelson appeals to one specific situation - "he does not at the same time select two over one" - conveying that preference is and is not an actual empirical choice.

By the 1948 Economica article the operational agenda had become far stronger, and as Wong notes, the theoretical idea of preference had given way to a preoccupation with overt behaviour, or revealed preference. The requirement for the preferences to be behavioural or revealed means that Samuelson must compare the purchase of actual batches of goods. In fact what he does is to construct hypothetical approximations which allow comparisons to be made between batches. Again we see the process of interpretation introduced which is methodologically foreign to the operational insistence on concepts which are given by the actual procedures carried out experimentally and do not need any external theoretical interpretation. Observations do not yield preferences, only consumer choices do and theory which allows the subject's preferences expression..

So it seems that rather than being operational in the true sense of the term, Samuelson has to acknowledge the fact-theory distinction discussed in an earlier section and the arbitrary element in the theory of revealed preference. But this he cannot fully do, for revealed preference is foundational; it is the necessary form of certain empirical knowledge on which the theories of consumption should be based. Although his position was in an impasse, Samuelson was not in a position to articulate the problem and escape to another epistemological base, because the issue was not faced in epistemological terms.

On reflection the failure was straightforward and inevitable. From the real facts, i.e. an actual consumer bundle of preferences, no conclusions can be drawn about any other state of affairs whatsoever. When hypothetical "actual" situations are constructed, then eventually the same conclusions as are found in ordinal utility theory arrive. (Houthakker 1950, 1961) But at the same time Samuelson has lost his operational foundation; the preferences are not being revealed by actual choices, but it is merely another hypothetical situation. As Wong points out, Samuelson fudges what has happened and moves to asserting the equivalence between logicist utility theory and his own formulations. (Wong 1978 100-104) As we shall see later, he retains his positivist belief, at least alongside his a priori rationalism, but it gets recast in a logical positivist mould by the time of his confrontation with Friedman. It is sad that the empirical ambitions of this revealed preference approach to consumption were not very high. The discussion mainly turned on
showing that the hypothetical-real consumer had consistent preferences. As suggested in the last section, the richness of evidence garnered from the world of consumers was not overwhelming when it could have been so much greater.
The Cost and Standard of Living.

Revealed Preference was one local theoretical formulation fired by a descriptivist epistemology, but economics was infiltrated in a much more pervasive way by positivist ideas. The impact of crude positivism on economics can scarcely be overstated. One area where this was especially the case which has great importance for consumption theory was in the estimation of costs and standards of living. These were seen as basic data needed for the development of economic science as a value-free discipline. The central commitment was to a belief that increases in expenditure, corrected for increases in prices, established changes in the standard of living which could thus be objectively measured. The price and standard of living indices resulting from this way of thinking have been used in practical economic and political policy more than any other. Popular positivist opinion has claimed to know what the cost and standard of living indices are. They are facts which the economist must be able to supply unequivocally as data. The data were seen as primary knowledge which was theory-free, and the underlying scientific drive was to get figures which corresponded to the economic reality without any ideological or interpretative contamination. Number was significant as an uncontaminated medium of information, allowing comparisons to be made across observational results. The use of number indices further emphasised the idea of incontrovertibility. The collapse of this simplistic hope is now part of many elementary economics courses, but it is worth considering it as part of the retreat from crude positivism.

The theory of price indices has been firmly established since the work of Mitchell (1915) and Fisher (1922), by which time it was clear that there were many potential indices - Fisher himself preferred Formula 353! (1922 221) In 1930 Frisch showed that no formula could satisfy all of Fisher's criteria for a good index. (Frisch 1930) Nevertheless, there were many discussions of the indices, especially to establish which was the "true", "ideal" or best one (Ulmer 1949), partly because of the populist desire for reliable facts. However, price indices had obvious practical problems which occurred as a result of the data collection situation. As we have already established, two sets of data collected at different times have no basis of comparison given by the data themselves. Therefore depending on the temporal base chosen, changes in the basket of goods, the price-quantity focus and a number of other factors, different conventional indices can be obtained and used.

Later price index theory gradually developed along foundational lines. In 1961 there was an interesting development when a Subcommittee chaired by Stigler suggested that a "constant utility" index (i.e. a rationalist one) should replace the consumer price index. (Stigler 1961) This was followed by other studies which sought in rationalist terms to establish a "true cost of living" by relating price changes to a given level of utility or indifference. (Thiel 1980, Konus 1939, Hicks 1956 180-94) This avoided the arbitrariness of ignoring the way in which variations in people's satisfaction may have offset the significance of price changes, but the supposed
constant utility base was a chimera. After all, many people either enjoy or hate having to pay more for goods.

Perhaps in reaction there was a positivist pursuit of the absolutely reliable empirical index. Samuelson and Swamy showed that in the homothetic case of unitary income elasticities for all goods, it was possible to construct quantity indices, which disclosed the revealed homogeneous preference relations between different bundles in unequivocal terms. So here we have the positivist revealed preference index number which avoids all the problems discussed above. (Samuelson and Swamy 1974 122-5) Afriat in his similar final pursuit of the True Index explores incremental and revealed preference indices. (Afriat 1977) Yet the search is, of course, quite futile, since unitary income elasticities for all goods is one of the most unrealistic assumptions which could be made. In what is supposed to be an approach based on beginning with the data, what is revealed by preferences, a wholly unrealistic assumption is made, so that comparisons across time can be made. So again, in the search for the ultimate foundation in fact, the theoretical construction succeeds in becoming otherworldly. Yet, of course, for decades Price, Cost of Living, Real Income and Standard of Living Indices have been thumped out with the positivist imprimatur that these are the actual data of life.

Since the time of Marshall it has been clear how little we really know of people's standard of living. Differences in wealth, need, sensitivity, free gifts, co-operative consumption, sensitivities and ambition variously affect the impact changes have on individuals. "The best estimates we can form of the whole amount of utility of anything are liable to large error". (Marshall 1890 103-14, 110) Marshall's awareness of consumers' surplus similarly undermined the possibility of purchase prices as "data" providing the basis for calculations of the standard of living. The positivist hope could not be realized.

Yet once the break is made with this foundational positivism a range of interesting interpretative issues arise. One is how changes in consumers' surplus (seen broadly as the value of goods and services to the consumer minus expenditure) might occur without price changes - lower search time, improved quality, greater durability, better service and many other factors come into play. This shows that calculations of "real" income leave out of account much of the central experience of people in their purchasing, let alone in their living. As Marshall's wise assessment shows, the extent to which value is measured is extremely limited. Another is an extension of cost of living indices for high and low income groups. (Atkinson 1975 64-5) More wealthy people are able to hold assets which allow them to be more efficient in their use of consumption goods; a fridge economises on food, an energy efficient house on fuel and so on. Living costs thus fall differentially on those with and without such resources in a way which is outside the normal cost of living calculations. At the same time existing goods and services have changing support costs which vary considerably; there is the suddenly expensive to run car. Other cost changes are geographical or job-related. These considerations show that in a modern economy
many other factors shape the standard of living than price and income, and there is no reason, once foundational considerations are dropped, why economists should not investigate them.

Positivist price theory treats actual price changes as the basic infallible data, but this foundational move need questioning. Thus, if a consumer experiences lower prices at a hypermarket but equivalent increases in travel costs, a "fall" in prices is merely transmitted into other expenditure. Many price changes are therefore just moving around the incidence of costs and reflect a "who will bear it" distribution: paying for extras or spare parts is a widespread substitute for a higher price. Again, postponement of purchasing must be ignored in indices; yet people often postpone buying because something has become more expensive. They experience prices as having risen, but have not actually bought anything which would register on an index. These points and others show that measured changes in prices need not even approximately correspond to the price/living cost changes which people experience.

A second problem occurs with the assumption that price is observationally given, and value can be ignored. If many goods and services are un, under, over or poorly priced, the indices miss the point. Unpriced goods and services include natural temperatures, clean air and water, quiet, domestically produced food, fuel and flowers, domestic labour, most childcare, health and rest. Most of what we value in our relationship with God, with people, in ourselves and in the natural and constructed world is unpriced. This is largely the case, for example, with older literature and buildings and with things we look at without ownership, although there is a strong recent trend to make people pay for looking at things which were previously free. Given this value-laden context in which priced goods and services sit, the assumption that prices are data irrespective of context clearly becomes very shaky. When a million people take an extra week's holiday away from home to get some "peace and quiet", what is really going on is not conveyed by the collected data. To abstract prices from this far more significant context just because they can be mechanically collected, is to ignore most of what constitutes the standard of living. Those who give labour free, or below normal cost similarly create a misstatement of what of value is being received in price terms. The net result of this positivist bias has been that environmental degradation and its costs have crept up on us without being registered by generations of economists who can see only the exchange price data.

The indices also ignore persons, their feelings, life priorities and aims. There are many people who with quite high levels of consumption yet feel unsatiated in their desire for more goods and services, even as they buy some goods, they are thinking of what else they want to buy. Others by contrast know satisfaction with much lower levels of purchasing. These attitudes shape the impetus for consumption, saving and fluctuations in credit. A more mobile society increases its travel requirements as every Christmas attests. To merely look at the data for costs
and standards of living without reference to these deeper issues which shape our attitudes to standards of living is to resolutely miss the point. Who consumes and what their personal attitudes and faith are is a central part of the framework for cost and standard of living studies. Yet, the prevailing orthodoxy has been to retreat from these more complex issues in favour of hard data that seem in some positivist sense incontrovertible, but actually offer little of insight into our standards of living.
Section 2 Logical Positivism.

Logic and Positivism.
Quite rapidly many of those who philosophically espoused positivism had to modify the initial position. One of the early ways of doing this was to put logic alongside empirically verified data as a valid autonomous foundation for knowledge. It was an astonishing move, asserting that there were self-evidently two different bases for knowing different kinds of knowledge with independent foundations. The problems with the positivist foundation are already evident, but what was the logical foundation? During the debates which focussed on this issue a certain kind of pattern emerged. Gradually all possible understandings of logic which might give it any substantive meaning were eroded. until it became completely empty and incontrovertible.

A different meaning was given to this idea of "logic" than with rationalist uses. Logicism exhibited a belief in necessary form, so that Hicks believed a logic of choice created consistent patterns to which actual choices must conform. Formalist views of logic saw synthetic a priori categories as providing the framework in which phenomenal analysis must be carried out. We note that within this Kantian framework analytical thought is concerned with statements of identity which involve no appeal to experience and depend only on the meaning of the words by which it is expressed. Means-ends rationality involved a logic of consequence: given A,B and C and such a goal this is the sequence that best reaches it. None of these views of logic was espoused by the positivists.

Their view was close to the analytic understanding, but also different. The Kantian position was that analytic statements were statements based on identity; that is, they are statements in which the predicate adds nothing to the subject, but merely breaks it up into constituents. Still, however, analytic statements, by reason of their subject, are ones about the real world. (Kant 1787 48) However, the logical positivists needed a criterion of demarcation, and this was supplied partly in the following form. "A proposition is analytic when its validity depends solely on the definitions of the symbols it contains, and synthetic when its validity is determined by the facts of experience." (Ayer 1936 104-6) This is important because it finally severs the language of logic from experience and makes it a self-defined process with no external points of reference, a mere symbolic convention. Yet more important is the way it shows how the two bases of logical positivism have no inner point of contact. Once the two cats were out of the bag, they never met. The two foundational positions had nothing in common which could relate to, let alone validate, the other. This recognition took a long while to emerge as various philosophers wrestled with a positivist definition of logic and mathematics.

This kind of position had been developed by Wittgenstein in the Tractatus. Because a tautology follows from all propositions it actually says nothing about anything.
But rather than fully face this view Wittgenstein also developed a parallel view of logic. He saw it as embodied in the world, because all states of affairs had their own logical possibility. On this view logic disappeared as any kind of independent activity about which statements could be made, and "tautological" meant roughly the same as analytic in the rationalist tradition. Perhaps here Wittgenstein retained some of Kantian roots. However, on the whole this position was rejected by others in the Vienna Circle, especially because the need to make statements about logic and mathematics was vocationally strong in the philosophy of science...

Some, like Russell linked up again with the logicist tradition, but gave it a slightly different direction. Russell was concerned, like Jevons and other earlier logicists, to provide a logical foundation for mathematics, and first in The Principles of Mathematics (1903) and then in Principia Mathematica (1910-13) he worked on the thesis that mathematics and logic were identical. But even with this theme he approached it in a different way. Crucial was a distinction between form and content; Russell believed he could purge mathematics of specific meaning like number and classes and create a logic which was true by virtue of its form. Russell was led by his mathematical work to take an entirely nominal view of classes, particularly in the definition of cardinal numbers. This was elaborated into a fully fledged Theory of Types which was seen to be basic to mathematical logic (Russell 1908), and basic to all theory and metatheory. First order propositions must express functional relationships which can be empirically verified, but the criteria for that verification and other propositions about those propositions must be expressed in a second or higher order language. Thus, Russell avoided the problems with the Verification Principle, namely the failure of the proposition to meet its own criterion of significance (Ayer 1936), but in doing so he opened up a more momentous theoretical issue. First order propositions were empirically verified and their meaning was exhausted in the functional relationships which they describe. Second and higher order languages have a logical or analytical form and lower order propositions as their subject matter, but the logical form is either defined in some necessary way or it is merely conventional and sui generis. With Russell's route necessity is not possible and the arbitrariness of the symbolic form reasserts itself.

Phenomena, like those of arithmetic could be specified in a metalanguage which claimed to be logical. Could that language claim consistency without the help of imported rules which were arbitrary? Because a set cannot be a member of itself, there has to be a metalanguage, but could it be logically consistent? For Russell the most decisive refutation of this hierarchy occurred when Godel used Richard's Paradox in a double metamathematical notation to show that systems like that of Principia Mathematica were in principle either inconsistent or incomplete, forcing Russell to abandon his foundational view of logic in relation to complete mathematical systems. (Heijenoort 1967 592-617) However, this problem contains a deeper consequence. Later theorists were forced to conclude that second and
higher order languages could not be self-contained logical systems which provided
the foundation for the systems which they described. Logic was not the
metafoundation which it had appeared at one time to be, and the possibility of
linking Positivism with Logicism in a new dual epistemological foundationalism could
not work.

It seemed possible, for example, to take Tarski's route. In the metalanguage, "The
assertion, 'Grass is red' corresponds to the facts, if, and only if, grass is, indeed,
red." (Alfred Tarski 1943-4 and Popper 1965 223-34, 391-7). Popper saw this as
reinstating the Correspondence Principle and establishing the ground for an
objective theory of truth or verisimilitude, as opposed to coherence, evidential and
pragmatic theories which were subjective. However, this is not quite the case. If the
statement in the metalanguage is analytic, it is true in red, blue and green grass
worlds and not making statements about any of them, and ", indeed," is a verbal
illusion. If it is not analytic then the Correspondence Principle is as open to debate
as it has ever been. Within this synthetic/analytic divide, second and higher order
languages have to be either empty or questionable; they cannot be a foundation.

These failures were important in principle but also raised questions about all higher
order languages. There was a tendency for them to claim logical and
comprehensive authority over more detailed, empirical ones, but higher order
languages could be involved in arbitrary patterns of abstraction, which although they
might be partially illuminating had limits and could not easily claim internal
consistency. Metalanguages also raised problems cast by the assumption of
correspondence. If there were a plethora of metalanguages which might be
appropriate to the primitive language, then which one should claim interpretative
priority as the corresponding language was more ambiguous than was often
claimed. This is relevant in consumption theory where set theory, information
analysis, axiomatic systems and other higher order languages are used, often
without any awareness of their limitations and weaknesses in relation to the first
order language of consumption.

The positivist impetus carried Carnap in another direction. He began with a
verification criterion of meaning (1928) which he modified to an understanding of
confirmation (1936). At the same time logic became embedded in the language of
science or observation statements. The positivist foundation for meaningful science
required a language with its own syntax and grammar formulated in a way which
would facilitate scientific description. The key notion here in the work of Carnap was
explication, the process whereby the analytical content of each artificially
constructed language was made clear. Symbols were therefore constructed as a
language which delineated the structure within which the empirical content of
scientific language was to be delivered. The language with its syntax was therefore
the actual language of science, and the unification of science depended to all the
sciences working out logically the syntax they should use purely in linguistic terms.
Then, however, there was the application of these terms to the objects, which was
designated the semantics. Syntax was analytic, semantics were synthetic and nothing was both. This was a foundational conception of scientific knowledge which was especially reflected in the International Encyclopaedia of Unified Science edited by Otto Neurath and in the works of Carnap from this period. (Carnap 1928, 1934, 1937, 1942) The fervour of this movement abated somewhat as it became clear that the proposed grammar was by no means as unequivocal as had been assumed, but this kind of embodied logic also remained one of the new directions of Logical Positivism.

Another move was to take logic outside positive knowledge and retain it as a process of inference which is applied to knowledge which is acquired within the positivist framework. Thus facts and states of affairs are found to exist on the basis of verified observations, and these can be examined logically in a process which does no more than extract what is already there, but has not been made logically evident. This position was not popular philosophically, because it rapidly came up against the problem that it was difficult to infer anything from facts. In particular the problem of induction showed that it was not possible to infer any lawlike statements from any number of specific cases. We shall look later at the response to this problem among philosophers of science, but nevertheless this view remained popular and was picked up by Samuelson at the next stage of his epistemological journey.

More generally positivism actually created its own agenda for logic. Inference was not concerned, for example, with causal relationships but with identity, because the problem of induction made it impossible to infer any causal logic from the facts as positively conceived. Logic thus reflected the focus on the temporal present which the position represents. Set theory obviously has an empirical preoccupation and was developed more substantially within this tradition. (Suppes 1957 177-304) Propositions, which were understood largely in terms of propositions about states of affairs in the observable world, moved to a commanding position within logic. Predicates were largely seen in terms of qualities possessed by subjects which were observable and described what they were. This process of defining the agenda for logic was rarely questioned, for it was largely a matter of deciding what not to discuss, but it was a powerful directive in the development of what could be well-formed consumption theory. Why should logic be largely a descriptive ontology? Yet as we shall see, this was the way in which the logic of consumption was seen by some positivists in the 50s and 60s.

Thus the basic dilemma of this horned position becomes evident. They claimed that on the one hand there were logical statements which were true by nature of the words which were used; they were analytic. On the other hand there are synthetic statements which are confirmed or infirmed by empirical experience. Quine attacked this dualism, arguing that there are two kinds of analytic sentences, those which are logical identities and those which are true by virtue of their meanings which often have synthetic referents. If the latter are to be given synonymy of meaning, this
cannot be done without returning to the idea of analytic identity as a dogma. Yet synthetic statements are presumed by Logical Positivists to be capable of being reduced to statements about immediate experience. However, Quine also shows that the unique mapping of statements to sensory experience often does not hold, so that more analytic means of testing them are used. Thus he erodes the law of the excluded middle and shows that the analytic/synthetic divide is difficult to maintain as other than dogma. In doing so he rescues logical language from the self-contained and irrelevant limbo in which the Logical Positivists had placed it. (Quine 1953, Grice and Strawson 1956, Feigl and Maxwell 1962 350-97, Suppe 1977 67-80). More generally it emerges that the bases of Positivism and Logic as defined within this position founder. Not only do the two independent foundations fail to stand, but the relation between the two cannot be articulated satisfactorily. This is evident also in an embodied form within Consumption Theory, to which we again turn.
**Samuelson Again.**

If the preceding analysis of Samuelson is correct, during the late 50s and 60s he should have been suffering from something like an epistemological headache. On the one hand his earlier work in the Foundations had been conceived within a post-Kantian formalist tradition which left him worried about the limited empirical referents of consumption theory. On the other hand the reformulation in revealed preference terms had largely been dictated by operationalist ideas with a strong crude positivist bias. In the mid sixties in the context of what became known as the F-twist debate, this dilemma was pushed in another direction. Samuelson espoused a Logical Positivist formulation in his debate against Friedman, who in turn espoused a hypothetical positivist position. This underlines how these positions stand dogmatically over against one another, despite their seeming propinquity.

Samuelson was stung by Friedman's claim that assumptions need not be realistic as long as they led to predictions which stood the test. For Friedman the empirical testing was the locus of assessment, and hypothesis was the area of imagination, postulation and suggestion which was not empirically bound. Samuelson was, however, in a tighter positivist tradition and had worked to establish the empirical basis of consumer theory in the pattern of preferences revealed in actual purchases, and he reacted against this suggestion. Hypotheses and theories are generated from data and from nothing else.

Observe market behavior over time; make statistical scatter diagrams; and if the result suggests to you the hypothesis that the marginal propensity to consume is exactly .925, or that the elasticity of demand for rye is -.70, or that the propensity to save schedule is concave from above - then well and good, for these are all meaningful, refutable hypotheses. (Samuelson 1963)

This is the descriptivism of his earlier period.

Scientists never 'explain' any behavior, by theory or any other hook. Every description that is superseded by a 'deeper explanation' turns out upon careful examination to have been replaced by still another description, albeit possibly a more useful description that covers and illuminates a wider area. (Samuelson 1964 737, Wong 107)

When faced by Friedman, who has made the fact-theory break, Samuelson extends his theory of knowledge in a variant form of logical positivism.

The first part of his comment on Nagel's paper reiterates the view that theories or hypotheses organise empirical observations (or "reality" - they are seen as the same thing). He eschews more ultimate explanations in favour of the functional relationships between observable variables and locates himself in the classic positivist tradition. On the basis of the analytic-synthetic distinction Samuelson argues that the conclusions of a theory cannot be other than the assumptions and

© Alan Storkey
the theory itself; they logically, or tautologically, say the same thing and are identical. Therefore to argue, as Friedman is seen to be doing, for unrealistic assumptions is automatically to argue for unrealistic conclusions which cannot be empirically justified in any theory. (Samuelson, 1963 233-5, 1964, 1965, Nagel 1963, Machlup 1964)

Samuelson's form of positivism is different from the hypothetical positivist tradition, for his wholehearted espousal of the analytic-empirical division requires him to assert that the whole content of theory is empirical, so that there is a total tautological symmetry between the assumptions and axiomatic system on the one hand and the empirical conclusions on the other. Thus follows the dogmatic confrontation with Friedman as a result of the different epistemological bases. We also note how different this position is from logicism. Hicks began with logic and only later approached empirical behaviour. Samuelson began with descriptive assumptions and only what could be inferred logically from them was formulated as theory. As we saw, the struggle to infer even the basics of ordinal utility theory shows how weak this procedure was. Facts, foundationally conceived, imply nothing. Yet Samuelson wants to argue that theory begins with description which is logically equivalent to both the theory and its conclusions. The equivalence involves identity relations, so that there is nothing in the conclusions which is not in the initial descriptive axioms.

Much of Samuelson's work in consumption theory during this period was concerned with the logical development of the implications of Revealed Preference. Houthakker had implied that it was relatively easy to generate anomalies, because strictly nothing follows from revealed preferences in any one choice situation. (Houthakker 1950, 1961) When he tried to bring together revealed preference and indifference approaches, he could only do it by positing hypothetical choices among numbers of bundles of goods, which allows the property of semi-transitivity to be reinstated and removes the anomaly. But in adopting this strategy he has really moved away from a positivist base to a hypothetical one. Thus if Samuelson wished to stay with a positivist Revealed Preference position, he faced the problem that there were no logical implications to be drawn from a chosen bundle, and the position was a cul-de sac. He was therefore cut off from Friedman's positivism, from the logicism of Hicks and Allen, and from his own work in the Foundations, where the ideal or formal framework was seen as having synthetic consequences, and as a result his contributions to microconsumption theory atrophied.

More serious in the longer term were the results of the narrow fixation of interests which arose from this position. Although its impetus was to begin from actual behaviour, the kind of behaviour it was actually prepared to consider was extremely narrow - blick bundles of purchases. The "fact" that people buy bundles of goods which express preferences within price and income constraints, could not generate an engagement with all the other aspects of the consumption process which actually take place. The empiricism is closed in terms of what it is capable of
considering. Institutional, normative, motivational, strategic and other aspects of consumption get ignored in favour of a limited diet of price and income relationships, which have priority because they seemed to be incontrovertible. Actually each of these variables is subject to important interpretational variations - is income personal or family, before or after tax, separate from wealth or considered in conjunction with it, defined in money terms or purchasing power, net of the costs of acquiring it or not and exclusive or inclusive of communal sources of benefit? Even this case shows how denuded the empirical idea of income is of the meaning which is normally has in people’s lives. Again, we see how stultifying the foundational imperative to indubitable knowledge is to real understanding.
Section 3 Hypothetical and Falsificationist Positivism.

Popper and the Break with Inductivism.

The weakness of the crude positivist idea that all knowledge could be built up from protocol statements lay in the impossibility of inferring anything from facts which were being used as foundational nuggets of well-formed knowledge. Induction was not therefore a viable method for generating theory and another view of the way in which theory was generated had therefore to emerge from the positivist theorists of science. The fundamental change was to accept the autonomy of theory, in terms of assumptions, framework, mode of arguing and definition of implications, but to retain the positivist commitment of appeal to the facts as the mode of testing the theory. In principle this was a partial retreat from foundationalism, although many working within this framework still saw the generation of theory within broad positivist terms.

One formulation of this position is found in the work of those who were in the tradition of the Vienna Circle. Nagel especially typified this position. Hypotheses were important for directing our search for order among the facts. (Cohen and Nagel 1934 201) As Augustus De Morgan had suggested, "Wrong hypotheses, rightly worked have produced more useful results than unguided observation." (Cohen and Nagel 1934 208) The structure of hypotheses was usually that of an argument, often in the form of a hypothetical syllogism. Later Hempel, Oppenheim and others formalised this position still further. As Hempel stated it, "Scientific hypotheses and theories are not derived from observed facts, but invented in order to account for them." (Hempel 1966 15) The formulation of the theories had a "deductive nomological" form, that is, they must include a statement which asserts some uniform connection between different phenomena. "In all cases when conditions of kind F are realized, conditions of kind G are realised as well." (Hempel 1966 55) This position was influential, and as we shall see, it was broadly espoused by Friedman in his view of economic methodology.

These universal law-like explanations retained their positive imprint. They were statements of regularities which could be met by specific empirical cases rather than laws as statements of universal implication. Goodman was able to define the difference between the two by noting that counterfactual conditionals are not supported by accidental generalizations. Cases of non-F may be accompanied by the realisation of G. (Goodman 1965 ch 1) This formulation thus ran up against the problem which was as old as Hume. Regularities, however uniform, did not have the same form as causal laws, and although the position claimed to be nomological or lawlike, in reality it was just dealing in empirical patterns, unless it espoused more thoroughly universal causal statements as the form of at least some scientific laws. This latter move had already been made by another key philosopher of science, Karl Popper.
In the 1930s Popper dissociated himself from the verificationists of the Vienna Circle. The process is worth restating. Originally Carnap and others believed that metaphysics and all statements which were not capable of validation by experience were meaningless, but, as we have seen, this position was self-refuting. Subsequently Carnap and Neurath engaged in the process of creating a universal language of unified science which was based on confirmation rather than verification. But Popper could not accept this as an improvement for a number of reasons.

The underlying positivist method of science was building knowledge from synthetic or protocol statements. For Popper this raised the problem of induction. From no particular cases was it ever possible to infer a universal law statement of the kind normally associated with science. Even when Carnap changed from verification to testability and confirmation, Popper argued, he could not generate universals from his protocol-statement based languages. Rather than rejecting universal laws, Popper preferred to reject the positivism which disallowed so much of normal science. (Popper 1965 35-7, 39-46, 119, 257, 283-92, 1934)

Second, Popper recognised that scientific theories always contained more than was empirically asserted at any one time, and so to claim that the theories could be generated from the empirical base was suspect, as was the claim that they could be confirmed or verified by empirical tests. The explanatory power of theories was usually far greater than the cases in which it was examined. (1965 34-7) The correct procedure was therefore disconfirmation or falsification which took into account this asymmetry. Theories could never be proved by tests or evidence because they always implied more than was immediately being tested by which they might later fail when they were refuted by other contrary evidence. (We note in passing the change from the philosophical emphasis of Wittgenstein, Russell, Ayer and others which concentrated on developing a theory of knowledge to the scientific emphasis of Popper, Carnap and Nagel, which concentrated more on correct scientific method. Popper was concerned with the status of theories and less with language as such.) Thus, the role of data in theories was substantially reduced.

Third, Popper put the emphasis on the hypothetical nature of theories. They were often generated by guess, inspiration, hunch or extrapolation from a meagre empirical base; the process was conjectural. It was not possible to exclude metaphysical elements from the theory, because these normally provided the broader perspective out of which theories arose. There must be some empirical referents, but this did not mean that all the terms of the theory needed to be testable in this way. On the contrary many theories had been generated from or contained elements of metaphysical speculation. (Popper 1965 253-92) Thus, rather than theory being rooted in a physicalist language or sense data, it had to be recognized in practice and principle as an activity of human conjecture which must have, if it was to be scientific theory rather than metaphysics, empirical consequences which were open to refutation.
Fourth, Popper opposed the emphasis on a unified scientific language of the kind proposed by Carnap and Neurath. First, Gödel's incompleteness theorems and Tarski's proof that every universal language is paradoxical required that the logic of any such language had to be outside the language itself. If the logic was outside, it was no longer a universal language and there was no reason why the metaphysics should not be outside too. (Popper 1965 268-73) But more generally Popper reacted to the idea that language analysis is everything in philosophy. This position, of course, was the product of the crude synthetic/analytic distinction discussed above. All meaningful sentences on this view had to be either protocol scientific statements or syntactical statements in the philosophy and logic of science. The latter purported to be statements about language which did not address real philosophical issues. Popper believed in the real issues and argued that they were thrown up by life and could be discussed philosophically, even in the terms set out by Carnap. What Popper called "the arch-metaphysical assertion, that there exists an omnipotent, omnipresent and omniscient personal spirit" could be constructed as part of a physicalist language. (Popper 1965 275-6) He therefore espoused an open theoretical domain which was removed from a foundational commitment.

Finally, he was worried about the dogmatism of the inductionist approach. Although the claim is that induction is merely the process of stating what is there, actually there is always a process of deciding a priori what constitutes what is there. One of the most powerful prior assumptions is the ordering which we do, but there are many other such presumptions. The problem with an inductive method is that it does not recognize this dogmatism qua method. Conversely the method of falsificationism builds a critical attitude into the process of theory construction by inviting theoretical formulations to meet all relevant evidence which can be thrown at it. Only by identifying the conjectural nature of theory can theoretical dogmatism be avoided.

Yet still, for Popper, the data remain unproblematic. They are what is brought to the theory to disconfirm it, and if the data does not fit the predictions or implications of the theory, then the latter falls. Here he retained the foundational positivist base. However, this position was challenged, especially by Lakatos, who argued that if the facts did not fit, this did not usually lead to the rejection of the theory, but raised the possibility that the data needed reinterpretation, because they were mistaken or wrongly articulated in relation to the theory. Lakatos examined how theories can become degenerate in the way they respond to counter evidence or are reformulated in a more exposed form. (Lakatos 1970 91-196, 1968) Once the interpretation of evidence had been raised as a problem, however, the optimistic view of testing began to wane. Hanson, Goodman and others showed that much of what we regard as data is theory-laden. (Hanson 1969, 1971, Goodman 1951) There are background beliefs, interpretative systems and technologies designed to generate data which all deny the givenness and objectivity of the "facts" and require us to recognise how strongly they are shaped. Consequently, Popper's simple
The positivist origin of much of Popper's methodology of science was further eroded by Kuhn, who pointed out the importance of paradigms in shaping the generation of theories. These larger conceptual frameworks tended to be orthodoxy during one era of scientific development only to be superseded by another later. They not only shaped theory construction, but also the kind of evidence which was considered. Materialism, Determinism, Evolution, a Copernican view or whatever shaped the kind of data which was considered relevant and the criteria by which testing was carried out. (Kuhn 1970, 1970b, 1977, Schapere 1964, 1974, 1975, Masterman 1970) This view made it very difficult to claim that the methods of one era of science had been or could be authoritative for another, and Feyerabend pushed this point further by arguing that the process of progress in science was, and had to be, anarchistic. Discovery could not but be such. (Feyerabend 1975, 1978) Not just foundationalism, but even normal science, was dead.

Another problem occurred in relation to the locus of Popper's foundation. Unlike the location of early positivism in a view of what constitutes meaningful statements, a theory of well-formed knowledge, Popper's emphasis was on a method of science. Falsification, as Popper oft repeated, demarked the procedure of science and was not the ground for a general theory of meaning and knowledge. Yet the method of testing was more problematic in some sciences than Popper had fully allowed. Experimental testing was not possible in history and usually not ethical in the human sciences. Moreover, the attempt to isolate from non-experimental interference, normal in the laboratory, was impossible in many sciences like astronomy, geology and the human sciences. Attempts at creating quasi-experimental conditions in the social sciences soon became very complex. Prediction was one way of generating tests, because theory was projected on new data, but in many areas this involved complex issues of estimation, since accuracy was usually seen as relative. The foundational method therefore turned out to be less universal than had been supposed and to need considerable revision for each special science. Not a few saw tests as inappropriate and inapplicable to economics.

Thus, although it seemed for a while that Popper had created a revised positivist method which would command widespread support, its limitations soon became evident. The bar of empirical evidence which he retained as a ground for disconfirmation turned out to be less solid than had been presumed and the theory often less critical than was claimed of it. Kuhn and Feyerabend seemed to be pushing the philosophy of science into relativism, and many of the practitioners retreated into forms of positivism where at least they felt at home. Their economic hypotheses were empirical and related to the normal restrictive sets of data well into the 70s and 80s.
Friedman's Hypothetical Positivism.

Friedman's concern with the philosophy of science or the theory of knowledge was more limited even than Samuelson's, but he had an involvement in the methodology of economics which led him into many of the important issues of epistemology. His view of economic methodology was developed before the work of Popper, Hempel, Oppenheim and Nagel was widely available, but it corresponded fairly closely to their position. Much of his early work was concerned with the development of ways of measuring key concepts in consumption theory. One focus was the measuring of elasticity of demand, where he took up a suggestion by Pigou (QJE 1935 151, QJE 1935 532). Another was the attempt to establish empirically what an indifference curve was. (with W A Wallis 1942) At this stage much of Friedman's price theory was conventionally rationalist, and one assumes that he took his bag of positivist tools along in all innocence to find out whether the indifference curve was really there.

The essentials of the problem of quantifying the indifference function may be stated in the following form. A variety of measurable stimuli which are qualitatively different produce responses having a common element in terms of which ordinal comparisons may be made. The objective is to determine the relation between this response and the amounts of the stimuli. Since the response is measurable only ordinarily, not metrically, this can be done by determining an implicit function connecting combinations of stimuli which yield the same responses..... While it is not entirely impossible to obtain indifference surfaces from market data, it seems highly unlikely that reliable results can be obtained for more than a small range of quantities for a few goods. (1942 Lange 1962 781, 785)

After this astonishing attempt to bridge the vast epistemological divide Friedman is forced in the end to conclude that there is nothing which empirically corresponds to an indifference curve. It then seems he gave up on rationalist formulations and became more fully committed to positivist economics.

A element in the development of Friedman's position was his interpretation of the Marshallian demand curve. The issue was whether Marshall saw the demand curve with money or real income as constant. Friedman's concern was that if money income was constant, then when the price of the commodity varied, real income also varied. Friedman interprets Marshall's position as putting the primary emphasis on money income while recognizing that secondary analysis could be carried out using the ceteris paribus assumption. Certainly, Marshall was aware of the impact of changes in the marginal utility of money and had thought about when they were likely to be important. (Marshall 1890 693) It seemed more sensible to Friedman to express the demand curve with real income held constant, allowing the relative movements of demand for different commodities to be handled without intrusive real income effects. This was a crucial decision, since the crude positivist position would not focus on the relationship between real prices and quantities, because the former
are not observable, but on money prices, which are the given data. So Friedman here moves away from a crude positivist position to one which emphasises theory as independently organising data. At times he reverted to an analytic-positive division, but his usual position after this involves the fundamental break between theory and fact. He becomes a hypothetical positivist. (cf Boland 1979, Caldwell 1980 173-88)

The development is evident when Friedman quotes Marshall's criticism of simple empiricism.

Facts by themselves are silent..... The most reckless and treacherous of all theorists is he who professes to let facts and figures speak for themselves, who keeps in the background the part he has played, perhaps unconsciously, in selecting and grouping them, and in suggesting the argument post hoc ergo propter hoc.... (Friedman 1953 90)

He then contrasts Marshall's view of theory as an engine to provide substantive hypotheses with the Walrasian tradition and with modern developments, which he presents in a somewhat confused way. He reacts to a kind of descriptivism, where "Facts are to be described, not explained. Theory is to be tested by the accuracy of its 'assumptions' as photographic descriptions of reality, not by the correctness of the predictions that can be derived from it." (91) He also dislikes a "Walrasian viewpoint" which includes all variables which might be relevant in a general equilibrium system. It might seem at this point that Friedman is tending towards the epistemological position of Mill, Marshall and Keynes which we examine in the next chapter, but this is not so, probably because he has not recognised this position as different from the hypothetical positivist one. Certainly John Neville Keynes and other fail to make the difference clear (Friedman 1953 3, J N Keynes 1891 34-5, 46). Friedman therefore interprets the general thrust of Marshall's epistemology as hypothetical positivism. The version is very close to that of Nagel, Hempel and Oppenheim with an emphasis on prediction as the main aim of the theory. It is this predictive hypothetical positivism which is labelled Instrumentalism by Boland in his review of Friedman's position. (Boland 1979 503-22)

In the Essay on the Methodology of Positive Economics Friedman shows some of the epistemological confusion to which economists have been subject. At one moment he retreats again into the analytical-positive divide. Theory, we learn, has no content, viewed as a language; it is a set of tautologies. It is an "analytical filing system", and it depends what empirical content is put into it. Only then does it have a meaningful empirical counterpart. (Friedman 1953 7) This is, of course, the position from which Samuelson was to attack him in 1963. (Samuelson 1963 234) However, then Friedman switches to his more characteristic understanding of theory, viewing it as a body of substantive hypotheses. Here he adopts a largely Popperian position, although probably developed quite independently of Logik der Forschung (1934)
the only relevant test of the validity of a hypothesis is comparison of its predictions with experience. The hypothesis is rejected if its predictions are contradicted ("frequently" or more often than predictions from an alternative hypothesis); it is accepted if its predictions are not contradicted; great confidence is attached to it if it has survived many opportunities for contradiction. (1953 8-9)

He also argues for the superfluity of hypotheses and breaks with the positivist notion of simple correspondence between facts and ideas. Although empirical evidence is relevant to the generation of hypotheses, it is often a limited sample of data from which the hypothesis grows and it contains many accidental features. The appeal to the realistic nature of the assumptions is often therefore misleading. On the contrary, if the emphasis is placed on the falsification of a theory, then a theory which seems to have unrealistic assumptions will often offer many opportunities for being refuted. Because Samuelson had not moved to a dissociation of fact and theory, he could not accept this falsificationism and attacked it, but in Popperian terms the point is reasonable, if exaggerated.

Friedman goes on to explain how theories are compact models which bring together predictions about phenomena. The models have rules of correspondence with observable phenomena which are necessarily concrete and incomplete. He identified in his review of Lange the problems of a system which is logically complete, but which few empirical facts could refute. (Friedman 1953 277-300). He also adopted a nominal view of theory, where the theory suited the particular problem under discussion and did not have a global significance. In these senses the assumptions and theory become free-ranging and not tied by a principle of correspondence to the data. Yet of course, Friedman still retained the notion of empirical testing as one of the givens of economic methodology which was largely unquestioned. In adopting this position, Friedman was a decade or so ahead of the orthodoxy of positivism. Only in 1959 was Popper's The Logic of Scientific Discovery available.
The use to which Friedman put this methodological apparatus needs to be carefully examined. In A Theory of the Consumption Function (1957) Friedman addresses an important part of modern consumption theory. Friedman was clear that "Walrasian" demand functions which specified the price of all other goods and tried to create a comprehensive system were lacking in a rigorous understanding of what was going on, and were not for him. He was not particularly happy with the Hicksian indifference system (see Price Theory - a provisional text 12-55). He also had some problems with the statistical compilation of individual demand curves, since it required a set of observations where the demand factors were held constant while the supply ones varied, a situation which was not available. It is not surprising therefore that Friedman's approach to consumption should focus on aggregate data and the testing of hypotheses concerning the consumption function. However, this involved him, and other empirical theorists, reinterpreting Keynes' causal framework (see next chapter) in empirical terms. This was a bigger switch than many of those who took part in the change of epistemology were prepared to recognise.

For Keynes is concerned with the effect of a change of income on consumption largely in short-term marginal terms, an inherently dynamic frame of analysis. By contrast Friedman's budget data, even those which are used to calculate marginal propensities to consume, are static functional relationships between income and consumption. Thus the relative income hypothesis and the permanent income hypothesis operate dynamically only because they involve longer term plans about the level of consumption which units want to establish. The conception is essentially of a functional relationship among variables which places some constraints on the consumer's range of considered options. Keynes concern is much more specific. He acknowledges that saving moves down with higher interest rates, but it is because forced lower levels of income follow from lower investment; (Keynes 1936 110-111) the result is unintended. The dynamics of ignorance, attitude and motive are important for Keynes because his concern is with the direction, the independent variable, with what makes things happen. Even with sophisticated calculations of leads and lags the budget data cannot uncover this aspect of the phenomenon.

Friedman's presentation of the permanent income hypothesis thus does not fully engage with the original intention and concern of Keynes, but there is something else which is slightly more worrying. The original formulation of the hypothesis is in terms of three equations expressing permanent consumption as a function of permanent income in terms of rates of interest, the ratio of non-human wealth to income and a portmanteau variable and two definitional equations. As Friedman states, "In this most general form the hypothesis is empty, in the sense that no empirical data could contradict it." (1957 26) The hypothesis therefore needs more specification. But on what basis is it to be made into a falsifiable theory? Here a problem arises, for Friedman refuses to define the permanent categories of income and consumption explicitly, and these are clearly the crucial elements in the theory, but says that they are "best left to be interpreted by the data themselves". It is
evident that Friedman has a weak form of falsificationist position, for the posited relationship is between two concepts permanent income and permanent consumption which are partly formulated by the data which are supposed to be able to falsify them. Moreover, there are two other categories, temporary income and consumption, which are conveniently available to soak up data variations. The construction of the theoretical framework is therefore very weak in terms of the possibility of falsification. As Tobin points out Friedman's methodological practice involves interpreting data and relatively little testing in ways which only loosely fit his principles. (Tobin 1987 115-25)

It turns out, therefore, that Friedman's methodology in consumption theory, as in his monetary studies (with Anna Schwartz), tends to be more of an associationism. The theory is a convenience, a shorthand, for describing a set of relations, between the money supply and the price level, or the level of income and the level of consumption, which are revealed by the data. The assumptions and theory are not viewed in falsificationist terms because the data are allowed to generate some of the operational concepts rather than independent theory being brought to the data. Since the data generate so much, the emphasis in Friedman's hypothetical positivism is very much on the second word with all its attendant weaknesses.

Much of the macroconsumption theory of the 50s and 60s in the States especially followed this general theoretical form. Associations among the main variables surrounding consumption were seen as generating hypotheses which were often little more than statements of relatedness. Concepts like relative income, permanent income, life cycle and normal income theories defined likely relations of income and consumption with varying assumptions about time scale and how the data needed interpreting. There was actually much debate about the reconcilability of budget data, showing a decline in the average propensity to consume and time series data with a more constant APC. Moreover the aggregation ruled out more group specific theories and posited only individual behavioural patterns which were supposed to have national significance. (Duesenberry 1949, Hagen 1955, Farrell 1959) It soon became clear that the data did not yield the unequivocal tests which falsificationism required and that the interpretation of the theories was more open than supposed. The empirical study rolled on with some of the status of scientific economics, but the foundational drive waned.
Section 4 The Frequency Inductivists.

Probable Certainty.
There was also another tradition within the positivist movement. This cluster of approaches did not make the decisive break between theory and fact in an antithetical way, but continued to see theory as being generated by data, the first-order language of conventional positivism. However, given the problems of moving certainly from observational data to theories, gradually this tradition qualified the form of certain knowledge which it claimed. The claim was to indubitable probable knowledge, and an empirical view of probability became foundational to establishing that certainty.

The decisive move was to see the theory of probability as central to the philosophy and practice of science. Data could not generate certain knowledge, because of the problem of induction, but it could generate degrees of certainty which were well founded. The problem of induction was only such if absolute certainty was required, if law-like statements were needed. If this requirement was not made of induction, then it could be used in an ordered way to redefine probability. The meaning of probability was to be found in the frequency of events occurring, or in Von Mises terms, "the limiting value of the relative frequency of an event in a sequence of trials continued indefinitely." (Von Mises 1939 169) The frequency theory was first developed by Richard von Mises (1919, 1928) and later elaborated by Reichenbach (1949), Carnap (1950), and others. (Gullies 1973) This positivist formulation began with the data and from it concluded what the likelihood of various happenings might be.

One virtue of this position was the way it sidestepped the problem of causality. Hume had shown that the empiricist had no grounds within her/his empiricism for believing in causality, but on the basis of frequency it seemed probable cross temporal relationships could be asserted which essentially had a causal form but which stayed positivist in the form of knowledge which they constructed. The early antagonism of Russell and others to causality (Russell 1913) changed through von Mises and Reichenbach to attempts to fully express it in positivist terms. (see Suppes 1970, Maxwell and Anderson 1975 esp Salmon 3-36, Jeffrey 37-49, Cohen 1970, Lakatos 1968 315f, Feigl and Reichenbach, Cohen and Wartovsky 1974a esp McMullin 21-32, and 1974b, esp Bergman 295-462)

This was a fundamentally different conception from the subjective theory of justifiable belief associated with Keynes (1921), Jeffries (1939) and Ramsey (1931) and the logical conception of Popper. (1959 appendix ii, 1983 281-401) The subjective theory identified much probabilistic calculation as involving ways of assessing and minimising degrees of ignorance on the part of the subject. By contrast the theories of Reichenbach and Von Mises saw probability as statements of the objective conclusions which could be reached on the basis of various bodies
of data. There were probabilities associated with certain events or behavioural acts, which were the way of responding to all events in order to make them knowledge. It was a foundational position, and Popper recognised how different it was from his own. (Michalos 1971) Falsificationism meant seeking powerful, but improbable theories. But,

The opposite view - that science aims at high probability - is a characteristic development of verificationism: if you find that you cannot verify a theory, or make it certain by induction, you may turn to probability as a kind of 'Ersatz' for certainty, in the hope that induction may yield at least that much. (Popper 1963 58)

The difference between these views will emerge more strongly when we look at Keynes' understanding of probability, where the subjective view was obviously not foundational because it cast doubt on the probable knowledge of the subject.

At its core the positivist view claimed to give a frequency interpretation to all uses of the term probable, to standardize the pattern of inference to an inductive mode and to eliminate all synthetic a priori and belief statements, and thus to retain an objective status in the corpus of knowledge. (Reichenbach 1949 vii). Its basic supposition was that the frequency of occurrence of an event or characteristic relative to the total number of cases in the relevant class gave definitive substance to the meaning of probability - the probability of survival of 33 year olds or that prices will rise during the next year. Von Mises describes the basic process thus:

Like all the other natural sciences the theory of probability starts from observations, orders them, classifies them, derives from them certain basic concepts and laws, and finally, by means of the usual and universally applicable logic, draws conclusions which can be tested by comparison with experimental results." (Von Mises 1929 31)

The method begins with data, derives laws from them and draws logical conclusions. The problem of induction is overcome by saying that although no universal statements or laws can be deduced certainly from the facts, probabilities of laws can be deduced certainly from the facts.

We note that this conception is distinct from the theory of error developed by Fisher, Galton, Pearson and others, which is concerned with the relation of samples to the whole population of cases, although, by definition, since the frequency method cannot be based on all the cases concerned, it too would seem to require a theory of error. This points to the fact that the qualified inductivists merge the questions of the degree of reliability of knowledge which resides in the knower and the likelihood of an event which occurs in the situation. This is because the event is presumed to give the inductive basis for knowing, but it thereby ignores the range of issues which those involved in sampling theory have taken far more seriously. Especially when we come to consider the econometric expressions of this position, both the relative frequency view of probability and the theory of error are relevant. When the data
which are supposed to be the basis of certitude in this foundational view are themselves subject to possible degrees of error, the edifice begins to be a bit shaky.

There are other serious problems with this approach. First, as Nagel points out, it is only possible to assign probabilities to a specified relevant class and not to individual members of that class. Second, it ignores some important problems with the theory of descriptions. Say the consumption of a certain good is heavily associated with dark skin, speaking Urdu, being recent immigrants, a limited grasp of the English language and wives who are relatively housebound. To associate the consumption with the last of these characteristics probabilistically is to mistake an incidental for a substantive relation. Given the limitless qualities of description, it is clearly possible to do this on a large scale. The functional relationship which is being described may well be accidental and significant only because of the complexity of description which can be predicated of people, goods and other significant entities.

This surfaces as the problem of multicollinearity in econometrics, which is usually described as arising when explanatory variables are highly related. Normally, however, the positivist origin of the problem is not recognised. The word, "variable" is imprecise. The problem arises because there are a range of descriptions which can yield data. If these are taken in a foundational sense, as variables on which operations can be carried out, the relativity and relatedness of these descriptions get ignored, and we conclude that red-haired people are likely to eat haggis. The econometricians focus on the statistical distortion which occurs as a result of these interrelations, but this is a derivative problem. The underlying one is the ambiguity of supposed foundational descriptions. Potentially they have limitless scope, and in practice they are decisively constrained by a theoretical awareness of what is likely to be significant which positivism cannot acknowledge. Economists select areas of analysis, categories, relevant variables, the kind of relationships they will see as significant, the evidence they will collect, the rules of interpretation, the methods of counting and analysis and which conclusions will be drawn. All of these involve judgements which are not given by the "data" themselves and their frequencies. Consequently, it is not given data which provide the basis for understanding, but theoretically sifted and organised phenomena. Those who remain tied to a probabilistic positivist view of data are also tied to an unquestioning theory of descriptions.

Another problem occurs with the concept frequency. In relation to events like tossing coins, there is no problem because the frequency is explicitly stated, but in most areas of consumption theory this is not the case. The purchase of bags of sugar in relation to the times when it is possible so to do is a meaningless idea:- Are multiple purchases allowed? Are potential or actual shopping expeditions the base? What is defined as the potential for sugar purchase? Even in situations where frequency would seem to be less vague, as for example in the relationship between income and savings, because the only possibilities are spending or saving acquired income,
the recognition of stocks of wealth and borrowing immediately makes it ambiguous. The problem arises because the idea of frequency can only be applied to events and not to variables which obviously have no base of possible occurrences by which they can be assessed. A trend in say, prices, might tend to certain levels considered over a certain time span, but another time span would give different results, especially if the direction of prices was the focus of examination. Given this problem frequency is rarely used with the kind of probabilistic rigour which Von Mises and others portray, but merely as a loose statement of quantity of occurrences.

The major problem is, however, the narrow basis of the foundation. Its time stance is constrained; it stands in the present looking nervously forward, whereas the probability that I got up this morning, had breakfast and enjoyed the new day is one, because it has happened. It depends on frequency, but many areas of knowledge involve unique situations which make this an inappropriate mode of address; most people have no frequency-based knowledge of marriage. What is actually a limited artifice of knowledge, developed in relation to regular solids with dots on, has been expanded to create a foundation for all knowledge for which it is just not appropriate. Not surprisingly, its foundational form and overuse, distorts the kind of knowledge which it produces.

At first this method seemed to offer a total rehabilitation of the method of empirical induction as a foundational way of knowing, and the Positivists pursued it avidly. It was formative at the foundation of much econometric theory, which grew on the idea that data can yield probable conclusions. The problems which this approach has created in econometric and other probabilistic approaches to consumption theory need now to be examined.
Consumption and Econometrics.

Another of the great methodological ways in which consumption theory is approached is through econometrics. Since this method only came to prominence in the early 1930s, it is a recent addition to the more classical approaches examined earlier. Yet the question arises as to whether this approach has been integrated with those which were already about. Here it will be suggested that econometrics has developed largely within positivist epistemologies, although we could also identify the impact of the other epistemological traditions on important theorists. This section will concentrate mainly on those who have had a positivist vision of the area. They have had basic foundational differences with the rationalism and causal tradition, and even some disagreements about the kind of positivism which should underlie its methodology. Although varieties of crude, logical and hypothetical positivism are found in econometrics, the dominant epistemology is probably(!) frequency inductivism. (Haavelmo 1944) Today this is carried through by the use of stochastic and random variables. We note that few econometricians approach their domain with epistemological awareness; more usually they present techniques with the presumption that this kind of knowledge is mathematical and scientific and therefore only subject to detailed critique.

The initial presumptions of the approach are largely positivist. Thus, data are seen as discrete numerical entities which are seen as providing neutral, reliable and scientific information about what is happening. Questionnaires generating qualitative or evaluative responses are not used, nor do econometricians invite data which cannot be reduced to general categories. Often they need to rely on samples with scope for error which is calculated using sampling theory. There may also be errors in data collection, codification and identification. On the basis of hypotheses generated either from the data, existing theory or models, relationships which are usually linear are tested using techniques of correlation, regression, variance and so on. Whether the relationships are significant can be assessed when problems created by the use of a disturbance variable, bias, multicollinearity and errors have been taken into account. Subject to these problems whether the relationship is weak or strong can be established, but it cannot be qualitatively defined except as a relationship between the categories of data collected and used. Our concern is with the kind of knowledge which this approach generates, and we shall look at it historically.

Early econometric work from Mitchell, Persons, H L Moore and the Working brothers tended to be inspired by close natural scientific observational techniques. By the late 20s and early 30s there was a movement which was strongly committed to inductive, rather than deductive (or rationalist) techniques of analysis which might create views of the economy which were unrelated to the reality. (Tintner 1953) The emphasis was on letting the statistical regularities define the economic "laws", by measurement, without theory, as Koopmans critically defined it in his review of Burns and Mitchell on Business Cycles. (Koopmans [1947] 1970 112-31) As this
stage passed, econometricians had to decide more strategically what their articulation to theory would be.

From quite an early stage models were seen as picturing the economy. This in itself was a strategic change. Theory had always tried in some sense to explain, but models had a different epistemological purpose. They were descriptive, charting the economy, and trying to mirror it by expressing its functional relationships in numerical form. Again this point is so much taken for granted that it has to be made explicit. The questions are: how much of the economy can be pictured in these numerical relationships and how many descriptive pictures are there which might each have their own interpretative value. The Correspondence Principle tends to induce an assumption that the projected model is the correct one without considering the range of interpretations which have already occurred within the model formation.

Gradually the models grew in sophistication as the numerical picturing grew more complete through the work of Schultz, Tinbergen, Leontieff, Kuznets, Koopmans, Frisch, Stone and others. The models were divided epistemologically; on the one hand some were seen as data which represented the economy as fact, given descriptive data, but on the other hand the rest embodied assumed relations and were hypothetical. Econometricians varied on where they put their weight. Tinbergen, Leontieff, Marschak and others tended to a more inductive view, seeing the data as generating an objective picture of the economy. Haavelmo, Koopmans and others emphasised more the difference between the theoretical models and the facts testing them; they were broadly hypothetical positivists and developed a concern about the Data-Theory Gap and the problems involved in articulating theory in terms which could be properly assessed statistically. The inductivists and the hypothetical econometricians continued to have an ambiguous relationship within the discipline, and debates occurred across the divide. (Frisch 1956, Haavelmo 1958) Meanwhile those of a more rationalist turn of mind like Stigler, Schumpeter and D H Robertson kept their distance. (See Pribam 1983 562-72, Epstein 1987 and Morgan 1984 for historical development in more detail.)

One of the most publicized cases of opposition to the emerging position came from Keynes in his reaction to Tinbergen's work on business cycles. This study took measurable aggregates as the economic variables which were to be considered. They were weighed against normal trends and were interconnected by multiple correlation analysis. It was criticized by Keynes in the famous Review of Tinbergen's book in the Economic Journal. (1939 568f) Keynes main argument was that multiple correlation between empirical variables developed anyway ex post, unless they were completely independent, whatever the theoretical framework of understanding, and so the method did not really get into the dynamic causal processes which shaped economic change. There was also a more fundamental difference in the understanding of probability. Keynes analysis of probability showed that he was aware of two levels, the probability of events actually happening and levels of
probability which corresponded to degrees of ignorance of the outcome on the part of the observer. From his perspective probabilistic induction would be coalescing the two in a way which was methodologically flawed. Probabilistic induction did not allow the question of observer ignorance and error to be directly faced, and Keynes therefore reacted against it strongly. (Keynes 1939 based on 1921) Epistemologically Keynes' causal approach was not compatible with the positivism of the new econometric analysis.

Apart from these criticisms from outside, a number of other problems occurred and were recognised within the subdiscipline. One is the Identification Problem recognised by Fisher, Haavelmo and Koopmans. It goes to the nub of the positivist problem. When a model contains equations in a number of variables, each of those needs to be expressed in the form of data which uniquely identify it and are in a sense uncontaminated. If the data represent a confluence of variables, then they generate spurious results. In econometric theory the solution to the problem has tended to be formulated in terms of the statistical form of the equations, but this tends in turn to impose restrictions on the operation of the model. The epistemological problem is that data are assumed to be discrete units of knowledge which can be identified with variables which are then expressed in interrelated form in the model. If and when the data also reflect interrelations, then the weaknesses of this peculiar related/discrete positivist conception will become evident. Hanson (1958) has pointed out that all facts are theory-laden, and this problem keeps surfacing. Marshall's circumspect attitude to what statistics can do and cannot be made to do in his correspondence with Bowley arise from the same misgivings that many explanatory variables cannot be identified with sets of data. (Marshall 1925 419, 424)

Another problem occurs with the place of time in the analysis. The positivist method tends to be static, or comparative static. Fairly early econometricians built lags into their studies and since then data have been used in more quasi-dynamic forms. But there is a problem. Time series data involve comparisons years or even decades apart, but the meaning of concepts changes with the time involved. For example, it is possible to calculate income-compensated cross price elasticities for short time periods which represent inter-good reaction to changes in relative prices in an identifiable way - for example, what does a change in the price of petrol mean for car purchasing? But over a longer period changes like increased fuel efficiency, geographical mobility and de-urbanisation make this calculation per se really quite meaningless. Further in the longer term income effects swamp price effects, so that all goods are gross complements. (Stone 1970) In multiple regression models with time series data autocorrelation is especially important; observations are almost guaranteed to be multi-related. However, the attempts to handle this problem by Cochrane and Orcutt (1949) and Durbin and Watson (1950, 1951) are essentially damage control techniques in the face of a very large problem. The problems extend further if the explanatory variables are interrelated. Multicollinearity may be
tackled by dropping some of the offending variables, but that merely reintroduces the previous problem. Tobin's solution was to bring in more extraneous information (1950). Thus, the concepts have to be meaningful within the time-scale specified, and really cannot be abstracted from other changes if the latter shape them decisively.

There is also the problem of the relations among possibilities recognised in the models. With one event a distribution traces a set of outcomes which may be each likely to occur, and which may exhaustively cover the possibilities, but if other possibilities exist and are not recognised, then distortions can occur as these move outside the system. The treatment of savings as exogenous, for example, means that an important inter-temporal valuation is ignored which may well be unevenly reflected in other variables. If more than one event is involved, the relation between them needs carefully specifying. Are they exclusive and unrelated or exclusive and related? Are they inclusive events which are largely unrelated or the contrary? The possibilities are very varied, especially in consumption. Families A and B cannot purchase the same house which is for sale; the possible events are exclusive but largely unrelated. Much consumption is exclusive, but related; if you purchase X, you cannot afford Y. But they can also be inclusive and related in that the purchase of X affects later purchases, if even at the crude level of not wanting to go shopping again. Where scarcity is not involved, the purchases by A and B are inclusive and are often largely unrelated. What this makes clear is how fully articulated the interpretative framework for handling variables needs to be. Rather than the data generating the theory, there is actually and ubiquitously a way of selecting out data, defining their meaning and deciding the basis for comparison which is fully as theoretical as any other approach. Yet the foundational econometric concern is often with the techniques of handling the data, not with the characteristic possibilities of the economic realities themselves.

A further issue concerns the reliability of the conclusions. There are a number of levels at which they are open to question, which are itemized below.

1. Inaccuracies of data definition, collection, indexing.
2. Inaccuracies arising from sampling error and/or full collection of the data.
3. Problems caused by use of random variables.
4. Misspecification of the relationships between data and theoretical concepts.
5. Restrictions and distortions imposed by the mathematics used.
6. Limitations caused by the scope of the model.
7. Problems caused by excluding other interpretations.
8. Problems caused by limits of calculation and numerical definition in actual economic activities.

9. Inaccuracies caused by changes over time in data, variables and definitions.

10. Problems caused by interrelationships in variables and phenomena which interfere with calculations.

11. Problems caused by gaps between variables or actions and the data which are supposed to represent them.

Arguably with these levels of potential distortion, it can often be wrong to take establishment of accuracy at one level as enough. More generally, conclusions do not establish the kind of relationships which have been specified; that depends on real knowledge, and insofar as the econometric model tries to be self-referencing in its pattern of assessment, it will fail to consider these.

When we look in more detail at the econometrics of consumption, there are a number of important national traditions and models, especially those of Chicago, pioneered by Schultz (1938), and Rotterdam with Barten and Theil. Here we shall just examine the developments associated with Stone, Deaton and Muellbauer. In 1954 Stone developed a model for analysing demand and expenditure in linear terms (LES). The structure of the model is actually Logical Positivist, in that it begins with the Hicksian/Slutsky definition of demand which distinguishes logically between substitution and income effects. (Afriat 1980) This structure requires assumptions of additivity, homogeneity and symmetry to move to a framework of analysis which addresses market behaviour. The linear form of the model required that there were no complements or inferior goods so that all price elasticities of demand could be less than one, and it was applied to a long period of about 20 years in interwar Britain, raising the question discussed above of what else had changed. (see Powell 1974, Stone 1951 68, Frisch 1933) The epistemological structure of the model is important: beginning with the logical frame a mathematical formulation follows to which the data can be addressed. Logically it contains no congruence between the logical framework, which is really self-referring, and the data one, which is likewise. How will this disjunction be expressed?

One of the ways was uncovered by Deaton who recognised how important the additivity assumptions were in these models and how these restrictions had largely been ignored in the LES and similar models. He states the point as follows:

Additivity assumptions imply approximate linear relationships between own-price and income elasticities: under direct additivity the ratio of own price to income elasticity is approximately constant, while under indirect additivity the sum is approximately constant. These relationships are a priori implausible and their exists no empirical evidence in their favour...... the assumption of additive preferences is almost certain
to be invalid in practice, and the use of demand models based on such an assumption will lead to severe distortion of measurement. (Deaton 1974 338, 346)

Since then there have been attempts in the AIDS model and others to increase the generality of the approach and lift this and other restrictions. This does not get beyond the underlying problem of the approach, namely, that the logico-mathematical construct, insofar as it takes a foundational form, has no well-formed bridge to the data and fails to relate in detail to the consumption experience which it uses. This can only really be done in a more interpretative framework which drops its foundational positivist commitments.

The consumption models have developed in sophistication, but this is largely to cope with the complexity of issues created by positive econometrics. It has not on the whole arisen because a greater variety of issues in consumption have been addressed, and most of the more strategic changes which have taken place, like the expansion of consumer credit, have taken econometric models by surprise, as they had to. Still the commitment to the method remains, detracting from the characteristics of the subject matter which should be investigated and transposing the concern into mathematical problems of analysis. Diminishing returns to results seem to have set in severely.
Conclusion.

In this chapter we have examined crude, logical, hypothetical and inductive forms of positivism and the consumption theorists who have shaped their position within them. The differences among these positions have been examined, and the reasons for the development of the later forms. Yet in many ways the coherence of the positivist tradition has been much greater than the traditions found within rationalism. The belief in facts which correspond to states of affairs in the world as giving the basic method by which theories are formed or tested has shaped most of the developments we have looked at. There have been disagreements between both philosophers of science and economists who have espoused different views of positivism which have highlighted the dogmatic barriers created within positivist theory. Yet few of these theorists have gone back to the foundational problem, the assumption that data or facts are nuggets of incontrovertible truth which admit only one interpretation because they correspond with what is the case. Often the methodological juggernauts have carried on with the same journey, offloading similar conclusions and bundles of data. Sadly, the concerns have remained methodologically focussed. Because the required methods can handle only a small proportion of the states of affairs which are important in the area of consumption, this emphasis has repeatedly closed down areas of study which are vitally important. One straightforward bias is the way service provision, which is more important than the purchase of goods in many families, receives little attention except at the point of sale, because it is less obviously an observable. Yet consumer demand for education, entertainment or even respect may have many characteristics which have scarcely yet been opened up. These old categories of theory construction in microtheory or econometrics are perhaps tired and in need of change.

What has not been examined is the extent to which data processing technology has improved through microelectronics. This processing has been the focus of much university and research institute investment. It is doubtful whether data collection has received such a technological boost, although retail check-out and stock control systems do offer vast pools of relatively untapped data. However, there are many kinds of data which it is still as/or more difficult to collect. It is possible that as the available means of handling data improve so greatly, the practitioners will be less concerned with why the are collecting data or what status this material has in relation to other areas of consumption behaviour or what the scope for error and flabby conclusions there is. Although the foundational method has failed, it is possible that the practitioners will expand their output as a result of economies of scale in processing data, and that error will flourish yet more.
Chapter four: Casual and Behavioural Foundationalism.

Background.
This third tradition is less fully recognized than the positivist one, although it is probably more influential. In this chapter we shall not be able to examine all of its developments; the most significant omission is probably dialectical materialism and other foundational forms of Marxism, which are not considered partly because they have contributed relatively little to orthodox western consumption theory. We shall, however, be looking at the Cambridge tradition which, with Marshall and Keynes, has been of decisive influence and some forms of behaviourism. Again we shall be considering the movement towards a foundational view of theory, but in this section we shall also be able to consider some theorists who have moved through or reacted to foundationalism in interesting ways.

The causal epistemological tradition has a different time scale of development from those which we have already examined. The classical tradition of Smith, Malthus, Ricardo and Mill was already strongly rooted in the Enlightenment understanding of causality which provided the underlying epistemological root of this tradition for a century or more. Yet, as with the other views this epistemology was faced with the challenges of the late 19th century and took new foundational scientific forms in the 20th century which changed the classical model substantially. It is important at this stage to clear up a possible terminological confusion. The "classical" is often seen as being superseded by the "neoclassical". This may have meaning within some conceptions of theoretical change, although this study seeks to challenge that idea, but it does not have meaning within the epistemological focus which is adopted here. The classical school was predominantly causal in conception, especially in the case of Mill, but the so-called neo-classical revolution was mainly rationalist in its inspiration. With the exception of Marshall whom we shall examine shortly, there was therefore less continuity of epistemological perspective between classical and neo-classical schools than is usually assumed. Thus, those who are the inheritors of the classical epistemological inheritance are the Cambridge School, behaviourism, Marxism and other theorists influenced by Cambridge. In this chapter we shall examine this underlying foundational position and then look at the way the Cambridge School responded to it and consider two kinds of behaviourist approach, one foundational and the other less so.

There is another problem in recognizing this tradition, for quite a few economists and even philosophers of science have not identified it as a tradition which stands on its own foundation. Friedman as we have seen drew from Marshall and John Neville Keynes an essentially positivist conception of what they were about. The problem is also evident in Blaug, who although he acknowledges the causal focus
of Mill's Logic, tries to squeeze him into either a deductivist rationalist model or an inductive verificationist. This attempt does not really work and Blaug acknowledges the problem.

What Mill had to say about formal logic is largely spoiled by the indiscriminate manner in which he plays fast and loose with the double sense of the term induction, treating it sometimes as a logically demonstrative form of causal proof and sometimes as a nondemonstrative method of confirming and corroborating causal generalisations - adduction in our language - the latter procedure being in turn confused with the problem of discovering new causal laws...But the sudden support for deductive methods after hundreds of pages extolling inductive ones, not to mention the fact that most of the discussion in this last section is about the then infant science of sociology and touches only incidentally on the already mature science of economics, is well calculated to leave the reader utterly confused about Mill's final views on the philosophy of the social sciences. (Blaug 1980 70-72)

If Blaug can fail to pick up the inner coherence of this tradition as an epistemology in its own right, then clearly others can too. Much of the confusion goes back, as we shall see, to John Neville Keynes, but the effect is to leave this tradition with far less explicit recognition than the others we have considered.

The root of this perspective lies in the Enlightenment conception of Nature as a system of causes which operated to produce determinate effects. Nature provided the total framework within which events were to be understood and studied. Already at this stage there was a difference between the material and mechanical views of natural causality which help explain the later developments we shall be examining. The materialist view was displayed in the thinking of Descartes, who saw it necessary to posit a contingent material flux as the context for the operation of causal processes (Descartes 1644). It also appeared in Galileo, through his espousal of Archimedes§, who in turn influenced Hobbes, (Hobbes 1651) Harvey and others. In the Enlightenment this became a well-established tradition of thought for the natural and the human sciences. Lucretius and Epicurus were brought in to support the position. La Mettrie's L'Homme Machine (1745) and De Holbach's Le SystÈme de la Nature (1770) led the way asserting that matter acts of itself by eternal necessity. The assertion was denied by christians and nonchristians alike, but it had influence. For Montesquieu laws were the necessary relations which derive from the nature of things, (Montesquieu 1748) and partly through him the materialist view permeated the human sciences. It was not rationality or morality which shaped human activity but proximate material conditions. It is not a great journey to the analysis of Malthus, Owen, Fourier and Marx. The historical materialism of Marx, Engels and their followers was one elaboration which stressed the variety of proximate and longer-term causes of change. Other materialists were evolutionary, or reduced change to physical, chemical, social or psychological terms. Sometimes these positions were also reductionist in claiming to explain all major categories of change - physicalism, vitalism or sociologism. These 19th
century materialists were ideological. They believed in a fundamental sense that time was the process of material development and was defined entirely by cause and effect. By the end of the century this perspective had become less popular. Of ideological materialism Russell was able to say in 1913 "The law of causality is a relic of a bygone age" (Russell 1913 Essay on causality)

During the era when foundationalism was taking shape this position developed in one of its forms into scientific materialism. The tendency is already present in Marx and especially Engels, and was later developed by Plekhanov, Bukharin and others who insisted on the scientific nature of dialectical materialism, understood as a process. But scientific materialism also developed in non-marxist thinking. A key figure in England was Whitehead who reinterpreted science as "event particles", stressing, both at the level of relativity theory and elementary particles, that activity and passage were the categories in which scientific thought took place. (Whitehead 1920, 1929) McDougall popularised the idea of scientific materialist psychology. (McDougall 1929) As we shall see, Behaviourism, from Pavlov to Watson, established another form of it. Further, German historicism also adopted it as its basic frame of reference in the Methodenstreit, although Schmoller was not able to explicate it clearly. Scientific materialism became the method whereby the study of material cause and effect was seen as the framework for scientific work.

The other mechanical strand of this perspective had emerged earlier from the secularised conception of the creation. The Deists moved towards an idea of self-subsistent nature from which the "creator" had retired and saw Nature as operating according to its own laws. It was conceived as a self-subsistent system which contained its own raison d'etre and which was accessible to human understanding in the same kind of terms as a machine. It was a whole, but how the whole worked could be analysed by dissection and an examination of the parts. Normally there was some understanding of the process of equilibrium by which the system maintained a stable existence. This approach was coherent, systemic and saw laws in immaterial terms as necessary immutable rules by which nature was controlled. In economic thought this tradition is evident both in the Physiocrats and in Smith. The latter's concern with natural prices over against immediate market price and with real prices over against their nominal money value shows his preoccupation with the underlying economic system (an important Smithian word) and its equilibrium state as his basic point of reference (Smith 1776 I chs 5 and 7). This systemic causal frame of reference is continued in the work of Ricardo and was central to the classical tradition of British economic thought.

It emerged in a more foundationalist form as a view which saw the economy in terms of a system of forces which were in equilibrium, not logically or by rational necessity, but because the mechanical analogy meant that the system had to be analysed as a determinate system of forces, or causal variables, which had a predictable outcome. Classic behaviourism, although it was materialist and historicist in its inspiration, exhibited a prototypical mechanical form of analysis. So
also did many of the later Marxist analyses. Many of those in the Cambridge school also moved back from Keynes towards a more mechanistic frame of reference. But before we go further in detail, it is necessary to look at the central foundational move of this tradition.
The Epistemological Base.

What were the core foundational beliefs of this position? Both the material and mechanistic views of nature underwent a transmission into a scientific methodology, where the method of scientific analysis was the process of examining change. It was still often described in cause and effect language, but the weight was moved to the process of analysis; for behaviourism it was the experimental process, for Marxists the structural dynamics of dialectical materialism, for economists in this frame the market process or analysis of the operation of economic forces. Behind this method lay the assumptions of materialism and mechanical causality, but they no longer needed to be asserted as ideological commitments. As against determinism which was a statement about nature involving heavy dogmatism, there was determinism in the system of analysis, the methodological assumption of a full explanatory framework. To avoid positing specific material forces as the agents of change, analytical forces like that of supply and demand became the locus of study.

The core of the position relates to the view of time. Christianity had emphasised the created nature of time, eternity, and the recognition that past, present and future, although real, find their meaning in God. Barrow and Newton had dissociated time and motion; the former can measure the latter, but is not identified with it. As this conception was secularised by the mechanists, time became an absolute, irreversible dimension of causal necessity. The old materialists like Galileo and Hobbes saw time as the empty dimension in which motion and change took place. (Gunn 1928) The Hegelian and historicist movements in Germany raised the conception of time to a central role in understanding; time was always the context in which everything, including thought, happened. (Lange 1977 II) It was the central dimension of meaning. At the end of the century the assertion of positivist and rationalist epistemologies was, as we have seen, a retreat from temporal awareness, but by contrast there were groups who continued and made foundational this central conception of time. However, it was no longer time as a substantive absolute, but time as process, motion or becoming, time as it occurs within science. The hinge of this change was Einstein's theories of relativity and the development of subatomic physics. One key response was Lenin's. In opposition to the new Machian positivists and especially Bogdanov Lenin took much time off from politics to reassert scientific materialism. Natural science may have shown that matter is insubstantial, but it was still objective reality existing outside our cognition. (Lenin 1909, Jenson 1978) At Cambridge Whitehead's emphasis on event particles was a key transition, (Whitehead 1919, 1920, 1921) aided by Johnson and Maynard Keynes. But this was not just an erudite movement. Alexander remarked in 1921 that the rediscovery of time had been the most characteristic feature of thought in the last 25 years, (Gunn 1928 241) and a nutty book by E J McCarthy Morris, Motionism or the World's True Religion (1919), conveys a wider sentiment. The Futurist Manifesto of 1910 emphasised that truth in art can no longer be...
represented by form and colour, since all things move, change and develop; the artist should therefore convey the universal dynamism that annihilates space seen in the old way. Boccioni, Carra, Russolo, Balla, Severini, Duchamp, Delaunay, Marc and Villon gave expression to this kind of vision. So the theme of motion and process shaped a range of cultural responses.

Thus, time was a unidirectional process and a foundation for economic knowledge. Understanding was met by providing the antecedents and showing the necessary consequences, and no explanation was possible which did not take cause and effect as its basic framework. Obviously, this position contrasts with the atemporal focus of logicism, the future reference of means-ends rationalism, and the present focus of positivism. Since it orientates towards antecedent causes, the classical schema had a tendency to ignore consumption. For the nature of the economy was to be understood as a process moving from production to consumption and consumption was therefore normally seen as consequence rather than as cause. Neo-Marxism and other contemporary forms of causal epistemology have also shown this crude, but not necessary, bias. Thus the whole bias of the classical tradition and the Cambridge school towards production and to seeing consumption as a dependent variable can be seen as a consequence of the basic epistemological stance.

But there is a further element in the view of time embodied in this epistemology. If all explanations are given within time, knowledge of any situation at t1 together with the causes of change define the situation at t2. All explanations are dynamic, but either stable or unstable. Usually, the system is determined, and as long as the parameters which define the system remain unchanged, it is stable. When those parameters change the system is subject to movements which must be unstable at least for a time. Within the causal framework, therefore, there is dynamic analysis which is stable or unstable, long, short or medium term. Statical method in Marshall, for example, is a limited and artificial state where strong ceteris paribus assumptions hold at bay the countless economic causes which could intrude in more realistic analysis. (1890 306-7) The statics of rationalist and positivist theory is an entirely different animal. The theorists who espouse a nonsystemic or materialist causal position see dynamic theory as including most of the body of economic understanding. Causal processes are unstable and everchanging, and one of the tasks for theory is to define stable states within the dynamic process. Clearly, again, it is easy to see how with this perspective Keynes was able to move outside the equilibrium, full-employment model which was creating such an impasse in the 1920s. On this view there is a complete reversal of the formalist priority given to static analysis. Change is potentially generated from a range of different independent sources and no prior stability can be expected. Any which occurs needs to be explained. With this approach stability is a slight possibility, subject to other causes of change.

It is worth comparing these positions with another found in French Structuralism, the
synchronic/diachronic distinction fundamental to the thinking of De Saussure, Levi-
Strauss, Foucault, Althusser and others. The diachronic processes identified with
the passage of time include all the necessary processes of material formation,
especially as with Althusser if they are given a Marxist interpretation, while the
synchronic denotes the necessary sets of relationships between things and symbols
that go to defining what is possible in a situation. The synchronic structure is
determined, or even overdetermined (Althusser), but it is deeply entwined with
diachronic understanding. Structuralism leaves little room for voluntarism, for
empirical categories and for partial analyses, and its dominant synchronic tool is the
search for inner contradictions in the system. This structuralist development is
having some impact within economics; its tendency is towards a minimisation of
static theory and a dominant conception of dynamic causal theory.

There is, however, another variant which is important in experimental and
behavioural study. This sees the static model as a comparison between the ex ante
and ex post situations where an experimental or quasi-experimental situation can
allow the effects of specific variables to be assessed. Dynamic theory then involves
a consideration of the wider parameters which have been held constant in the
experimental situation. On this view both static and dynamic explicitly involve time,
and the distinction between them is difference created by experimental or quasi-
experimental situations. This model is especially important for the economic survey
work done in consumption theory which we shall examine towards the end of this
chapter. Clearly, all of these positions involve a radically different conception of time
in theory from those exhibited in rationalism and positivism.

Finally, within the foundational causal model the antithesis is usually between cause
and chance. Chance, randomness, stochastic variables are all in one sense
completely dogmatic explanations; they explain everything, or everything which
cannot be explained by regular causes. They re-enforce in an incontrovertible way
the supposition that everything else can be explained within the system. (Bohm
1957, Beth 1959 140-3) They provide, therefore, the infallible framework where
either efficient causes can be identified or chance can clear up the untidyness. This
form of closure has only more recently been built into the theory, but the idea has
been implicitly present for longer.

This position involves no distinction between subhuman and human explanations.
The position is trenchantly expressed in Watson's statement, "Man is an animal
different from other animals only in the type of behavior he displays." (Watson 1924)
Causal analysis gives no special status to rational or understanding based
explanations; drives, forces, emotions, subconscious states, the weather,
demographic changes have equal claims as antecedents of what happens, and
what we think is itself caused; there is a sociology of knowledge and an economic
structure to knowledge. Thus Keynes happily leaps into the psychology of
investment and how entrepreneurs think they know what to do. Moreover, much of
what happens is irrational, contradicts our plans, our declared ends and our
understanding. Similarly the uniqueness of subjective and voluntaristic explanations disappears. What happens is to be explained by antecedents which give the subject no unique status and make voluntaristic explanations merely incomplete. This commitment has produced different kinds of theory; for example, unintended consequences have a place in this perspective which they do not in rationalist economics. It also leads to a disaggregation of personal and social causes into variables or factors which provide discrete inputs to the economic situation. Thus, the scope of understanding in this framework is tremendously extended.

On the other hand this form of explanation also rules out certain kinds of knowledge, in particular those involving normativity, choice, faith, planning and understanding. For causes explain, while norms, moral imperatives or principles are merely seen as inadequate ways of conveying why something may or may not happen until a fuller explanation is available. Dialectical materialism leads to norms being seen as false consciousness. A consumer may believe in the maximization of pleasure, but this consumption norm is the product of commodity capitalism. Within a behavioural framework conflicting motivational forces or drives may explain why consumption choices are made rather than moral imperatives, and seemingly quite altruistic acts like giving are explained in terms of status-seeking and self-esteem. Clearly, moralism, rationalism and altruism are often used as dogmatic frameworks for explaining choice, but an equally automatic explanation of declared normative behaviour in amoral terms may not be correct understanding either. If what ought to be done is actually the grounds on which many decisions are made and activities conceived, then an anormative causal explanation is actually a dogmatic explanatory mode which rules out of court precisely what has happened. Later we shall examine the way Mill, Marshall and Keynes reacted to this problem.

Further, the causal foundation also tends to have a restrictive view of temporal behaviour. In particular the irreversible unilinear view of time tends to rule out human cross-temporal reference, which includes learning from mistakes, planning, waiting, anticipating, working towards, hope, views of progress and decay, and innovation. The fact that humans can act now on well formed beliefs about what the future will hold undermines a unilinear view of causality. The temporal relationships in consumption theory are very complex and exciting; it is therefore a serious restriction when this unilinear view is imposed on it. Again, forms of restrictive explanation operate without any justification other than the assumed requirement of this foundational form of knowledge.

The theoretical structure of this position changes the meaning of the concepts used. First, they do not need to be experientially validated, as is the case in the empiricist tradition. Second, there is no necessary rational framework within which they must function as with the logicist and a priori traditions. By contrast, the concepts are required to be causal inputs; they must identify contributory factors to a given situation. The terms in which this is done vary, but especially important are: the idea of parameter - an unchanging constraint and delimiter of what can happen,
variables - seen as changing contributory factors, and laws - seen as necessary processes by which independent variables are linked to dependent. This much is standard (which reveals how ubiquitous the conception is), but there is more to note. The emphasis normally is on identifying independent variables, that is, the discrete causal contribution. This conflicts with holistic or structural explanations, except in the sense of having an explanatory system of stable, interacting forces. Also important is the way in which the concepts are seen as neutral in that they are not perspectival and culturally laden; rather than cultural developments being an explanation, they must be explained. In principle the viewpoint of the theorist is insignificant to the process of explanation and the concepts must therefore be objective and detached. Behaviourism formalises this in requiring public, replicable, experimental definition of its concepts. The experiment gives definitive objectivity. We shall see the consequences of this view within consumption theory among a number of theorists.

The mathematics used within this tradition also has its own characteristics. The associational techniques of statistics and econometrics which are positivist in inspiration have little to appeal to those with causal commitments. Thus, Keynes was impatient of statistical calculations of ratios, because they fix what must be dynamic relationships, and he saw them as a hindrance (Keynes 1939) They also tend to eschew general equilibrium models, maximization models, game theory and to require explicit recognition of time in dynamic models where variables function in dependent or independent forms and not as identities. Treating variables as parameters means that models can be solved through nominal processes of defining the scope of the mathematical exercise, but the underlying commitment is discovering what happens and why as a result of various causes. The mathematics is expository, and limited to incorporating quantitative effects into the analysis, not sui generis the basis of theory. Many within this tradition have been quite diffident as to its importance, as we shall see with Marshall and Maynard Keynes.

This sketch conveys something of the inner agenda which a causal frame of reference gives to theoretical activity in economics. Now we need to look in more depth at the development of this foundational position in two different contexts.
Section 1 Cambridge Causal Theory.

The Cambridge School.
During the early nineteenth century causality remained the popular epistemological basis of natural science and economics, largely in the mechanical form, but it was subject to a number of challenges and redirections which were formative. The first was the subjective rationalism of the Benthamites and the claim that the system could be ethically ordered through explicit policy commitments. The second was the stage theory of Comte, Marx and others which introduced a new dynamism to the causal model. The third was the movement from mechanical to organic models of development which accompanied the growth in evolutionary thought. It was in the midst of these changes that J S Mill attempted in his System of Logic to provide a methodological foundation for causal analysis. This is the key work for causal foundationalism to which we shall return. Mill's influence on the key people at Cambridge was deep. Sidgwick and Marshall were both alienated from Christianity by his work and it took root in the ethos of the "apostles". (Skidelsky 1983 26-50) Sidgwick, for example, came very close to accepting Mill's law of universal causation. (Sidgwick 1874 48-62) This perspective became the methodological heart of the thinking of the 70s, 80s and 90s when more or less singlehandedly Marshall constructed an Economics Tripos in Cambridge. Often it was expressed quite poorly. Marshall talked about facts, deduction, analysis and abstract reasoning without much wider philosophic awareness, but what he means is evident: explanation and prediction are backwards and forwards the analysis of cause and effect. These are his "short chains of reasoning" ( 1890 638) By the end of the century, and especially with Einstein, a mechanical view of the universe had become outdated, but by this time the approach had become a method, Marshall's famous "engine". The methodological equivalent to natural causality was the examination of a system in dynamic terms from which an outcome could be predicted and this was what Marshall had laboriously constructed in his Principles.
This framework was entirely different from those which we have examined already. First, it was the only one which had a strong explicit recognition of time. The means-ends rationalist position had only viewed time as intention, but this model looked for the way change happened, for how the past became the future. Its characteristic method of theory evaluation was prediction, pushing understanding into the future and claiming knowledge of it. Yet it was a method, primarily defined by ceteris paribus, the process whereby certain factors were taken out of the picture so that the particular causal processes under examination could be considered more rigorously. Always the search, through rigorous method was for the efficient causes. These theorists could look at part or, later with J M Keynes, the whole of the economy, but not within the general equilibrium framework of the Walrasian school. General equilibrium theory is different in conception from Keynes' model of the economy. To point where we are travelling it is perhaps worth hearing Keynes talk in these systemic terms in a key part of the General Theory.

We have now reached a point where we can gather together the threads of our argument. To begin with, it may be useful to make clear which elements in the economic system we usually take as given, which are the independent variables of our system and which the dependent variables....... Our present object is to discover what determines at any time the national income of a given economic system and (which is almost the same thing) the amount of its employment.... in particular, it is an outstanding characteristic of the economic system in which we live that..it is not violently unstable. (Keynes 1936 245-9)

In the 19th century there had been political overtones to the material and mechanical views. The former because it gave equal status to all material causes tended to be radical, while the mechanists were conservative, thinking about maintaining the system. In the 20th century this distinction paled, but did not quite disappear. Keynes liked Malthus, because he was materialist and not a part of the mechanical Establishment, but his model of the economy was conceived in largely mechanical terms. By the 20th century Cambridge economists thought there was not really any other position to acknowledge. So, for example, when Keynes has his quarrels at the beginning of the General Theory with classicism, it is a quarrel against those within his tradition who are mechanical causal theorists and for those who accepted a more contingent causal approach. It sounds as though the terms of the debate are quite broad, but really it is an intra-Cambridge discussion. (Keynes 1936 4-22)

It is worth adding that in the German tradition the espousal of a causal methodology was largely identified with the Historicists, who had a strong aversion to the possibility of systemic theory which did not take into account the particulars of place, culture and historical formation. Historicism had affinity with the methodology of Marshall in its causal emphasis, as Marshall's Industry and Trade shows at length, although on the whole it eschewed the systematic analysis to which Marshall was so committed. It is reflected in many of Marshall's concerns which are often not
noted today, like his recognition of the process whereby markets develop (Marshall 1890 137). These dynamic historical concerns have tended to be ignored in favour of Marshall's more systematic work. In this study we shall not be able to examine Historicism in more detail, but its place alongside this tradition is evident.

Thus, the Cambridge School was a tightly organised and coherent group which for two generations with a slight interregnum centred on the figures of Marshall and Keynes. Each of them responded in their own way to the heritage given by Mill, and they constitute an independent epistemological tradition which has not yet been fully recognized as such. Let us examine each stage of its development in more detail.
Mill and the Foundation of Causal Epistemology.

In the first chapter we examined the inner structure of foundationalism, seeing it as a movement away from substantive understanding towards a commitment to an authoritative method of obtaining knowledge. We also identified the transition with the late nineteenth and early twentieth centuries. Causal epistemology sits uneasily astride this time sequence. On the one hand Mill is earlier than, and incompletely represents, a foundationalist position, and on the other hand behaviourism is a highly specified form of it developing later than the main period of foundational formation. Nevertheless Mill is largely the hinge around which the change to a foundational position occurs. Earlier thinkers worked with a concern to understand nature as a substantive system, but Mill had moved over to seeing the law of universal causation as the foundation for scientific study from which a method could be generated. It is possible to see these two perspectives at war within Mill's economic thinking, but there is no doubt about the trend of development towards the latter perspective.

This involved Mill in some distancing from the position of his father and Bentham, who focussed very much on deductive thought and free will/ethical analysis. The Benthamite calculus Mill saw as a rational gloss on the far more complex causal processes which go on in human decisionmaking (Mill volX [1833] 8, 77-99). Mill also made a decisive break with Rationalist modes of thinking. Already in the early version of the Logic he was concerned less with what was hypothetically assumed and more what was actually believed to be the case (Mill volVIII [1833] 1099) thus making the book on induction the central concern of his methodology. In 1829 Macaulay had attacked James Mill's deductive approach and argued for a mechanical model of the resolution of forces for the study of society. In his autobiography Mill describes, with loyalty, how he came to see his father's reaction and response as inadequate and how this led him out of strict rationalism into a wider search for the laws of human nature. This in turn drew him into a reconsideration of induction which was the process of finding causes of effects, and into the full structure of a System of Logic. (Mill I 165-9) Possibly the emotional crisis in his twentieth year and subsequently was partly the result of feeling locked in a causally determinate world. (Mill 1 149-53) This conception of the sciences was furthered in his relationship with Comte, the influence of which Mill ante-dated to 1828, but Comte's lack of sympathy with the idea of cause because he wanted to adhere only to positive phenomena was also one of the reasons for their estrangement. (Mill 1961 57-63) There was also much in Ricardo's economics which was causally constructed, although within a more mechanical 18th century framework, as is shown by Ricardo's repeated practical qualifications of James Mill's deductive conclusions (Hollander Voll 1985 15-36). Mill therefore came to have a central concern with the human sciences as a study of the relationships between specific human events and consequences which moved away from rational
and volitional modes of thinking. During the period 1830-32 Mill had also become convinced that the Free Will/Necessity issue could be resolved by accepting a subjective sense of choice but having determinate explanations of that choice in an external causal framework.

This was allied to a definite foundational drive. In the draft version of the Logic it is conceived as the formulation of "the Science of Science itself". (Vol VIII 965-6) The mere collection of evidence, empiricism, does not add up to proper scientific work until its foundation as a science has been rigorously established. The process is akin to talking without a sound knowledge of the rules of grammar; people can make themselves understood, but they talk and write far more intelligibly by means of grammar, and they judge evidence far more correctly when the Logic of Science is in place. He thus makes the central foundational move to a consideration of the grounds on which knowledge is to be established.

The province of Logic is not the evidence itself, but the operation of the understanding in judging the evidence. Logic does not teach us by what evidence a given fact becomes known to us; but how we are to judge of the evidence which shall be sufficient to prove that fact. It does not itself solve the problem, but determines whether it has been solved satisfactorily, and if not, what is still wanting to render the solution complete. (Vol VIII 964)

Mill's affinity to Comte is also explained by this concern. He found in Comte someone who was also prepossessed by the coherence of the sciences and with the common method which underlay them. Comte's positivism was, however, a crusading Science of Society which was different from the Science of Science itself which Mill had in mind. Nor is his reading of logic to be assimilated into the conception developed by the Logicists. De Morgan and Boole felt that Mill's Logic was not pure enough in the sense of removing all substantive assumptions, and therefore did not give a proper foundation for logical analysis, while he felt that Boole and De Morgan were engaged in scholastic exercises which had no considerable utility for any other purpose. (Hollander Vol II 937) His aim was to establish the proper method and procedure for substantive causal scientific work in all the disciplines. He was already fully engaged in the philosophy of science.

To establish this foundation Mill had to dismantle the central edifice of rationalism, as also did De Morgan and Boole. The syllogistic logic of Hamilton and Mansel needed to be cleared away, but in this attempt Mill took the opposite direction from Boole and De Morgan. They saw it as still needing to be purged of substantive assumptions which spoiled its formal purity. Mill focussed on the theme that the principle of the syllogism must contain the conclusion, which the minor merely makes explicit, so that the syllogism is a petitio principii. (Mill 1884 120-1) Thus Mill dismisses syllogistic rationalism.

For a doctrine which defined one of the two great processes of the discovery of truth as consisting in the operation of placing objects in a class and then finding them
there, can never, I think, have really satisfied any competent thinker... (Mill Vol IX 391)

Thence, of course, Mill moves to the conclusion that all substantive inference is really inductive. He does rehabilitate syllogistic reasoning, but both because the universal law of causation is the basis for establishing necessary consequences, and also because analytical clarity is needed in cases of simultaneity. This dependence of deductive and inductive forms of reasoning on the universal law of causation is crucial, because at later periods the terms "deduction" and "induction" are still read in rationalist and positivist senses. John Neville Keynes never really understood it. But within this causal tradition they are absorbed into the logic of causal science which Mill then goes on to elaborate in the Four Methods of Experimental Inquiry. They have no independent status and there is no conflict between them as methods except in the circumstances of their use. Yet the conflicts of rationalist deductive method and positivist inductive method are read into this different and completely distinct foundational approach by later scholars.

Finally, the law of universal causation which is the lynchpin of Mill's epistemology is, as the period when he was formulating it would suggest, both a substantive assertion and a methodological prerequisite. Underlying it, as the correspondence with Bain demonstrates, is a belief in the law of Conservation of Energy/Matter. (Mill Vol VIII 1124-31) Everything that is must be explicable in terms of antecedent causes, which may have a different form, but produce the consequent as Potential Energy produces heat. The most potent statement of this position is in Book III of Logic.

The state of the whole universe at any instant we believe to be the consequence of its state at the previous instant; insomuch that one who knew all the agents which exist at the present moment, their collocation in space, and all their properties, in other words, the laws of their agency, could predict the whole subsequent history of the universe.... (226-7)

On this basis Mill is able to concentrate on physical causes and to repudiate the idea of ultimate or "efficient" causes as being beyond rational consideration. Much of his criticism of Hamilton, Mansel, Whewell and others comes from this physicalist conception which requires recognition of the plurality of antecedent causes and an explanatory framework for volitional behaviour provided by the science of ethology. However, although this was substantive belief about the nature of the world, it was also thoroughly transformed in the System of Logic into the scientific method which was able to separate coincidence from causation.
Mill's Epistemology in Economics and Consumption Theory.
The development of this epistemological tradition did not fully work itself out in Mill's economic perspective. This is not surprising, since he had from his father, Ricardo and others already developed an articulate economic framework by the 1830s. But it is easy to underestimate the changes and developments which take place in Mill's conception of economics compared with earlier ones. First, he had a definite understanding of the processes of abstraction which are involved in the study of one human science. The stance is not realistic or substantive, but grows out of the procedural necessities of a science.

All these operations, though many of them are really the result of a plurality of motives, are considered by Political Economy as flowing solely from the desire for wealth. The science 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, without any other exception than that constituted by the two countermotives already specified ["aversion to labour and desire of the present enjoyment of costly indulgences"]. Not that any political economist was ever so absurd as to suppose that mankind are really thus constituted, but because this is the mode in which science must necessarily proceed. When an effect depends on a concurrence of causes, those causes must be studied one at a time, and their laws separately investigated, if we wish, through the causes, to obtain the power of either predicting or controlling the effect; since the law of the effect is compounded by all the causes which determine it. The law of the centripedal and that of the tangential force must have been known before the motions of the earth and planets could be explained, or many of them predicted. The same is the case with the conduct of man in society. In order to judge how he will act under the variety of desires and aversions which are currently operating upon him, we must know how he would act under the exclusive influence of each one in particular. (Mill 1844 121)

This is an astonishing passage. On the one hand it recognises economics as an analytical science based on partial causal analysis. Especially impressive is the awareness that this mode of analysis cannot be seen as realistic, but must be recognised as an abstraction which isolates only some of the phenomena involved. But on the other hand the comprehensive desire for wealth has to be maintained to allow a deductive causal explanatory framework. At this point Mill does not have a foundational position, for he requires this substantive view of economic motivation to distinguish the economic. It becomes a form of special pleading for an economics which is constructed by abstracting from every other human passion and motive than the desire to possess wealth. (Mill IV 319-21)

It is here that Mill's classical background reasserts itself. He espoused a priori reasoning as the mode of investigation in the moral sciences, partly because the
experimental method is not open in the human sciences, but mainly because it allowed laws of human nature to be abstracted and applied to the external circumstances capable of exciting the human will to action (329). He assumes a priori that there are, aside from disturbing causes, general laws of human nature. This assumption seems to owe more to Bentham, Ricardo and James Mill than it does to his own epistemological position, and it keeps him firmly in the classical tradition of a priori analysis in contradistinction to the open and eclectic methodology which his causal framework should allow. Later his insistence on this tight a priori framework wilted as distributional issues were forced on him by the St Simonians, Maurice, Mrs Taylor and others, and he was confronted by other motives which he and many of those he knew took seriously.

It is in Mill's approach to the issue of overproduction or underconsumption that the weight of his causal approach is seen to shape his theory. This question, raised by Sismondi, Malthus and Chalmers, goes to the heart of disequilibrium or dynamic analysis. Mill's argument that productive power means purchasing power neatly avoids the value of money and reduces all other problems to issues of relative output and levels of purchasing. (Mill 1848 556-63) He even retreats from Essay II of Some Unsettled Questions where he had shown a positive attitude to Consumption. There he shows it as having an impact on Production by freeing up Capital which was held as working or fixed capital that had been effectively idle to be utilised more fully. This allows him to show the benefit of migrant consumers to the areas where they go and the deprivation suffered by areas where there are absentees. He considers the circulation of goods and the impact of brisk demand and is able to consider periods of excess supply in monetary economies where people delay purchasing, possibly because of the state of the market. Although Mill repudiates the possibility of general long-term overproduction, he is clear that there can be widespread inequalities of supply and demand and changes in the relative value of money and goods which are not equilibrium adjustments. (Mill IV 262-79) In Essay III he picks up the issue of whether consumption and expenditure is productive or unproductive. His position opens up an important point which positions that focus on consumption as an end in itself cannot identify. Some consumption ends directly in enjoyment and furnishes no further productive output. In defining it thus, Mill is making no judgement other than that it does not add to the later productivity of the economy. Other consumption is, however, productive in that it increases the ability to work, the skills or equipment of work. Clearly the line between the two is fuzzy, but it raises an issue which is crucial to our indulgent consumer society. To what extent is consumption helping or hindering the creation of later goods and services? The ecological aspects of consumption are already making this a crucial issue which deserves deeper consideration. (Mill IV 280-9, Book 1 ch 3) This and other points get lost when Mill retreats into the classical system which was tighter than his methodological one.

But at the same time Mill's causal framework displays a major weakness which is
reflected in the structure of the Principles and classical thought generally. It works from production to consumption as from cause to consequence, with the major emphasis on the factors of production and how they operate. Even the use of the inverse deductive, or historical method, developed at the end of the System of Logic, which moved from consequences to causes would not have met this case. For much of consumption is purposive, and therefore has a different form. Although rationalist thought was only able to organize this range of experience in logical, formal or means-ends terms, it did allow the expression of the purposive dynamics of consumption in some form. What remains astonishing is the way this causal conception kept the subjective dynamics of choice and consumption planning out of consideration for so long. It allowed the consideration of unplanned consequences, but even with Mill's a priori method the purposes of consumption were not really capable of expression in consequential logic, for these volitional issues were beyond the scope of scientific study. There are odds and ends about consumption, but really demand and consumption do not appear in the Principles until Book III, more than 400 pages into the work, and then only briefly.

The point is clear. Mill's causal methodology, even though it was only partially implemented, gave him no tools for developing a more open approach to consumption and demand. The causal priority of production meant that Natural or Cost Value dominated and largely determined Market Value. (1848 478-80) This is not a very promising start to an epistemological tradition in consumption theory, but others took it further...
Marshall and Causal Theory.

There is a lack of understanding of the causal epistemological tradition as an independent foundational approach. Thus Marshall is often regarded by rationalists as an economist who was overwary of mathematical economics, preferred short chains of reasoning and wanted to remain practical in his theory construction; this is only superficially the case and ignores the epistemological convictions which gave Marshall's position and theory construction cohesion. Within the causal framework which he developed, all of these emphases made sense, and it is therefore important that the rationalist and positivist interpretations of Marshall and Mill are eliminated so that their positions can be properly established.

Blaug's failure to recognize Mill's perspective has been mentioned. In The Methodology of Economics (1980) he sees Mill within a verificationist tradition. He judges Mill to have spoiled his formal logic by "the indiscriminate manner in which he plays fast and loose with the double sense of the term induction" (70) He describes Mill as a verificationist (75), holds his canons of induction up against Hume (71), is puzzled by his dual espousal of inductivism and deductivism as valid methods of understanding (69-73) and concludes that A System of Logic tends merely to leave the student confused as to Mill's philosophy of social science. The reason for this confusion is largely the continued use of the concepts, "deduction" and "induction", which are understood in rationalist or positivist senses. The problem continues when Marshall is considered. He is seen as a conciliator between induction and deduction. (56, 82) Blaug's final review of Marshall's contribution elsewhere is as follows:

Judged by the exacting standards of present-day theory, Marshall's Principles is an unsatisfactory book. In the hope of being read by men of affairs, Marshall hid his diagrams and mathematics in footnotes and appendices and covered up every knotty point in the analysis. Moreover, an ambivalent attitude on the part of the author toward his own subject matter pervades the entire book. Ostensibly the Principles is a study of static microeconomic theory but time after time the reader is told that the conclusions of static analysis are unreliable and that microeconomics fails to come to grips with the vital issues of economic policy. The "Mecca of the economist", says Marshall, lies not in comparative statics, nor even in dynamic analysis, but rather in "economic biology". By "economic biology", Marshall apparently means the study of the economic system as an organism evolving in historical time. This sounds very much like the methodological program of American Institutionalism. And yet Marshall's efforts throughout his life were devoted to teaching, expounding and refining the very kind of theory that he deprecated repeatedly in his book. (Blaug 1985 420)

Was Marshall so at odds with himself? No. Consistently he saw economic theory as a causal engine where the composite contributions of various effects were resolved into their outcome, "The One in the Many and the Many in the One". Because
"Natura non fecit saltum", each of the causes had to be traced carefully, usually by the ceteris paribus assumption of partial analysis, as a prelude to going on to the more complex analysis of the tendencies introduced by all the other causes. The larger historical themes of Trade and Industry (1919) and Money, Credit and Commerce (1923) were merely tracing the broader dynamic themes which were part of this frame of study. Once it is granted that his epistemological position is a causal one, the inconsistencies disappear. Deduction is the necessary way of expressing uniformities in causal processes, and induction is the gathering of evidence that they exist. It is Blaug's failure to recognize this third epistemological position which evokes the problem.

The roots of Marshall's position are various. First, he built his economic analysis firmly around Mill. (Whitaker 1 1975 25-6, 37, 39, 50) Second, he owed a lot to the German historicist tradition. Their framework was that of the complete historical specification of reality, which involved an underlying dynamic approach to history. The aim was to explain change. Marshall believed that some general causal patterns could be established, which meant that unique historical explanations were not always needed, (Whitaker 1 1975 12) but he sympathized with their methodological perspective. From Sidgwick he gained an awareness that there were a variety of ethical motives including utilitarianism, egoism, intuitionism and altruism, and that ordinary people sometimes use one method and another. (Sidgwick 1874) This allowed him to incorporate ethics in the causal processes at work in economic life without relying on one ethical method in his framework. (Marshall 1890 v-vi) Thus, the enterprise undertaken by the logicists of removing all utilitarian taint from consumption theory was unnecessary from Marshall's point of view because his theory of motivation was already pluriform and open, and when he used utility as a concept it was a practical and not an ideological term. Finally, through Cournot, he saw that causality was not to be explained through particular chains of analysis, the dominant method of Mill and the Historicians, but through composite analysis which took into account the complex of contributions. This solution to the problem of the "One and the Many", was for Marshall exciting. Some patterns of explanation incorporated a lot of particular cases under a common essential frame of reference, and others needed more pluriform explanation. It was different in character from the tension between partial and general equilibrium analysis faced by the logicists. In summary, Marshall had a comprehensive method, based on the Law of Universal Causation, or as he expressed it, the principle that "Natura non facet saltum." For Marshall the opposite of partial analysis was complete or determinate analysis, not general equilibrium analysis.

Was this position foundational? It is intriguing that in the Eighth Edition of the Principles Marshall six times nervously refers to the "Foundations" of Economics, presumably because of the emphasis on Grundlagen in Germany. (Marshall 1890 xi-xiii) This, however, is a formal afterthought. Marshall was not consciously a foundational thinker, and had little concern with methodological issues once he
thought he had reconciled the inductive-deductive tension. As Coase shows, he thought he was prepared to be methodologically eclectic and was somewhat impatient of J N Keynes preoccupations. (Wood 1 1982 409-15) He saw himself in the English tradition, following Mill, and this meant he marginalized Jevons as an innovator who could be incorporated into the mainstream English tradition in due time. Moreover, Marshall firmly related to the study of mankind in the ordinary business of life and refused to define the discipline in self-contained terms. Thus he was not a foundational economist in many of the ways in which the term has been defined. He was directly concerned with people's economic experiences, especially in his work on the Royal Commission on Labour (1891-5), and in that sense was not otherworldly. It would not be accurate, therefore, to claim that his analysis reflects a tight foundational structure.

However, in another sense Mill's conception of the method of scientific enquiry was carried a stage further by Marshall. He was constructing a method which was common to other sciences; it was an engine of analysis, although like the biological sciences it had to deal with phenomena which had changing structure and character. The forces were not contained but subject to living growth and development. He saw the new method as outside dogma. He fought against the metaphysical content of the Moral Sciences Tripos. (Skidelsky 1986 44) Moreover, his interpretation of marginalism was within a tight methodological framework. Substitution was a force acting in supply and demand relationships to produce certain outcomes; the boy picking blackberries eventually counterbalances the desire for eating by the need to play and not work, and supply and demand are the blades of scissors. (Marshall 1890 276-91) The dynamic causal framework is reflected throughout his corpus, always requires a time specification and channels his theoretical work in quite specific directions.

This method also explains Marshall's affinity with the Historicists, Schmoller, Ashley, Wagner and others. The careful historical study of the development of trade and industry, and of the organization of markets, in Trade and Industry (1919) is a causal analysis with a broader scope. It similarly lies behind the analysis of the tendency to monopoly. (1919 395-672) The examination of stages in the development of money, credit and trade also fit this pattern and show that Marshall's causal framework was evolutionary and required a sharp perception of the epic changes which were occurring in the structure of economic organisation. The extent to which capital markets, banks, stock exchanges, currency and accounting had developed determined what was possible in an economy. (1923 11-97) Thus Marshall's sympathy with these theorists stemmed directly from his own methodological concerns.

It is also evident how fundamentally different is the relationship between statics and dynamics than anything which we have examined hitherto. Logicism saw theory as predominantly static, and Pareto detested Marshall's approach (Wood/Marshall Il 130-5, 154-9) which made dynamics sovereign. As the Preface to the Eighth Edition
makes clear, it "is concerned throughout with the forces which cause movement: and its key-note is that of dynamics, rather than statics." (xiii) In fact the statics occur in the ceteris paribus assumption. "We reduce to inaction all other forces by the phrase 'other things being equal': we do not suppose that they are inert, but for the time we ignore their activity." Gradually more forces are released from the "hypothetical slumber" until the area of the dynamic problem becomes larger, and potentially complete. (xiii, Wood 1 1982 232-40) This is especially important in the definition of equilibrium, which for Marshall is not static, but dynamic. It may be either stable or unstable, and of course the latter was one of his preoccupations, but the idea of a "stationary state", or static conception of equilibrium was for Marshall worse than useless. "But nothing of this is true in the world in which we live... the greater the appearance of lucidity which is given to it by skilful exposition, the more mischievous it is." (1890 306) Equilibrium is actually the outcome of a flux of forces, many of which may be changing even if the outcome is the same. His definitions are similarly in the active, rather than the logical mode. "I hold that taxes are paid by persons, not things. Things are the channels through which many taxes strike persons" (1926 334). Always the dynamic leaven was working through his analysis, circumscribing stability as a local phenomenon.

Another aspect of this methodology is its impact on the view of the person. Although Marshall states that he is studying men as they live, move and think in the ordinary business of life, his psychology is actually through motives to policy to action. The action units comprise the basic building blocs of his theory, especially because they are the units which produce effects. Parsons recognised the importance of this action frame of reference in the development of social science, and we could link it with the Weberian traditions which developed in Sociology. (Parsons 1937) Weber also had a strong causal framework behind his action theory which was somewhat at odds with the means-ends view of instrumental rationality which we have already examined. He reconciled the two by seeing bureaucratic and economic behaviour in means-ends terms and socio-cultural behaviour in action terms. Marshall's resolution was less theoretical. At the beginning of the Principles he distinguishes the two great formative influences in history as economics and religion, and effectively says that he will ignore the latter and concentrate on the practical one. Although he is not closed to the broader values and commitments of life, he puts them into storage for his declining years. People are therefore treated largely in terms of the material prerequisites they need to attain without normative elements intruding too much. Although Marshall was a benign Socialist in many of his sentiments, his analysis was able to proceed with a causal framework which worked within a tentatively progressive view of human action. How people acted could be considered, but why they did was not allowed to intrude too fully on the domain of economic study. (Marshall 1919 673-80)

The approach affected the terms on which theory was to be validated. Marshall usually went beyond the facts. Verification was not a valid way of testing theory,
because tendencies which were valid in themselves could always be swamped by other factors which were not constant in operation, and they therefore were not amenable to statistical corroboration. Mill's methods were part of a system of validation which depended much more heavily on the analysis of ceteris paribus conditions. Thus, on the basis of his extant knowledge Marshall would guess ways of establishing when other causes were operating. (1919 vii) Marshall could easily handle the Giffen paradox, as it showed a cause which led to an abnormal solution. Empirical validation within a framework of ceteris paribus assumptions is not easy, because it means reinterpreting (changing) the evidence to eliminate the factors which are not being considered within the analysis. Thus Marshall says that statistics for consumption are of very little service in helping to trace causal connections; (1890 95n) the evidence has to conform to ceteris paribus conditions. When he talks of gathering facts, as often he does, Marshall is not concerned so much with verification as with establishing the causal processes which need to be explained. This involves either explaining what has happened or predicting what will happen, which are seen as the same operation in two directions. (1890 638)

The method also effected Marshall's view of the usefulness of mathematics. Given his competence, his reticence in using mathematics must have been principally based. Obviously he regarded the calculus as important, because it expressed the marginal conditions which were important in effecting change. But his reservations were at another level. "Diagrams present simultaneously to the eye the chief forces which are at work, laid out, as it were, in a map; and thereby suggest results to which attention has not been directed by the use of mathematical analysis." (Marshall 1930 5) The problem with mathematics was that it was actually quite weak in expressing causal processes. Functional relationships are actually a limited expression of what is going on. The recognition of dependent and independent variables is also quite crude in representing how forces may operate. Unless great care is taken to specify the variables and the equations which relate them, the mathematical expression of the relationships may actually be sloppy and uninformed. It may be that Marshall did not take this critique far enough, in that the use of linear relationships and incremental functions may often seriously distort what is happening economically, when, for example, there is a change of view of the market or the commodity, and the inadequacy of the conventional mathematical tools to undertake dynamic analysis has scarcely yet been explored.

Thus, although Marshall remained more open than a full foundational position implies, the causal model of theoretical formation deeply pervaded his work and gave it a distinct framework. The engine of analysis was rooted in Mill's epistemology and in turn powered Cambridge economics in the following decades.
Marshall's Consumption Theory.
The outworking of this position within consumption theory was in terms of a causal and action centred approach. Marshall looked at wants and their satisfaction as units of action which could be built into a theory of demand. This had far reaching consequences which we shall examine shortly. The variety of human wants included not just appetites, but also the desire for distinction and excellence and other socially generated patterns of motivation. As he emphasised, it was usually new activities which generate new wants, and not the reverse. (1890 73-7) But the wants or desires generate or cause patterns of demand which differ when the goods are necessities, luxuries, complements or when the purchasers are rich or poor. His model is therefore the summation of the actions which do or could contribute to the demand for a commodity. Because of the activity focus there is little difference in Marshall's thinking between consumption and demand; the latter is the bundle of activities which issue in purchasing, and the former is what happens after the goods or services have been purchased, the deconstruction of the created utility. This conception contrasts with the rationalist view which sees consumption as a mental process of choice and demand as a disjunct concept.

The action frame led to a process of summing the demand actions into the total market demand for specific commodities. "The economists has little concern with particular incidents in the lives of individuals" (1890 82-3) This move is so much taken for granted that it is easy not to see the possibility of considering the profile of consumption of a person over a whole range of purchases is thereby ruled out. Personal orientations to consumption thereby give way to a consideration of commodity consumption decisions, an important, but limited, part of consumption. This weakness is addressed in the last chapter of this study.

Marshall's definition of utility is action-based; it is the utility of the actual marginal purchase, the satiety of the want, what could or does happen with each additional purchase. Thus it is a measure of what a person is willing to pay for the satisfaction or fulfilment of his desire. (1890 78) It is really the same as the modified value-in-use definition at the beginning of the essay on value. (Whitaker 1 1975 125-8) This, of course, gives the lie to the idea that Marshall's definition of utility was cardinal in the sense meant by the rationalists. It is the utility of the marginal purchase, the marginal demand price. (1890 80) The utility was the amount of benefit actually yielded in use and not any subjective calculus of satisfaction. (see 4th ed 167 for discussion of the suitability of the term "utility" deleted from later editions) It could be measured by the price that was actually paid or would be paid, which allows the equimarginal rule expressed in terms of the marginal utility of money. (Mathematical Appendix, Note 2) Marshall is clearly happy with this formulation because the activities of consumers involve making decisions with respect to price in every purchase, and it does not imply an intrinsic cardinal measure of utility, or interpersonal measures of value. Marshall cites a case of a rich and poor man: "For
each of them the marginal utility is measured by twopence; but this marginal utility is
greater in the case of the poorer man than in that of the richer." (1890 81)

The concept of elasticity is similarly an action-based causal concept. "The elasticity
(or responsiveness) of demand in a market is great or small according as the
amount demanded increases or decreases much or little for a given fall in price.."  
(1890 86) When a price change happens, what happens to the amount demanded?
The concept is dynamic. Thus, the measure of elasticity is a diachronic measure, an
effect which needs to be explained in terms of its antecedent causes. These he
details under variations in wealth in different classes, the characteristics of goods,
tastes and other factors. Price elasticity is thus analysing contributory causes and
measuring the response, and it is qualitatively different from the partial differential
formulation of the a priori and logicist tradition.

It is also now possible to see the difference in perspective between Marshall and
Friedman on demand schedules. Marshall's dynamic view makes him aware that
over periods of time all kinds of factors are changing in ways which might affect
demand. As people become more used to commodities and the distribution
improves, the demand can expand. The purchasing power of money and the
amounts which different groups have also vary. This renders necessary corrections
of the results obtained with the simpler assumptions.(1890 92) Which corrections
are appropriate will depend upon what is under consideration. Friedman, however,
spends much energy in establishing real income as the ceteris paribus clause which
is appropriate to the demand curve, because then the curve would have the same
meaning throughout its length; a lower price would otherwise mean an increase in
real income. Friedman is mainly concerned with the atemporal logic of the curve
and seeks the definition which will achieve it (Wood 3 1982 172-214) while Marshall
is happy with a dynamic solution. "The substance of our argument would not be
affected if we took account of the fact that, the more a person spends on anything
the less power he retains of purchasing more of it or of other things, and the greater
is the value of money to him (in technical language every fresh expenditure
increases the marginal value of money to him). But though its substance would not
be altered, its form would be made more intricate without any corresponding gain.. "
(1890 109)

The position on utility was taken a stage further. Marshall considers more dynamic
issues like immediate and deferred uses, the degree of marginal calculation which
consumers are able to make as a result of their economic circumstances, the
pleasures of ownership and the effects of durable things on utility. The main
development was the concept of consumers' surplus to show that behind the
allocation of price there was an allocation of utility which may or may not be fair or
efficient. The position was a strong one. Marshall was not talking about value per
se, but the value embodied in the market votes which consumers would be
prepared to bid, and on the basis of this he argued that many prices were inefficient
in allocating utility. Thus, with a downward sloping supply curve, monopoly
restrictions, or competition, there might be a less than good pattern of allocation as measured by the summation of marginal demand prices. Were he to allow that the value of people's income varied to them with its size, of course the case would be far more radical. His sentiments might have led in this direction, but his economic science could not move beyond the measured marginal demand prices. Within his framework Marshall is unable to make interpersonal comparisons of utility. But he had espoused no subjectivism and had argued for a ubiquitous law of diminishing marginal utility. Therefore it follows that those who have income enough to consume considerable quantities of various commodities must experience lower marginal satisfaction; hence Marshall considers situations in which "a pound's worth of satisfaction to an ordinary poor man is a much greater thing than a pound's worth of satisfaction to an ordinary rich man" (108), a conclusion which is anathema to the subjectivists, as is his rough and ready general conclusion that "if the money measures of the happiness caused by two events are equal, there is not in general any very great difference between the amounts of the happiness in the two cases." (108) Seemingly these value-judgements are an unforgivable lapse of scientific judgement, but since Marshall sees ethical systems as part of the causal processes which constitute economics, he also feels free to make normative judgements which may or may not be accepted. However, his position is not relational and involves limited questions of equity because the causal analysis concentrates on the forces which operate rather than normative issues.

Marshall, therefore, broke through the classical bias to production and developed his own detailed dynamic causal framework for understanding consumption. He saw demand as a composite force which contributed to a certain outcome. We have spent some time looking at the dynamic aspects of this position because it is often translated into a poor version of the logicist or another position, when it is actually a different conception. In many ways it was undogmatic. It allowed socio-economic factors to be examined in relation to demand; it avoided rigid static analysis; it distinguishes between intentions and what happens, and it could be used flexibly by changing the ceteris paribus framework in which it operated. Marshall also, for example, considered developments in mass retailing and advertising as a source of impact on demand, thus allowing that causality can operate from producers to consumers. (1919 289-307) This possibility is ignored in many other positions. At the same time, it had some deep-seated problems.

A central one concerned the theoretical status of the demand function. It expressed the quantities people would demand if faced with a range of externally given prices, but the people were seen as action-units rather than in more integral terms. By analysing causes as they were, it could not take into account issues of distribution, justice and the restructuring of economic relationships, and therefore retained an inevitable conservative bias. It tended to offer determinate analysis in terms of cause and effect, even with the ceteris paribus qualification, which ruled out possibilities of freedom which may actually exist. If demand is indeterminate with
respect to price, ceteris paribus, that is, if people are prepared to purchase certain amounts at a range of presented prices, then the construction of the Marshallian demand curve in linear terms is fundamentally wrong. It is potentially at least a band, and the lack of determinacy is actually one of the most important characteristics of the way demand may shape markets. We shall examine this issue in the next chapter. Its view of time also tended to be unidimensional; prediction was history writ backwards, and it stayed in the areas of material calculation where the method was most easy to apply. It did not relate to sociology and psychology, although it was strongly tied to history, and left the economist with sentiments which hovered on the edge of analysis, but could not really be part of it. Even though Marshall was not a foundationalist in the full sense of the term, the engine which Mill had developed still chugged along premeditated lines which ruled out many other possibilities of analysis.

Marshall's most famous student while following many of his methodological precepts, questioned whether the past and future could be seen as the same operation writ backwards. By opening up some of the uncertainties of choice he showed how limited the causal framework was. To the formation of his thought we now turn through his father and another important influence.
J**ohn Neville Keynes and W E Johnson.**

It is easy to forget how small the movement for quality economics at Cambridge was. Marshall regarded John Neville Keynes as his only reliable ally for much of the time. Why this is the case is unclear since they were not particularly close personally, but the fact that Keynes was a mathematician by background, was committed to rigour and not loose literary approaches and to "science" rather than "scholarship" meant that Marshall valued him highly as a colleague.

John Neville Keynes' book on Formal Logic (1884) was actually more dependent on the logicist tradition of Hamilton, De Morgan, Boole, Jevons and Venn§ than on Mill. Indeed, he does not seem at this stage to have really faced the implications of causal logic at all. When he came to write the Scope and Method of Political Economy (1891), it is clear he had to consider a wider range of issues in scientific method, and in contrast to Marshall, he actually showed a very strong commitment to the idea of the method of economic science. In this weak sense he was foundationalist; the influence and authority of economic science would grow if the methods of the discipline were properly understood. Keynes constructed two positions, one the classical English position of Senior, Mill, Cairnes and Bagehot and the other that of Roscher, Hildebrand and Knies. He then resolved the tensions of the two, which was not difficult given that they were both in the causal epistemological tradition. He identified the first group as arguing deductively from central tenets about human nature, and saw the second as reacting to the idea of "economic man" subject only to a single motive, the desire for wealth, and insisting on the complex realities of economic life as the substance from which theory is constructed. Their approach was inductive, historical and evolutionary. He concluded that the appropriate method may be abstract or realistic, deductive or inductive, mathematical or statistical, hypothetical or historical. This conclusion was thus very close to Marshall in that it interposed the two causal epistemologies which most influenced him and resolved them in a non-dogmatic way. However, this lack of dogmatism is not quite what is seems. Because the positivist and logicist traditions do not really find expression in Keynes' analysis, he is establishing quite a tight causal debate, but doing it from a perspective which is influenced by rationalist and empiricist language. The book is really a debate within Cambridge, and even about Marshall, yet because many of the categories can be interpreted as rationalist or empiricist, it is actually quite confusing.

Keynes faces the issue posed by a causal framework for a priori or deductive theory. In isolating certain variables and holding others constant it is actually creating a hypothetical world where the conclusions of the theory cannot be tested, because actual data do not conform to the ceteris paribus form of the theoretical structure. Because observation is seen as helping in both formulating theories and judging their results, Keynes does not see the hypothetical as unreal, and resolves inductive and deductive approaches to his own satisfaction. He is happy to see problems answered at quite an elementary level, and there is not much evidence
that he pursued the issues of methodology more deeply. It is to W.E. Johnson that we must turn to see the development of the causal logic more fully within the Cambridge tradition. He is acknowledged by the father in the 2nd, 3rd and 4th editions of Formal Logic (1906) and by Maynard in the introduction of the Treatise on Probability (1921). Given Maynard's differences with Russell and Wittgenstein, it is likely that Johnson was actually most formative in the development of his epistemological position. He was a frequent visitor to the Keynes household, sharper than Neville in his grasp of logic, linked to the Economics faculty, and the strongest influence and direct advisor in the writing of the Treatise on Probability. (Skidelsky 62, 68-9, 119, 209, 285)

Johnson in Part III of his Logic (1924) developed the causal epistemology of science more thoroughly than had been done hitherto. He distances himself from those who limit consideration only to formal logic. In examining the logical foundations of science, he found it impossible to separate the Epistemological and the Ontological point of view (xviii), and he therefore refuses to make the move of ultimate trust in a rationalist epistemic base for knowing. He follows this by making the unusual, but bold move of asserting independent psychic and physical agency, loosely human and physical causality, and by recognizing that events can be resolved into occurrants of which they are part - echoes of Whitehead. Thus, Johnson worked through more rigorously Marshall's precept, The many in the one, and the one in the many. (1919 title page) While recognizing patterns of causal interrelationship, this allows him to function explicitly with terms like "volition", "sensation" and "will" and to expose dualist views which are unbalanced in allowing only the material to affect the psychic, or dogmatic in requiring physical or psychical processes to generate their opposite. (xxvi-xxx) This position is important in providing a link within the epistemology of science with the kind of moral position taken by G.E.Moore and allowing, more fully than Marshall had acknowledged, that economics was a normative or moral science. In being so explicitly metaphysical, Johnson was also moving outside the foundationalist trend of the time evident in the work of Russell and Wittgenstein. This amicable parting of the ways is evident in the correspondence among Wittgenstein, Maynard and W.E. Johnson where the difference on probability becomes more fully evident. (von Wright 1974 116)

Johnson also takes another direction in examining the logic of the possibly true and the possibly false in relation to scientific laws. Logic here is neither self-contained inference, nor a matter of direct empirical.correspondence, but referential (III 8). His analysis of the possibly true leads him into an awareness of the degrees of knowledge and ignorance which are present in varying inductive formulations, so that it tends to be our levels of knowledge which are determinate or indeterminate rather than these being qualities of the processes under consideration.

We have said that the probability of a generalisation varies with the degree of precision or determinateness with which we are able to define the characters of the instances examined; this determinateness reaches its highest point when
instruments of measurement can be employed; and this accounts for the high probability generally attributed to generalisations formulated in terms of mathematical conceptions. (III 27)

This is the same locus on which Maynard does his work on probability. Rather than trying to establish a foundation for indubitable knowledge, the trend in the other traditions we have examined at this time, Johnson and Keynes analyze what we do not know and show its epistemic power to define knowledge.

Johnson goes on to examine dependent and independent aspects of causality, inference from one instance to another (eduction), plurality of causes and effects, alterable and unalterable states, how the idea of continuent differs from the old notion of substance, and particularly the application of causal processes to the mind. Here, of course, he departs radically from the whole rationalist tradition. His perspective allows him to consider issues like the effort required in thinking, the volitional component in what is known and unknown, the relation between sensational and conative modes of consciousness and the relation between values of judgement and knowing. Immediately the psychology yielded by the epistemic position can be seen to be much richer than the restricted views which tend to flow from foundational positions, and it is these that Keynes later readily utilises in his notions of animal spirits, propensities to consume and liquidity preference.

Thus in the work of Johnson we can see a more thorough statement of the causal philosophy of science than that available in Mill or Marshall, and it is within this formative context that Maynard Keynes did his own epistemological work.
John Maynard Keynes and the Theory of Knowledge.

It is not usually acknowledged, except by Carabelli, that the younger Keynes was fundamentally affected by epistemological issues in the development of his economics, but given his father’s involvement in economic methodology and the fact that he spent five or so of his most formative years wrestling in this area before his later economic work it is more than plausible. (Carabelli 1988 1-6)

The specific personal quest which led to this concern needs detailing. Keynes described it in "My Early Beliefs" and Skidelsky’s interpretation of it is largely followed here. (1983) Keynes and the Apostles at Cambridge focussed on Moore’s teaching, especially as contained in Principia Ethica (1903), in providing them with an alternative religion which did away with the religious establishment practices of the older generation and also with the inconclusive relativism of Sidgwick. Moore conveyed that there were states of consciousness which were good in a way which didn't have to be defined in other terms, and in reference to which people could live. The arts and philosophy were especially related to these states, and Keynes relationships with Duncan Grant and others were seen in these terms. However, Moore’s position did not provide any bridge to the causal scientific domain which he had developed through his father and education. Eventually the tension between these two areas of life and science resolved into the question of what certainty we could have about knowledge, the classical foundational question. Because of his background in causal understanding, it took a specific form with Keynes. It became a question of what certainty we could have that such and such an outcome would follow. This quest was actually formulated in foundational terms. Keynes wanted to establish objective and wholly logical relations between the premisses and conclusions, about probable degrees of belief. The development was fully worked out in the Treatise on Probability which dominated his intellectual activity from 1906 to 1911 and other periods of time until 1921.

In his work at Cambridge and in the India Office, often during working hours, Keynes distanced himself from the logicism of Russell, especially in terms of defining mathematics. Russell's aim, he argues, is to discover the smallest set of propositions which specify our formal knowledge, and then to show that they do in fact specify it (1921 119). Consequently, the design of Russell's logic is concerned with systematizing received and widely accepted results, and does not engage with the methods of valid reasoning which we actually employ. (1921 117-8) In addressing the logic of probability Keynes wanted to focus on the larger issue of the status of all knowledge which did not fit into the category of certain or self-evident knowledge, which he saw as incorporating almost all of what was generally understood as knowledge both in daily life and disciplinary study. By contrast Russell's concerns were seen as very limited, orientated to certain kinds of self-evident knowledge which actually occupied only a small part of the broader corpus. Especially, Keynes wanted to be able to handle all the forms of knowledge associated with causality. (Carabelli 1988 134-45)
Keynes also distanced himself from the atomistic positivism of Wittgenstein, who in the Tractatus took as basic pictures of the world and had no time for idealism, especially that ideas had independent status from perceptions, and realism, the idea that perceptions might be illusory versions of an underlying reality. The logical atomism which resulted from this approach, and which he communicated to Keynes, did not influence the latter. Clearly, the atemporal nature of Wittgenstein's picture language did not accord with the causal predispositions which were in Keynes' bones. Keynes was helped in keeping positivism at a distance partly by Moore who repudiated the standard Humean line on causality. While for Wittgenstein and Russell the causal nexus was superstition, Moore looked less kindly on Hume by arguing that we know many things which cannot be proved or are not logical necessities. From this alternative definition of the scope of the issue Keynes developed his own response to the question of what exactly we can know, especially in the area of probability theory. (von Wright 1974 112-29, Carabelli 145-8)

Since Keynes is careful and generous in spelling out the relationship of his own work to that of Johnson, it is worth at this stage identifying what he says about Part II of the Treatise.

A further occasion of diffidence and apology in introducing this part of my Treatise arises out of the extent of my debt to Mr. W.E. Johnson. I worked out the first scheme in complete independence of his work and ignorant of the fact that he had thought, more profoundly than I had, along the same lines; I had also given the exposition its final shape with my own hands. But there was an intermediate stage, at which I submitted what I had done for his criticism, and received the benefit not only of criticism but of his own constructive exercises. The result is that in its final form it is difficult to indicate the exact extent of my indebtedness to him. When the following pages were in proof there seemed very little likelihood of the appearance of any work on Probability from his own pen, and I do not now proceed to publication with so good a conscience, when he is announcing the approaching completion of a work on Logic which will include "Problematic Inference". (1921 116)

Clearly both authors share this causal epistemological tradition and adopt very similar patterns of orientation to probabilistic inference including a concern with the possible truth of propositions, the relational context of such knowledge and the judgements which are made about relevant evidence for conclusions.

The shape of Keynes argument in the Treatise on Probability was as follows. He was concerned with the broader issue of the logic of probability, and not immediately the narrower mathematical issue of the calculus of probability. He argued that probability was a question of degrees of rational belief in relation to certain bodies of established knowledge. The grounds for degrees of such belief could be various and often non-comparable, and the issue of what those grounds were, including the principle of indifference which was the basis for the probability
calculus, was different from the actual likelihood of whether an event would or would not happen. He argued that the relational understanding was broader and more relevant than statistical and frequency approaches to probability. By refining the concept of degrees of knowledge, he believed he was able to establish the foundations of probability in a way they had not been laid hitherto. (1921: 467)

He was concerned therefore with the central themes of foundationalism, but immediately establishes his distance from rationalist conceptions of it. For what a person knows is usually not certain rational belief (which Keynes saw as an uncommon form of knowledge), but propositions which state the probable degree of knowledge. He focussed on a proposition, p, its relation to the evidence on which a person bases their belief, h, and the correspondence between them. For what a person knows is not p, provided p is not certain rational belief (which Keynes saw as an uncommon form of knowledge), but q, a proposition which states the probable degree of knowledge. Thus already at the beginning of the century Keynes had moved away from the indubitabilities of verification and confirmation into a full awareness of degrees of belief, and was involved in trying to establish them on a foundation which was fully logical. Almost all the knowledge which we crave must come within this probabilistic framework. Immediately it is evident that Keynes has fundamentally distanced himself from the two foundational traditions we have considered. Rationally founded and sense-verified knowledge were both seen as trivial forms of the knowledge people actually handle, and the real challenge was probabilistic knowledge in its various forms. At this basic level he had moved away from foundationalism as a concern with indubitable knowledge, yet he still hoped to formulate his probabilistic understanding in irrefutable, or foundational, terms.

He was careful first to establish that some degrees of probability of belief are comparable, but many are not. The tendency to rank probabilities of events on a scale of 0 to 1, can lead to the ranking of probabilities of beliefs, as Bentham and De Morgan had asserted was possible, but the two are markedly different. The reason is the lack of comparability of the evidence for those beliefs. For it is not only the probability of belief but the level and kind of evidence which is used to establish that probability; it may be tenuously certain or reliably unlikely to be the case. In most cases the grounds of the evidence are likely not to be comparable.

Keynes then considers cases which are judged to be comparable and shows, especially through the contradictory cases discussed by Von Kries in Die Principien der Wahrscheinlichkeit [1886], that there are systematic grounds for establishing evidence. Subalternatives must be relevant, involve corresponding evidence and be non-symmetrical. In his treatment of the principle of indifference, which is the substantial foundation of mathematical probability theory, Keynes was able to show that more relevant evidence tended to weaken the likelihood of equiprobable cases and that the principle of indifference obtained when relevant evidence had the same form for alternatives. (1921: 56)
Keynes moved on to distance himself from the statistical or frequency method of viewing probability as developed by Ellis, Venn, whose The Logic of Chance was subtitled An Essay on the Foundations and Province of the Theory of Probability, Galton, Pearson, (XI 187-216) Fisher, Reichenbach, Nagel and others, and towards a subjective or logical view of probability which emphasised the degree of belief entailed in asserting that something is probable and the level of ignorance involved in that assertion. This move is important, for it shows Keynes eschewing accepting frequencies or statistical occurrences as "facts" which are subject to random, chance or stochastic variations. Such an approach projects epistemological certainty into the knowledge and denatures the evidence on which it is posited. Degrees of likelihood reflect levels of ignorance in the knowing subject, not randomness in the subject matter. Thus, Keynes put a great distance between himself and positivist views of data, frequency analyses, extrapolations and many of the techniques of statistics and econometrics. They were too systematically prepared to build on ignorance.

Like Mill and others in this tradition Keynes was also taking a stand on the issue of induction. As he states,

An inductive argument affirms, not that a certain matter of fact is so, but that relative to certain evidence there is a probability in its favour. (1921 221)

The success of inductive inference is not the basis of its validity; it may be a successful inference on inadequate evidence. Rather, it is a matter of what may or may not be valid relative to the evidence, and this needs to be established by careful patterns of inference. Thus Keynes made a decisive break with the Humean position and all the positivist responses to induction and verification decades before the positivist position came under attack. Causation may well be part of the fabric of events, but our knowledge of those events reflected degrees of ignorance which needed rigorously stating. In transferring Hume's problem of causality from what is known to the knower, he offered a solution which allowed the Millian tradition to continue into the twentieth century.

Initially, Keynes tried to express this complex position in foundational terms by saying that the degree of belief was a matter of objective logic, but the critique of Frank Ramsey showed, and Keynes conceded, that the inferences could only adequately be expressed in terms of degrees of belief. Even Keynes second degree foundationalism asserting the objectivity and logicality of degrees of belief had to be telescoped into an uncertain causal theory of knowledge. Within the space of a few years Keynes had been through foundationalism and come out the other side. Ramsey then made the counter proposition that the degree of belief is the extent to which we are prepared to act on it, a position which Keynes did not accept epistemologically, although allowing his critical point. (Ramsey 1931 and X 336-9))

As his study moved on Keynes moved further away from epistemological foundationalism, for he said that there is no certitude in the gathering of normal
Probability begins and ends with probability. That a scientific investigation pursued on account of its probability will generally lead to truth, rather than falsehood, is at the best only probable. The proposition that a course of action guided by the most probable considerations will generally lead to success, is not certainly true and has nothing to recommend it but its probability. (1921 322)

This break with foundational, indubitable knowledge, which reflects the position of his father and Moore's common sense philosophy, opened up new possibilities. First, it meant that Keynes avoided the break between scientific knowledge (with some kind of independent foundation) and everyday knowledge. In turn this meant that he could incorporate everyday knowledge into his economic analysis; it did not need to be translated into a different paradigm of knowledge. The animal spirits of entrepreneurs or the probabilistic views of consumers were valid components of his understanding. It also meant that he avoided the pitfalls of so-called necessary or rational arguments, like the quantity theory of money tautologies, and developed a full awareness of the uncertainty of economic knowledge and the possibility of unfulfilled expectations. It also meant that Keynes was quite prepared to consider knowledge which was likely to be true but was not indubitably so. He penetrated far more fully into the substantive issues than others whose methodology compromised the range of what they could consider.

But this probabilistic view of knowledge was not the whole of the picture. For Keynes also had to adopt a perspective towards causality. As with Mill, Marshall and his father, it remained a central framework for knowing, albeit in an epistemic form rather than as substantive belief. No longer is the causal conception expressed in terms of the law of the Uniformity of Nature (p263) but as the presumption of a determinate system of events which we may causally understand. The framework continually reappears in his economics. In The Treatise on Money Keynes explains how the real task of monetary theory "is to treat the problem dynamically, analysing the different elements involved, in such a manner as to exhibit the causal process by which the price-level is determined.." (I 133) All the characteristics of the probabilistic causal framework reappear in Keynes' economics: the preference for dynamic disequilibrium analysis over static equilibrium theory, the emphasis on freedom, the explicit treatment of time, the emphasis on antecedents rather than planned or goal-orientated behaviour and the establishment of regular tendencies between variables. It is to this expression in consumption theory that we now turn.
Keynes Economic Theory.

As Keynes developed his economics, he really had little contact with positions outside Cambridge. He shaped his thinking on the work of Marshall and Pigou, and worked it out with Robertson, Hawtrey, Ramsey, Sraffa, Robinson and others who were firmly within the Cambridge tradition. He formed his economic views while working at the India Office largely on Monetary and Currency issues, then teaching in the period up to the War in the small department at Cambridge, with work on the Paris Conference and at Cambridge after the War. In the General Theory the group which Keynes defined as the opposition, the classical economists, were actually Mill, Marshall, Pigou and Edgeworth, namely the people within the causal tradition which Keynes also represented. So the scope of his reaction to previous economists, although momentous, was actually quite parochial. Keynes did not even have the contacts with German economics that Marshall had so carefully developed. His German was poor, which didn't help matters (1930 199). This was all perfectly understandable in that the Foreign Office and Cambridge at the height of this colonial period and with the devastation to international relations which surrounded the War, did not have strong traditions of outward orientated thought.

Keynes also developed certain interests. The time at the India Office led to a concern with currency, a State bank and other monetary issues in India. His teaching at Cambridge was on Money, Company Finance, Stock Exchange, Currency and Banking, the Money Market, Foreign Exchanges and Economic Principles. (Keynes XV 65) During his time at the Treasury during the War and as their representative at the Paris Conference he had necessarily to think about the stability of countries undergoing rapid patterns of change, and The Economic Consequences of the Peace details his deep exasperation at the failure of the participants to consider the economic plight on Germany and other nations in a coherent economic sense. Especially at this time he was concerned about the stability of currency (Keynes 1919 211-35) and about patterns of international indebtedness and set out to calculate the consequences of these financial instabilities on the real economies of the countries concerned. In the Treatise on Money, although formally his concern was with Money, from Book III of Volume I he was really concerned with the flow of purchasing power through the economy in causal terms, and the changes induced by monetary and other factors, and his definitions are constructed in a dynamic causal framework. The equilibrium framework which weighs more heavily with Marshall was still there, and obviously Keynes was struggling in the writing to get away from it. As he says:

The real task of such a (Monetary) Theory is to treat the problem dynamically, analysing the different elements involved, in such a manner as to exhibit the causal process by which the price level is determined, and the method of transition from one position of equilibrium to another (Keynes 1930 1 133)
From here it was but a short step to seeing equilibrium in employment as a special case in a more general theory of dynamics in purchasing power.

At the same time it is important to appreciate how formative the work on probability was in these developments. Keynes saw it as a study of the ordinary processes of probable reasoning, not the construction of an esoteric calculus. He was also firmly aware that beliefs could be reasonably probable, but wrong, and that uncertainty was the normal case for most knowledge and most decisions. This uncertainty operates at two levels: in economic decision-making and the analysis of economists. In the first Keynes is able to take account of situations where people act in degrees of ignorance and uncertainty which have substantial effects on the outcome. But Keynes is also willing to act with dubitable knowledge and levels of uncertainty without feeling he has compromised his economic integrity, for in so doing, he is only following what everybody else really has to do. This method of gathering knowledge is crucial to the General Theory.

More deeply he is convinced that he has solved the problem of Hume. There are two views on probability, that which is founded on chance, which Hume repudiated (Keynes 1921 83) and that which arises from causes. Hume's demolition of the causal nexus deeply affected the growth of positivism for a couple of centuries, but Keynes felt he had solved Hume's problem. Probability tells us what we ought to believe on the basis of given data, and once the relative nature of this kind of knowledge is recognized, the belief is not different in kind from all others. When the dependence on demonstrative certainty is undermined, for most kinds of useful knowledge, then the lack of demonstrative certainty in causal relationships is no special problem. It becomes possible to use analogous arguments to support inductive conclusions which are probable or improbable. (1921 236-41) Thus, Keynes re-established in his own mind the epistemological foundation for causal analysis, but on a different footing from Mill and felt free to pursue this mode of analysis with vigour. It is quite clear that this is his mode of theoretical address throughout the Treatise and General Theory is causal - "for the purposes of a causal analysis", (Keynes 1936 39) "so vital to causal analysis". (78)
In developing his own position Keynes tended to identify with Malthus, who argued that such and such will happen as a result of certain causal processes, against Ricardo and the classics, who argued for causality in rational terms, so that what will happen is what people have decided will happen. Keynes awareness of possibilities and how little can be seen led him light years away from the rational universes of the classics into a consideration of unintended consequences, miscalculated results and changes which have not been taken into account. Here we see how far Keynes had moved from Marshall's dictum that "the explanation of the past and the prediction of the future are not different operations, but the same worked in different directions, the one from effect to cause, the other from cause to effect." (Marshall 1920 638) Cause and effect, yes, but the participations of humans in the processes was far more complex and unsymmetrical than is conveyed by Marshall, let alone the rationalists.

At the same time Keynes' revolution was a mixture of the mechanical and materialist traditions. His reactions to the classics focussed on the fact that their systemic solutions always stabilised with full employment and ruled out processes which might be stable at less than full employment. In contrast to his predecessors he was prepared to contemplate more complex and disordered effects. Yet he remained a committed systemic analyst, who argued strongly for the stability of the system in a "chronic condition of subnormal activity for a considerable period without any marked tendency either towards recovery or towards complete collapse." (249, 249-54)

Also very important was Keynes careful analysis of the causal direction of change. This is behind the definition of profits in the Treatise. It allowed him to identify the "mainspring of change in the industrial countries of the modern world" through entrepreneurs' expansion or contraction of output. (1930 157) In the General Theory he insists on defining investment and saving as necessarily equal, because there are always two sides to the transactions which actually take place, and the decisions and expectations which lead to these transactions have to be specified accurately and all the consequences which follow from them have to be detailed. The old formulation favoured in the Treatise and by the Keynesians did not bring out accurately enough for Keynes the unintended consequences of the action.

There is a deeper shape to this more open epistemological perspective. Unlike the others we have examined it is in part normative. Given the ethical openness which went back to Moore, Johnson and beyond, Keynes was able openly to consider and advocate what we should do, as he made clear in a letter to Harrod. "as against Robbins, economics is essentially a moral science and not a natural science. That is to say, it employs introspection and judgements of value.." (Harrod 1951 253) Human evaluative agency was thus explicitly recognized in part in his system. It remained a rather elitist moral sense which did not permeate the wider economic system as fully as, it will be argued later, needs to be the case, but it is there.
Further, it involves a re-evaluation of the role of mathematics in theory. In contradistinction to the central role it had in the foundations of other positions, it has rather a subsidiary role in Keynes' own thinking, again surprising in the work of someone who starts as a mathematician. Thus, the first volume of the Treatise, the Pure Theory of Money, is described in the preface as the qualitative volume, to which in the second is added the quantitative analysis. The causal framework leads Keynes to treat equations either as statements of necessary identity, as a result of transactions, or as statements of causal processes with dependent and independent variables. The point in these statements is that manipulation of equations is only valid if they correspond to causal processes which occur; the point of reference occurs extramathematically. Thus, the mathematical statement is often an impoverished form of the literary statement, which can spell out more fully the structure of the relationship described.

Another element in Keynes approach to mathematical economics was his distrust of many kinds of statistical inference, including that found in econometrics. This position is evident in chapter 30 of the Treatise on Probability. If statistical inference is merely codifying and defining levels of ignorance about what will happen, then the use of statistical inference alone may well suppress valuable knowledge which we probably possess, and lead to weaker and inaccurate results. The review of Tinbergen was therefore entirely in keeping with this position (Keynes XIV 285-332, Lawson and Pesaran 1985 116-150). In conclusion, the position involves a dynamic view of time, it tends to view the economy as a system with boundaries which are determined by the scope of money transactions and to see psychology and sociology as at the borders of this independent domain. Human agents act as decision makers within the system, and although, as with Marshall, the subject has a human end, the areas of humanity which are open to consideration in economic terms tend to be limited to elements which function within the system defined as a dynamic mix of forces. Marshall's engine is still at work, and the result is, it will be argued later, a less than fully human definition of the discipline. The mechanistic perspective is also one which leaves buried the relational issues, choices of value and direction and more fundamental attitudes of stewardship. Keynes as a man often found himself deeply committed to these issues, but his science was still often a tool which could not acknowledge fully the importance of what he knew in his guts.
Keynes and Consumption.

Revolutions in retrospect can easily be understated. Keynes took a situation where consumption was seen largely as the end result of other activities and was viewed as at the margin of economic science and reinterpreted it as the cause of economic changes which had hitherto hardly been thoroughly considered. This recognition was not really developed in the Treatise and finds its full expression only in the General Theory. One question which this change throws up is how Keynes, using a causal model with a directional bias from production to consumption was able to consider consumption as a cause rather than just an effect. The answer is actually very straightforward. Once the transmission of funds is the focus, the flow of cause to effect is income-expenditure-payment of factors of production. Indeed, this points the failure of the later Keynesian income models as only being concerned with the flow of funds mechanistically through Income - Consumption - Expenditure. However, that is to move too fast. Keynes' Consumption Theory had its own unique character.

In his analysis of consumption Keynes defines the propensity to consume as a functional relationship in wage-units. In looking at the influences on the propensity to consume Keynes considers both "objective" and "subjective" factors. What does he mean by these? Objective factors are economic and subjective ones are social and psychological. They correspond quite closely to the dualism we have already noted in Johnson. The objective factors include changes only a few of which are likely to be unstable; probably the most important of these is windfall changes in the value of capital assets. They lead to a propensity to consume which is normally less than unity and is lower when the period over which changes in income are registered is only short (1936-97). The general orientation to household accumulation leads to the conclusion that a greater proportion of income is saved as real income increases. These conclusions are contained within a tight causal framework. Thus, "Aggregate demand can be derived only from present consumption or for present provision for future consumption... We cannot, as a community, provide for future consumption by financial expedients but only by current physical output.. "(104) Further, "Consumption is satisfied partly by objects produced currently and partly by objects produced previously, i.e. by disinvestment. To the extent that consumption is satisfied by the latter there is a contraction of current demand." (105) Thus the analysis of demand focusses sharply on what purchasing, or lack of it, does. The subjective factors include a set of motives which might lead individuals either to refrain from spending out of their incomes or to consume more. Keynes does not explore these very imaginatively, perhaps because the level of consumer discretion in this area is far less than exists today, and finds that these factors do not impair his main conclusion, namely that the propensity to consume is quite a stable function with consumption more influenced by changes in income than changes in the propensity to consume.

On this basis Keynes produces his unorthodox conclusions. Changes in the rate of
interest will inversely affect the amount actually saved through its effect on investment, and increases in investment will generate extra saving as a result of the psychological propensity to spend a proportion of extra income.

If we ask why the theory took this novel form which was so different from the rationalist and positivist traditions, especially in its treatment of price, much of the answer has to lie in the epistemologies involved. It was not merely a different theory, but a fundamentally different view of theory; as we have seen Keynes was reacting to the earlier classical causal tradition, but still working within it. He was thinking in terms which were completely different from rationalist and positivist epistemologies, which, as we have seen, led to drastically different views of consumption and prices; the logic of substitution established relativities without reference to income, money or choice. But Keynes, by looking at the causal processes, shows that each purchase is preceded by income, uses money and involves the movement of resources in a certain direction. Buying and not buying have consequences for production, employment and the rate of interest, and the level of effective demand plays into the level and changes in prices as a result of factors which determine how the changes in demand will be registered. (1936 295-7) He also constantly registers that as market locations change different forces come into play - bottle-necks, pressures, changed psychology, expectations - which make the outcome dynamically, not statically, predictable. As against the a priori rationalist schools he insists on the inadequacy of mathematical treatments of these phenomena, where the complexity cannot be properly handled. In relation to positivism, it is clear that Keynes was not interested in time series data and estimations of the functional relationships of his system, because they could not take into account the effects of the different categories which he had so carefully constructed.

The extent of these differences was drastically underestimated in the more international forum which grew up in the post World War II era; the largely positivist constructions of the Consumption Function did not fit with Keynes' causal framework. He was concerned with the marginal propensity to consume out of extra income, which of course could not be easily matched to macro-consumption data. Indeed, he was quite happy to reinterpret Kuznets' and other figures. (1936 127-8) Consumption Function studies, by contrast, were involved in explaining patterns of data, sometimes with lagged or other temporal references, but without the direct causal engagement which was Keynes' concern. Thus, a vast literature which was supposed to be addressing the issues which Keynes raised, was actually doing no such thing. (Duesenberry 1949, Modigliani and Brumberg 1954, Friedman 1957, De Marchi/Gilbert 1989 131-49)

If we reflect on Keynes' treatment of consumption, a number of important epistemological points become clear. First, the rationalist maximizing framework of economics is largely ignored by Keynes, because their emphasis on price changes seems unimportant in many of the decisions to purchase or not which are actually made on income, risk calculation or family economy terms. Second, he is able to
distinguish easily between what consumers think they are doing and what they are
doing; the former is important in establishing the latter, but it is the latter that counts,
especially when the former is illusory. Third, Keynes is happy about probable causal
relationships; his knowledge is proximate and tentative and is not driven by the
need for indubitable forms. In that sense he is thoroughly outside foundationalism
and its problems. In another sense, however, his method is foundationally causal,
because it systematically seeks to work through the patterns of effect which can be
discerned in a determinate system.

But much is also foreclosed by this approach. The relational elements of
consumption are like strands of a sieve through which the causal liquid pours; the
individual/firm makes decisions in relation to things, situations and constraints, not
in relation to persons, groups and institutions. Cause and effect are usually
anormative, leaving unexplored questions of thrift, ecology, pollution and
extravagance as substantive issues in consumption. Questions of the freedoms of
consumption and its constraints do not arise except in terms of specifying
propensities and variations. The causal framework still betrays its material and
mechanistic origins and remains subpersonal in its analysis. When it is allowed that
Keynes specific concerns ruled out wider considerations, later analysis was not so
reticent, even when it was not dragging him into an alien epistemic tradition and
misinterpreting him. It is the determinate analysis of a system which dictates the
structure of Keynes' theory. We have discussed the ways in which elements of his
views undermined a foundational position, and therefore makes these criticisms
more muted than those levelled against other foundational positions, but Keynes is
now history, and later causal theorists easily forget his careful probabilistic
scepticism and engage in a rigid causal framework.

In the subsequent period the causal epistemology has spread, often in diluted form,
throughout the discipline. A generation which does not know of G E Moore or W E
Johnson can set up models of dependent and independent variables which provide
determinate solutions, and which claim, theoretically, to explain everything through
these defined relationships, external parameters, variables and constraints. Some
of the models are stable, others dynamic, but they all conform far more fully to the
total foundational conception which sees economic science as merely cause-effect
specification. As we have seen the method does not allow testing by data. It is easy
for the dogmatism of this view to increase its hold on the interpretative frameworks
of those who have not really understood the problems of this foundational model, or
seen how its earlier proponents wrestled with those problems.
Section 2 The Behaviourist Tradition.

Behaviourism.
We have examined the unique epistemological position of Keynes, and the way in which his approach to consumption comported with it, and we must now pick up the threads of the causal tradition after its partial eclipse at the beginning of the century. The eclipse came from two main sources. Those who took logic as their fundamentum could find no necessary reason for establishing causality, while those who began with sense data could infer no causal relationships from them. As we have seen these positions gained considerable influence within mainstream economics, and the causal epistemology tended to become more peripheral. However, it did retain its strength in other areas, and in one of them assumed a classic foundationalist form which in turn affected economics, and especially consumption theory, in the decades after the Second World War.

Behaviourism grew in the late 19th century largely in German and Russian contexts where the view of the person and emerging psychology was dominated by the mind-body problem. Idealism in its various forms asserted the autonomy of mental activity as a basis for knowing and acting, while various materialist reactions asserted the significance of economic activity, biology, history and other external realities for the way persons live. By the second half of the 19th century the idealism had become increasingly subjective, so that the mind-body dichotomy and the subjective-objective one were partly superimposed on one another. There was also a war between philosophy with its claim to speak authoritatively about the human mind and the slowly emerging discipline of psychology, which also needed an authoritative basis for statements about mental activity.

But the scope of this transition was far wider. It required an independent basis for knowing, other than reason, which had to be objective, that is, not open to the objection that it was a particular person, or group, or subculture’s perception of what was going on. For by the end of the century Burckhardt, Sombart, Troeltsche, Weber had mounted a cross-cultural critique of rationalism, which showed that much of what was regarded as rational was culture-bound. The search for objectivity, or a foundationalist epistemology, required an external locus for articulating what was going on in the human mind, and this developed in different countries in different forms.

In Britain perhaps the initial direction was suggested by James Mill in his work Analysis of the Phenomena of the Human Mind; although it was associationist in its view of mind, it did adopt the external, third person stance. John Stuart Mill continued the perspective, especially in his long debate with Sir William Hamilton and Alexander Bain. Although he had a physical-mental parallelism in his view of mind, he very much operated with a closed system of cause and effect in looking at the physical side of mental activity. However, positivism largely eclipsed this
development philosophically, and it was not until Ryle exorcised the ghost in the machine by developing an understanding of behavioural dispositions that a philosophical personal monism became established in Britain. (Ryle 1949) The flag of objectivity had been carried, and dropped, by the positivists in the era up to 1949, and it had not really allowed behaviourism to develop.

The situation was very different in Germany. First a tradition of experimental physiology and psychology became established much earlier. Franz Joseph Gall's development of phrenology exemplified a material causal understanding of human behaviour at the beginning of the nineteenth century. It represented the idea that physiology was the material cause of behaviour patterns in a fundamentally antirationalist idiom. More substantial was the later tradition represented by Muller, Ebbinghaus, F.H. Weber and Fechner. Fechner's background in physics gave him a strong experimental emphasis, and he posited an identity between mind and body as a way towards a unified approach. Helmholtz, who was again trained as a physicist, pushed this perception further. In 1847 in his paper, "Über die Erhaltung der Kraft", he argued that the living organism is no exception to the laws of physics. The transition is described by Boring in the following terms.

He admitted causation to the status of a law that is given prior to all experience....... Causation is the scientist's creed, the backbone of his faith. Perhaps here we have the reason for the abandonment of empiricism in the interests of causation as a natural law. (Boring 1929 307)

Although Wundt and others split the monistic base by espousing psychic causality as an independent category, the general direction is clear. Experiment is espoused as the scientific method which allows the causes and consequences of human behaviour to be assessed. Because the method was successful and authoritative in the natural sciences, it was presumed to be the same in psychology. The work of Bekhterev and Pavlov became well known outside Russia after 1913, especially when backed by Lenin. (Joravsky 1989 207-12)

In the United States there was a direct transmission of these views through various students who came over to Germany, but the position in the States was to some extent affected by Pragmatism. Although it was an epistemology which had its own impact, which we are not able to examine here, one aspect of the position comported well with experimental methodology. First, Pragmatism explicitly incorporates time in its framework. (James 1901 I 224-90, 605-42) James saw truth as happening to an idea if it worked. This immediately moved pragmatism away from the ontological fixation of the positivist tradition. Second, James saw the epistemological gulf between the knower and the known as being bridged by participation in a process which was in conception experimental - an idea was tested in a relevant and defined situation. Third, it offered an holistic conception of the person which could be either innerly or outwardly viewed. Beliefs were habits of action (Pierce) and ideas were working equipment which were not categorically
distinct from other forms of personal behaviour. Pragmatism also moved away from the atomism of positivism, in that experience is given coherently, not in discrete gobbets of sense data, and it does not encounter the Humean objection to causality, because its frame of reference is transtemporal and allows causality to function explicitly as a viable concept. It is easy to see the way in which this important epistemological tradition is open to experimental psychology and behaviourism. However, there is one important difference pragmatism is a philosophy which allows no categorical distinction between day to day and scientific knowledge. This was what behaviourism strongly retained; it was unashamedly scientific. Thus, pragmatism created a fertile soil for the transmission of behaviourism from Germany to the States, but it did not offer the tight epistemological foundation which seemed to be provided by this new way of approaching human activity; it did not offer an unassailable scientific methodology.

This was the claim of the behaviourists. They were merely doing what natural scientists had been doing for a century or more, applying an experimental method, but using it on subject matter which had hitherto been seen as exempt. Watson, drawing on animal experimental work and the influence of G Moore, Angel and even Mill, defined behaviourism as the necessary method of psychology. (Cohen 1979 13, 24) As Watson explained it.

Behaviorism, first showing its head in 1912, attempted to make a fresh, clean start in psychology, breaking with both current theories and with traditional concepts and terminology. For the behaviorist, psychology is that division of natural science which takes human behavior - the doings and sayings, both learned and unlearned, of people as its subject matter. (Watson 1929 4)

It was a classical foundational position, not one which was epistemologically based, but one which had its feet firmly in the philosophy of science. It prescribed the method for scientific work, irrespective of the subject matter of the research. Watson and others were quite clear that the method of stimulus-response was authoritative for studying all human behaviour. Given an assumption of the operation of determinate causality and an experimental situation in which all the inputs and outputs of the experiment were monitored, it was possible to explain changes and variations in human behaviour without recourse to any ideas of consciousness and thought. This foundation meant that prediction was the goal of the behaviourists and also the mark of a science. Since experimentation was the scientific method, the way of developing understanding was to gather replicable bits of causal understanding which could be pieced together into more substantial patterns of prediction. These constituted the penetration of scientific knowledge into the real world; the experimental situation was a microcosm of the real world and the relaxation of the experimental conditions led to increasing stimulus-response interaction with the real world. (Boring 1948) It was not surprising that later Skinner would see this scientific method as the key to change the way people live.
In part it is the archimedean trust in causality as a process through time which gives
the foundational certitude, but added to this is the need to establish knowing
subjects who are not themselves subjective or biassed in their knowledge. The
elimination of bias follows from mechanical obedience to a process which yields
inevitable results. The knowing subjects are the scientific community who have
access to replicable results. All subjective terms can be eliminated, because the
only concepts needed are those which label the inputs and outputs necessary for
the experiment which therefore have a merely nominal status. Thus terms which
have previously been seen as having an essentially mental or subjective status can
be recast in external form; only the external behavioural description is scientific, and
only that which is formulated in these terms can be known with certitude. It seems
on this basis that the foundation is secure.

But does it hold? Often the attempts to refute this position do not recognize the
foundational form which it has; there are many defences of innate consciousness,
but these are not direct refutations of the foundation. There are, however, a number
of ways in which the behavioural position fails to provide an indubitable route to
objective scientific knowledge. First, many of the inputs or stimuli which affect
human subjects are words which require specific interpretation, and cannot just be
treated as terms which can be described by any subscript. Thus, in consumption the
use of the terms "luxurious", "expensive", "bargain" or "ecologically-friendly", which
are obviously intended to have a specific effect on the subject, are not necessarily
tied to their imparted meaning. A thrifty person may well react against the label,
"luxurious", and refuse to buy a good. The behaviourist can claim that the
"subjective" meaning can be established by reference to antecedent experimental
situations, but this uncovers the point that it is not possible to isolate experiments as
self-standing units of knowledge, because they depend on external and internal
referents which are given elsewhere. The foundation cannot therefore reside within
the experimental, or stimulus-response, situation itself.

Second, when human behaviour is under consideration, the idea of replication of a
controlled experiment is impossible, if only because the subject is older, and
probably wiser or more impatient. This means that the scientific community does not
have access to a given incontrovertible set of results. Those results are actually all
relativized by a set of changes which always in principle either modify or even
undermine them. The foundation turns out to be one on wheels which moves with
events.

Third, there must necessarily be a relationship between the experimental subjects
and the experimenters. This is a serious problem in physics at the limits of
elementary particle analysis and relativity theory, but these problems suggest that
all experiments contain theoretical problems posed by interaction, whether it is
recognized or not. Certainly, in principle it has to be acknowledged that rather than
there being some objective vantage point, the experimenter stays relative to the
experiment, and is often in one sense or another within it. But when the experiment
involves human subjects the problem becomes even more acute. Usually the relationship takes some form of control. It may involve deceiving the subjects, giving them orders, paying them money, persuasion, locational requirements and a host of other prescriptions, which makes the position of the experimenters not objective but partial. Sometimes the subjects may control the experimenters, as with the pigeons who trained the behaviourists to feed them excessively. Finally, the subjects are structurally seen as dependent variables within the experimental situation, but subject to the control mentioned above, they may be bloodminded and always enter and leave the experimental situation bringing "independent variables" which compromise the dependent status. What is claimed as objective turns out therefore to be highly partial in its essential organisation. Let us consider this through an example. Consider behavioural research which aims to see how quickly subjects respond to product advertisement, whether they are pioneers, early adopters, late or non-adopters. The results are related to other behavioural information and conclusions are reached. The very structure of the experiment rules out the possibility that subjects actively seek the goods and services which they want. We may or may not be independent in defining the products we want, and if the independent commitment is present it will be impossible to come to sound experimental conclusions about advertisement response. In human experimental situations when the ratio between the learning subjects bring to and take from experiments compared with what they pick up in the situations is so high, most trials have to be dark grey box ones.

But the method is also inherently dogmatic. The primary form of the dogmatism is, of course, the requirement that concepts must be given by the experimenters in terms of the experiment. These of course, tend to be biased towards dispositionals, stimuli, overt responses, discrete phenomena and variable phenomena. Much of what may go on in consumption is dogmatically excluded by the prescribed method. The existence of an overall strategy to consumption, an holistic frame, can scarcely be comprehended. Time perceptions which exceed the boundaries of the experiment automatically get lost. The economy of time is necessarily suspended within the experimental process, and the locatedness of consumption - travel time, search procedures and place preferences get lost in the replicable pattern of experimentation.
Further, the position is otherworldly. The hope is that the detailed experimental findings will allow a comprehensive understanding of behavioural patterns to develop. Yet since the experiments are removed from actuality, the findings are about the peculiar context in which they are generated, and limited to what is viable in that context, which makes then fundamentally removed from normal activity. Experiments which compare washing powders or beers ignore the fact that such comparisons at home require overstocking or being too drunk to respond with sensitivity to the variety of tastes. Subjects who respond to certain kinds of packaging in a laboratory are likely not to replicate their behavioural patterns in a crowded supermarket when under time pressure.

Behaviourism thus exhibits most of the classic characteristics of foundationalism - the assertion of indubitable knowledge, dogmatism with respect to other views of knowledge, a prescribed procedure for research, the elimination of other kinds of knowledge, and an otherworldliness which comes from a scientific frame of reference for knowledge which is out of touch with the day to day experience of human subjects. As its foundation is proved more assailable and local than it claims, the emptiness of the methodology is gradually revealed.
Consumer Behaviourism.
The weight of behaviourism in American psychology was considerable. Guthrie, Hull, Tolman and Skinner established it as the dominant research idiom in departments, especially in the growth period of the 50s and 60s. The Journal of Experimental Psychology, Behaviorism, the Journal of the Experimental Analysis of Behavior, the Journal of Comparative and Physiological Psychology and other publications developed a powerful corpus of experimental results, which were assumed by their participants to create and add to the scientific study of personality in a way which was cumulative and irreversible. The method also spread into a variety of related disciplines, like social psychology and psephology, among which were included consumption, or consumer behaviour, as it was renamed. This development was interesting in the way it was to a large extent a declaration of independence from economic consumption theory. It had a different agenda which derived inspiration and funding from the areas of marketing, retailing, distribution and retailing. The focus was on questions like How do people decide what to buy? How do they perceive and respond to advertising and packaging? What processes stimulate consumption? Which groups lead in consumption trends? The Journal of Marketing Research and the Journal of Consumer Research were organs which represented this interest. (Engel and Blackwell 1982)

One emphasis in this approach was on establishing the process whereby people responded to the consumption situation. The assumption tended to be of a certain replicable stage process through which consumers passed on their way to purchasing. By conflating a number of studies we can get a grasp of the stages on offer: Seeing, Awareness, Exposure, Perceived information, Interest, Attention, Perception, Problem recognition, Desire, Reading, Comprehension, Search, Believing, Remembering, Persuasion, Intention, Liking, Evaluation, Motivation, Yielding, Trial, Conviction, Purchase, Choice, Decision-making. (Foxall 1983 21-2) These stages can be experimentally identified, although what the subject and experimenter mean by "perceived information" and "problem recognition" may be somewhat different, and they can then be built into marketing and advertising procedures. Whether experiments are being verified, or are replicable, tends to get lost in the crude evaluation of sales and success which accompanies many products, but the method, insofar as it is behaviourist, tends to rule out the radical differences which consumers probably do display in their awareness and orientation to purchases.

Behaviourist theories of advertising have also flourished. Sometimes it was seen in terms of reinforcement theory. (Ehrenberg and Goodhardt 1979) Others saw it in terms of behaviour modification. (Nord and Peter 1980) However, the approach had a common pattern. Certain traits in the process, which were successful and replicable were seen as being sufficient stimuli to induce the right response. Often the theories involved weak models in that the behavioural effect was merely to keep
people regular buyers, congratulate them on what they had bought, or make them open to purchases, but the underlying tendency of the method was to suggest that a replicable process could be discovered which identified behaviour patterns capable of being transferred from one product to another, irrespective of what that product was. This emphasis can be interpreted two ways. First, the behavioural method was fundamentally otherworldly in abstracting from the actual character of the goods and services which people buy. Or, second, advertisers selected a method which gave them all the glory for selling the product and none to the makers. Or, both.

At the same time this emphasis opened up a range of issues and topics in relation to consumption which had been foreclosed within the rationalist and positivist traditions. The processes by which patterns of consumption were cultural diffused were studied. (Foxall 1980 91-113) Attitudes and orientations to consumption were discussed in a more pluriform way, and differences in personality and their impact on consumption were explicitly considered. (Foxall 1980 57-87) Further subcultures of consumption were examined and the remarkably different conclusions they came to about goods, services and priorities began to appear in the journals. More recently, the behaviourist emphasis has waned and other orientations to knowledge coming from anthropology, phenomenology, existentialism and structuralism have found their way into the analysis. The richness of the subject matter being studied has revealed the relative poverty of behaviourism as a framework of knowledge for grasping it.
Scitovsky's Change of Basis.

The development of behaviourism in psychology, and to a lesser extent in other disciplines, has been traced above, but during the period of its development it had relatively little impact on economics. We have seen how Keynes was more directly concerned with economic behaviour than many of his contemporaries, but that was scarcely under the impetus of psychological behaviourism. In fact, it is not until the 1970s that the impact of behavioural psychology began to filter back into the discipline through management and organisational studies and through consumption and advertising analysis.

A key figure in this new development is Scitovsky. His early work, most notably Welfare and Competition (1952) was unashamedly orthodox. Its focus was price, and the assumption which ruled was that of rational choice. Consumption theory was followed through largely in the framework and with the epistemological assumptions of Hicks. Scitovsky was especially concerned with economic efficiency and the logical necessity of a universal perfectly competitive system exhibiting maximum efficiency in the use and allocation of resources. Although he allowed the importance of equity, it was quite clear that universal perfect competition was a model of perfection with regard to efficiency. Why did Scitovsky leave this rational paradise? Quite clearly, it was for substantial reasons. He was dissatisfied with the kind of analysis of consumption which his earlier work yielded. It was not accurate in describing what was going on with consumers. But the epistemological constraints of his earlier logicist position were so tight that he was also necessarily involved in a change of foundation, and he found a new one in behavioural or physiological psychology. Why he had to do so is obvious. Within a logicist maximization framework joy was always to be found at the margin of optimum substitution. In his later work he was sure that this was not the case, and he therefore had to find some other ground for knowing what consumers felt than the logical maximization of satisfaction. This quest is pursued in the justly famous, The Joyless Economy (1976).

First, we should note the freedoms which Scitovsky experienced when he moved out of the old framework. He was able to examine human motivation as other than as a monotonic drive to maximize. He was free to consider inconsistencies of behaviour and also, although this was more than a strictly behavioural conclusion, whether the consumer in the United States experienced less satisfaction than the level of income would indicate to the satisfaction maximizer. In particular Scitovsky was able to ask whether some forms of consumption also brought with then dissatisfaction. Although we regularly acknowledge in daily life that something is "not an unmixed blessing", it had hitherto not been possible to state this in orthodox consumption theory, because more was better and the criterion of assessment had to be unilinear. The chord which the book struck with many people arose from the widespread perception that affluence was often accompanied by depression, sadness, dissatisfaction and boredom; a previously unspeakable thought in
The alternative foundation Scitovsky found in largely behaviourist psychology. Experiments had established the importance of arousal, as measured by an electroencephalograph, and shown that there are optimum levels of stimulation and rest. Too much arousal causes problems of efficient response in the organism, and much consumption is therefore concerned with its reduction to more suitable levels. (Scitovsky 1976 ch2) Scitovsky then follows it into the specification of personality types: extrovert-low arousal and introvert-high arousal. He moves away from the hedonic one-dimensional scale and uses the physiological concepts of drives and arousal to establish the difference between comfort and stimulation, and thence to cultural types, American and European. Using this distinction Scitovsky shows how responses which make sense within one type do not in the other and vice versa. He concludes, not only that the rationale of the two types is incompatible, but also that the American pattern contains many contradictions like the search for comfort damaging health, efficiency in saving time but inefficiency in spending it.

But there is a transition within the book. Although the first part is clearly intended to lay a foundation for the different conclusions of the whole text, the scope of the study rapidly moves beyond arousal and stimulus studies into cultural analysis. People are deeply affected by the culture in which consumption is conceived to purchase goods, status, access to activities, services, aesthetic objects, security, excitement and many other important categories of consumption. They also have different ethics of consumption; Scitovsky focusses on the puritan and the hedonistic. Each of these ethics produces substantially different consumption responses which need to be considered in any fuller behavioural approach. Once he moves into these domains, Scitovsky zooms off from his behaviourist foundation into defending liberalism, upholding high culture and pleasurable activity. Clearly, the later analysis is based on a view of knowledge which is wider than the behaviourist foundation at the beginning. The claim that "the approach taken in the first part of this book provides the criteria and detachment needed for being as choosy and critical about the ways of Europe's leisure classes as about those of America's leisure society" (1976 ix) is a little tendentious. This book is different from all the foundational studies of consumption looked at thus far because it actually talks about people, and the "behaviourism" is more a way of receiving permission to do this extraordinary thing in an economics text.

This does not help the structure of the book. It is not possible to add cultural analysis to the supposedly neutral and experimental categories of behaviourist psychology, which claim their generality precisely on the basis of being immune from cultural contamination. The cultural component of, for example, hypochondria is obviously important and needs explicit recognition and not as an addendum. When he does consider culture Scitovsky develops a sociologically eccentric understanding of it.
I shall define culture as knowledge; it is that part of knowledge which provides the redundancy needed to render stimulation enjoyable. Culture is the preliminary information we must have to enjoy the processing of further information. Consumption skills, therefore, are part of culture, while production skills are not. (226)

What needs to be recognised is the necessary cultural nature of all behavioural patterns and the incompatibility of many of those matrices. Scitovsky still thinks in terms of evaluating culture in terms of enjoyment (227), but it is evident that enjoyment is normally evaluated in terms of a culture. It is seen radically differently by the sadist, the altruist, the hedonist, the puritan and the pragmatist, and these differences of cultural perspective need to be systematically examined because of the considerable effect which they have on the priorities of direction of all consumption behaviour. These we shall open up more fully in the last chapter.

Thus, here we see an economist moving from a logicist foundation, as a result of profound disease with the conclusions of his earlier work, but encountering hostility towards his ideas because he dared to do so. His route out of logicism was a form of behavioural foundationalism which he also found to be too much of a straightjacket towards the end of The Joyless Economy. He personifies the economist trying to find his way out of this way of conceiving knowledge which has dominated much of economics for the last hundred years.
Finally, we move to consider a group of consumption theorists who have largely distanced themselves from the foundational approaches examined earlier and have developed a post-foundational view of consumption in many respects. They show that foundationalism is not inevitable, and when it is removed a far richer contributive view of consumption theory emerges. The key formative figure in this school was George Katona.

Katona's education to doctoral level was in experimental psychology, but he moved out of this foundational perspective, partly through the influence of Max Wertheimer, Kurt Lewin and Gestalt psychology, into a more open view of psychology which emphasises the composite response of persons to challenges and problems which they face. This perspective led Katona to the radical change of actually asking consumers questions and treating their responses as important, something that all of the positions which we have previously examined had ruled out a priori. Persons had entered consumption theory. Katona still had his own psychology; it involved using economic motivational concepts like level of aspiration, expectations, consumer optimism, habit and confidence to predict what consumer trends in consumer durable purchases, saving, specific markets and borrowing would be. The agenda he followed was largely the short-term predictive macroconsumption one which was part of orthodox concerns during the period when he and the Survey Research Center at the University of Michigan became established. The approach was formulated in the period of the second World War, partly under the impetus of military research, and was more fully developed by the Survey Research Center under the leadership of George Katona, but with later contributions from John Lansing, James Morgan, Eva Mueller, John Sonquist, Ernest Zahn, Jay Schmiedeskamp, Burchard Strumpel, Thomas Juster and others.

For years George Katona's work seemed somewhat peripheral to mainstream consumption theory. This was partly because his work "annoyed many of the brethren of his adopted scientific fraternity. What put them off was his disdain for utility-maximizing or profit-maximizing models of individual behaviour." (Tobin 1987 155, Earl 1988 II 405) The Survey Research Center saw no reason to adopt the rationalism of the dominant neo-classical paradigm which asserted that principles of economic behaviour can be deduced from features of human nature which are assumed to be valid at all times and in all cultures (Katona 1980 3). Katona reacted to the timelessness of this approach, which says that when conditions are unchanged, the consumer and other decision maker will make the same choice. He conversely saw people who behave very differently as a result of learning, motives, attitudes and frames of reference. Thus the model of rational maximization was unrealistic. Multiple motives, variations in information, special opportunities to purchase, urgent needs, uncertainty, group decisions and confusion all create the possibility of arational behaviour. (Katona 1980 217-26, Morgan 1978 58-63). Further, argued Katona, the mechanical automaticity of the universal laws approach
is not only not realistic, but it had become less so with the increasing discretion of consumers and other groups in a more affluent society (Katona 1960, 1964). Thus he repudiated the limitations which rationalist frames had imposed in consumption theory and pushed back the boundaries of what could be taken into consideration.

It was not just rationalist foundationalism which was repudiated, for Katona and his colleagues were also moving away from positivism, with its emphasis on supposedly objective data. From the view of the positivists he seemed to be engaged in work which was not properly in the economic domain; it was asking people questions, dealing in subjectivities, rather than dealing in hard and pure economic theory. At a more sophisticated level he also had a different set of research tools. Again, in Tobin's words, "In the early postwar years economists were still convinced that rigorous sophisticated methods could make time series of economic aggregates disclose simple reliable macrorelations. This optimistic faith dominated in particular economists' research on saving behavior, thanks initially to the apparent statistical success of the Keynesian consumption function. But as primitive Keynesian functions failed and competing hypotheses of greater complexity were advanced to fill the vacuum, the importance of household survey data came to be appreciated.." (Tobin 1987 155) However, these words were spoken in an essay in honour of Katona, and perhaps underestimate the continuing distance between the positivist methods of many econometricians and the survey techniques of Katona, for still there was a great gulf fixed between them, because the former regarded the latter's research methods as soft and imprecise.

If the approach was neither rationalist nor positivist, was it causal and behaviourist? First, it had lost the objective, experimental emphasis of Watson, Skinner and the others who posited an observational stimulus-response stance as the necessary scientific one. Rather than ruling out subjectively defined concepts, motives and attitudes, if these could be shown to be of causal significance in the overall situation, they were valid variables to consider. The subjectively perceived attitude could be publicly identified by the social scientist and was likely to be an important, and changing, contributor to economic events. Second, however, it retained the behaviourist emphasis on people reacting and constantly changing, but perhaps with a greater awareness that the changes can come from reorientations of attitude and motive which do not arise from mere external stimuli as much as from personal development. Thus, little of a foundational commitment to behaviourist knowledge remained in the approach, and its focus was less on the process of validating its own knowledge than on finding out what was happening with consumers.

But at the same time there are elements in the work of Katona and the Survey Research Centre which do very much reflect the causal, foundational paradigm in its quasi-experimental form. First, it adopts the quasi-experimental approach to time. The cohort studies, for example of the 5000 families (Duncan 1976, 1977, 1978), were undertaken to study causal processes, and there was relatively little concern with cross sectional differences (Morgan 1972). Reinterviews with a panel
and repeated studies were seen as necessary if inferences across time were to be made with any certainty. Here Katona had a somewhat sceptical attitude towards the processes of theory confirmation and rejection seeing no rules as definitive, but recognising that behaviour changes and behavioural mapping approximates what goes on, and will go on, through prediction and modified hypotheses. The long-term goal is an integral theory of social behaviour which allows all the factors influencing human action to be taken into account. This is hardly dogmatic foundationalism, but the remains of the model can still be discerned in the research programme.

It is also evident in the reduction of the mode of study to the determination of variables which can be seen as having an impact on the behaviour of the consumer and on the subsequent pattern of purchasing. Although some of these variables are attitudinal and social, still the conception focusses on a (discrete) phenomenon which contributes to a consumption pattern. The open ended questions and the willingness of Katona and the others to consider broader cultural explanations of change means that the method does not hold tyrannical control over them, but it could, and in the hands of others undoubtedly does. London and Della Bitta espouse a stronger determinist agenda in their study of consumer behaviour, and their analysis of the factors involved overlooks the way in which the various factors can be seen to be intimately interrelated. (London and Della Bitta 1979)

Finally, we note Katona’s position with regard to the question of the normativity of action. Initially he seems to take the orthodox positivist position - "Psychological economics is positive rather than normative; it deals with what is rather than with what ought to be." (Katona 1975 41), but this does not accurately record his position which is causal rather than positive. Values, attitudes and even principles may be given explicit recognition as variables which affect behaviour (Katona 1980 88) and he recognises the significance of moral imperatives in shaping corporate and other policy. Again we see the loosening of the old amoral causal framework, but not finally to the point where the normative direction of consumption is something which can be explicitly shared with consumers and students, for the causal framework retains ultimate formal control.

At the same time, as Katona and the others recognized, they are involved in only part of the agenda of consumption studies, and especially the social-psychological branch of it. Here, again Katona had a grasp of interdisciplinary integration. Although orthodox economics believed it was doing economics without psychology, actually it was advocating economics with a mechanistic psychology. Human discretion and attitudes had to be an explicit part of the economic analysis. In saying this Katona was aware that he was attacking the normal boundary definitions of the discipline. Sometimes he resolved the tension by defining his approach as psychological economics, and therefore a more useful addition to the more orthodox approaches, but more normally he accepted that he was advocating an alternative behavioural epistemology which challenged the rationalist orthodoxies by requiring an integration of the various modes in which personal behaviour was expressed.
Because expectations, group attitudes, learning theory, information, reference
groups, decision-making dynamics, multiple motives and frames of reference
entered into consumption choices, they had to be explicitly analysed. The scope of
the Michigan Studies have been one of the most liberating research programmes in
the history of consumption theory. Broadly, it has allowed a range of social and
psychological variables to be explicitly introduced to the subject area, and has
recognised how much richer people's reasons for consumption are than those
posited in rationalist theory. Yet at present the conclusion remains that the
orthodoxies of consumption theory remain relatively intact; they interpret Katona as
a soft addition to their domain.
Conclusion.

This chapter has been somewhat different from the earlier two. It also looked at a strong foundational position, that of causal understanding, but it has looked at two groups of theorists who have been post foundationalist in some of their approaches. It would have been possible to identify bodies of theory which followed much more straightforwardly a foundationalist causal methodology. Marxist-Leninist theory with its emphasis on the materialist dialectic as the prescribed mode of theory would have generated such a pattern, largely devoid of insights about consumption. Later developments in the German historicist school have similarly been ignored. Many other theorists handling models specifying tired dependent and independent variables could have done the same. But the traditions we have covered here offer a little more hope. We return to the time when Keynes recognized after discussion with Ramsey that even the limited form of foundationalism which he had been trying to retain would not work, that this was not a logical method even of establishing probable understanding, and in that time of defeat created the possibility of moving on to more fruitful substantive work in consumption theory and other areas. We recognize that he, Kantona and other theorists who are post foundational can grapple with substantive issues which cry out to be addressed.

But this leaves a vast amount still to be done. The perspectives on epistemology outlined in this chapter again do not comport with the other views which we have examined. They trust a different foundation for well-formed knowledge. They require a different kind of theory. The dogmatic distance between different theoretical traditions is revealed in the fact that even senior members of the profession misunderstand the position of Marshall or Keynes. Each theoretical structure demands a different kind of validation, methodology, use of mathematics and boundary to their area of study. Even these positions which are in some senses post-foundationalist rule out areas of consumption activity which are important, possibly for the future of humankind. Nor is extant theory in any position to address these issues, for all the foundational positions we have been examining have become buildings, extant and fully furnished, albeit with very few of them occupied. Really to demolish the theory which is not well founded requires care and also a vision of what can be rebuilt. This the next chapter attempts to do, using the more positive ventures which have begun to appear recently.
Chapter five: Conclusions and New Directions.

Review of Foundationalism.
The various foundationalist epistemologies which we have charted in the previous pages have not just been options which are open to practising economists, but have fundamentally shaped the way in which consumption theory has grown. Theorists have been led by foundational commitments into divergent ways of doing their work to some extent as people walk down a tunnel; other lines of vision have been excluded. As the journey has proceeded, the questionable basis on which they have constructed theory has gradually become evident. Recognition of the failure of these positions involves the discipline in a process of demolition and reconstruction which is considerable. Unless the fundamental weaknesses are recognized in a fully self-critical way, nothing better can emerge. We have already seen evidence of this process beginning to get underway in some post-foundationalist thinkers in consumption theory, but few have realised the scale of the change in perspective and approach involved and the scale of the failure. Let us review some conclusions from the last three chapters.

The underlying philosophical move has evidently not fulfilled its promise. The root attempt to establish an infallible foundation for the construction of well-formed knowledge has failed. Logical necessity, a priori truth, means-ends neutrality, sense data, logical positivism, falsificationalism, frequency inductivism, causal determinism and behaviourism each did not provide secure foundations for building scientific knowledge. When the positions were rigorously stated, the inadequacies of the supposed foundations became evident and the faith in these routes to indubitable knowledge was not justified. Nor was the failure of each position merely accidental. As Nelson and Dooyeweerd argued, the supposed autonomy of the basis for knowing, the very claim to self subsistent human science, was itself flawed. The conclusion to be drawn from this failure is a sobering one. No kind of knowledge can legitimately claim to be neutral, objective, indubitable or beyond question by virtue of the way in which it is formed within a scientific discipline. Insofar as the sciences have claimed this kind of knowledge and infallibility, they have misrepresented their enterprise. The certainty is not there and has been claimed on refutable grounds, making it dogma.

This conclusion is important, because it enables us to see why economists in the area of consumption theory, as with many other areas, have talked past one another. They have been working from different assumed indubitable foundations, which have turned out to be methodological dogma, not neutral incontrovertible science. As a result each has posited the character of knowledge in fundamentally dissimilar terms, but because of the assumed incontrovertibility of their position, has...
been unable to acknowledge that this is the case. Intercommunication between various positions has therefore had an undeclared basis of confrontation which has hindered real debate. This is not just pluralism, but a breakdown of the academic enterprise, because it denotes the inability of academics to discuss differences in theory and method in consumption and other domains of theoretical work. As has repeatedly been shown many theorists do not understand one another and merely seek to read other work into their own dogmatic epistemological positions. The situation is even more deeply obscured as generations of new economists come along who no longer have the foundational commitments but try to put together bodies of theory which are epistemologically incompatible without any idea of why they do not fit.

The epistemological positions are also expressed in methodological prescriptions and proscriptions which generations of researchers have collected into much of the discipline's extant evidence. Consumption theory is actually consumption theories, that is different bodies of theory which are formulated according to decidedly different principles of what theory should be. Whether evidence is collected through surveys, quasi-experimentally, from macro income and price data, through hypothetical response information, from sales figures, through attitudinal studies, through time series studies or conceptual analysis substantially depends on what each methodology allows and disallows. For some, econometric data is de rigueur, for others inadmissable. This means in practice that little evidence can be used across these positions without reinterpretation from within the alternative foundational position. What is ruled out of consideration is also quite substantial. Thus, long-term trend data which is the bread and butter of positive modes of study are held as weak evidence by causal theorists because of the failure to control for ceteris paribus assumptions. Many researchers have categories of data rejection like "soft", "vague", "trivial", "dated", "number-crunching" or "armchair" which are used to reject research on a wider scale than is suggested by the more formal journal treatments. Most of us have lived with economic traditions which believe in different kinds of theory for so long, that we do not question how destructive it has been for the growth of theoretical understanding.

Further, merely in relation to one another it is clear how much knowledge each of these positions exclude. Logicism excluded purposive behaviour and did not relate to consumption activity. Means-ends rationalism could not relate to traditional or present-orientated relationships with consumption. Positivists by relating to discrete units of knowledge called facts or data, deconstructed the complex patterns of interrelation which consumers and markets construct. Causal theorists have shown, especially in some of the Marxist traditions which we have not examined, how consumption is often a means to other ends in the economy, whereas the means-ends framework insists on treating always as end orientated. (Marcuse 1972) Almost all of the positions have excluded the norms, principles and codes by which consumers normally function on the grounds that an ought cannot generate an is, or
the phenomenal and noumenal are categorically different. Many of them are also fundamentally impersonal, excluding persons, motives, aesthetics, communities and institutions from their purview. The loss of richness and the monocromacity of the theory is only acceptable because so many have put on the dark glasses of a foundational epistemology.

Another weakness is the way each of these positions has defined the boundary of economic science in different ways. Especially instructive is what has, so to speak, been tipped out of the economic domain. The dualisms of positive-normative, fact-value, neutral-ideological, objective-subjective, causal-experiential, behaviour-meaning, logic-intuition and knowledge-belief have been used to provide boundaries to (economic) science, and meaning, subjectivity, ideology, value and norms have been tipped out of the science. On reflection this is so ludicrous for understanding in consumption theory that it is amazing so many have allowed it to happen. One cannot begin to understand consumption in Russia or the United States without reference to the ideologies of Socialism and Free Market Capitalism. Once this failure has been faced a whole new perspective on the domain for study opens up.

Thus, the conclusion arises that there is no autonomous kingdom of foundational knowledge to bifurcate scientific understanding and experience. Science may involve a different discipline of thinking, but it still responds to economic life and must wrestle with its meaning. There is no retreat from the questions of belief which characterised the period of the first crisis. The principal agnosticism about what the economy is will not work. Each of us, with suitable and communal humility, has to begin to discuss again what we believe the economy is like, and to define the substantive issues in consumption. Thus, the philosophy of economics, an area of study which has been almost entirely dwarfed by epistemological preoccupations moves back to the stage. Issues like, What is consumption? Why do we invest or save? When is consumption wrong? What is the meaning of work?, What is an ecologically responsible pattern of consumption? How should we understand time? To what extent should consumable resources be redistributed and shared? Are the consumer goods available what people want? What should the overall level of consumption in the economy be? have not featured in conventional analysis. Yet, if the theoretical agnosticism of foundationalism is not a tenable position, they appear again on the agenda. There is no separate foundational knowledge which stands on its own terms and the issues of life become again the issues of the human sciences.

More immediately, the disjunction between scientific or academic knowledge in consumption theory and the day to day experiential understanding of consumers and those involved in retailing, advertising, market research and consumer monitoring can be reconsidered. There is participant evidence available to the domain of consumption theory which remains substantially untouched within the academic corpus because it is not available in the methodologically prescribed form. Now advertising, marketing, sales and product research becomes available...
for interpretation within economic theory. How consumers think, feel, plan and account becomes of consequence, and the poverty of some families' consumption a matter of direct concern.

This disjunction which arises from the idea of a separate domain of foundational knowledge also explains the otherworldliness of much consumption theory. This has perhaps become its most pressing weakness. Because the knowledge sought has reference to the foundation and not to living, it has an autocentric focus. In the Journal of Economic Literature consumption regularly features as one of the lowest contributory areas of theory, despite the dominance it has in contemporary Western life. This suggests the poverty of the domain of theory. Many issues in consumption theory are defined in self-referential terms; "transitivity" does not address the question of which goods and services consumers can and do treat as comparable. Presumably, some consumers are more articulate in establishing linked preference systems than others. Yet this issue is obscured by the logicist definition of transitivity which is only concerned with theoretical certainty. The most striking example of this otherworldly emphasis was the effort made by Samuelson to refine the postulates necessary for consumer theory to the absolute minimum. This process simultaneously impoverished the theoretical domain, but this fact seems scarcely to have concerned the people involved in the debate. (Samuelson 1938) If these autonomic reference points are largely falsely conceived, they atrophy theoretical development. Consumption theory will become totally surrounded by impenetrable indifference curves...

The failure of foundationalism has also created severe problems for economics in terms of boundary definition. When the boundary is no longer defined by substantive areas of human activity, but by the mode of analysis and the definition of knowledge, widely differing definitions occur. Thus logicism and formal rationalism push irrational behaviour out of the realm of economics into sociology, while means-ends rationalism includes it and takes over many areas which are normally deemed sociological.(Becker 1976 153-68) This problem has especially affected consumption theory, because different positions see the edge of economics in terms of the choice of goods, the domestic organisation of priorities, purchasing, non-subsistence activity, the organisation of domestic income or the data generated by domestic consumption. Perhaps the most serious weakness which arises out of this problem is the exclusion of the family from consideration in consumption theory as an economic unit. When most consumption decisions are generated within a family context which shapes their outcome, only to consider this institution in social terms, drastically limits the theoretical awareness of consumption studies. The family is probably the most formative institution in western economies today, and it has effectively been ruled out of consideration by these boundary definitions.

This is because the disciplines are largely seen as autonomous, and the modes of study as subject specific. Pareto's definition of economics as logical and sociological behaviour as nonlogical is a blatant example of this. It was deemed
impossible to think as rigorously about interpersonal relationships as it was about relationships with things; as a result certain kinds of logic were suppressed and others developed, and the discipline was closed to relational issues within its own corpus. Similarly, the approach which allowed the positivists to dismiss normative attitudes to consumption as subjective and generating soft and inadmissible data effectively dismissed ecological issues from consumption. Yet obviously, these questions of ethics, geography and biology are right in the middle of consumption choices today. The methodological autonomy of the discipline has thus created all kinds of inhibitions to integrated thinking about consumption across the disciplines.

Finally, these foundationalist positions have failed to recognize the subjectivity of the theorist. They have demanded high levels of self-critical awareness in relation to methods, but the economist has remained naively confident that his theoretical response is free from subjectivity. This flies in the face of the fact that many of the choices of topic, theoretical frames and lines of approach can be identified with the preoccupations of the theorists. Thus, Friedman’s disappointment with microtheory when approached in positivist terms helps explain much of his later concentration on macrostudies. Without this willingness to locate their own concerns, consumption theorists lose the ability to relativize their own contribution. More serious is the impact of the desire to establish theoretical dominance and the part pride and professional status play in debate. When these are not recognized, the personal distortions which we all contribute to theory cannot be acknowledged. Deeper still are the commitments, values, perspectives or patterns of indifference which we all bring to our studies. We have ways of viewing which are related to culture and religious perspective. Much so-called neutral theory has been formed to validate a culture where self-gratification is a sacred value. Clearly, ecological pressures and global economic pressures are going to challenge this value during the coming decades, but it will be no easier for economists than for ordinary citizens to explicate themselves from its claims.

Sifting out the implications of these failures is a painful process; it goes deeper than accepting methodological pluralism, important though that is, because the foundational positions are deeply embedded in so much of orthodox consumption theory. Here, perhaps, the position of Caldwell perhaps does not go far enough. He exposes the fallacy of the search for a universal prescriptive scientific methodology, largely by looking at the positivist tradition. He also recognizes that different epistemologies turn out as mutually non-compatible. But he does not seem to fully face the problem created by the fact that extant theory embodies these foundational methodologies; the buildings are up and turn out as gothic, neo-classical, modern and post-modern. His focus is on methodological tolerance rather than the issue of what these kinds of theory have generated. This study suggests there are more radical issues which need to be questioned than those which can be addressed by comparative methodological studies. Finally, Caldwell does not see methodological pluralism as leading to a systematic philosophy of science. By contrast this study
concludes that the need to answer the question What is science? is more pressing than ever, but it must now be answered on other terms than foundational ones. If it is not addressed the relativist crisis of the late 19th century beckons again. (Caldwell 1982 244-52) For the way out is not just to return to a weltanschauung, a substantive view of economics and consumption such as existed before the first crisis. Feyerabend wisely noted that every method implies a view of the world, (Feyerabend 1975 295) and this has been vindicated in this particular study, but the reverse is also true. A view of the world occurs through a method of analysis or understanding. Not to face this deliberately is to retreat back into at least some of the forms of dogmatism which the early foundationalists rightly feared. We therefore face the task of facing both the crisis of weltanschauung of the late 19th century and the 20th century crisis of foundationalism. Every area of study, including consumption theory requires both insights and a working philosophy of science. These can no longer claim epistemological immunity, but stand or fall in a much bigger debate than has hitherto been allowed. It is in the terms of this debate that the rest of this chapter proceeds.
A Christian Diagnosis of Foundationalism.

That foundationalism is mistaken has been accepted in a range of particular cases by its opponents and proponents. Yet still there is a strong impetus to keep on mending the ship rather than abandoning it. Partly, this is because it seems the only way of upholding the position of economics as a science. In this section we shall step back and put foundationalism in a larger context which may help to explain why it has failed as a philosophy of (economic) science. Those who do not share the framework of interpretation will at least be invited to see how a number of answers are given to the epistemological and theoretical questions which are thrown up as a result of this study.

The attempt to establish indubitable foundations for scientific knowledge was a move made by groups of people who believed in certain kinds of human understanding as central to the development of science. They largely trusted one particular faculty of knowing as the definitive channel between (economic) life and their knowledge of it. Thus three key assumptions were built into the foundational enterprise: the centrality of human understanding, the need for an authoritative channel and the emphasis on science as the predominant mode of knowing. A christian understanding offers the possibility of seeing why these assumptions had to fail and exposes why they have a more limited and proximate significance than has been assumed within the traditions we have been examining.

The centrality of human understanding has been one of the guiding principles of Western intellectual culture since the Renaissance. Its requirement is that the certitude for knowledge be located in the human intellect, and often it has been assumed that this will be the case, as it was with all the foundational positions we have examined. Yet the priority of this requirement might be part of the problem. A christian understanding of the creation requires the recognition that human knowledge is necessarily dependent and derivative. Because knowledge has its origin in God, it is respondent both to God and the creation. Because humanity is a posteriori, so is its knowledge. Further, any person or group within the creation faces the inevitable limited, partial and located nature of human understanding. What have been seen as universal modes of understanding have turned out to be anthropocentric and crucially limited by their source. An absolute point of reference has proved to be one of many. The scope and richness of the creation suggest the limited terms of reference which any human being generates. The possibilities of ignorance and for error are also vast, not only through motives, pressures, cultural preconceptions and self-deception, but also because a coherent understanding of any area must partake of the limited vision we have. How could the relationship between consumption and ecology have been largely ignored for the last hundred years? The very insistence on human understanding as the locus of truth-finding therefore mounts knowledge on an untrustworthy beast. It is only by seeing the relative fallibility not only of understanding, but also of supposed infallible processes.
of gathering knowledge that a larger perspective emerges. If alternatively it is recognised that understanding of God and the creation including ourselves involves a fallible response which takes into account the limited, located and potentially mistaken character of human understanding, the dangers of intellectual hubris are, in principle, disarmed. On this view, therefore, foundationalism exemplifies the necessary failure of modes of understanding which do not acknowledge the priority of God's revelation and the fallibility of human processes of constructing knowledge.

At the same time this opens up the way for a recognition of the central role of faith in all scientific endeavour. As Kuyper wrote:

Every science presupposes faith in self, in our self consciousness, presupposes faith in the accurate working of our senses; presupposes faith in the correctness of the laws of thought; presupposes faith in something universal hidden behind the special phenomena; presupposes faith in life; and especially presupposes faith in the principles from which we proceed; which signifies that all these indispensable axioms, needed in a productive scientific investigation, do not come to us by proof, but are established in our judgement by our inner conception and given with our self-consciousness. (Kuyper 1931 131)

This step brings freedom from the foundational need for a priori rectitude. Whether nonchristian or christian, each is responsible for working her/his scientific faith out in detail with measured suppositions and defined levels of faithful understanding. Many of the conclusions reached by consumption theorists have contained disguised beliefs about consumption and humankind; with an explicit recognition of the faith of the participants this becomes part of the debate. Rather than required agnosticism about substance in theory or required precommitment to method, all contend self-critically for theory which is faithful to its subject matter and to norms of truthfulness.

This faith can accept its own locatedness, its relativity to others views, its dependence on what has been revealed by others and its responsive character in relation to whichever part of the creation it is studying. It loses the need to be academic gnosis, and it can be owned by the student. Thus, if human knowledge is dependent on God and is responsive by virtue of who we are, then the search for foundational knowledge was bound to fail and turn out as a broken quest of faith.

Second, the search for an authoritative channel of knowledge is similarly mistaken. It involves focussing on one human faculty - logic, calculation, information gathering, experiment - in order to make it the source of an infallible garnering of knowledge. The need to be scientific, to have indubitable knowledge which could stand against ideology, opinion and the status of other sciences, motivated this process of seeking the infallible foundation. Not only was this kind of security an illusion, but it also limited the rich relationship between the student and the creation to one constrained pattern of response, cutting out other valid responses. In this sense Caldwell's methodological pluralism is an important way forward, because
logic, means-ends analysis, causal theory and information gathering (but not of a constrained foundational type) have their place in a richer methodological response to the subject matter. But when the gegenstand of theory to reality is conceived on one epistemological mode, knowledge is inhibited and foreclosed. More seriously, the locus of knowing is fundamentally misplaced. When knowledge of the creation coheres in and resides with the God who made it, the faculties of his creatures are not the correct locus of faith. The egocentricty of the foundational approach lay in the belief that it could grasp well-formed knowledge in its own terms. Yet, as we have seen, knowledge has escaped these terms, to require beliefs about the world studied, a credo of the student and a faith which relates to both. To escape from this egocentricty is to place human faculties in a bigger context, where, subject to the provisos mentioned earlier, they can directly focus on the subject matter of the creation, in this case consumption activity, in all its richness without insisting on methodological monotony.

Third, science has had a history with at least three stages, of which we have examined only the second and third. In the 17th century at the time of the birth of modern science, before it was seen as the rational penetration of nature or an infallible method of gaining knowledge, it was merely a systematic way of studying God's creation. (Merton 1938) If this first is the correct framework, the second and third fail because they make nature self-subsistent and human faculty the imperative of knowledge. The second was unable to grasp the thing-in-itself or the causal process through the knowing ego, because the relationship between students and the creation could not be grasped outside its bigger context in God's creative power. Similarly, the search for the infallible mode of knowing, because it tried to shortcircuit the full range of the process of responding to God's creation, had to fail. If the creation is upheld by God's word of power, any form of scientia which has human thinking and the autonomous workings of nature as its terms of reference, must fail to grasp where its light actually lies. The hope of science need not be, therefore, in methodological infallibility, but can be in a systematic response to God's creation, to its order and the meaning of human life. When this meaning is sought in autonomous nature or scientia, its source in the Creator must elude it. This suggests that the redefinition of science which has gone on over the last three hundred years has, in the particulars which we have examined at least, failed to establish its autonomy from the Creator on firm ground.

At these three levels, therefore, the failures of foundationalism may not be just quirks in certain processes of argument but arise out of the fundamental change in the location of knowledge from God to Nature, Reason and Science. The rest of this chapter seeks to sketch a perspective on economic science which draws on christian insights and to explore some of the new approaches to consumption theory which it encourages.
Christian Orientations to the Human Sciences.

In view of what has gone before, there is a need for a certain kind of systematic approach in the human sciences which recognizes the present weaknesses of disciplinary theory and yet allows good study in all of them. One of the possibilities on offer is a christian perspective. It does not have one central or compelling foundational argument to validate it, because, as we have seen, those arguments are usually born of a particular limited conception of validation and cannot possibly lay claim to a knowledge of the Creator. But if, because it gives access to God's revelation, Christianity, subject to the failings of its adherents, does address the world as it is, this should be evident (although not "self-evident") at all kinds of points and different levels.

A Christian understanding of the creation sees humankind created in a open relationship with God as part of the wider creation which exhibits the glory of the way it was made and is sustained. Human life is normatively guided; there are ways for people to live which involve truth, justice, love and care of the natural world in which people do, or do not, live. Here, immediately, a major difference occurs between christian and humanist scientific thought. In the latter tradition what is studied has tended to be unproblematic either as subject deciding and choosing what to do, or as an object of study which must be viewed neutrally. A christian understanding of human sinfulness in misunderstanding, motives, attitudes and relationships brings into question what is the case in human behaviour at a more fundamental level. Trivially, it is not enough just to report that a man thinks he is Napoleon; the point is also that he is not. The christian scientist is therefore free to question the weltanschauung of both observer and subject and to see much of human life as problematic in terms which the subject might not accept.

This takes place against a background where the various areas which are studied by the disciplines are seen as finding their central meaning in God's creation and the created nature of humanity. The normativity of life is therefore also part of the disciplinary debate, a possibility ruled out by most of the traditions we have examined. The coherent meaning of human life puts disciplinary study in context; each discipline is only studying one aspect of the creation and human activity, and it therefore necessarily shares in the coherent meaning and must recognize its limited locus of study. This disallows the autonomous study of one discipline and opens up the possibility of much more intimate patterns of interdisciplinary study than are normally allowed. Rather than disciplines relating as domains, they can be seen as studying layers of human meaning which interact very closely. Later we shall consider an interdisciplinary response to consumption as a domain of human activity which involves far more than the economic.

As we have seen, the need to develop substantive insights into areas of human life has not been eradicated by the foundational revolution. This leaves us free in all the disciplines to draw central themes and insights from a christian understanding of
humankind, as other perspectives, humanist, marxist, libertarian, islamic, are free to draw theirs. Many of these insights question assumptions at a number of different levels and involve new kinds of debate. Some involve central understandings about God, the creation and human life. Others are more detailed. Thus, Christ's teaching brings into question many of the patterns of anxiety which surround economic activity, including consumption activity, and also questions the need for patterns of accumulation which are self-congratulatory and aim to provide individual security. These orientations probably shape consumption behaviour in the West quite substantially and are therefore held up to examination in ways which would not be considered in current theoretical perspectives.

Further, understanding in christian terms means the growth of wisdom, that is understanding which throws light on the way we are meant to live. Here there is no separate epistemic status for disciplinary study, but it takes part in our broader understanding of life, recognizing its specific patterns of specialisation and abstraction. The methods appropriate to study are therefore multiple. They reflect in part the subject matter being studied and a number of different ways in which that subject can be approached. They reflect different aspects of the subject matter which can be studied and take place in the context of the norms and insights which are available to this area of life. They involve the particular concerns of the researcher, their life situation and commitments. They also are bound up with the education of the subjects who are the objects of study; one of the great tasks of consumption theory should therefore be to help consumers to be wise in their activities and choices.

The implications of this different kind of agenda could be filled out more formally and at much greater length, but this study does not purpose a more formal philosophy of the human sciences; its intention is merely to point out how a changed perspective would inform consumption studies, and this we now do.
The Theoretical Location of Consumption Studies.

Every critique or process of demolition is to be judged at the end by the reconstruction it offers; the fruit must be good. What can we now say about consumption which will help this process of theoretical reconstruction? What is said need no longer be foundationally pure or methodologically doctrinaire; it can be deliberative and open to critique, it can engage with christian and other perspectives. In the rest of this chapter we shall pursue the following themes.

First, consumption is a major human activity involving the resources provided in the creation and the meaning which people give to their lives. Consideration of it cannot therefore exclude the issues of faith, culture, world-view, understanding and personal commitment which give it its meaning. This is not only the case for the student who must face these issues in her/his theory, but also for the subjects who participate in consumption, since their answers to these issues shape many of their specific consumption responses in important ways. These responses are a matter of judgement, and are also open to judgement. Cultures may predispose to overconsume, engage in destructive patterns of consumption or distribute it unfairly. Examining these issues is also part of understanding consumption, and ways must therefore be found of articulating these kinds of issues into the theory.

Thus, because it is a human activity involving far more than the economic, the study of consumption should be a transdisciplinary undertaking. It incorporates social activity, thought, feelings, planning, work, choices, development, geography, aesthetics, biology and history, and is to be studied in terms which these disciplines represent. Nor is this just the linking of autonomous disciplines, for all those modes of responding can occur within one act of consumption and are therefore far more intimately related. Each discipline has its own ways of analysing consumption, which are partial modes of understanding bearing relationship to the rest. The primacy of economic considerations in consumption cannot be assumed, since, for example, war, health, whim or aesthetics at certain times override economic considerations in consumption decisions. Which aspect of human activity has more significance in a specific consumption situation, the political, social, psychological, economic priority map, is one of the more interesting questions of a new consumption theory.

Third, consumption is also located institutionally. It occurs in families, businesses, welfare, state, education and voluntary agencies. We have noted that marriage and the family are poorly studied as economic institutions engaged in consumption. Which institutions qualifies the activity affects its structure; coffee dispensing is different in corporate organisations from at home. Institutions have different visions, consumption priorities and strategies. They also establish interrelated patterns of consumption, like company cars, which require studying in their own right. The institutional analysis of consumption is therefore another important dimension to be explored.

© Alan Storkey

page 267
Fourth, economic consumption is to be opened up in its wider dimensions. It is
relational, not just subject-thing orientated. It involves planning, economic values,
questions of efficiency in consumption, second-hand and free goods and services,
sales, marketing, advertising, consumption consequences, consumer rivalry or co-
operation, domestic economic production, consumer capital goods and durable
goods, credit and domestic savings, opportunity costs between work and
consumption, domestic labour and consumables, search, domestic stocks and
lifestyle consumption prerequisites. Income and prices are part of the picture, but
also including issues of wealth and poverty, discriminatory pricing, locational costs,
gifts, taxes, windfalls and demand discretion. In other words the domain of study is
far richer than it has been in most standard textual treatments in the foundational
era. (See Burk 1968 for a good study)

Fifth, consumption is related to other areas of economic activity, not just the
conventional ones of income, saving and debt, already studied so thoroughly, but
also work (through nutrition, addiction, definition of leisure), resources (through the
domestic economy and wastage), the direction of investment (through price
sensitivity and demand levels), distribution (through speculation, thrift and
discriminatory pricing). It is a personal study, people are effected by, shape, think
about and are motivated by this area of their lives. The effects of high alcohol and
food consumption on work efficiency do not easily fit into neoclassical
microanalysis, because they change people, but this does not mean they should be
ignored. Many other such relationships need to be explored.

At this stage we are able to look back on the theoretical journey we have taken. The
need for a foundation mode for theory has disappeared, and we have seen, albeit in
a promissory way, how much richer the domain of consumption theory should be.
We now reflect on the kinds of theory which are appropriate to this study and find
they are many. The methods of analysis need to be appropriate to the aspects of
the subject matter being considered. Data, experience, strategy analysis, ethical
judgement, efficiency analysis, value analysis, motivational study, attitude analysis,
sequential logic, product analysis, questionnaires, normative evaluation, case
studies and other methods of study might be appropriate. They involve many criteria
of assessment, which involve evaluating information, frames of subjective
reference, weighing of norms, criteria of efficiency, principles of valuation,
motivational assessment, analysis of choice, accuracy of behaviour description and
assessing relative weight and significance. No one criterion is adequate for
establishing veracity, and the differences and appropriateness of scientific
judgements therefore become crucial to a coherent view of the subdiscipline. At the
same time questions of truth cannot be contained within the subdiscipline, but reach
out into the issues of life which people face as consumers; these remain at one and
the same time the most important issues for consumers and for consumer theorists.

Finally, therefore we find the purpose of theory is not some kind of self-validation,
like prediction, testing or consistency, but to give people understanding in their daily
living. The otherworldliness goes, and the concerns of the theory then become to help people consume with wisdom. They need to know utilisation levels, how efficient they are, the logics of choice, how consumption effects others, to reflect on motivation and need definition, to analyse priorities and to relate consumption to time. Some people are experts at consumption, while others do it very badly. Many of us probably cannot see problems which our own values and patterns of consumption are giving us and offloading onto others. The tasks which consumption theory faces are vast in a Western world where the culture and promises of consumption seem to drive many of the strategic decisions. So little been done during the last few decades to meet this challenge, and these issues need to be addressed with good scholarship.

What follows aims to pick up these points in part and follow them through in particular areas of analysis, drawing on some of the initiatives which already point the way as a contribution to the rejuvenation of this area of study.
The theory of value was gradually excluded from price theory and other areas of economics during the foundational era as economists tried to establish a neutral basis for their analysis. As a consequence valuation has never really been developed within consumption theory. However, not all economists went this route. MacFie, when faced by Robbins' position took a different route. He showed that the division between positive and normative, as defined by Robbins, was not tenable grounds for excluding the normative from economics. He showed that economic choices, often seen as selfish, were of the self, self-conscious and value-related like most other choices. He also showed that economics participated as a moment in our experience of final values like justice, beauty and truth. As Laird also shows desires have important elements of discrimination of good or better. (Laird 1929 127) Further, means can be treated as ends and vice versa, so that work and other activities cannot be treated just as means. Therefore values and normativity cannot be excluded from economics; indeed, they pervade its whole corpus, because they empirically shape consumption decisions and responses. (MacFie 1936 18-129, Laird 1929 32-68) This reiterated similar arguments developed by Ruskin, Tawney, Moore, Croce, Pigou§ and the Socialist economists, but later ignored. Once this is recognised, consumer valuations and the faith and culture which generate them become central to this area of theory.

Our cultural values are vast in scope. The christian faith recognizes the creation as good and a source of values along with others that represent good human living. Human life is considered above monetary valuation. What same value as goods others see as bad or indifferent. The values of consumption can be addressed in many ways. One way is to look at worldviews and life-style as types of consumer. (Uutsitalo 1983, Theory, Culture and Society Vol 1 No 3 1983, Featherstone 1991, Shields 1992) The problem is to identify the great cultural organisers of people's responses within consumption, and often they raise issues which are bigger than choice frameworks. Because basic cultural responses in this area differ markedly and enter into consumption decisions quite dramatically, one way is to identify ideal types in the Weberian sense which can lead to divergent responses to a number of dimensions of consumer response. Behind, these types lie deeper issues of whether these responses are right, for whom and in what circumstances, and how powerful they are as organizers of consumption activity. Some major orientations can be described as follows.

1. **Survival.**

Many people throughout the world live with basic questions over their ability to survive. Often they experience low levels of physical strength, health and protection from disease which incur further heavy costs for the family. They have limited strategic scope, are engaged heavily in subsistence work, and have little scope for market activities. The consumption process is often labour intensive, and domestic
consumption is intertwined with family productive activities. (Schapera 1940 104-60) What strategic thinking occurs will tend to be directed towards increasing security against basic problems of survival, though obtaining more land, stock, children or hoardable resources. Available goods will often be used with great parsimony and care, and increased abundance will treated with circumspection. Surplus goods can often not be combined effectively, and may be squandered. Most calculation is carried out in real terms. Because of the close proximity of others, many-person responses are more usual than individual ones. Social and economic relationships are intertwined, so that obligations may function as strong contributions to consumption. (Sahlins 1972 185-275) The strength of interpersonal relationships may be far greater than among those surrounded by things. Time horizons will tend to be short and choices habitual and limited. Actually, this orientation includes a variety of cultures which may be closed against patterns of development; it is often tied to beliefs in magic, ancestors, tribal identity, fate or gods as shaping consumption solutions.

In Western societies the poor also live within a survival ethos, and especially those who are heavily in debt, who cut off from their longer term financial problems to live a basic subsistence pattern. (Hartropp 1987, Storkey and Hartropp 1991, Ford 1988) A widespread phenomenon within these groups is obtaining whatever one can, by obtaining goods which have been discarded or rejected by others whether they are suitable for consumption or not. Optimal solutions do not arise. Secondary consumption markets become important. Groups trade off time, inconvenience, waiting and discomfort for cheapness.

2. **Tradition.**

Much consumption activity is bound to traditional patterns of buying and selling. (Weber 1978 I 25-6) There may be rituals, sacred traditions, or authority conferred on an established group which makes the mores orthodox. Goal-orientated behaviour is ruled out because the time orientation is retrospective. When traditions are seen as embodying solutions to market and consumption decisions, search and initiative tend to be ignored or downplayed. There are prohibitions and taboos, and affirmations that the traditional is best. They may well be long-term personal loyalties which are as important as market transactions, and trust may entirely replace calculations. Buying will tend to be marked by rule-following behaviour; they will buy shoes "that fit", or get a new coat for winter. (O'Shaughnessey 1987 39-54) Product innovation and new methods of selling do not easily fit this orientation. Advertising is limited. Older people may gravitate to these kinds of responses and intergenerational rivalry keep them rigid. At the same time consumer choices atrophy, not just because of habituation, but also because of the costs of keeping choices open.

Valuing past patterns of consumption may arise from limited frames of reference, the seeming success of past decisions, low priorities for consumption activity, group
loyalty, conflict avoidance, dislike of search and fear of innovation. When consumers have worked out a particular consumption strategy, they may not feel any need to rethink it. There may be solutions to home life which reflect traditional patterns, like women engaging in homeworking rather than external paid work to earn extra housekeeping. (Allen and Wolkowitz 1987) This orientation also raises the issue of how long it takes consumers to be aware of, evaluate and respond to new patterns of consumption. Often they may be responding to past, rather than present, prices.

3. Puritan / Ascetic.

Another view distrusts consumption which encourages self-indulgence and sinful desires. Puritanism as an example has historically shown an indifference to fashion, lavish food, entertainment, feasts and festivals in the belief that the pursuit of righteousness is inhibited by self-indulgence. The view tends to place a high value on work as calling (although nonworking eastern asceticism also exists), and as Weber noted, leads to patterns of saving and accumulation as that which is earned is not spent. (Weber 1904-5 161-74) The approach views wants, desires and possessions negatively and often involves strong commitments to fairness in pricing and the welfare of others. Often the time horizons of this view are long, merging into a concern for eternal life.

This view has existed among Puritans, Pietists and Ascetic forms within most of the great religions, especially Buddhism. Religious orders, sects and other groups espouse it. But it also functions as a wider view partly held by those whose main emphasis is elsewhere; dieting, abstinence, temperance and a simple life-style all have cultural force in the West, Japan and elsewhere by those who are critical of directing their energies towards things. Meat, alcohol, leisure pursuits, kinds of clothing, forms of transport are all eschewed by groups with this perspective. They may not purchase on Sunday, the Sabbath or forgo consumption during Ramadan. They tend to have strong normative controls over types and levels of consumption, which makes them relatively impervious to price variations and advertising. Taboos on consumption rule out the purchase of much entertainment, food, clothing, drink and domestic durable goods. The scale of consumption decisions of this kind which are not made on price/income grounds is very considerable, but not acknowledged in orthodox theory.

4. Hedonist.

This view has a strong present orientation, and hinges on the pleasure or satisfaction which goods and services provide. By identifying the good as the pleasurable, it assimilates value to subjective affirmation, which is perhaps why, evacuated of ideological content, it has been basic to consumption theory. It is a cultural attitude which unequivocally encourages consumption. Since the perspective is subjective and individual, there is little emphasis on wider norms of justice in distribution and trading. The psychological state of the hedonist is often as
important as the objects of consumption, and an additive principle suggests more sources and larger quantities will tend to maximize satisfaction throughout life. However, along with the concern with subjective states can also go an obsession with various sources of pleasure which can be associated with addiction and deterioration in health. As Ferguson points out, pleasure and excitement are associated with a decomposing worldview, and therefore exhibits dissonance with traditional bourgeois attitudes. (Ferguson 1990 239-63) The hedonist probably views work as a disutility, because it limits the pleasure which will come from goods and services. Strategic economic decisions are seen as a calculus among desirable sources of satisfaction, although strategy tends to lose out to more immediate concern. It could be the view which is most predisposed to incurring debt and heavily discounting the future. At the same time its influence could be overestimated. Very few people can fully live on hedonistic terms, except in certain areas of their lives.

There are, of course, pleasure industries which define what will give satisfaction through a complex of meanings, some of which are personal and some of which adhere to the goods and services. Holiday and leisure industries often appeal to a you-owe-it-to-yourself idiom. Many goods also offer a "deserved reward". Excitement is packaged in many ways. Often the commodity is an experience which cannot be sold again to the same person, and has to be changed, like films or Christmas cards, another phenomenon about which orthodoxy has little to say, because it contradicts the normal assumption of preferring more to less. How many films do you really want to see again? Pleasure industries often offer routes into their commodity, have their own geography and often use fantasy extensively. (Tomlinson 1990)

Yet, even here, the utilitarian model can be too easily accepted. Hedonism is premised on value; each Epicurean loves pleasure in her/his way and wrestles with their own conflicting values which may involve waiting, suffering and even asceticism. Many hedonists suffer crises of ill-health, addiction, work, debt and relationships which they find very debilitating.

5. Ecological.

The ecological perspective looks to the long-term viability of consumption, and to the land and resources of the planet. Although the view has received much recent attention, it has for long been the concern of rural communities and is reflected in the Malthusian and other economic debates. Protectionism articulated a nationalist form of the same concern. Its time horizon is therefore a long-term prospective. It ignores or discounts many of the present price relationships and suggests that there may be better grounds for decisions than immediate price calculi, like long-term extraction and pollution costs. As a result many purchasing decisions are taken on the basis of ecological principles, buying green, using a bike or public transport or recycling objects, with wider real calculations of efficiency. (Storkey 1993)
Unlike the previous view this one is usually suprapersonal in its concerns. Communities, nations or humankind tend to be the authoritative terms of reference, not what the individual wants. The model focuses more on ecological systems and their sustainability than individual choice. It is heavily concerned with unpriced goods and the recovery of resources. (Goudzwaard 1970, Porritt 1988) Unlike the previous view it seeks high levels of information about the production conditions, contents and sources of goods and tends to be negatively disposed towards much advertising and packaging.

6. Acquisitive.

Another cultural attitude is best described as acquisitive, following Tawney. He locates it in the possessive view of property rights dominant among the landed gentry of the 18th century. (Tawney 1921 15-24) It need not be antithetical to hedonism, but it involves a crucially different locus of faith. Hedonism is firmly subjective, but the acquisitive mode locates the good in the things themselves. It is not their subjective appropriation which counts, but their support and security throughout life. Goods automatically bring rewards, rather than being a means to subjectively assessed pleasure. Often the goods are invested with power, the power to give security, confer glory, give satisfaction, save marriages, make children happy and validate life. The focus on the objects thus becomes part of a pattern of deep religious dependence. Sometimes the view is described as materialist, but it is evidenced among the rich of many historical and contemporary cultures. (Uusitalo 1983)

It shows a bias towards goods which will last and can be collected or possessed. Indeed, collecting can become professional and market orientated - cars, stamps, china, antiques, works of art, memorabilia, silver, toys, books and coins are but some of the items in this class. High prices are often seen as a measure of their greater value rather than deterrent to purchase. The emphasis is on owning, rather than consumption activity. Many Japanese homes reflect this pattern. (Shields 1992 204-10) Its essence is the cluttered Victorian room full of collectibles and it is associated with the comfortable middle class and aristocracy. Productive investment takes second place to consumption investment. The approach has a passive interest in work, and sits with the idea of private ownership as an absolute right. Goods can be associated with private rituals, reflect strong valuations and require upkeep. Consumers may spend many times the market value on getting an item repaired or restored. Unlike most other views, this one may relate strongly to the uniqueness of the item. The utilisation level may also be low.

This perspective is one of the more indulgent expressions of family life which soaks up resources and constructs its own markets like the antique, art and salesroom markets. Market valuation is often affected by the size of the acquisitive cultural group.
7. **The Personal Fulfilment Lifestyle.**

The orientation to things dominant in the previous view is replaced in this one by a concern with self-fulfilment which is often activity orientated. The subject therefore engages in consumption which will lead to psychic rewards; often these involve social relationships, personal achievements, the exploration of freedom and the search for new experiences. (Winship 1983 44-65) It is an inquisitive mode in which the consumer is engaged in personal enterprises. (Earl 1986 53-110) Consumption involves symbolic processes defining what personal fulfilment is; marketing is affirmative, shopping rewarding and purchasing a source of congratulation. (Leiss 1983 10-21) Many magazines cluster advertising round a particular idiom of lifestyle. (Theory, Culture and Society 1983 44-65) The approach is present-orientated, but innovative. Because the emphasis is on life-style defined in active terms, there is often quite a heavy organisation of time and activities. It gives a great emphasis to the provision of services as means to fulfilment, and often the quality of the experience is evaluated holistically. Work may either be seen as part of lifestyle, a route to it, or a hindrance to it. The view is strongly individualistic.

The definition of the lifestyle is likely to be culturally developed by promoters of goods and services, using multi-media forms of communication and strong role models. Often the invitation is to copy the way another person or group lives. Goods and services are often accompanied by promises of what they will bring. (O'Shaughnessy 1987 125-60) There is often a rapid turnover in styles and re-evaluation of goods and services. It may involve fantasy, created environments, programmed events and orchestrated consumption which is packaged in much larger units than may normally be the case - an all-in holiday or a time-share flat with a swimming pool. Prices are assessed in way of life terms, not by individual purchases.

8. **Marriage and Family Identity.**

This view focusses on the couple and the family as the end of economic activity. It involves a strong commitment to working for the family and a long-term orientation to its goals which will probably involve viewing the work and production of the family in an integrated way with its consumption. Many migrant families reflect this pattern. It may value education highly and will put a strong emphasis on the home as a focus for consumption. The approach is not individualist and may even be altruistic or sacrificial within the family, but it is strongly private, and values forms of public consumption less highly.

The view may be expressed in both spouses and children working to enhance family income and patterns of consumption, or in a male breadwinner and housewife pattern. Family obligations, either within the immediate or extended family, may create pools of shared resources and income. Family investment in property, education and careers may be very high, and priorities change with the...
ages of family members. Thus, during the early years of married/family life, borrowing may be high to provide the lifestyle which it is thought the family must have. Domestic consumption is seen as conveying the meaning of married and family life. (Featherstone and Hepworth 1983 85-92) For the couple their leisure activity consumption is seen as strongly expressing who they are, their status, interests, likes and images. Cosmetics, items of personal care, toys, gifts, holidays, gardens, furniture, clothes, interior home design and modes of transport often carry family identity and meanings. There is an emphasis on bringing things into the home as a sign of loyalty and support, and a tendency for homes to expand in size and importance. All families are, of course, involved in consumption which has itself as the focus of the contributions, but there are also degrees to which this becomes the overriding moment for consumption strategy.


Other consumers are strongly concerned to maintain their economic security. This often especially happens with those who have come to rely on the return from savings or on rentier income. This group often spends little because the security of resources is valued more highly, and it has a future-orientation, but from the limited viewpoint of retaining reliable streams of income. When interest rates fall, even if asset values are higher, people in this group can save more because the feel a reduced level of income security; low or negative real interest rates threaten them deeply.

They are strongly concerned with capital values and price fluctuations, perhaps more so than immediate prices, and need a buoyant demand for borrowing to soak up savings. Often their attitudes are individualistic, and may even be hostile to those to whom their security is inversely related. Especially in the purchasing of durable goods and services, the emphasis is on the potential return or long-term capital value, and the ability of goods to maintain their price may outweigh subjective valuation. Insurance, protection against theft, hedging and handling speculative purchases, involvement in market fluctuations and very deliberate processes of purchasing and search tend to characterize this orientation. Sometimes this attitude has a strong subjective drive; the subject always wants to pull down his barns and build bigger ones. At other times vandalism, crime and difficult urban conditions make this a strongly imposed reaction. (Harrison 1983 225-43)

10. The Meek.

There are also many people about who are not motivated by pleasure, possessions, security, family identity or self-fulfilment to any great extent. Consumption has a subsidiary role in their lives and is kept in place by firm normative constraints which especially subordinate it to the value of relationships and other unpriced givens. Market activity is not aggressive and focuses on fairness in transactions. The view allows the welfare and possessions of others to be enjoyed as much as one's own.
Work has meaning in terms of patterns of service and does not require strong compensatory attitudes to leisure.

Purchasing it often seen in terms of needs which are established without personal aggression, escalation of their scope, or making demands of others which seem excessive. Goods are not vested with powers of personal reward and salvation, but at the same time can be received with thanksgiving. Their instrumental role in living is emphasised, and if they have something which already does the job, they retain it and do not degrade its value.

This schema focusses on certain orientations to consumption which hang together culturally. There are other such attitudes and motives and other ways of articulating them. Some not considered include Moralism, which makes purchases continually subject to moral and ethical criteria, Imaging, where goods and services are seen as reflecting back to the subject their identity and persona, Privacy, where the subject uses goods and services like drink, television, prostitution and fences to retreat from and cut out of relationships, and Entertainment where goods and services are used to help people pass the time pleasantly. This set of orientations is presented in a sketchy way merely to be exemplary, because the whole arena of value orientation is left outside conventional consumption theory and there is little economic literature which draws on them. Yet these orientations shape consumer responses in most of the major areas of economic action and reaction. The collector, as s/he buys more, tends to buy even more at higher prices. But many of these responses are not just minority ones, but mainstream differences which shape consumption patterns decisively. The hedonist who wants to spend now is different from the security orientated person who “will not fritter her/his money away”. Immediately, the foundationalist ideas of rationalism are undercut, because it is clear that each of these positions has its own internal logic which is different from and not consistent with that of other positions. These differences can be expressed as tendencies to respond in a number of different dimensions of consumer behaviour, which are set out below.

<table>
<thead>
<tr>
<th>Consumption culture</th>
<th>Time focus of consumption</th>
<th>Price sensitivity</th>
<th>Saving commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>present</td>
<td>acute</td>
<td>no chance</td>
</tr>
<tr>
<td>2</td>
<td>past</td>
<td>weak</td>
<td>routine</td>
</tr>
<tr>
<td>3</td>
<td>none</td>
<td>thrifty</td>
<td>high by default</td>
</tr>
<tr>
<td>4</td>
<td>present</td>
<td>v weak</td>
<td>low/negative</td>
</tr>
<tr>
<td>5</td>
<td>long future</td>
<td>goes behind price</td>
<td>high by default</td>
</tr>
<tr>
<td>6</td>
<td>present/future</td>
<td>speculative</td>
<td>money low, goods high</td>
</tr>
<tr>
<td>7</td>
<td>present</td>
<td>weak</td>
<td>low/negative</td>
</tr>
<tr>
<td>8</td>
<td>present/future</td>
<td>weak</td>
<td>low/negative</td>
</tr>
<tr>
<td>9</td>
<td>future</td>
<td>high</td>
<td>very high</td>
</tr>
<tr>
<td>10</td>
<td>none</td>
<td>medium</td>
<td>low</td>
</tr>
<tr>
<td>Consumption culture</td>
<td>Response to higher interest rates</td>
<td>Work/leisure commitment</td>
<td>Best decision making unit</td>
</tr>
<tr>
<td>---------------------</td>
<td>----------------------------------</td>
<td>-------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>1</td>
<td>cut living standard</td>
<td>high work</td>
<td>family/community</td>
</tr>
<tr>
<td>2</td>
<td>no change</td>
<td>routine</td>
<td>community</td>
</tr>
<tr>
<td>3</td>
<td>reinvest surplus</td>
<td>high work</td>
<td>indiv./family</td>
</tr>
<tr>
<td>4</td>
<td>borrow less</td>
<td>high leisure</td>
<td>individual</td>
</tr>
<tr>
<td>5</td>
<td>indifferent</td>
<td>change both</td>
<td>community</td>
</tr>
<tr>
<td>6</td>
<td>lend more</td>
<td>high work</td>
<td>individual</td>
</tr>
<tr>
<td>7</td>
<td>spend less</td>
<td>high work/leisure</td>
<td>individual</td>
</tr>
<tr>
<td>8</td>
<td>spend less</td>
<td>high work/leisure</td>
<td>family</td>
</tr>
<tr>
<td>9</td>
<td>sell bonds</td>
<td>high work/low leisure</td>
<td>ind/family</td>
</tr>
<tr>
<td>10</td>
<td>indifferent</td>
<td>medium</td>
<td>ind/family/community</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Consumption culture</th>
<th>Response to bargain or gift</th>
<th>Income to cons.</th>
<th>Upper cons.</th>
<th>Transitivity awareness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>accept, if can afford</td>
<td>high but impotent</td>
<td>not relevant</td>
<td>v limited</td>
</tr>
<tr>
<td>2</td>
<td>slow accept or reject</td>
<td>very low</td>
<td>habitual low</td>
<td>low or absent</td>
</tr>
<tr>
<td>3</td>
<td>suspicion/reject</td>
<td>low, even negative</td>
<td>very low</td>
<td>heavily constrained</td>
</tr>
<tr>
<td>4</td>
<td>maximize satisfaction, high</td>
<td>often anticipated</td>
<td>no limit</td>
<td>limited</td>
</tr>
<tr>
<td>5</td>
<td>if wasteful, reject</td>
<td>low</td>
<td>rigorous</td>
<td>high, public costs</td>
</tr>
<tr>
<td>6</td>
<td>always take up, accept</td>
<td>high, very high</td>
<td>no limit</td>
<td>specialised high</td>
</tr>
<tr>
<td>7</td>
<td>positive or casual, suit me?</td>
<td>high, with tension</td>
<td>lifestyle high</td>
<td>packaged not itemized</td>
</tr>
<tr>
<td>8</td>
<td>usually positive</td>
<td>quite high</td>
<td>family high or low</td>
<td>usually high</td>
</tr>
<tr>
<td>9</td>
<td>accept if sellable</td>
<td>low</td>
<td>future income</td>
<td>medium</td>
</tr>
<tr>
<td>10</td>
<td>accept or reject</td>
<td>low</td>
<td>low, needs</td>
<td>medium</td>
</tr>
</tbody>
</table>
These differences in the culture of consumption are inferred and open to substantiation, but they are credible and highlight possible dissimilar responses by country, ethnic group and among consumers in particular markets. (Foxall 1980 159-79) They also reflect, of course, competing priorities within particular consumers, as the value systems of those consumers develop and atrophy. Thus, perhaps the list above represents an individualist focus in not including a Community orientation among its basic categories; does that reflect the culture of the 80s and 90s, or the author’s bias, or should it be included? Religious, moral, aesthetic and social taboos are a striking part of these differences. Groups like monastic orders, Mennonite communities, Yuppies, aristocracies, youth cults often explicitly espouse a distinct consumption culture. (Mullin 1983) They also explain trends in consumption. The growth of the hedonist, family and self-fulfilment motives have transformed the consumption culture of the last few decades in a way which cannot be grasped in any other terms. (Packard 1960) They are also transmitted by books, magazines and media in a powerful way, as the green culture wave conveys. (Theory, Culture and Society Vol 1 No 3, Illich 1973, Schumacher 1973)

The recognition of these differences requires a re-examination of rationality postulates. Within their own terms of reference there can be many responses which are rational, but are also contradictory with one another. If individual consumers move over from one motive to another, their responses can be "inconsistent", although only until the change of commitment is uncovered. Actually, the ability to test whether behaviour has been rationally consistent or not is so limited that consumption economists have been able to continue with "rationality" postulates in the face of all kinds of aberrant cases. Behavioural and empirical approaches, by
ignoring the value of understanding why people consume have similarly impoverished their theoretical base. These cultural orientations are presented here as a research agenda. They require asking people to explain their view and strategies in purchasing and consumption in their own meaning framework. They also require each of us as consumers and theorists to say what our response to these motives is and why we live that way.
An Interdisciplinary Framework.

The earlier critique suggested that one of the central problems of consumption theory was the disciplinary isolation in which it at present exists. More recently there have been a number of attempts to break down these boundaries, but no systematic framework for interdisciplinary study obtains. (Theory, Culture and Society Vol 1 no 3, Earl 1983, 1986, Douglas 1980) Clearly, it needs opening up.

Consumption is a set of activities through which resources make direct economic contributions to life, and it therefore involves many other aspects of human activity than the economic. Moreover, these are intimately related; buying flowers is a ritual, involves ought questions, a fair price, is for a friend, says something, they look "nice", they are marketed and available, need a certain kind of care, make other activities logically impossible, reflect a certain historical relationship, geography, set of feelings, time of the year and so on. Clearly all these intertwined aspects are part of the concrete acts of consumption, and in many situations cross disciplinary frames of reference are necessary. (Dooyeweerd 1935-6, Spier 1954, Storkey 1979 129-36) Using the kind of modal framework which grows out of the Dooyeweerdian tradition, it is possible to open up the cognate secondary areas of this primarily economic topic. Below are a list of areas where consumption activity is partly reflected, together with some of the key concepts which occur within them. Usually the primary focus of consumption is economic, but often it is not; the relative significance of each of these areas in consumption markets and activities is important.

Below are a number of areas of life which are reflected in consumption studies, together with some of the issues and principles which occur in them which relate to consumption.

RELIGION - asceticism, taboos, tithing and offering, feasts, charity, priests, temples and churches, fatalism, nature worship, idolatry, tradition, rituals, sacrifice, commodity fetishism, sacred/secular, hedonism, magic. (Williamson 1978 122-151)

ETHICS - choice, priority, ends and goals, criteria, values, loss, welfare, freedom, thrift, selfishness, egocentricity, utility, altruism, suffering, fairness.

JUSTICE - distribution of resources, fair pricing, equal opportunity, consumer protection, description of goods, contractual rights, ownership, public or state consumption, positional goods, manufacturing standards, safety, welfare, impartiality.

SOCIAL - conspicuous consumption, social pressure, reference group, consumption culture, family life-style, community retailing, shared and community consumption, alienated consumption, nonconformist buying, customer, loyalty, opinion leaders, neighbourliness, love, trust, status.(Wilson 1987)
COMMUNICATIONS - advertising, information networks, market information, messages, consumption media, market research, product description, search procedures, mass marketing. (Vestergaard and Schroder 1985)

AESTHETICS - packaging, design, retailing architecture and interior design, kitsch, quality, creativity, functional.

ECONOMIC - valuable, spend, save, accumulate, efficiency, pricing, product, money, service, expensive, cheap, queues, scarcity, abundance, competition, monopoly, monopsony, perishable, renewable, luxuries, necessities, waste, utilisation levels, depreciation, sustainable consumption, external costs, marketing, consumer surplus, complementarity, substitution, composite demand, positional goods.

EDUCATIONAL - consumer education, technological development, shopping strategies, home economics, domestic science.

ANALYTICAL - the logics of choice, money, efficiency calculations, exclusive consumption patterns, sequential possibilities. (Simmel 1907)

HISTORICAL - the subsistence, market, retailing, advertising, mass media and transnational stages of consumption. The service and ecological eras. History of goods.

GEOGRAPHICAL - distribution of retailing, consumer and consumption location, the geography of ownership, the mobility of goods, services and consumers, the geography of consumption culture, ecology.

PSYCHOLOGICAL - wants, desires, satisfaction, addiction, motivation, arousal, impulse, contentment.

BIOLOGY - metabolism, patterns of growth and reproduction, food biology and resource harvesting, toxicity, symbiosis, decay.

CHEMISTRY - the chemistry of product manufacture, chemical transformations used in daily life, pollution.

PHYSICS - the use of energy in consumption processes. The material processes involved in consumption, retailing and product development.

MATHEMATICS - the statistics, probability, algebra, quantities and calculations of consumption. Consumer econometrics.

Although these concepts cannot be developed fully here, they convey the range of issues which come within the purview of consumption. It is unlikely that any specific consumption issue can avoid theoretical links with other areas.

Already it is possible to reflect on ways in which the interdisciplinary framework has
become distorted by foundational positions which are rooted in limited areas of
analysis. The Psychological/Ethical, Analytical and Mathematical modes have
become basic in the Means-Ends, Logicist and Formalist positions. Katona’s
methodological base is somewhat in the Social-Psychological areas. Others are
economically founded in ways which dismiss the other areas. However, there are
also analytical barriers between the various disciplines. Causal frameworks which
are economically determinate exclude from consideration religious, ethical, political
and relational parts of life. Positivists exclude domains which do not yield ready
facticity, like the analytical or aesthetic. The assumption of consumer sovereignty
made by the rational maximizers similarly excludes the possibility of social,
educational, historical or communicative influence, as well as cutting out the
influence of producers on consumers. (Cramp 1982 VII) To recognize the coherent
contribution of all these areas of life, and derivatively the disciplines which study
them, to consumption theory, cannot but lead to a radical improvement in the
analysis of consumption. All these areas are interwoven with faith, beliefs, views of
the world and commitments which influence the consumption responses in them.

Thus, if we intend, for example, to consider dieting, which is part of the consumption
behaviour of about a quarter of some western populations, we look not only at the
consumption industry it generates, but at what people feel they should look like,
social judgements about weight, the psychology of food addiction and withdrawal,
family consumption patterns, metabolism, media messages and the ethics and
justice of the international distribution of food. Clearly it needs examining, although
overeating and dieting at the same time is hardly accessible to a consistent
rationalist preference map. There is scarcely any area of consumption activity where
this breath of disciplinary awareness is not valuable and even necessary.

There is, however, a more strategic slant on this interdependence. Although
consumption is an activity which takes place within an economic locus, many of the
ends of consumption are located in other arenas of human life. Consumption which
is qualified by social, aesthetic, juridical, educational or historical ends has its own
character; restoring an antique, living in prison or feeding an experimental rat have
consumption prerequisites given by the domain of primary reference, be it historical,
penal or analytical. Often the domain of reference shapes consumption which takes
place within it, and pricing policy, for example, depends on whether a service is
educational, judicial, communicative, social or psychological in destination. People
do not pay for prison accommodation. The "tip" is a fairly universal recognition of the
social dimension of eating out. Exchange based consumption is less appropriate
than gift for many areas. (Boulding 1973, Titmuss 1970) Social services are often
financed on club terms with membership and exclusion possibilities.
(Buchanan1965 1-14) This characterisation of consumption is an important
dimension which flat foundational analysis has largely ignored. The meaning of
much consumption points out beyond itself and these wider dimensions of value
and commitment therefore give a profile to it which differs by place and time. Goods
and services also have different profiles given them by consumers. Holidays may prioritize geographic, psychological, social, aesthetic or biological considerations. Aesthetics dominates some goods and services, while in others it is of little or no account. All consumption is therefore located in a broader set of values which incorporate all areas of life.

These are reflected in national differences. If, for example we asked what the distribution of consumption in terms of its final aim was within several economies, we might get the following results for an affluent and a poor country.

<table>
<thead>
<tr>
<th></th>
<th>AFFLUENT</th>
<th>POOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>RELIGIOUS INSTITUTIONS.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>POLITICS/JUSTICE/DEFENCE.</td>
<td>++</td>
<td>-</td>
</tr>
<tr>
<td>RELATIONSHIPS/FAMILY/HOME.</td>
<td>+++</td>
<td>++</td>
</tr>
<tr>
<td>COMMUNICATION/ENTERTAINMENT.</td>
<td>+++</td>
<td>-</td>
</tr>
<tr>
<td>AESTHETICS.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>THINKING/ANALYSIS.</td>
<td>+</td>
<td>-</td>
</tr>
<tr>
<td>EDUCATION</td>
<td>++</td>
<td>-</td>
</tr>
<tr>
<td>LAND/ENVIRONMENTAL CARE.</td>
<td>-</td>
<td>+++</td>
</tr>
<tr>
<td>HISTORICAL PRESERVATION.</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>PSYCHOLOGICAL WELLBEING/HEALTH.</td>
<td>+++</td>
<td>-</td>
</tr>
<tr>
<td>ECONOMIC ORGANISATION.</td>
<td>++</td>
<td>+</td>
</tr>
<tr>
<td>FOOD/RECREATION.</td>
<td>++</td>
<td>++++</td>
</tr>
</tbody>
</table>

These profiles are, of course, crude, but they suggest the possibility of powerful contrasts in priority. The choices are deeper than those of buying and selling, since they represent commitments which cannot be reduced to economic criteria. These are issues of the more fundamental direction of consumer resources reflected in choices involving taxes and the structuring of markets which often precede more immediate consumption decisions.

The foundational positions hitherto examined do not give permission to study these areas, but the invalidity of their approaches, in both senses of the word, means they can now be considered in all their richness.
The Institutional Context of Consumption.

It is extraordinary how fully the idea of the individual, utility maximizing consumer has gripped this area of study. More recently family studies have opened up, but still little account is given of the institutional areas where goods and services are directly addressed to people's assumed needs. Yet much consumption takes place in businesses, organisations, schools, prisons and other areas, and the failure to bring these into consideration again impoverishes the frame of study, because family, business, education, welfare, state and other institutions shape consumption patterns which occur in them. This is evident from Commercial Telephone Directory Pages notifying: Prestige Business Gifts, Orthodox Church Candle service, Government Surplus camping equipment, Office Carpet Cleaning, Fleet Car Hire, Bank Security Systems, Bridal Requirements, HMSO bookshop, Office, Bank and Factory blinds, Family Planning Clinics, Wedding Banquets. The resurgence of institutional economics opens up the possibility of analysing the way in which consumption decisions taking place within institutions. There are many professional institutional buyers with very articulate policies which are among the most formative ones for consumption and the economy. (Samuels 1988, Schenk 1988, Dugger 1989, Samuels 1989) Purchasing policy often owes much to the institutional context. The decision-making process varies widely among single adult, married/cohabiting couple, family, small business, large company, financial institution, local, regional and central government. Often demand from one institutional area dominates others; company cars, office coffee and carpets are not inconsiderable elements in the total demand for these items and have different purchasing policies. Gifts in kind to company employees are often more lavish than their private consumption would normally be, reflecting employer conceptions of status and reward.

The bigger units make decisions through professional buyers, tendering, by using specialised intermediaries and by bartering. The demand weight of the buyers (% share of supplier's market) may lead to considerable price flexibility in the supplier, but that also depends on the kinds of terms offered in the rest of the market. Studies on discretionary pricing by size of buyer suggest the following possibilities. First, if the decision making unit, the board or committee, has considerably reduced the discretion of the buyer, then there will be little price or product discretion. Second, long term patterns of loyalty are probably much more important in these kinds of purchases, because trust, knowledge of the market, reliability and good after-sales service are often of strategic importance. (Wind 1966, 1970) Third, bribery is more of a problem because of the value of the demand weight. Fourth, the reduction in price which the buyer may obtain is probably a function of factors like the margin on which suppliers operate, the demand weight, the supplier's market position and level of unused capacity, the degree of discretion about when to purchase available to the buyer, stock life, the fluctuations which occur in that market and the access to comparable market information from other suppliers. Fifth, institutional standards
are often quite rigorous and specific and exclude many purchase options. (Cunningham and White 1974) Finally, much institutional consumption is passive; contributions are received without any decision-making by the subject. Students eat college food. Employers require uniforms. Clearly, when the locus of decision-making is different from the subject of consumption, standard assumptions no longer apply.

Important (and neglected) though these institutional areas of consumption are, marriage and the family will be the immediate focus in this section. The individual surrogate consumer of conventional theory only begins to uncover the areas of discretion and decision-making in which the family is involved, and one of the tasks of consumption theory is a more rigorous expression of the family economics of consumption. To this reconstruction we now turn.

The family is primarily a social institution; its ties are not premissed on exchange or production, but on troth and parenthood. Marriage is for richer or poorer and children are not normally seen mainly as an economic asset. Families are social units; live together and regard separation as a problem or disaster, although divorce, separated and reconstituted families, co-habitation and remarriage are part of western family life. The social character of family life means that its economic life is socially qualified. Economic activities within the family are characterized by gift, rather than exchange. Children cannot repay their parents and should not be asked to do so. Property, goods, services, work and leisure are shared. In contrast to the view of Becker, who seeks to economize the social relationships of the family, and therefore analyses social and not economic activity (Becker 1981 38-134, 219-36), this study looks at the economic activities of the family in the light of its social structure and prime mode of relating. (Storkey 1986 131-47, Storkey in Tiemstra 1990 133-166, Graham 1986 224-83) The gift mode of operation allows all kinds of economic activity to be undertaken which would not be possible in exchange mode. (Wallman 1984 17-41)

At the same time Becker and Michael do deserve credit for opening up the consideration of the family as a productive unit. (Becker 1976 131-49) Its nonmarket activities constitute perhaps 30-70% of the total economic activities of many countries, and as such need careful consideration. Clearly, the family is an important unit engaged in structural exchange with the rest of the economy. This means that family "consumption" involves investment goods, intermediate goods, the accumulation of personal capital, expanding domestic technology, speculation, depreciation and a whole range of categories more usually associated with industry and production. Whether a family is more or less productive is a difficult calculation, depending on what resources are absorbed, how children are valued as economic units, the time horizons adopted and what value is given to paid and unpaid labour. Family skills, efficiency, use of capital and technology have been given to little weight in economic analysis, and the costs associated with family breakdown in this area are also scarcely recognized. This unit therefore functions in complex ways as
an economic unit, subject to its primary identity as a social unit, and analysis of the family in these terms needs to open up far more. The relation between (real) depreciation and conservation is important; the higher levels of care associated with family ownership (for example in cars) and the marketing of domestic obsolescence are but two aspects of the issue.

The family is therefore an open economy, which may or may not be stable, with interactions with other economies and specialisms. Family consumption is variously market defined or subsistence defined (Waring 1988 276-98); it varies with national and local forms of development, number of children, emphasis on paid work, commitments to leisure and active or passive consumption. The time horizon of consumption, even for services which are used up immediately like a piano lesson, can be long-term. The resource base is available either in the form of wealth, income, community resources, loans, gifts or the contributions of family members. All of these are located in the cultural orientations of the family to consumption which generate priorities and take place within historical patterns of family development, which include patterns of indebtedness. The possible strategic differences in family organisation are important and dramatic; they also show how much more fully the analysis of families economies needs to be developed. (see Hartropp and Storkey 1991, Berthoud and Kempson 1992)

The market/subsistence definition of family consumption is flexible and varies. It has been effected by the withdrawal of women from the family economy into the market economy and the investment in employee training. (Dex 1985) By contrast many Third World women are prescriptively limited to subsistence consumption. (Gulicks in Beck and Keddie 1978 501-21) The degree to which consumption is market/subsistence defined varies with local and national development, number of children, emphasis on paid work and leisure commitments. (Pleck 1985, Duncan and Morgan II 319-44) As Bertaux argues, alongside the economic process is the anthropomorphic one of producing people. (Bertaux 1977, Murgatroyd in Close and Collins 1985 49-62, Ellis 1986 69-73, Wilson 1987) Expansion of domestic resources has generated more subsistence and market consumption; large gardens require more care, more rooms need cleaning, more clothes washing and sustaining, more varied foods greater attention and longer shopping times, more highly organised lives more waiting times. The relationship between market and subsistence consumption is therefore likely to be more ambiguous than at first seems likely. This is further complicated because many people use consumption to take on extra pseudo-work, hobbies, sports, DIY, voluntary work, study, education which often has no outside referent. As Linder has observed, this breaks down the simple trade off between work and leisure which is so often assumed. (Linder 1970, Clarke and Critcher 1985 106-10) Yet those who are forced out of paid employment often do learn to compensate by increasing the subsistence contribution to consumption. (Brannen and Wilson 1987 56-74) Whether market or subsistence solutions, and in what proportions, are optimum ones is actually very difficult to
assess, partly because they often involve different experiences and criteria of evaluation. Many consumers may not have fully worked out why they choose various market and subsistence patterns of consumption, or assessed the stress they may face. (Storkey 1986 132-6)

This perspective also allows the redefinition of efficiency. Cultural orientations give multiple criteria for the efficiency of consumption. There are also multiple institutional views of efficiency: an efficient polity is one which does not generate conflict and destructive behaviour, efficient production follows from good work and efficient families use their resources well to sustain family life. But each institution also has a view on the efficiency of the others; normally we adopt the family maximizing consumption view of the "productive" sector, not the productive view of family. Yet the consumption of families, for example of television or alcohol, may make them inefficient units in paid employment. The polity also has views on peaceful or destructive families. The costs incurred in Northern Ireland, Beirut or many high crime, inner city areas bear out the reasonableness of this perspective. Because in the West efficiency has come to be seen predominately from the view of family as a consumer maximizing unit, little consideration is given to inter-institutional efficiency. Yet it is now glaringly apparent that the resources needed to sustain many western families and their failure show them to be dangerously inefficient units in ways which consumer centred views of the economy cannot recognize.

Family efficiency has been substantially changed in the last few decades by the increased scale of family breakdown. If the probability of United States women born 1940-44 having their first marriages end in divorce is .47, this is a major change in the structure of consumption. (Bongaarts et al 1987 157-8, 150-188) Although marriages and families are reconstituted, economic effects include the extra demand for housing, legal services, cars, childcare, training, duplicated consumer durables, heating and utilities. The fear of marital breakdown has probably been behind many abortions and the lower levels of births in many Western countries, which in turn has had an effect on demand for education and other child-centred services. The quality of subsistence services to many children has probably declined. (Robinson 1976, Duncan and Morgan III 163-187)

The complexity of the time relationships involved in domestic consumption is also far beyond what is allowed in neoclassical analysis. Families contribute to the education and training of their members for outside employment by providing books, school fares and fees, courses, computers, tutoring, travel, location of home, university or college maintenance, uniforms and many other forms of expense. Where this investment will bear fruit within the external economy is unpredictable. The public funding of external educational costs reflects a redistributional gift framework to the next generation, although modified recently by costs which are becoming more heavily weighed to the student and trainee. The relationship between this present consumption and its outworking in the later generation is very
diffuse. The training will help to maintain the pensions of the aged parents, but again not on an direct exchange basis but through complex contributions and claims. Many families also "hand on" items to children, or next generation families. Others buy things "which will come in handy". Thus, consumption is shaped by the history of the family and cannot be divested of this temporal significance.

Another change with increasing female participation in the paid workforce has been the change in search procedures. Many consumers bringing home two incomes reduce their search time on minor purchases by buying all at one super or hypermarket. There are more efficient ways of search through newspapers, telephone, advertising and consumer research units, but it is likely that many consumers are less efficient in their search procedures in terms of price comparisons than used to be the case, partly because they have decided on a different distribution of time. Saving money at the margin makes less sense than earning considerably more money. It is important to state it in these terms, because often the trade-off is assumed to be between search time and costs. Often the package involves work, income, search time and savings. When search time is available, at weekends and holidays, shopping becomes an ever more popular activity, but it is probably search over a greater number of purchase possibilities which are opened up by retailing and the availability of income, reflecting the idea of shopping as reward. Again, it is possible that people's practices are more complex than the normal descriptions of them in rationalistic models. (Earl 1986 136-206)

The mobility of many families is also high, generating transfers of capital and earning power. As a result concentrations of demand occur in certain areas reflecting wealth, income, taste and lifestyle, creating prosperity. Regional consumption cultures develop which are also strong; people move to be near a golf course. Pub and other domestically related cultures are strong and effective (Scitovsky 1976 239-47) There are areas which receive influxes of old, young and migrant families for a variety of reasons which are not necessarily related to employment; they are holiday, retirement, leisure, peaceful regions. Local impoverishment and inflation requires analysis in terms of the location of consumption in which families are involved. Their geographical strategy of shopping is also important. (Distributive Trades EDC 1988)
Further the marital and family unit makes many decisions collectively. Often there is a manager who may be husband or wife or children, but the ethos of family economic life which is built up shapes decisions in a highly formative way. Receiving education, training, getting and retaining a job, having the kind of housing which fits the family ethos and defining what kind of relationships should exist within and outside the family all shape immediate consumption decisions and the level of indebtedness and saving. It is therefore the socio-economic culture of this institution which should be studied in detail to prepare the ground for more informed theory of the way in which families make consumption decisions. Fortunately, apart from the Michigan studies, there are others which are beginning to do this well. (J Pahl 1980, Wilson 1987, Morris 1990 esp 19-21,103-22)

The general point which this section underlines is that until we establish in socio-economic terms what the changes and commitments of families are as institutions, the strategic direction of most consumption cannot be comprehended.
Relational Consumption.

The methodological prescription of the foundational positions left, it was argued, lacunae in the orthodox body of theory. The purpose of this section is to address one large gap which obtains in the consumption theory which has hitherto not been considered. Most of the theory hitherto considered can only articulate relationships between consumers and things, and then in terms of maximization. It cannot address the relations between people and people which are also an important part of consumption activity, for consumers are routinely concerned with the welfare of others than themselves and with issues of fairness in relation to those who participate in the transaction or use of goods and services. This is not a matter of separate ethical or welfare economics, but of the empirical study of consumption decisions.

The eclipse of these issues from conventional theory has occurred because of the assumed impossibility of interpersonal utility comparisons. (Robbins 1938, Arrow 1963, Mishan 1959) Even the development of hypothetical compensation criteria did little to penetrate this central assumption. (Kaldor 1939, Hicks 1939, Scitovsky 1941) This was partly because Pareto optimality created a logical position of efficiency, only after which were distributional and other fairness issues supposed to arise. Further, optimum positions were defined with reference to intrasubjective utility which did not take into account different levels of income, wealth, resources or other circumstances by which fairness can be assessed. Social Welfare Functions essentially had the same form. The techniques used were unable to make social judgements, especially where principles of fairness were involved. Not until Rawls showed again that judgements of justice could have priority over economic utility gain, was the question of justice reintroduced to economic analysis. (Rawls 1971) Cramp opened up the inability of all modifications of utilitarian theory either to acknowledge their own philosophical roots or to face relational, normative and practical issues and thus opened the way to a more radical transformation of theory. (Cramp 1975) Atkinson kept open the issue of inequality, and Sen investigated the "foolishness" of the egocentric rationalist models (Sen 1982 84-106 [1976]) and moved on to consider explicit issues of justice and fairness. Collard's work in non-selfish economics was also formative and important. (Collard 1978) Although these theorists broke through the foundational barrier, others retained the untenable normative/positive dualisms which prevented an open treatment of this area. The "Samuelson gap" described the acknowledged vacuum between the theory of public and private goods. (Samuelson 1954, 1955, Buchanan 1965) Yet, as we have seen, the validation of excluded direct patterns of care, love and concern from consumption theory was only their failed foundational positions.

Yet in daily consumption decisions, relational issues are always present. Purchases are for, or involve others. Services are provided by others who are taken into account in receiving the service. People affected by whether and how goods are used are also part of the consumer's picture, and the consumer enters into some

© Alan Storkey

page 292
kind of relationship with the producer. Although often these relationships are routine, they are still the ubiquitous frame in which decisions take place and priorities are formed.

Judgements of fairness are similarly widely made. The issues are a regular part of consumption: should all customers face the same price? should the poor face free or concessionary access to goods and services? are consumers meeting exploitative prices or inadequate quality? is there fair access of all consumers to scarce goods? does consumption result in unfair harm to others? how should queues operate? is the price and tax system unfair with respect to the distribution of wealth and resources? (Smith and Swann 1979, Stanesby 1986) These questions are sublimated in much of the theory partly because the indifference of the theory comports well with the indifference of our middle class individualism. There are a number of ways in which these relational issues need to be explored.

One is to approach the ethical issue of fairness in consumption not in terms of money but in terms of effort. This requires no calculations of intersubjectivity, but just looks at how much effort is needed to buy certain goods. The stages which intervene between work effort and the purchase of a specific good or service are straightforward. They are:

1. Whether work is hard or easy and to what degree.
2. The rate of pay per hour.
3. The ratio of total income to income earned by work.
4. The price of the good. (which may reflect credit, area differences)
5. The exchange rate. (for international comparisons)

Although the calculation is not precise, the EffortRatio (Ex:Ey) required to pay for a particular good may often vary by a factor of 10 or more. This is an empirical calculation; it is easy to see on the basis of this calculation why the rich and poor buy, or refrain from buying, different commodities. (Rubenstein 1986, Wolff 1987, Twine 1988) However, it also raises the issue of whether one person's effort should be valued at a tenth or a hundredth of another person's. This judgement of justice and fairness is also a commentary on the extent to which "factor-price" equalisation does not take place, and especially in relation to poor country's development raises important policy issues. Foundational theoretical forms avoid facing this issue by a retreat into supposed value free positions, but when the extreme inequalities are faced, it shows how seriously awry relative valuations have become in many economic relationships and how unjust the distribution of effort which different groups require to purchase goods may be. This calculation might also explain some of the weaknesses in world trade which are beginning to appear.

Further, the distribution of consumption is also closely linked with efficiency and
fairness. Those who eat large quantities of food use it inefficiently, both in terms of absorption and because it has to fuel fat maintenance. Those with small quantities have their life and energy impaired. Those living in many rooms use them, and their heating, less efficiently. Those with vast wardrobes probably have a lower use life for the items they purchase. As issues of global consumption efficiency grow more insistent, so the link between unequal distribution of consumption and prodigality in use becomes more clear. The lie of subjective utility is exposed, because our consumption necessarily has effects on others living in relation to the resources which are being used; no consumer is an island. We all face the issue of whether what we claim for ourselves as consumption is fair to others. Because this judgement transcends neat formulation, it is no less important. From the norm of according others equal love, or priority, with ourselves, all kinds of subsequent judgements follow about eating, dressing and heating which all of us face either directly or by default.

Another area of neglect is discriminatory pricing. Theory in this area has largely concentrated on submarkets and maximization conditions, but it has not looked at who faces discriminatory prices. The obvious answer is that those with high incomes and wealth are identified as groups who would pay more for the same goods. Sales periods are times when retailers select lower income customers who are less particular out from better endowed regular customers. Discrimination meliorates income and wealth differences. Yet the obverse pattern also exists; higher prices are faced by consumers with low demand, who are weak, immobile, old, have no temporal discretion, live in weak consumption zones, need credit, have weak currencies, little information about markets, are migrants and have poor linguistic and organisational skills. Insofar as this pattern exists wealth and income differences are exacerbated. If those with low incomes have little alternative but buying relatively poor quality goods compared with those who have greater strategic market power, the inequality becomes more acute. Taxation, work patterns and other factors effect how serious this tendency is, but for many internationally and locally it is acutely unfair. There is room for a much deeper consideration of this issue. (Phlips 1983)

When we face how glaringly obvious these issues are, it becomes a wonder that the idea of subjective sovereignty which has dominated consumption theory for so long should have been allowed to exclude them from consideration. We could ask why we have allowed this to happen?

None of these issues can be adequately related to neoclassical theory, and they therefore raise the question of what the basic decision making framework is in consumption theory. There is a fear of jettisoning indifference curves because of the spurious rigour they seem to convey, but since these calculations do not take place in the terms suggested, losing them is no great problem. The crucial question is whether decisions can be made which involve the welfare of others. Arrow's rationalist assumptions of individual sovereignty, egocentricity of the subject's
welfare definition, ordinal ranking and maximization, meant a non imposed social welfare function was impossible to construct. (Arrow 1950 328-46, 1963, Kelly 1978) Intersubjective comparisons were possible with the cardinal utility associated with the Dupuit/Marshall formulations, or the compensation criteria which follow from the Kaldor, Hicks, and Scitovsky formulations, (Pearce 1971 18-31, 1989) but they rapidly became complex, because of the intersubjective basis of formulation. Many attempts have also been made to formulate altruistic responses, but often these slide into pure altruism and the "after you" problem. Non-selfish games like the prisoner's dilemma can be shown to lead to more optimal co-operative outcomes. But all these formulations beg a basic issue, by making the criteria of evaluation intersubjective maximization, and ignoring the fact that often the welfare of others takes priority over maximization, which is often only of mythical significance anyway. (Cramp 1975 33-67, Cramp 1981 VII 16-21) This set of cases involves individual / family / institutional unit decisions which are other-regarding, see fairness as an issue, or to put it in wider terms, they acknowledge neighbour love as the normative context for most consumption decisions. In these situations the welfare of others, however weakly assessed, enters into the decision-making in a formative way.

The response that occurs within the second great commandment, "Thou shalt love thy neighbour as thyself.", in whatever limited ways it is addressed can be regarded as the normal mode of response. The neighbour principle can take a number of forms, many of which are not economic, but some are. These are defined as a willingness to take into account the welfare of others at some actual or opportunity cost to the subject. Concern for one's neighbour involves a destruction of subjective utility calculations in the following ways. Because it takes into account the welfare of others, it is transpersonal, rather than intersubjective. Second, the maximization of individual utility ceases to be a "rational" goal when the needs of others are taken into account. Third, the abstraction of the ordinal ranking of individual welfare gives way to the specific perceived needs of other people. Comparisons can be (and are) made across vast differences on the basis of whatever criteria are seen as significant; the Good Samaritan was concerned with the needs of the injured traveller prior to his own journey time. Fourth, harm, cost or disservice to others is directly taken into account, not magically transmuted into some subjective hedonism. Thus, we see the damage which subjective logicism and rationalism has done. It has made individual consumption decisions subjectively ego-referential, and effectively produced irrational results, in a world where individuals do live relationally and must understand their actions in those terms, so that either by failure or affirmatively they face the question of their fairness.

The neighbour principle shows that because the neighbour is created and loved by God, he/she deserves a similar concern as the subject shows to him/her self. This principle rules out the need for egocentric calculi, even in the limiting case where nobody else is involved in a choice. To love oneself, as God loves us, is to have a
legitimate concern for our own welfare; it is not best served by maximizing subjective pleasure, which is an egocentric and blind perspective on life. When people are making consumption decisions, they have a population of perceived need, which includes themselves, family, neighbours, retailers, producers and any others in relation to whom the purchase might be significant. All kinds of information, understanding and knowledge articulate who the population of perceived need is. Yet still the perceived need must enter into account as direct concern for the welfare of others in the decision to purchase, use or demure from goods and services. Often the consumer can be asked whom s/he takes into account. Then the sum of the costs to her/himself and others is weighed against the sum of the welfare brought to the subject and the others with whom s/he is concerned. If the welfare is greater than the costs, the decision will tend to be positive. Part of the articulation of decisions is whether any issues of fairness are involved. These may relate to equality of benefit, perceived deprivation, ecology, the terms of trading, means of livelihood, or the structure of other prices and costs. This model of the general case also underlines the fact that often decisions are made on behalf of passive consumers, assess their welfare and involve decisions about how much should be spent on them in relation to other members of the family or communal unit. Finally, it recognizes the costs of consumption as well as its benefits. Items of consumption incur inconveniences, absorb time and create liabilities which also have to be weighed. The price may well be the most prominent cost, but it is unlikely to be the only one.

Adopting such a general model allows issues of relationship, priority, fairness and external costs and benefits to be incorporated. There is no longer need for foundational certainty, but only for penetration into the way consumers should and do respond to the variety of decisions which confront them. The world of indifference curve consumption is an ideal creation in which none of us do or have to live; we all do live with our neighbours, families and partners in exchange and it is time our consumption theory reflected that.
Investigating Thrift.

Earlier arguments have suggested that there is a plurality of ways of studying consumption and a variety of methods appropriate to the subject matter. In this section another gap in theory will be explored and the appropriate ways of studying it considered. The gap is the failure to consider how personal and family patterns of thrift influence consumption, a limited but significant topic. Let us review the present situation. Especially within the rationalist tradition the price/substitution responses of consumers have been taken as the intellectual bedrock of the subdiscipline. We have seen how foundationalism needed this indubitable base. When the logic of choice had been established, then assumptions or ceteris paribus conditions could be relaxed, and more realistic situations confronted. Increasingly these complexities were considered, but against the background of the logic of choice or utility maximization by substitution. Yet, as we saw with Pareto and others, this logic is premissed on the disappearance of persons as significant; we look at marginal rates of substitution, but ignore the persons who are doing them. If, however, we recognize that this "logic" need not and often is not the prime consideration in purchasing and consumption, we are free to consider consumption in completely different terms. More powerful is the logic of priorities. Often choices are made about where to shop, what to buy, what to pay, what is good, what must come first, which define later decisions. There are things and services which people would not do without or cannot give up (in conceivable circumstances). There are goods which they cannot think of transitively. There are substitutions which would require a planned response or the co-operation of others. There are price relativities which are deemed temporary. There are priorities of purchase or action which outweigh price considerations. And there are patterns of satiety and contentment which rule out changes. Finally, as we have seen, there are value judgements of kind and level of purchase which are definitive in themselves. All of these possibilities create situations where the logic of substitutionary choice does not exist, is suspended or does not have priority.

To put the logic in substitutionary terms often misstates what is going on. The choice may be between buying an object which "is good and will last" or one which is cheaper and more suspect; the investment dimension is different from the substitutionary one. It can be between buying something now or something else (unspecified as yet) later. It may involve buying for others (family and friends), so that the key issue is "What will they think about it", an assessment of their valuation. It may be in terms of whether I have time for this now, when the comparison is not with other goods, but other activity sets. Or it may be a question of whether this will do the job; is it up to the task which is required of it? When the order of priorities which consumers bring to purchasing decisions, like shortage of time, what she will think of it, price, appearance is detailed, each moment of decision is located in a bigger context.

In the face of these examples there is no alternative but to ask when marginal rates
of substitution and price constraints operate? Actually the answer is not too difficult: sometimes. When consumers are offered substitution possibilities they often consider them, while the hypothetical choice interests them less. When their own priorities and agenda do not rule them out, they may be open to them. If they are not psychologically closed, because their "mind is made up" or they are addicted, they may consider them. If the differences are not trivial, they will be worth taking into account. Further, different people learn about different substitution possibilities so that forms and levels of awareness vary considerably. In situations where the level of knowledge of alternatives is limited, then comparisons will be tentative. But if moral imperatives, social priorities, income constraints, search limitations, moods or habits hold sway they will not. Clearly, we need some way of ordering all these possibilities to convey what is likely to be happening in a less haphazard way. However, we must also be open to the possibility that this ordering will not happen through a mathematical or logical form, since these do not neatly cope with competing criteria and priorities.

One development would be to change the theoretical frame away from calculations of cross price elasticities and substitutions of goods towards a consideration of the substitution possibilities which members of the population are prepared to consider and work at. (Daly 1978, Dicks 1988) For here again we see a case where positivism has persuaded us to treat a certain kind of theory as the only correspondence to the data. The question is whether, why and when people see price as significant? How thrifty are people when they shop? It cannot be taken for granted as the determinate question which the rationalist positions seem to presuppose. Why is the high price of credit often ignored? Because there are often prior considerations. In many purchases over ranges of prices consumers are probably indifferent, because other concerns have pre-emptive importance. Indeed, there are many purchases where consumers do not even know how much they are paying. The inescapable argument therefore is that each consumer operates with a range of prices to which s/he is indifferent, and only in the limiting case is this so narrow as to be effectively linear. How wide that range of prices is and in what circumstances it varies is an important theoretical issue which has bearing on inflation theory, market dynamics, income analysis as well as consumption theory. If indifference curves are really like bananas, we need a different kind of theory...

There is another consideration which has slipped through the net of price theory. Texts have long asked which goods and services are price elastic, but they have never considered who is price sensitive. This is probably because so many of the foundational epistemologies presume that persons do not exist, but only choices, logic, actions, causal processes or systemic resolutions. It therefore becomes difficult to recognize persons explicitly within the theoretical framework. Thus although purchases are summed across a population of purchasers for particular goods, they are not summed across a population of goods for particular persons, partly because the person does not function explicitly in the theoretical frameworks.
Further, because thriftiness, the key category to be introduced, is a normative concept, it cannot be incorporated within a positive science. Finally, the commitment of neo-classical economists to linear functions in substitution and price prevents them from investigating price responses in non-linear terms. For all of these reasons the failure to consider this aspect of purchasing can be traced to the epistemological preconditions with which consumption theory has been approached. Yet variations in search imply that consumers do vary widely in the sensitivity they show to prices; for some the indifference band is wide and for others it is much tighter.

Yet the differences between persons and families in their price responsiveness must obviously be considerable. Some people are poor and seek to save through searching for the bargain price; the rich probably do not. The very rich may even make a feature of their indifference to prices. Other costs like time, effort and preoccupation with uninteresting detail may feature more strongly in their calculations. Couples with two jobs or many children have less search time than others. Those who buy on impulse, through addiction, out of immediate necessity or to high specifications will tend to be less price sensitive, as will those with limited transport and access to choice. Traditional buyers will not be strategic. Survival purchasers will have little discretion, as Giffen's paradox suggests. Lifestyle, economical and hedonistic buyers may have other priorities. When the welfare of others is involved, as with gifts, travel and domestic design, price seems to have a subsidiary role. In issues of life, health, justice and love it is often held effectively of no account. This suggests that when potential buyers approach purchases they will be indifferent among a range of prices on offer. For some price variations of 5% would effect purchasing, while for others variations of 40% would involve no change in buying. They would have thresholds below which the good would be seen as shabby or unlikely to be offered and above which they would not pay. (see Adam in Taylor and Wills 1969 75-88, Fouilhe in ibid 89-97, Gabor and Grainger in ibid 5-25, 132-49)

Given this range of indifference it would clearly be possible to construct a thrift index for consumers representing the range of price variation over which they would be indifferent in their purchasing. Consumers can be asked about their price awareness before they go shopping, the range of prices over which they would be prepared to buy and to what extent planned and actual buying relate. This would represent, albeit within certain conventional definitions, either a frugal, narrowly indifferent tendency or a price indifferent extravagant one. At this stage we need to be clear that we are not concerned here with variations in the marginal rate of substitution, or even the elasticity of demand. The point is not how much a change in price leads to a different consumer response, but whether it does. Summing the presumed determinate responses of consumers to a change in price leads to a calculation of own price elasticity; assessing the actual price indeterminacy leads to an estimate of price sensitivities. (Storkey 1980, 1986 25) The Thrift Index of
individuals, income groups, company buyers and different families is clearly an important, but hitherto completely ignored, factor in consumption. Although the definition of the index would to some extent be conventional, it would identify a significant factor in purchasing.

Although search and information theory has at least questioned the primacy of the logic of choice, it has not really opened up this question, because it has focussed on the trade-off between search costs and purchase costs within a general maximization framework which is still price rational in conception. Yet quality, uniqueness, suitability, feel, design, co-ordination, values, commitments, user friendliness, durability, compatibility with existing purchases are the criteria which are paramount in the search process for many goods, to which questions of price are subordinate. Earl and others have begun to open up this area. (Earl 1983, 1986) In this larger context price search has a substantial but limited place which it is important not to overstate a priori. Moreover, the rationalist analysis of search procedure often ignores the fact that there is usually no accurate way of calculating what the benefit of the search would be, otherwise that knowledge would render the search unnecessary. Here again the possible indeterminacy of the process needs stressing.

The importance of the thrift index scarcely needs comment. Inflation considerably depends on the degree to which consumers respond to price. Many retailers actively aim to reduce price comparisons. It is a central part of market dynamics. Yet this important concept has been largely excluded from consumption theory because it does not fit the exclusive foundational positions we have examined and because the business of directly asking consumers questions about how they act has been methodologically taboo.
Consumption and Work.

The relationship between work and consumption is usually seen in terms of the production which is undertaken to produce consumption goods, or in terms of the flow of income generated from consumption finding its way back into wages. Similarly in many studies which are carried out on the relationship between work and family life, the primary emphasis is on the way in which work shapes and channels family life through shiftwork, careers, commuting and pressures for mobility. (but Goldsmith 1989, Googins, Voydanoff 1987) Yet this shows how incomplete are the relationships between these various domains of economics which we study. One important area is the way in which consumption and family life feeds back into work. This can be identified at a number of different levels.

First, leisure and consumption time now has a weight in people's lives which mean that many forms of consumption encroach on work time or make it less effective. These take different forms. There are consumption activities which encroach on work, like golf, eating out, holidays, sunbathing, game playing, sport, shopping and drinking. Second, there are processes of organizing and thinking about consumption and family activity which take place during work; the obverse of bringing work home. Third, there are forms of consumption which impair work performance like drinking, late and excessive television viewing, drugs, injury prone sports, smoking, diets and overeating. Fourth, there are conditions associated with family and consumption patterns which play back into work. Long commuting times associated with extra urban home life, childcare, partner care, the sharing of housework and other domestic tasks. More comprehensively there are patterns of worry, commitment and preoccupation with home, relationships and leisure which preempt the attention and commitment of many at work. If, even to some extent, the protestant work ethic has been superseded by the secular leisure focus, this is a sea change which affects more than Friday afternoon and Monday morning. Of course, none of these is directly registered as income flows or market changes, because they are effects which pass through people, but they are none the less economic; they involve the use of resources, choices, values and the labour market deeply. The effects of drinking or television on work could be measured in millions in most countries.

Second, there are patterns of consumption which are necessary in order to generate work. The most basic are food, water, clothing and housing and other conditions for sound physical development. Many countries in Africa, Asia and South America face chronic difficulties, because people are not healthy and well-fed enough to work well. This chronic cycle is one of the biggest challenges facing our economic lives; neighbour love requires us to help people be fit enough to work. But there are many other levels as well:- educational consumption and training, uniforms, equipment, books, transport, qualifications, applications and clothes are often a necessary support base for certain jobs. Often patterns of status, social interaction and expectation may involve additional costs. These consumption costs
may not be provided most efficiently on a private basis, and many poor families find it difficult to generate the expenditure necessary to go to work. The opportunity cost of work also varies with occupation and other situation; it may be as high as half of income, especially with migrant and rural workers.

Third, there is the question of why people work? The superficial answer often given within the individualist utility tradition is that they work as disutility in order to spend on utilities. Actually, that is an incomplete and inaccurate answer. Many with income and to spare continue working. Many assured of income dissociate the meaning of work from its recompense and are primarily committed to service, performance or status. They have a protestant work ethic in one form or another. (Furnham 1990) The Marxist dictum, "From each according to his/her ability, to each according to their need" similarly breaks the work to buy link. Indeed, it is possible to argue that a biblical perspective on work which sees it as stewardship of God's creation allows economic development beyond immediate needs and wants which partakes of the scope of the blessings of God's world. Nevertheless, there are many people, often with severe problems who are driven to work and overwork by their past and present consumption patterns. Some are in debt. Others have consumption ambitions which drive them to work. Again there is a need to establish how much consumption drives work, and how wise this is in many of our lives. There are many families who are working incessantly to fund houses which they then have little time to actually live in; in a more substantial sense than the foundational meaning, their behaviour is irrational.

These are simple points, yet they are rarely considered within frameworks of analysis which constitute orthodox consumption theory. They exhibit again the need for the theory to break out into patterns of substantive analysis which address people's lives directly.
Post-Foundationalist Theory and Methodologies.

We are now in a position to review positively the question which remains from the first, deconstructive part of this study. If foundational methodologies limit and even distort the possibilities of developing consumption theory, what principles should govern theory formation and the methods of assessing theoretical validity? When we no longer need to have faith in a certain way of shaping theory as foundational, it is possible to see a pluriform pattern of theory construction and methodology as possible and indeed normative. This, indeed, is a structured response to Caldwell's call for methodological pluralism but in the discipline itself, rather than taking eclectic methodologies are a possible basis for coherent theory construction. (cf Caldwell 1982 244-52) Theories are no longer bound to a single level of validation or a necessary form of knowledge, because they are no longer seen as self-validating. Thus theory becomes appropriate to the subject matter it is studying, and necessarily pluriform, because the domain of study is so rich in issues and aspects. It should, therefore, display different forms which represent the domains which it is studying. Thus, by considering the epistemology of consumption after we have opened up many domains of study in consumption theory, we have already followed a responsive route to theory construction and methodology, opening up some of the new possibilities. Different patterns of judgement, assessment and validation are appropriate to each of the kinds of theory, but each theory can also involve different levels of evaluation. Thus, it is possible to ask what subculture of consumption tends to dominate a particular family or group at an informational level, but one can also ask what values should shape our culture of consumption; this is a deeper religious issue, but it is also a theoretical one. As a result of theoretical reflection, our values can and should change. The old is/ought, fact/value dichotomy disappears because the study of all human activity always involves both.

Of course, it is helpful if we can to some degree systematize the different kinds of theory which are appropriate to consumption studies, and, without aiming to create a new straightjacket, it is possible to identify forms of analysis which grow out of the interdisciplinary framework we have already considered. Because the methodological vision is now responsive rather than foundational, these forms are possibilities rather than prescriptive requirements. They receive their deepest validation from the issues they address and the truth they convey about and for this area of life. Let us identify some of these forms of consumption theory and their methodologies.
RELIGIOUS ANALYSIS: life meanings of consumption, cultural analysis, its theological and doctrinal location, faith and consumption analysis.

ETHICS: norms of consumption, priorities and choice procedures, ethical systems and processes of valuation. Norms of market structuration and advertising. Poverty, giving and relative consumption levels.

JUSTICE: definition of fair consumption, resource distribution, public welfare. Impartiality of distribution, taxation system. The relation of public and communal goods and services to private and family consumption.

SOCIAL: family consumption analysis, reference group analysis, the social meanings of consumption. Communal consumption analysis.

COMMUNICATIONS: analysis of product awareness, market information systems, the media communication of consumption, market research, advertisement analysis.

AESTHETICS: design analysis, quality evaluation, market style.

ECONOMIC: analysis of economic valuation and pricing, analysis of economic norms like thrift, efficiency, sustainability, the analysis of full product utilization, interrelated markets, consumer credit analysis.

EDUCATIONAL: analysis of consumer education, ability levels in product utilisation.

ANALYTICAL: construction of analytical maps of choice, consumption strategies, priorities.

HISTORICAL: consumer path analysis, the histories of goods and services, market development, causal processes.

GEOGRAPHICAL: analysis of consumer space, the geography of marketing, mobility patterns in goods, services, buying.

PSYCHOLOGICAL: analysis of consumption motives, the psychology of purchasing.

BIOLOGICAL: analysis of the body and consumption, consumption and organic ecostructure.

CHEMICAL: chemical transformation in consumption.

PHYSICAL: consumption energy analysis.

MATHEMATICS: consumption accounting, data, probability analysis.

In terms of the previous foundational structures this scope for the discipline seems
very liberated, indeed almost anarchic; it is possible to consider anything related to consumption as of theoretical significance. Yet actually it is not too big a step, because it is not difficult to recognize all of these modes of analysis as quite directly bound up in consumption. Indeed, many people are employed carrying out just this kind of analysis now in marketing, education, policy formation and ecological analysis. It is really just an overdue move in the theoretical domain which allows important topics to be opened up to analysis.

We are then in a position to claim that our studies have direction. It is possible to give any domain of study priority in our theoretical framework. Christmas presents can be considered socially, aesthetically, in relation to the rest of the year's consumption or in relation to the ethics of giving. What locus of analysis is given priority is a real life choice growing out of the academic's human commitments, which are then reflected in her/his theoretical framework.

Further, these frameworks are not fully elaborated, because most theory actually utilizes limited modes of analysis. One could, for example, look at statistics of the geographical pattern of car purchases over time, employing norms of theoretical evaluation drawn from mathematics, geography, history and economics. The point would be, say, to examine levels of penetration of car use and petrol consumption in the countries of Africa. Arguably the norms and criteria of evaluation always need at least some modification in terms of the deeper purpose of the theory. Whether one considered African car imports as a key category would depend on whether indigenous manufacturing or oil dependence was the strategic issue. Yet this flexibility also means an increase in rigour, because it requires the theorist to open her/himself up to multiple criteria of theoretical validation and to accept that whether by default or intentionally the theorist is taking up a wider set of issues than is often supposed. There is no more a safe haven for truth in academia; consumption theorists must contend with rigour in the marketplace of life.

Finally, we recognize that the development of multiple criteria for assessing theory at different levels involves reskilling economists methodologically. Of course, some of the tools developed within the epistemological traditions we have examined provide forms of methodological judgement about trends, sample error, distributions, dynamics and variables, but often those tools need more humble usage without foundational intent. But consumption theorists need far more the ability to open up to a rich array of criteria for assessing areas of theory. How alcohol consumption influences people's work involves investigation, certain kinds of evidence and medical skills. When respect for the domain and area of study, for the specific kind of question which is being asked and for the subject matter is in place, the criteria emerge as professional judgements which reflect best practice, if our normative commitments are centrally for what is true.
Thus, we have moved away from the self-referential focus of theory to a fuller integration with the issues which occur in daily activity. Again we review what the aim and conception of theory formation should be by looking at some of the present points of reference and an alternative focus.

Hitherto, prediction has been one of the most powerful theoretical organisers within the causal traditions, although actually the predictive pretensions of most theory are limited. Events, attitudes, relationships change in ways which surprise the most seasoned economist. People also react to predictions in ways which make them indeterminate again. It seems, therefore, that the idea of prediction per se fails to address the flow of human life, valuation, freedom and direction. Its materialist and mechanistic roots have been formulated into a foundational science ideal, but this fails to properly address the human condition by narrowing the horizon of scientific reflection. (Goudzwaard 1979 198) Far better, I believe, is the biblical prophetic tradition which lays out what will come to pass, if those who hear do not respond. Economists do not have the authority of the biblical prophets, but their concerns, although often more proximate, are really the same in addressing the response ability of those who hear. They are also responsible for finding an audience, so that those who should hear, do. It may be in consumption theory that a restricted academic audience is not what is needed; consumers need to learn rather than a subculture within the discipline of economics.

The positivist tradition’s emphasis on gathering data and information has also remained an important theoretical organiser and generator of research funds. Its focus has been certain testing procedures associated with the econometric, hypothesis generating and empirical traditions; data is directed towards the methodological issues generated in these traditions and is selected out. If the locus for information changes to the consumer, market groups, retailers, ecologists and others, so does the character of the information. It may be that people need to know about utilisation levels, waste, the dependent spending generated by certain kinds of purchasing, use life, levels of domestic efficiency, market evolution, price variations, marketing costs, energy equivalents, overconsumption and a range of other information which will help them to be wiser consumers. Otherwise we see, but do not perceive. The mindset required for this information is different, as is the structure of research. Much of it is going on, but it does not have any coherence as consumption data, or speak to the concerns of consumers in their daily living. Again, the transformation of focus is considerable.

The rationalist tradition has required theory to focus on its own internal coherence and consistency. However, its demands have not addressed the questions which face families and other consumption units in terms of the coherence and consistency of living and consuming, in other words, their consumption faith. Shoe-horning consumers into a monovalent theoretical logic or dismissing the irrational
does not relate to the many dimensions of meaning which actually occur in the lives of all consumers. Nor does it face the real incoherence and inconsistencies which they live with as pleasure seeking, maximization, family centred living, economy, the search for a fulfilling lifestyle, habit and other principles drive their lives into tension and stress and the wider economy into disharmony.

Perhaps, therefore, at the end of this century of self-referencing foundational consumption theory, there is a need for these organisational cultures of theory to change. Not only do they need to become multi-disciplinary, institutionally aware, culturally-sensitive and normatively awake but also to re-emerge from the academy, in part, to recreate links with the lives of those studied, to be prophetic, help generate wisdom and encourage consumers to reflect on the meaning of consumption in their lives. In doing this consumer theorists, like their subjects, must necessarily have their own credo, which issues in and relates to the substance and structure of the theory which is generated. This study began at the end of the foundationalist era and now ends with the beginning, with the formulation of new kinds of consumption theory and analysis. And it is shaped towards the issues of life. Crucial at this time of the second millennium is the extended crisis created by the high consumption demands of many of those living in the "West", and the poverty of consumption of those who are deprived of resources. It is an issue which ramifies in many different directions. Old style consumption theory is not even in a place where it can accept or recognize the issue. My hope is that consumption theory will change in ways which mean it can take on this issue and others and grapple with them.

When it does so I believe that it will see anew how central is the Christian revelation of what is true about our lives and our consumption. At root we receive from God the resources which we have been given for life and need to acknowledge this with gratitude and praise. It means the stewardship of those resources, not only in their organisation for consumption, but also in the actual process of using them, with full respect for the creation for which we have been made responsible. At the same time the richness, potential and actual, of the provisions made for us are to be recognized in our response to God. Consumption activities require a full and equal respect for others as for ourselves, and a care for their needs as our own. They depend on justice and fairness in the distribution of consumption, so that all may live in peace and blessing. There are alternatives with great destructive power - self-centred living, hedonism and consumption idolatry - which conversely pose threats to life and generate evil. The challenge of these real issues of life are so great that the otherworldliness of much theory is amazing. As with other such issues the kernel of the answer lies with the One who knew that the meek will inherit the earth and life is a right relationship with the Father and not the stream of consumption worries.

“And why do you worry about clothes? See how the lilies of the field grow. they do not labour or spin. Yet I tell you that not even Solomon in all his splendour was
dressed like one of these. If that is how God clothes the grass of the field, which is here today and tomorrow is thrown into the fire, will He not much more clothe you, O you of little faith? So do not worry, saying, 'What shall we eat?' or 'What shall we drink?' or 'What shall we wear?' For the pagans run after all these things, and your heavenly Father knows that you need them. But seek first His kingdom and His righteousness, and all these things will be given you as well.
ALAN STORKEY, The epistemological foundations of consumption theory., de kennistheoretische fundering van de consumptie-theorie.

Deze studie begint met een onderzoek naar de oorzaken van de crisis in de klassieke economie, die in de tweede helft van de 19e eeuw plaatsvond. Er ontstonden in die tijd verschillende opvattingen over economie die elkaar tegenspraken, en soms loodrecht op elkaar stonden - zoals de socialistische, de liberale en de nationalistische visie op economie. In het licht van deze tegenstellingen begonnen steeds meer beoefenaars van de economische wetenschap binnen het kader van een bredere culturele ontwikkeling, zich terug te trekken in een benadering, die enerzijds agnostisch poogde te zijn voor wat betreft de inhoud van de economische kennis, maar anderzijds geloof hechtte aan een zichzelf legitimerende grondslag voor het vergaren van wetenschappelijke kennis. Zodoende verving "foundationalism", als het geloof in het bestaan van een wetenschappelijke basis die de theorie geldigheid kan verschaffen de vroegere inhoudelijke beschouwingen van de economie. Dit wetenschappelijk fundamentalisme speelde eveneens een grote rol in de geschiedenis van de consumptietheorie, die rond die zelfde tijd als een afzonderlijke deeltheorie van de economie ontstond.

Dit wetenschappelijk fundamentalisme bleek echter zelf niet zonder gebreken te zijn. Het leverde zelf geen Één grondslag op; en de grondslagen die ontstonden waren niet in staat om geldigheid te verschaffen aan een welgevormde, universeel geldige consumptietheorie. De gekozen fundering was dogmatisch: enerzijds Één soort van theorie voorschrijvend, anderzijds andere vormen van theorie uitsluitend. De gekozen fundering bapaalde ook de grens tussen de economie en de andere vakwetenschappen. Het gekozen fundament liet veel mogelijk relevante stof over het consumeren buiten beschouwing, en was ook in die zin irrel, dat een fundamentale breuk ontstond tussen de kennis waarmee mensen leven en consumerende handelingen verrichten en de kennistheoretische voorwaarden voor de theorievorming zelf.

Met behulp van het gedachtegoed van Nelson and Dooyeweerd onderzoekt deze studie de onderliggende gebreken in het "foundationalism" en volgt de verdere geschiedenis ervan in de ontwikkeling van de consumptietheorie. Betoogd wordt dat deze onderliggende gebreken een op lange termijn gefragmentariseerd theoretisch geheel opgeleverd hebben, wardoor men niet in staat is gebleken op vele essentiële kwesties ten aanzien van de menselijke consumptie in te gaan, of die tot een oplossing te bringen.

In het beschouwen van de geschiedenis van het "foundationalism" in zijn invloed op de consumptietheorie wordt een onderscheid gemaakt tussen een rationalistische, een positivistische en een causaal-behaviouristische denktraditie.
De rationalistische denktraditie.

De studie onderscheidt binnen deze traditie drie stromingen. De eerste is de logicistische, die voornamelijk een Engelse en Italiaanse achtergrond heeft, en geïdentificeerd kan worden met de bijdragen van De Morgan, Jevons, Pantaleoni, Pareto en Hicks. Deze stroming hoopte haar bouwwerk van kennis te gronden op de onomstotelijkheid van de logika zelf. Het probleem daarbij was van meet af aan dat, naarmate de logica onaantastbaarder wordt geacht, ze tegelijkertijd ook verstoken is van enig mogelijke sociale of economische inhoud. De "logic of choice" die het opleverde was statisch, beschouwde sociale en psychologische factoren als logisch niet relevant, sloot waarden uit, marginaliseerde de betekenis van inkomensvorming en -verdeling, en eiste bepaalde oplossingen, ook als die niet voorhanden bleken. Ze leverde een individualistische voorstelling van zaken op, en was niet in staat om interpersoonlijke economische relaties in haar beschouwingen te verdichten.

De tweede stroming was A priori Rationalistisch, en was beïnvloed door Immanuel Kant en het post-cartesiaanse Franse denken. Ze vond haar aanvankelijke uitdrukking in Cournot, in Auguste en LÉon Walras, en kwam via Schumpeter uiteindelijk bij Samuelson terecht (ten tijde van het schrijven van zijn "Foundations of Economic Analysis"). Samuelson en zijn medestanders hielden vast een mathematisch oplosbaar prijssysteem als fundering voor de analyse van de consumptie.

In deze gehele benadering gaat de voornamste aandacht uit naar de konsistentie van het systeem zelf. Maar het elimineert dientengevolge mogelijke inkonsistenties met het empirische materiaal. Ook de betekenis van dynamische processen, van motivaties en waarden, van relé effekten en sociale aspecten van consumptie blijft onderbelicht.

De derde stroming binnen de rationalistische traditie is het Middel-doel-Rationalisme, dat ontstond in het na-Kantiaanse Oostenrijkse en Duitse denken, en dat via Robbins aan de Engelssprekende wereld werd doorgegeven. De nadruk in deze stroming ligt op de immanent-logische verbinding tussen consumptieve doeleinden en de instrumentele activiteiten die nodig zijn om die doeleinden te bereiken. In tegenstelling tot de twee vorige stellingnames was deze positie dynamisch en doelgericht. Maar teneinde neutraal te blijven ten aanzien van de doeleinden zelf moest het mogelijke inconsistencies tussen de doeleinden negeren, vasthouden aan een geheel op toekomstige behoeftenbevrediging gerichte analyse, en de eigenwaarde van instrumentele activiteiten negeren. Een latere vorm van deze stroming wordt door Gary Becker vertegenwoordigd, die pretendeert een algemene wijze van analyseren te hebben gevonden die de grens tussen de economie en andere disciplines zou kunnen doorbreken. Dit echter op grond van het falen van deze en andere theoreti om elkaar wezenlijk te verstaan, en van de beperkte agenda van elk van deze stromingen.

© Alan Storkey
De positivistische denktraditie.

De achttiende-eeuwse empirische traditie kwam met name in de twintigste eeuw opnieuw naar boven in een positivistische golf met Schlick, de vroege Wittgenstein en de leden van de Wiener Kreis. Deze stroming ontwikkelde een aantal modellen die ieder op hun beurt weer invloed hadden op die consumptie-theorie.

Het eerste model was een ruwe vorm van Algemeen Positivisme, dat via Bridgman en anderen Samuelson beïnvloedde in zijn periode van zijn "Revealed Preference", maar dat ook aan de wieg staat van vele opvattingen over de zgn consumptie-data. Dit algemeen of ruw-Positivisme was atomistisch, unpersoonlijk, a-temporeel, en het de-construeerde de zinkaders van de consumptie. De mislukking van het verificatie-principe en daarmee van de fundering van deze benadering werd pas langzamerhand in de economie bekend.

Het Logisch Positivisme voltrok de scheiding van zijn twee onafhankelijke funderingen, die van de logika en die van de verifikatie, aan. Samuelson, die later naar deze positie overschakelde - en daarmee impliciet aantoonde hoe epistemologisch verward een theoreticus kan zijn - accepteerde de mogelijke vereenzelviging van theoretische vooronderstellingen en wetenschappelijke conclusies. Hij was het derhalve oneens met Milton Friedman, die de derde positie vertegenwoordigde, die van het Hypothetisch Positivisme als falsificatieleer. Deze positie maakt de vooronderstellingen een theorie juist los van de data die deze kan weerleggen en bevestigen. Met deze positie was de naam van Popper verbonden, die eveneens het gebruik van data als fundamenteel vertrekpunt toestaat. Lakatos, Feierabend en anderen toonden aan dat de zogenaamde "data" al met theorie geladen waren. Het directe probleem in de consumptietheorie was, dat Friedman's benadering geen wezenlijke weerlegging toestond, en de consumptietheorie naar een vorm van gematigd associatisme met zeer geringe intertemporele betekenis deed overhellen.

Tenslotte leverde een Probabilistisch Positivisme, met Carnap en Richard von Mises, een opvatting op over een door waarschijnlijkheden bepaalde kennis, die tot de econometrische variant in de consumptietheorie leidde. Het probleem lag hier in de schaarste aan conclusies, die legitiem op basis van waarschijnlijke data vanuit een atomistisch-epistemische opvatting getrokken kunnen worden.

Ook binnen de positivistische traditie treffen we dus weer aanzienlijke verschillen tussen de theoretici aan. Het zgn "F-twist" debat toont het onvermogen aan vanwege de dogmatische aard van de eigen uitgangspunten ofwel de eigen fundamenten ofwel het gebrek aan eigen theorievorming aan de kaak te stellen.

De causaal-behaviouristische traditie.

© Alan Storkey page 311

Tenslotte besteedt de studie aandacht Tibor Scitovsky's omzwaai van logicisme naar Behaviorisme als een betere epistemologie voor de consumptietheorie, en attendeert ze op de zij van het "foundationalist" verwijderende positie van o.a de onderzoekers van de Universiteit van Michigan, die in het voetspoor werken van Katona's "behavioural consumption theory".

**Herformulering van Konsumptie Studies.**

De conclusie van deze studie is met name, dat de consumptietheorie voor het grootste deel van haar geschiedenis in een diepgaande verwarring heeft verkeerd vanwege de diverse tot mislukking leidende kennisfunderingen, die ook onderling nog essentieel van elkaar verschillen. De studie beargumenteert, vanuit een christelijke levens- en wereldvisie, waarom deze wetenschappelijk-fundamentalistische benadering wel tekort mûest schieten. Als al onze kennis van God's wereld een afhankelijk en antwoordend karakter heeft, dan vervormt een verondersteld onafhankelijke basis voor kennis datgene wat de eigenlijke basis voor kennis zou moeten zijn, en doet deze vooronderstelling de gehele theoretische ontwikkeling al bij voorbaat geweld aan.

De studie eindigt daarom met een poging, de consumptietheorie in principe te reconstrueren als een sociale en economische sub-discipline, die door haar antwoord-karakter nieuwe mogelijkheden tot bestudering van het consumptieve gedrag openlegt. Ze toont aan dat het mogelijk is fundamentele cultureel- en religieus bepaalde opvattingen over consumptie te verstaan als factoren, die het consumptieve gedrag diepgaand kunnen beïnvloeden. In deze benadering kan ook aandacht worden gegeven aan de institutionele basis van consumptie in gezins-en familieverband, aan zaken zoals levensstijl, soberheid en zuinigheid waarin de consument een geheel eigen inbreng kan hebben, en aan de relatie tussen...
consumptie en werk. Langs deze weg komen nieuwe verbanden tussen b.v. inkomen en prijs in het vizier. Ook wordt zodoende duidelijk, dat de consumptietheorie een veld van onderzoek kan zijn met een eigen interdisciplinaire basis, open voor het reële ontwikkelingen die in het consumptieve gedrag te bespeuren zijn.

Een gronige bestudering van de laatste honderd jaar consumptietheorie laat in ieder geval zien, dat de veronderstelde autonomie van veel consumptietheorieën ongefundeerd is gebleken, en het wetenschappelijk fundamentalisme als gids op het moeilijke terrein van de consumptie-analyse niet heeft gedeugd. In de meest fundamentele zin vereist deze stand van zaken dat de wetenschap zich opnieuw heeft te bezinnen op de vraag naar het verband tussen de wijze van consumeren en de uiteindelijke zin van leven en samenleven. Ook omdat geloofshoudingen mede hun uitdrukking vinden in wijzen van consumeren, en dus mede kunnen worden gezien in het licht van de Gods Openbaring en van het level en de leer van Jezus. Want pas wanneer niet langer het bestaande menselijk gedrag of de autonome menselijke kennis als de uiteindelijke grondslag van academische studie wordt gekozen, ontstaat er ruimte voor de bestudering van het menselijk consumptiegedrag in termen van goed en kwaad, wijs of onwijs, verantwoordelijk of onverantwoordelijk.
**Bibliographies**

*Epistemology and the Philosophy of Science.*

**A**


ADORNO T W Against Epistemology (Oxford: Blackwell, 1982) [1956]


ALEXANDER P Sensationalism and Scientific Explanation (London: RKP, 1963)

ALTHUSSER L Lenin and Philosophy and other Essays trans B Brewster (London: NBL, 1971)

ANSCOMBE G E M An Introduction to Wittgenstein's Tractatus (London: Hutchinson 1967)

ARISTOTELIAN SOCIETY Logical Positivism and Ethics (London: Harrison and Sons Ltd., 1948)

ARISTOTLE Nicomachean Ethics trans D Ross (Oxford: OUP, 1954)


AYER A J The Problem of Knowledge (Harmondsworth, Middx: Penguin, 1956)


AYER A J The Concept of a Person and other Essays (London: Macmillan, 1964)


**B**

BEISER F C The Fate of Reason (Cambridge, Mass: Harvard UP, 1987)

BERGSON H C Creative Evolution (London: Macmillan, 1911) [1907]

BETH E W The Foundations of Mathematics (Amsterdam: North-Holland, 1959)


BOHM D Causality and Chance in Modern Physics (London: RKP, 1957)

BOOLE G The Mathematical Analysis of Logic (Oxford: Basil Blackwell, 1948) [1847]

BOOLE G The Laws of Thought (London: Open Court, 1916) [1854]


BORING E G A History of Experimental Psychology (NY: Century, 1929)

BOSANQUET R Logic 2 vols (Oxford: OUP, 1888)

BRADLEY F H Appearance and Reality (Oxford: OUP, 1930) [1893]

BRADLEY J Mach's Philosophy of Science (London: Athlone Press, 1971)

BRENTANO F Psychology from an Empirical Standpoint (ed O Kraus) (London: RKP, 1973) [1874]

BRENTANO F The Origin of the Knowledge of Right and Wrong trans C Hague (London: Constable, 1902) [1889]

BRIDGMAN P W The Logic of Modern Physics (NY: Macmillan, 1927)

BRIDGMAN P W "Operational Analysis" Phil of Science 1938 114-31


BURKS A W "The Presuppositional Theory of Science" Phil of Science 1953 177-97

BUTTS R E and HINTIKKA J (eds) Historical and Philosophical Dimensions of Logic, Methodology and Philosophy of Science (Dordrecht, Netherlands: Reidel, 1977)

C


CARNAP R Logical Syntax of Language tr. by A Smeaton (London: Kegan Paul, 1937) [1934]

CARNAP R Philosophy and Logical Syntax (London: Kegan Paul, Trench, Trubner,


CARNAP R "On Inductive Logic" Philosophy of Science vol 12 (1945) 72-97


CHARLTON D G Positivist Thought in France during the Second Empire 1852-1870 (Oxford: Clarendon Press, 1959)

CHISHOLM R "The Contrary to Fact Conditional" Mind 1946 289-307


COHEN R S and WARTOVSKY M W (eds) Methodological and Historical essays in the Natural and Social Sciences (Dordrecht, Netherlands: Reidel, 1974a)


CROCE B Logic as the Science of the Pure Concept tr. by D Ainslie (London: Macmillan, 1917) [1908]

CROCE B Philosophy of the Practical: Economic and Ethic tr D Ainslie (London: Macmillan, 1913) [1908]

CROCE B My Philosophy and other Essays tr E Carritt (London: Allen and Unwin, 1949)

D

DANCY J Introduction to Contemporary Epistemology (Oxford: Blackwell, 1985)

DE MORGAN A The Differential and Integral Calculus (London: Robert Baldwin, 1842)

DE MORGAN A Formal Logic or The Calculus of inference, necessary and probable (London: Open Court, 1926) [Taylor and Walton, 1847]

DE MORGAN A On the Syllogism and other Logical Writings ed P Heath (London: RKP, 1966)

DE MORGAN E Memoir of Augustus De Morgan (London: Longmans, 1882)

DE SANTILLANA G & ZILSEL E The Development of Rationalism and Empiricism (Chicago: U of Chicago Press, 1941)

DOOYEWEERD H A New Critique of theoretical Thought 4 vols (Philadelphia: Pres. and Reformed, 1955) [1936]

DOOYEWEERD H In the Twilight of Western Thought (Philadelphia: Pres. and Reformed, 1960)

DOOYEWEERD H Roots of Western Culture (Toronto: Wedge, 1979)

DUHEM P Aim and Structure of Physical Theory (NY: Atheneum, 1954) [1906]

DUMMETT M The Interpretation of Frege's Philosophy (London: Duckworth, 1981)


E
EVES H An Introduction to the History of Mathematics (NY: Holt, Reinhart and
Winston, 1976)

FEYERABEND P Against Method: Outline of an Anarchistic Theory of Knowledge
(London: NLB, 1975)

FEIGL H and REICHENBACH H "The Logical Character of the Principle of
Induction" Phil of Science 1934 20-29

FEIGL H & BRODBECK M (eds) Readings in the Philosophy of Science (NY:
Meredith Corporation, 1953)

FEIGL H & SCRIVEN M (eds) Minnesota Studies in the Philosophy of Science Vol I
(Minnesota: U of Minnesota Press, 1956)

FEIGL, SCRIVEN and MAXWELL G (eds) Minnesota Studies in the Philosophy of
Science Vol II. The Foundations of science and the Concepts of Psychology and
Psychoanalysis (Minnesota: U of Minnesota Press, 1958)

FEIGL H and MAXWELL G (eds) Current Issues in the Philosophy of Science (NY:
Holt, Reinhart and Winston, 1961)

FEIGL, SCRIVEN AND MAXWELL G (eds) Minnesota Studies in the Philosophy of

FICHTE J G The Science of Knowledge (Cambridge: CUP, 1982) [1794]

FICHTE J G The Vocation of Man (London: Open Court, 1965) [1800]


FRANK P Modern Science and its Philosophy (Cambridge, Mass: Harvard UP,
1949)

FREGE G The Foundations of Arithmetic: a logico-mathematical enquiry into the
concept of number (Oxford: Clarendon Press, 1959) [1884]

FREGE G Collected Papers on Mathematics, Logic and Philosophy (Oxford:
Blackwell, 1984) [1873-1926]

FREGE G Posthumous Writings (Oxford: Blackwell, 1979)

GOODMAN N The Structure of Appearance (Indianapolis: Bobbs-Merrill, 1966)
GOODMAN N Fact, Fiction and Forcast (Cambridge, Mass: Harvard, 1955)

GOWER B Logical Positivism in Perspective (Kent: Croom Helm, 1987)


GRICE H P and STRAWSON P F "In defence of a Dogma" Phil Review 1956 141-58

GRØNBAUM A Philosophical Problems of Space and Time (NY: Knopf, 1963)


H

HAACK S Philosophy of Logics (Cambridge: CUP, 1978)

HABERMAS J Knowledge and Human Interests (Cambridge: Polity 1987) [1968]

HALDANE J S Materialism (London: Hodder and Stoughton, 1932)

HALLER R "The Possibility of the Theory of Knowledge" Ratio 21 1979 87-96

HAMILTON Sir William Lectures on Metaphysics and Logic 4 vols eds Mansell and Veich (Edinburgh: Blackwood, 1859-60) [1837-8]


HANSON N R Patterns of Discovery (Cambridge: CUP, 1958)

HANSON N R Perception and Discovery (San Fransisco: Freeman, Cooper and Co, 1969)


HAZARD P European Thought in the Eighteenth Century (Harmonsworth, Middx: Penguin 1965) [1946]


HEMPEL C G "Empirical Statements and Falsifiability" Phil 1958 312-8

HEMPEL C G Aspects of Scientific Explanation and other essays in the Philosophy
of Science (New York: Free Press, 1965)

HEMPEL C G Philosophy of Natural Science (New Jersey: Prentice-Hall, 1966)

HEMPEL C G and OPPENHEIM P "A Definition of 'Degree of Confirmation'" Phil of Science 1945 98-115


J


JENSON K M Beyond Marx and Mach (Dordrecht, Netherlands: Reidel, 1978)

JEVONS W S Pure Logic or the Logic of Quality apart from Quantity: with remarks on Boole's System and on the relation of logic and mathematics (London: Edward Stanford, 1864)

JEVONS W S Elementary Lessons in Logic: Deductive and Inductive (London: Macmillan, 1905) [1870]

JEVONS W S The Principles of Science: A Treatise on Logic and Scientific Method 2 vols (London: Macmillan, 1913) [1874]

JOERGENSEN Joergen The Development of Logical Empiricism (Chicago: University of Chicago Press, 1951)

JOHNSON W E Logic: Part 1, 2 and 3 (Cambridge: CUP, 1921, 1922, 1924)

K

KANT E Critique of Pure Reason (London: Macmillan, 1929) tr D Smith [1787 2nd ed]

KANT E Critique of Practical Reason and other works on the Theory of Ethics tr T Abbott (6th ed London: Longmans, 1909) [1788]

KEUTH H "Tarski's Definition of Truth and the Correspondence Theory." Philosophy of Science Vol 45 no3 (1978) 420-30

KEYNES J M A Treatise on Probability (London: Macmillan 1921)


KUYPER A Lectures on Calvinism (Grand Rapids, Mich: Eerdmans 1931) [1898]

L

LAIRD J The Idea of Value (NY: Kelley, 1969) [1929]

LAKATOS I (ed) The Problem of Inductive Logic (Amsterdam: North-Holland 1968)


LENIN V I Materialism and Empirio-Criticism (London: Martin Lawrence, 1927) [1909]

M

MACH E History and Root of the Principle of the Conservation of Energy tr. by P E Jordain (Chicago: Open Court, 1962)

MACH E The Science of Mechanics tr. by J McCormick (Chicago: Open Court, 1919) [1883]

MACH E Popular Scientific Lectures tr. by T J McCormack (Chicago: Open Court, 1921) [1898]

MACH E The Analysis of Sensations tr. by C M Williams and S Waterlow (NY: Dover, 1959) [1886]

MACH E Knowledge and Error (Dordrecht, Netherlands: Reidel, 1976) [1905]


MARCUSE H One Dimensional Man (London: RKP, 1964)


MICHALOS A C The Popper Carnap Controversy (Hague: Martinus Nijhoff, 1971)

MILL J S "Whately's Elements of Logic" (Toronto: U of Toronto Press, CW XI, 1978) [1828]


MILL J S Utilitarianism (Toronto: U of Toronto Press, CW X, 1969) [1863-71]

MILL J S An Examination of Sir William Hamilton's Philosophy (Toronto: U of Toronto Press, CW IX, 1979) [1865-72]


MOORE G E Principia Ethica (Cambridge: CUP, 1966) [1903]

MORGANSTERN O "Logistik und Socialwissenschaften" Zeitschrift für Nationalökonomie 1936 1-14

MOSSE G L The Culture of Western Europe (London: Murray, 1963)

N


NAGEL E Logic without Metaphysics (Glencoe, Illinois: Free Press, 1956)

NELSON L Geschichte und Kritik der Erkenntnistheorie (Collected works II, Felix Meiner Verlag, 1973) [1908-11]

NELSON L Die Kritische Methode in ihrer Bedeutung für die Wissenschaft (CW III, Felix Meiner Verlag, 1974) [c1908]

NELSON L Socratic Method and Critical Philosophy trans T K Brown (New Haven, Conn: Yale UP, 1949)


O

O'CONNOR D J The Correspondence Theory of Truth (London: Hutchinson, 1975)

O'HEAR A Karl Popper (London: RKP, 1980)

P

PAP A An Introduction to the Philosophy of Science (Glencoe, Illinois: Free Press, 1962)

PEARSON K The Grammar of Science (London: Everyman, 1938) [1890]

POINCARÉ H Science and Method (NY: Dover, 1952) [1902]

POPPER K The Open Society and its Enemies (London: RKP, 1962) [1945]

POPPER K The Poverty of Historicism (London: RKP, 1961) [1957]

POPPER K The Logic of Scientific Discovery (London: Hutchinson, 1959) [1934]


PUTNAM H Mathematics, Matter and Method (Cambridge: CUP, 1975)

Q

QUINE W V From a Logical Point of View (Cambridge, Mass: Harvard UP, 2nd ed. 1964) [1953]


R


REICHENBACH H Experience and Prediction (Chicago: U of Chicago P, 1938)

REICHENBACH H The Theory of Probability (Berkeley and LA: U of California P,
1949) trans by E Hutten and M Reichenbach


REICHENBACH H Modern Philosophy of Science (London: RKP, 1959) trans by M Reichenbach

ROMANOS G D Quine and Analytic Philosophy (Cambridge, Mass: MIT Press, 1983)

RUGE A Logic tr B E Mayer (London: Macmillan, 1913)

RUSSELL B The Principles of Mathematics (London: George, Allen and Unwin, 1903)

RUSSELL B and WHITEHEAD A N Principia Mathematica 3 vols (Cambridge: CUP, 1910-13) 2nd ed 1925-7

RUSSELL B "On the Notion of Cause" Proceedings of Aristotelian Soc 1913 1-26

RUSSELL B Our Knowledge of the External World (London: George Allen and Unwin, 1914)


RUSSELL B Outline of Philosophy (London: Allen and Unwin, 1927)

RYLE G The Concept of Mind (London: Hutchinson, 1949)

S


SALTZMAN J D Paul Natorp's Philosophy of Religion within the Marburg Neo-Kantian Tradition (Hindesheim and NY: George Ohns Verlag, 1981)

SCHLICK M Philosophical Papers II (1925-36) eds Mulde and van de Velde-Schlick (Dordrecht, Netherlands: D Reidel, 1979)

SCHLICK M Problems of Ethics tr D Rynin (NY: Dover, 1962) [1930]

SCHLIPP P A The Philosophy of R Carnap (NY: Open Court, 1963)

SHAPERE D "The Structure of Scientific Revolutions" Phil Review 1964 383-94
SIDGWICK H The Methods of Ethics (London: Macmillan, 1877 2nd ed) [1974]
SIDGWICK H History of Ethics (London: Macmillan, 1931) [1886]
SIMMEL G The Philosophy of Money (London: Routledge, 1978) [1900]
SKINNER B F Scence and Human Behavior (London: Macmillan, 1953)
SMITH G C The Boole-De Morgan Correspondence 1842-1864 (Oxford: Clarendon Press, 1982)
SUPPES P A Probabilistic Theory of Causality (Amsterdam: North-Holland, 1970)

T
TARSKI A "The Semantic Conception of Truth" Philosophy and Phenomenological Research 4 1943-4 341-75

V
VENN J The Logic of Chance (London: Macmillan, 1888)

W
WEINBERG J R An Examination of Logical Positivism (London: Kegan Paul, Trench, Trubner and Co. 1936)
WHATELEY R Elements of Logic (London: Griffin, 1857 2nd ed) [1825]
WHITEHEAD A N The Concept of Nature (Cambridge: CUP, 1920)
WHITEHEAD A N Process and Reality (Cambridge: CUP, 1929)
WHITEHEAD A N Science and the Modern World (London: Macmillan, 1925)
WILKES E Physicalism (London: RKP, 1978)
WILLEY T E Back to Kant: The revival of Kantianism in German Social and Historical Thought 1860-1914 (Detroit, Mich: Wayne State UP, 1978)
WOOD J C (ed) Jevons Vol I (Kent: Croom Helm, 1988)
Economic Epistemology and Consumption Theory Bibliography.

A

ACKERMANN R "Methodology and Economics" Philosophical Forum 1983 389-402

AFRIAT S N The Price Index (Cambridge: CUP, 1977)


ALLEN R G D "Professor Slutsky's Theory of Consumer Choice" RES 1936 120-9


ALLEN S and WOLKOWITZ C Homeworking: Myths and realities (London: Macmillan, 1987)

AMONN A Objekt und Grundbegriffe der Theoretischen Nationalökonomie (2nd ed Leipzig and Vienna: Denticke, 1927)

AMONN A "Zu den methodologischen Grundproblemen" Zeitschrift für Nationalökonomie 1935 616-31

ANDREASEN A R The Disadvantaged Consumer (NY: Free Press, 1975)


ARMSTRONG W "The determinateness of the Utility Function" EJ 1939 XLIX 453-67

ARROW K J "A Difficulty in the Concept of Social Welfare" JPE 1950 328-46


ATKINSON A B The Economics of Inequality (Oxford: OUP, 1975)

B


BARBER W J British Economic Thought and India (Oxford: OUP, 1975)

BAUMOL W and GOLDFELD Precursors in Mathematical Economics (London: LSE, 1968)
BAYER H "Behaviorismus und die psychologischen Grundlagen der "sterreichischen Schule" Zeitschrift f¸r National¨konomie 1929 250-265


BECKER G S "A Theory of the Allocation of Time" EJ 1965 493-517

BECKER G S and LEWIS H G "On the Interaction between the Quantity and Quality of Children" JPE 81 1973 S279-88


BECKER G S and TOMES N "Child Endowment and the Quantity and Quality of Children" JPE 84 1976 S143-62

BECKER G S, LANDES E M and MICHAEL R T "An Economic Analysis of Marital Instability" JPE 85 1977 1141-87


BENNETT P D and KASSARJIAN H H Consumer Behavior (NY: Prentice Hall, 1972)


BERNARDELLI H "The End of Marginal Utility Theory?" Economica 1938 192-212


BLACK R D C "W S Jevons and the Foundation of Modern Economics" Hist PE 4 1972 364-78


BLAUG M A Methodological Appraisal of Marxian Economics (Amsterdam: North Holland, 1980)
BLAUG M The Methodology of Economics (Cambridge: CUP, 1980)

BOLAND L "A Critique of Friedman's Critics" J of Ec Lit 1979 503-22


BOULDING K and STIGLER G Readings in Price Theory (London: Allen and Unwin, 1953)

BOWLEY A L The Mathematical Groundwork of Economics (Oxford: Clarendon, 1924)


C


CAIRNES J E Essays in Political Economy (London: Macmillan, 1873)


CALDWELL B "Positivist Philosophy of Science and the Methodology of Economics" Journal of Economic Issues 14 1980 53-76


CARBERY T F Consumers in Politics (Manchester: Manchester UP, 1969)


CHALMERS T Christian and Economic Polity (London: Constable, 1856) [1821]

CIRILLO R The Economics of Vilfredo Pareto (London: Cass, 1979)

CLARK C M A Economic Theory and Natural Philosophy (Aldershot: E Elgar, 1992)


COLLARD D Altruism and Economy (Oxford:Robertson, 1978)


COURNOT A Recherches sur les principes mathÉmatiques de la ThÉorie des Richesses [1838] tr NT Bacon (NY: Macmillan , 1927)

CRAMER J S The Ownership of Major Consumer Durables (Cambridge: CUP, 1962)


D

DE MARCHI N and GILBERT C History and Methodology of Econometrics (Oxford: OUP, 1989)

DE MARCHI N The Popperian Legacy in Economics (Cambridge: CUP, 1988)

DEATON A A "Reconsideration of the Empirical Implications of Additive Preferences EJ 1974 338-48


DEATON A A Models and Projections of Demand in Post-War Britain (London: Chapman and Hall, 1975)


DELPHY C and LEONARD D Familiar Exploitation (Cambridge: Polity, 1992)


DEX S The Sexual Division of Work (Brighton, Sussex: Harvester 1985)


DOW S "Neoclassical Tautologies and the Cambridge Controversies: Reply to Salanti" J of Post-Keynesian Economics 5 1982 132-4


DUGGER W "Two Twists in Economic Methodology: Positivism and Subjectivism" AJES 42 1983 75-91


EARL P The Economic Imagination: Towards a Behavioural Analysis of Choice (Brighton, Sussex: Wheatsheaf, 1983)

EARL P Lifestyle Economics (Brighton, Sussex: Harvester, 1986)

EATON B C and LIPSEY R G " The Theory of Market Pre-emption: The Persistence of Excess Capacity and Monopoly in growing spatial Markets Economica 1979 149-58

EDGEWORTH F Y Papers Relating to Political Economy Vol 2 (London: Macmillan 1925)

EHRENBERG A S C Repeat Buying: Theory and Application (Amsterdam: Elsevier, 1972)

EHRENBERG A S C and GOODHARDT G J Models of Change (J W Thompson Market Research Corporation of America, 1979)

EICHNER A "Why Economics is not yet a Science" JEI 1983 507-20
ELLIS P Women in the Carribean (London: Kingston, 1986)
ELLUL J Money and Power (Leicester: IVP, 1984) [1954]
ELLUL J The Technological Society (NY: Vintage, 1964)
FAIR R "A Theory of Extramarital Affairs" JPE 86 1978 45-62
FEATHERSTONE M Consumer Culture and Postmodernism (Beverley Hills, California: Sage 1991)
FINCH J Married to the Job (London: Allen and Unwin, 1983)
FINN D R "Objectivity in Economics: On the Choice of a Scientific Method" Rev of Social Econ. 1979 37-61
FISHER I The Making of Index Numbers (NY: Houghton Mifflin, 1922)
FOXALL G R Consumer Behaviour (Kent: Croom Helm, 1980)
FRIEDMAN M and WALLIS W A "The empirical derivation of indifference functions" in O Lange (1962) 775-89
FRIEDMAN M Essays in Positive Economics (Chicago: Chicago UP, 1953)
FRISCH R "Necessary and Sufficient Conditions Regarding the Form of an Index
Number which shall meet certain of Fisher's tests." J Am Stat Assoc 1930 297-406

FRISCH R Pitfalls in the Statistical Construction of Supply and Demand Curves (Leipzig: Buske, 1933)

FURNHAM A The Protestant Work Ethic (London: Routledge, 1990)

G

GEORGESCU-ROEGEN N "The Pure Theory of Consumer's Behavior QJE 1936 133-170


GOLDSMITH E R Work and Family (Beverley Hills, California: Sage 1989)


GRAMPP W D The Manchester School of Economics (NJ: Stamford UP, 1960)

GRASSL W and SMITH B Austrian Economics (Kent: Croom-Helm, 1986)

GREEN H A J Consumer Theory (Harmonsworth, Middx: Penguin, 1971)

GREEN F Empiricist Methodology and the Development of Economic Thought (London: Thames Polytechnic, 1977)


H

HAAVELMO T "Methods of Measuring the Marginal Propensity to Consume" JASTA 42 1947 105-22

HAAVELMO T "The Probability Approach in Econometrics" Econometrica 1944 1-118

HAAVELMO T "The Role of the Econometrician in the Advancement of Economic Theory" Econometrica 1958 351-7

HADJIMatheou G Consumer Economics after Keynes (Brighton, Sussex: Wheatsheaf, 1987)

HAGEN E E "The Consumption Function: A Review Article" Rev of Ec and Stats 1955 48-54

HAHN F and HOLLIS M (eds) Philosophy and Economic Theory (Oxford: OUP,
HAMMES D L and BOLAND L A "Neoclassical versus Classical Economic Models"
Phil of SS 14 1984 107-13

HARCOURT G C Controversies in Political Economy (Brighton, Sussex: Harvester
1986)


HARTROPP A et al Families in Debt (Cambridge: Jubilee Centre 1988)


HAY A M and JOHNSON R J "Variations in Grocery Prices within Dublin: Some
Tests of their stability" Irish Geography 1981 91-8


HEILBRONER R "Economics as a 'Value-Free' Science." SR 40 1973 129-43

HENDRY D "Econometrics, Alchemy or Science?" Econ 47 1980 387-406

HICKS J and ALLEN R G D "A Reconsideration of the Theory of Value" Econ 1
1934 52-76, 196-219


HICKS J Value and Capital (Oxford: 2nd ed OUP, 1946) [1939]

HICKS J A Revision of Demand Theory (Oxford: OUP 1956)


HICKS J Capital and Growth (Oxford: Clarendon, 1965)

HICKS J Causality in Economics (Oxford: Blackwell, 1979)


HILTON M E "Abstention in the General Population of the USA" Brit. J of Addiction
1986 95-112

HOBSON J Work and Wealth (Cambridge: Macmillan, 1914)

HOLLANDER S The Economics of John Stuart Mill Vol 1 Theory and Method

HOMANS G "Social Behavior as Exchange" AJ Sociology 62 1958 597-606
HOMANS G Social Behavior: Its Elementary Forms (NY: HBJ, 1974 revised ed)

HOUTHAKKER H S "Revealed Preference and the Utility Function" Econometrica 17 1950 159-74


HOWEY R S The Rise of the Marginal Utility School 1870-1889 (Lawrence, U of Kansas P: 1960, Colombia UP, 1989)

HOYT E E The Consumption of Wealth (NY: Macmillan, 1928)

HOYT E E Consumption in our Society (NY: McGraw-Hill, 1938)

HUTCHINSON T W The Significance and Basic Postulates of Economic Theory (NY: Kelley, 1960) [1938]


HUTCHINSON T W "Professor Machlup on Verification in Economics" Southern EJ 1956 476-83


HUTCHINSON T W Knowledge and Ignorance in Economics (Chicago: U of Chicago P, 1977)

HUTCHINSON T W On Revolutions and Progress in Economic Knowledge (Cambridge: CUP, 1978)


JAFF... W Correspondence of LÉon Walras and Related Papers Vol 1 (Amsterdam: North Holland, 1965)

JAFF... W Essays on Walras (Cambridge: CUP, 1983)

JENNINGS R Natural Elements of Political Economy (London: Longman, Brown, Green and Longmans, 1855)

JEVONS W S The Theory of Political Economy (London: 4thed Macmillan, 1924)

JOHNSON W E "The Pure Theory of Utility Curves" EJ 23 1913 483-513

JOHNSON W R and SKINNER "Labor Supply and Marital Separation" AER 1986 455-469


JUSTE R F T Anticipations and Purchases (NJ: Princeton UP, 1964)


K

KALLEN H M The Decline and Rise of the Consumer (NY: D Appleton-Century 1936)

KATONA G and LIKERT R "Relationship between consumer expenditures and savings: the contribution of survey research" Rev of Ec and Stats 1946 197-9

KATONA G "Effect of Income Changes on the Rate of saving" Rev of Ec and Stats 1949 95-103


KAUFMANN F "On the Subject-Matter and Method of Economic Science" Econ 1933 381-401


KEYNES J M The Collected writings of J M Keynes (London: Macmillan/CUP)

-Vols V and VI "A Treatise on Money" (1971) [1930]
-Vol XI "Economic Articles and Correspondence, Academic" (1983)
-Vol XII "Economic Articles and Correspondence, Investment and Editorial" (1983)
-Vol XIV "The General Theory and After: Defence and Development" (1973)

KEYNES J N The Scope and Method of Political Economy (NY: Kelley, 1955) [1891]
KIRZNER I M The Economic Point of View (2nd ed London: Sheed and Ward, 1976)
KLEYNGELD H P Adoption of New Food Products (Tilburg, Netherlands: Tilburg UP, 1974)
KNOX F Consumers and the Economy (London: Harrap, 1969)
KOOPMANS T "Measurement without Theory" RevEcStats 29 1947 161-72
KOOPMANS T "Economics among the Sciences" AER 69 1979 1-13
KOSOBUD R F and MORGAN J N Consumer Behavior of Individual Families over Two and Three Years (Ann Arbor: U of Michigan, 1964)
KYRK H A Theory of Consumption (NY: Houghton Mifflin, 1923)
KYRK H The Family in the American Economy (Chicago: Chicago UP, 1953)

LANAУZE J A "The Conception of Jevons' Utility Theory" Econ 20 1953 356-8
LANCASTER K J "A New Approach to Consumer Theory" JPE 74 1966 132-57
LANCASTER K J Consumer Demand: A New Approach (NY: Colombia UP, 1971)
LANGE O et al Studies in Mathematical Economics and Econometrics (Chicago: Chicago UP 1962)
LAWSON T and PESARAN H Keynes' Economics: Methodological Issues (Kent: Croom Helm, 1985)

LEIBENSTEIN H "A Branch of Economics is Missing: Micro-Micro Theory" JEcLit 17 1979 477-502


LEISS W The Limits to Satisfaction: on needs and commodities (NY: Wiley, 1966)

LEROY L M Auguste Walras: Sa Vie, son Oeuvre (Paris: Librairie GÉnÉrale, 1923)

LESLIE T E C Land Systems and Industrial Economy ( London, 1870)

LESLIE T E C Essays in Political Economy (Dublin, 1888)


LIST F National System of Political Economy (Phil: Lippincott, 1856) [1841]


LUDLOW J M and LLOYD JONES Progress of the Working Class 1832-67 (London: Alexander Strahan, 1867)

M


MACCRIMMON K R and TODA M "The experimental determination of indifference curves" REcStudies 36 1969 433-51

MACFIE A An Essay on Economy and Value (London: Macmillan, 1936)


MCKENZIE R "The Non-Rational Domain and the Limits of Economic Analysis"

MAES I The Contribution of J R Hicks to Macroeconomic and Monetary Theory (Lovain: U of Louvain, 1984)


MASSEY W F et al Purchasing Behavior and Personal Attributes (U of Penn Press, 1969)

MAYER H Die Wirtschaftstheorie der Gegenwart" 3 vols (Vienna: Springer, 1927)

MAYER T "Selecting Economic Hypotheses by Goodness of Fit EJ 85 1975 877-83


MENGER C Problems of Economy and Society trans Nock (Urbana: U of Illinois P, 1963) [1883]


MILL J S "The Savings of the Middle and Working Classes" CW V (U of Toronto Press, 1967) 405-29 [1850]


VON MISES L Human Action: A Treatise on Economics (New Haven, Conn: Yale UP, 1949) [1940]

MITCHELL W C The Making and Using of Index Numbers (NY: Kelley, 1965) [1915]


MORGANSTERN O "Logistik und Socialwissenschaften" Zeitschrift für Nationalökonomie 1936 1-24

MORGENSTERN O "Descriptive, Predictive and Normative Theory" Kyklos 25 1972 699-714

MORISHIMA M Walras' Economics (Cambridge: CUP, 1977)


MUMFORD L Technics and Civilisation (London: RKP, 1934)


N


NICHOLSON J S "The Reaction in Favour of the Classical Political Economy" JPE 2 1893-4 119-32


NORRIS R T The Theory of Consumer's Demand (2nd ed New Haven, Conn: Yale UP, 1952) [1941]

NOZICK R "On Austrian Methodology" Synthese 36 1977 353-92

O

O'BRIEN D P J R McCulloch: A Study in Classical Economics (London: Allen and
Unwin, 1970)


O'DRISCOLL G and RIZZO M The Economics of Time and Ignorance (Oxford: Blackwell 1984)


O'SHAUGHNESSY J Why People Buy (Oxford: OUP, 1987)

O'UMILL A B Economic Change and Consumer Shopping Behavior (NY: Praeger, 1983)

P


PANTALEONI M Pure Economics tr by T B Bruce (Cambridge: Macmillan, 1898) [1889]

PAPANDREOU A Economics as a Science (Phil, PA: Lippincott, 1958)

PARETO V "The New Theories of Economics" JPE 1897 485-502


PARETO V Lettere a Maffeo Pantaleoni 2 vols (Geneva: Droz, 1984)


PHELPS M "Laments, Ancient and Modern: Keynes on Mathematical and Econometric Methodology" J of Post-Keynesian Economics 2 1980 482-93

PHLIPS L The Economics of Price Discrimination (Cambridge: CUP, 1973)


PICKERING J F The Acquisition of Consumer Durables (London: ABP, 1977)


POLLACK R A and WACHTER M L "The Relevance of the Household Production Function and its Implications for the Allocation of Time" JPE 1975 255-77

PORRITT J Two Lectures (London: The David Thompson Trust, 1988)

PRAIS S J and HOUTHAKKER H S The Analysis of Family Budgets (Cambridge: CUP, 1971) [1955]

PRIBAM K A History of Economic Reasoning (Baltimore, Maryland: John Hopkins UP, 1983)

R

REDMAN B "On Economic Theory and Explanation" J of Behavioral Economics 5 1976 161-76

ROBBINS L "Mr Hawtrey on the Scope of Economics" Econ 1927 172-8

ROBBINS L "The Present Position of Economic Science" Econ 1930 14-24


ROBBINS L "Interpersonal Comparisons of Utility: A Comment" EJ 1938 635-41


ROBERTSON D H Utility and all That (London: Allen and Unwin, 1952)

ROBINSON J Economic Philosophy (Harmondsworth, Middx: Penguin, 1964)

ROSEFIELDE S "Post-Positivist Scientific Method and the Appraisal of Non-Market Economic Behavior" QJ of Ideology 3 1980 23-33

ROTHBARD M "In Defence of Extreme Apriorism" Southern EJ 23 1957 314-20

ROSENBERG A "Can Economic theory explain Everything?" Phil of Soc Sc 1979 509-29


ROTWEIN E "On "The Methodology of Positive Economics"" QJE 73 1959 554-75

S

© Alan Storkey

SAMUELSON "A Note on the Pure theory of Consumer's Behaviour" Economica 1938 61-71, 353-4


SAMUELSON P A "Consumption Theory in terms of Revealed Preference" Economica 1948 243-53


SAMUELSON P A "Consumption Theorems in terms of Overcompensation rather than Indifference Comparisons" Economica 1953 1-9


SAMUELSON P A and SWAMY S "Invariant Economic Index Numbers and Canonical Duality: Survey amd Synthesis" AER 1974 566-93


SCHULTZ H "The Italian School of Mathematical Economics" JPE 1931 76-85


SCHULTZ T W (ed) Economics of the Family: Marriage, Children and Human Capital (Chicago: Chicago UP, 1974)


SCITOVSKY T Welfare and Competition (London: Unwin, 1952)


SCITOVSKY Human Desire and Economic Satisfaction (Brighton, Sussex: Wheatsheaf, 1986)

SEGAL D The Economics of Neighbourhood (NY: Academic Press, 1979)
SEN A K "Quasi-Transitivity, Rational Choice and Collective Decisions" RES 36 1969 381-93


SEN A K "Choice Functions and Revealed Preference" RES 38 1971 307-17

SEN A K "Personal Utilities and Public judgements; or What's Wrong with Welfare Economics" EJ 1979 537-58


SEN A K Commodities and Capabilities (Amsterdam: North-Holland, 1985)


SHIELDS R Lifestyle Shopping (London: Routledge, 1992)

SHUPACK M "The Predictive Accuracy of Empirical Demand Analyses" EJ 72 1962 550-75

SIDGWICK H The Principles of Political Economy (3rd ed London: Macmillan, 1924) [1883]

SIMON H Reason in Human Affairs (Stanford, California: Stanford UP, 1983)


SLUTSKY E E "On the Theory of the Budget of the Consumer" in Stigler and Boulding 27-56 [1915]

SMITH P and SWANN D Protecting the Consumer (Oxford: Robertson, 1979)


SPADARO L M (ed) New Directions in Austrian economics (Kansas: Sheed, Andrews and McMeel)


STIGLER G J and BOULDING K E (eds) Readings in Price Theory (Homewood, Illinois: Irwin ??)

STIGLER G J and BECKER G "De Gustibus non est Disputandum" AER 67 1977 76-90

STONE R and G National Income and Expenditure (Cambridge: Bowes and Bowes,

STONE R "Linear Expenditure Systems and Demand Analysis: An Application to the Pattern of British Demand" EJ 1954 511-27


STORKEY A J and HARTROPP A Escaping the Debt Trap (Ware, Herts: Movement for Christian Democracy Press, 1991)

STRIGL R Die ßekonomischen Kategorien und die Organisaion der Wirtschaft (Jena: Fischer, 1923)

STRIGL R Entf¸hrung in die Grundlagen der National`konomie (Vienna: Springer, 1937)


SWEEZY A "The Interpretation of Subjective Value Theory in the Writings of the Austrian Economists" RES 1 1934 176-85

T


TARASCIO V "Intellectual History and the Social Sciences: The Problem of Methodological Pluralism" Social Science Q 56 1975 37-54

TAWNEY R H The Acquisitive Society (London: Allen and Unwin, 1921)

TAWNEY R H Equality (London: Allen and Unwin, 1964) [1931]

TAYLOR B and WILLS G Pricing Strategy (Staples, 1969)


THEORY, CULTURE AND SOCIETY Vol 1 No 3 "Consumer Culture" 1983


TINBERGEN J Econometrics (London: Allen and Unwin, 1951)

TINBERGEN J Lessons from the Past (Amsterdam: Elsevier, 1963)

TINTNER G Econometrics (NY: Wiley, 1952)
TINTNER G "Definitions of Econometrics" Econometrica 1953 vol21 31-40

TISDALE C "Concepts of Rationality in Economics" Phil of Social Science 5 1975 259-72


TOWNSEND P Poverty in the United Kingdom (Harmondsworth, Middx: Penguin, 1979)

U


UUSITALO L Environmental Impacts of Consumption Patterns (London: Gower, 1986)

V

VEBLEN T "The Limitations of Marginal Utility" JPE 17 1909 620-36


VINER J "The Utility Concept in Value Theory and Its Critics" JPE 33 1925 369-87, 638-59

VINER J "Some Problems of Logical Method in Political Economy" JPE 25 1917 236-60


W


WALRAS A De la Nature de la Richesses et de l'Origine de la Valeur (Paris: Librairie Felix Alcan, 1938) [1831]


WALRAS L Etudes d'Economie Politique Appliquee (Rouge/Pishon, 1936) [1898]

WALRAS L Correspondence of Leon Walras and Related Papers 2 vols
WARING M If Women Counted (London: Macmillan, 1988)

WARNERYD K E "The Life and Work of George Katona" J of Ec Psychology 1982 1-31

WEBB B The Co-operative Movement in Great Britain (London: Sonnenschein, 1891)

WEBB S and B The Consumers Co-operative Movement (London: New Statesman, 1914, 1921)

WEBER M Economy and Society 2 vols (U of California P, 1978)


WHITAKER J "John Stuart Mill's Methodology" JPE 83 1975 1033-50


WICKSTEED P H The Common Sense of Political Economy 2 vols (London: Routledge, 1933)

WIERINGA B An Investigation of Brand Choice Processes (Rotterdam: Rotterdam UP, 1974)

WIESER F "The Austrian School and the Theory of Value EJ 1 1891 108-21


WISEMAN J (ed) Beyond Positive Economics? Proceedings of Section F of the British Association for the Advancement of Science (NY: St Martin's Press, 1983)

WOLD H "Causality and Econometrics" Econometrica 22 1954 162-77


WOLD H and JUREEN L Demand Analysis (NY: Wiley, 1953)
WONG S "The F-Twist and the Methodology of Paul Samuelson" AER 1973 312-25


Z

# Index

NB the page numbers refer to the original book and not this e-version.

<table>
<thead>
<tr>
<th><strong>A</strong></th>
<th>Atkinson, 127, 225</th>
<th>Bekhterev, 184</th>
</tr>
</thead>
<tbody>
<tr>
<td>a priori, 17, 42, 70, 71, 84, 88, 162, 182</td>
<td>atomism, 115, 117, 121, 174</td>
<td>belief, 27, 28, 199</td>
</tr>
<tr>
<td>abundance, 88</td>
<td>Austrian school, 72, 83, 91, 93, 94, 97, 98, 99, 102, 110</td>
<td>Bentham, 13, 40, 46, 54, 55, 104, 158, 159, 176</td>
</tr>
<tr>
<td>addiction, 210</td>
<td>autonomy, 31, 32, 197</td>
<td>Berkeley, 115</td>
</tr>
<tr>
<td>advertising, 188</td>
<td>autonomy of theoretical thought, 30, 31, 37</td>
<td>Bernstein, 25</td>
</tr>
<tr>
<td>aesthetics, 101</td>
<td>average propensity to consume, 141</td>
<td>Bertaux, 222</td>
</tr>
<tr>
<td>Afriat, 126, 148</td>
<td>axiomatic formalism, 74</td>
<td>Berthoud, 222</td>
</tr>
<tr>
<td>agnosticism, 21, 24, 28, 49, 203</td>
<td>Ayer, 29, 52, 110, 129, 135</td>
<td>biologism, 31</td>
</tr>
<tr>
<td>Alexander, 154</td>
<td>Bacon, 48</td>
<td>Blaug, 34, 40, 53, 80, 151, 164, 165</td>
</tr>
<tr>
<td>Allen, 42, 47, 55, 67, 83, 111, 123</td>
<td>Bagehot, 171</td>
<td>Bogdanov, 154</td>
</tr>
<tr>
<td>Althusser, 155</td>
<td>Bain, 161, 184</td>
<td>B^hm-Bawerk, 93, 94</td>
</tr>
<tr>
<td>altruism, 69, 212</td>
<td>Barrow, 154</td>
<td>Bongaarts, 223</td>
</tr>
<tr>
<td>American institutionalist school, 3</td>
<td>Barten, 148</td>
<td>Boole, 42, 47, 49, 50, 53, 56, 160, 161, 171</td>
</tr>
<tr>
<td>Amonn, 73, 97</td>
<td>Becker, 31, 42, 48, 91, 101, 103, 104, 105, 103-6, 221</td>
<td>Boring, 184, 186</td>
</tr>
<tr>
<td>analytic, 29, 30, 48, 52, 72, 73, 77, 99, 128, 130, 131</td>
<td>Beeton Mrs, 39</td>
<td>Boulding, 219</td>
</tr>
<tr>
<td>Archimedes, 152</td>
<td>behaviourism, 43, 151, 153, 157, 183-89, 190</td>
<td>boundaries of disciplines, 10, 60, 80, 200</td>
</tr>
<tr>
<td>Aristotle, 91, 93, 94</td>
<td></td>
<td>Bradley, 116</td>
</tr>
<tr>
<td>Arrow, 55, 224, 227</td>
<td></td>
<td>Braithwaite, 110</td>
</tr>
<tr>
<td>Ashley, 166</td>
<td></td>
<td>Brentano, 40, 48, 91,</td>
</tr>
</tbody>
</table>
93, 94
Bridgman, 42, 83, 113, 118, 124
British philosophy, 47
Buchanan, 219
Buddhism, 209
buying, 31, 127, 182, 189, 219, 220
C
Cairnes, 171
Caldwell, 26, 34, 111, 201, 203, 233
Cambridge school, 43, 151, 153, 154, 158, 159, 168, 171, 172, 174, 178, 183
Carabelli, 26, 173, 174
cardinal utility, 54, 123, 169, 227
Carnap, 42, 43, 110, 118, 130, 131, 134, 135, 141
catholic, 93
causal foundationalism, 152-57
causality, 43, 74, 85, 119, 131, 141, 146, 151, 152, 155, 157, 164, 165, 166, 167, 168, 171, 172, 174, 178, 179, 182
ceteris paribus assumptions, 158, 165, 167, 170, 172
Chalmers, 163
Chicago school, 48, 103, 148
Chisholm, 26
Christ, 205
Christian Socialists, 5
Christianity, 16, 19, 21, 30, 154, 158, 202, 204, 205, 208, 236
classical economics, 1, 7, 2, 19, 20, 26, 39, 46, 82, 151, 162, 171, 178, 182
classical economists, 7-12
Cliffe Leslie, 5
Clouser, 31
Co-ops, 39
Cobb, 25
Collard, 55, 69, 225
collecting, 211
completeness, 68
Comte, 3, 13, 57, 75, 112, 158, 160
conservatism, 19, 76
consistency, 73, 74, 84, 87, 89
consumption, 36, 54, 60, 91, 101, 107, 120, 122, 154, 163, 164, 168, 170, 181, 206, 226
consumption function, 111, 113, 119, 182
consumption theory, 1, 39, 53, 56, 67, 80, 100, 103, 104, 109, 122, 130, 131, 137, 144, 205-7
consumption theory origins, 39-41
correspondence principle, 112, 116, 117, 125, 130, 139, 145
correspondence theory, 116
cost of living, 125-28
costs of consumption, 228
Cournot, 42, 47, 74-77, 165
Cramp, 218, 225, 227
creation, 32, 202, 203, 204
Creator, 71, 202
criteria, 28, 33, 35, 112, 117, 207, 235
crude positivism, 42, 109, 138
culture, 200, 205
culture of consumption, 207-16

© Alan Storkey
<table>
<thead>
<tr>
<th>Term</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dahl</td>
<td>104</td>
</tr>
<tr>
<td>Dalton</td>
<td>62</td>
</tr>
<tr>
<td>data</td>
<td>136</td>
</tr>
<tr>
<td>De Holbach</td>
<td>152</td>
</tr>
<tr>
<td>De Morgan</td>
<td>42, 47, 49, 50, 53, 57, 134, 160, 161, 171, 176</td>
</tr>
<tr>
<td>De Saussure</td>
<td>155</td>
</tr>
<tr>
<td>Deaton</td>
<td>148</td>
</tr>
<tr>
<td>debt</td>
<td>210, 216</td>
</tr>
<tr>
<td>deductivism</td>
<td>70, 151, 165, 172</td>
</tr>
<tr>
<td>Deists</td>
<td>153</td>
</tr>
<tr>
<td>demand function</td>
<td>37, 39, 80, 84, 119, 138, 139, 168, 170, 171, 181</td>
</tr>
<tr>
<td>Descartes</td>
<td>16, 70, 75, 152</td>
</tr>
<tr>
<td>descriptivism</td>
<td>112, 113, 114, 117, 132, 138</td>
</tr>
<tr>
<td>determinism</td>
<td>85, 136, 153, 155, 158, 160, 171, 182</td>
</tr>
<tr>
<td>Dex</td>
<td>222</td>
</tr>
<tr>
<td>diachronic</td>
<td>155, 169</td>
</tr>
<tr>
<td>dialectical materialism</td>
<td>151, 153</td>
</tr>
<tr>
<td>dieting</td>
<td>218</td>
</tr>
<tr>
<td>Dilthey</td>
<td>48</td>
</tr>
<tr>
<td>disciplines</td>
<td>10, 12-15, 14, 22, 24, 26, 29, 31, 37, 38, 69, 98, 110, 125, 200, 204, 206, 216, 234</td>
</tr>
<tr>
<td>discriminatory pricing</td>
<td>226</td>
</tr>
<tr>
<td>dogmatism</td>
<td>34, 68, 114, 118, 136, 166, 187, 197</td>
</tr>
<tr>
<td>Dooyeweerd</td>
<td>29-33, 197, 217</td>
</tr>
<tr>
<td>Duhem</td>
<td>118</td>
</tr>
<tr>
<td>Dupuit</td>
<td>227</td>
</tr>
<tr>
<td>durability</td>
<td>121</td>
</tr>
<tr>
<td>Durkheim</td>
<td>21, 25, 119</td>
</tr>
<tr>
<td>dynamics</td>
<td>65, 85, 155, 163, 166, 167, 169, 177, 178</td>
</tr>
<tr>
<td>Earl</td>
<td>212, 217, 224, 231</td>
</tr>
<tr>
<td>ecology</td>
<td>202, 210</td>
</tr>
<tr>
<td>econometrics</td>
<td>111, 143, 144-48, 180</td>
</tr>
<tr>
<td>economic theory in general</td>
<td>31, 60, 73, 77, 81, 98, 102, 103, 180, 200, 201</td>
</tr>
<tr>
<td>Edgeworth</td>
<td>42, 55, 56, 62, 67, 81, 178</td>
</tr>
<tr>
<td>efficiency</td>
<td>222</td>
</tr>
<tr>
<td>Effort</td>
<td>225</td>
</tr>
<tr>
<td>egocentricity</td>
<td>106, 115</td>
</tr>
<tr>
<td>Ehrenfels</td>
<td>94</td>
</tr>
<tr>
<td>Einstein</td>
<td>114, 115, 154, 158</td>
</tr>
<tr>
<td>elasticity</td>
<td>87, 169</td>
</tr>
<tr>
<td>Ellis</td>
<td>176</td>
</tr>
<tr>
<td>Ellul</td>
<td>102</td>
</tr>
<tr>
<td>empiricism</td>
<td>48, 71, 109, 110, 112, 160, 172</td>
</tr>
<tr>
<td>Enlightenment</td>
<td>2, 12, 17, 22, 46, 152</td>
</tr>
<tr>
<td>entertainment</td>
<td>214</td>
</tr>
<tr>
<td>epistemic communities</td>
<td>8, 12, 7, 80-83, 111</td>
</tr>
<tr>
<td>epistemology</td>
<td>15, 18, 20, 24, 28, 45, 71, 89, 109, 114, 122, 182, 198, 233</td>
</tr>
<tr>
<td>equilibrium</td>
<td>36, 57, 59, 60, 79, 86, 89, 119, 153, 155, 157, 163, 166, 178</td>
</tr>
<tr>
<td>ethics</td>
<td>101, 122, 165, 190, 217</td>
</tr>
<tr>
<td>Eucken</td>
<td>97, 99</td>
</tr>
<tr>
<td>Evangelicals</td>
<td>5, 18, 19</td>
</tr>
<tr>
<td>evolution</td>
<td>136</td>
</tr>
<tr>
<td>exchange theory</td>
<td>104</td>
</tr>
<tr>
<td>experimental psychology</td>
<td>155, 191</td>
</tr>
</tbody>
</table>
faith, 128, 202, 236
falsificationism, 26, 43, 123, 135, 137, 140
family, 105, 200, 206, 220-24
family production function, 103
fantasy, 212
fascism, 110
Fechner, 184
Ferguson, 210
Feyerabend, 26, 136, 137, 201
first crisis, 2-7, 19, 199
Fisher, 126, 142, 146, 176
form, 75, 129
formal rationalism, 42, 45, 70-71, 72, 88, 91, 101, 106, 128, 132, 155, 218
formal rationalist consumption theory, 83-88
Foucault, 155
foundational, 19, 22, 38, 50, 51, 54, 55, 72, 81, 87, 95, 98, 100, 103, 106, 111, 112, 125, 141, 143, 148, 151, 153, 155, 160, 174, 177, 198, 233
foundationalism, 1, 12, 13, 15, 19, 20, 26, 20-39, 49, 76, 153, 171, 172, 182, 183, 192, 197-204, 214
foundationalist traditions, 41-43
foundations, epistemic, 24, 26, 51, 67, 71, 88, 89, 114, 115, 117, 128, 144, 165, 175
Fourier, 152
Foxall, 188, 216
Frege, 51
French structuralism, 155
frequency, 143, 144, 175
frequency inductivism, 43, 109
Friedman, 43, 113, 125, 132, 134, 137-41, 151, 169, 200
Fries, 27
Frisch, 126, 145
Furnham, 232
futurism, 154
gegenstand relationship between theory and living, 18, 30, 37, 203
general equilibrium analysis, 47, 158, 165
Germany, 110, 111, 183, 184
God, 16, 18, 20, 29, 32, 70, 93, 112, 127, 136, 154, 202, 203, 204, 205, 227, 236, 237
Gödel, 28, 52, 129, 135
Goethe, 114
Goodman, 134, 136
Gossen, 53
Goudzwaard, 13, 211, 235
Graham, 221
Haavelmo, 144, 145, 146
Hamilton, 47, 48, 161, 171, 184
Hanson, 118, 136, 146
Harrod, 180
Hartropp, 222
Harvard, 80
Hawtrey, 98, 178
hedonism, 92, 190,
hypothetical positivism, 43, 113, 135

I

idealist philosophy, 6
identification problem, 146
identity, 131
ideology, 19, 21, 22, 24, 36, 57, 75, 109, 110
imaging, 214
immanent, 29
impressionism, 21
income, 133, 138, 216
income effects, 63, 65
income elasticity, 126
income-consumption curve, 64
income-elasticity, 64
indifference curves, 37, 64, 126, 137, 139, 230
individualism, 55, 69, 99, 121, 213
inflation, 216
Ingram, 3

K

Kant, 16, 17, 18, 46
Katona, 43, 218
Kaufmann, 98
Kempson, 222
Keynes J N, 10, 43, 138, 151, 161, 166, 171, 172, 173
Keynes Maynard, 9, 11, 43, 63, 65, 100, 102, 111, 119, 138, 140, 142, 145, 151, 153, 154, 155, 156, 157, 158, 159, 172, 173, 189
Keynes' consumption theory, 181-83
Keynes' economic theory, 178-81
Keynes' epistemological development, 173-77
Knies, 171
Koopmans, 145, 146
Kraus, 93
Kuhn, 136, 137
Kuyper, 202
Kuznets, 145, 182
La Mettrie's, 152
Laird, 100, 207
Lakatos, 26, 53, 136
Lancaster, 55, 66, 67, 104
Lange, 139
Lansing, 192
Laski, 98
Lausanne school, 80
law of universal causation, 159
Leibnitz, 75
Lenin, 154, 185
Leontief, 87, 145
Levi-Strauss, 155
Lewin, 191
liberalism, 4, 5, 6, 19, 190
Linder, 222
List F, 3
Locke, 16, 48, 109
logic, 33, 76, 113, 183
logic of choice, 37
logic of ordering, 63
logical positivism, 42, 109, 128-32
logicism, 17, 31, 42, 45, 48-53, 73, 80, 84, 88, 96, 101, 102, 103, 105, 106, 111, 123, 128, 133, 165, 166, 174, 198, 218
logicist consumption theory, 67-70
London school of economics, 98
Lucretius, 152
Lukasiewicz, 52
Macaulay, 160
MacFie, 207
Mach, 28, 110, 113, 114, 116
Macleod, 54
Malebranche, 70, 75
Malthus, 40, 151, 152, 159, 163, 179
Mansel, 161
marginal, 55
marginal propensity to consume, 182
marginal rates of substitution, 63, 229
marginal revolution, 6, 53, 77
marginal utility school, 98
marginalism, 40, 82, 166
marketing, 188
marriage, 206
Marshall, 5, 9, 10, 41, 43, 85, 104, 126, 138, 146, 151, 156, 157, 158, 159, 164-71, 172, 178, 227

Marx and Marxism, 13, 19, 23, 24, 37, 43, 151, 152, 158

materialism, 16, 19, 31, 48, 75, 98, 101, 136, 152, 158, 179, 183


maximization, 32, 84, 119, 122, 157, 182, 224

McDouggall, 153

McFie, 100

means, 101

means-ends framework, 37, 42, 45, 66, 95, 101, 128, 158, 198, 218

means-ends rationalism, 91-97

mechanistic, 115, 152, 153, 158, 179, 183

meek, 237

Meinong, 48, 94

Menger, 40, 48, 53, 93, 94

Mennonite, 216

metaphysics, 14, 17, 22, 28, 51, 57, 71, 72, 105, 112, 116, 119, 123, 135, 166, 172

metatheory, 129

Methodenstreit, 11, 13, 94

Michael, 103, 104, 221

Michigan school, 43

Mill J S, 3, 4, 5, 13, 39, 40, 43, 46, 49, 138, 151, 156, 158, 159-64, 165, 166, 171, 176, 178, 184

Mill James, 46, 60, 159, 162, 184

Mishan, 224

Mitchell, 126, 145

models, 145

modernism, 21

Montesquieu, 152

Moore, 100, 122, 172, 173, 174, 183, 208

Moore H L, 145

moralism, 213

Morgan, 145, 192

Morris, 224

Muellbauer, 148

Mueller, 192

multicollinearity, 143,

N

Nagel, 118, 132, 134, 135, 137, 138, 143, 176

Nature, 2, 19, 20, 46, 77, 152, 153, 165, 177, 203, 204

Nazi, 110, 111

neighbour principle, 227

Nelson, 27-29, 197

neoclassical economics, 6, 53, 82, 151, 227

Neurath, 131, 134, 135

neutrality of theory, 58, 60, 69, 95, 114, 157, 197, 200

Newton, 16, 47, 154

nominalist, 57

norms, 32, 55, 122, 156, 180, 198

noumenal, 92

number, 120, 125

O

O'Shaughnessy, 212

objectivity, 27, 32, 58, 116, 118, 130, 174, 183, 184, 197

observables, 119, 131

© Alan Storkey
operationalism, 83, 112, 118, 123, 132
Oppenheim, 43, 113, 134, 137, 138
orthodoxy, 8
otherworldliness, 31, 36, 70, 77, 88, 106, 114, 122, 126, 187, 189, 199, 207
Owen, 13, 152
P
Pahl, 224
Pantaleoni, 47, 57, 67
paradigms, 136
Pareto, 9, 21, 41, 42, 47, 55, 56, 67, 69, 87, 111, 166, 228
Pareto optimality, 69, 224
Pareto’s consumption theory, 56-62
Parsons, 167
partial analysis, 165
partial derivatives, 87
partial equilibrium, 88
Pavlov, 153, 184
Pearson, 25, 142, 176
permanent income hypothesis, 140
person, 120, 128, 145, 167, 183, 191, 198, 228, 230
person-person theory, 69
person-thing logic, 55, 69
phenomenal, 17, 92, 95, 114
Phillips Curve, 119
Phils, 226
physicalism, 112, 135
physiocrats, 3, 71, 75, 76, 77, 153
Pigou, 98, 137, 178, 208
Plato, 77
political economy, 12
politics, 101
poor, 208
Popper, 26, 33, 43, 109, 110, 111, 118, 119, 130, 134, 135, 136-37, 142
positivism, 37, 42, 74, 83, 97, 99, 109, 111-12, 114, 149, 151, 182, 192, 198, 230
positivist critique, 122
positivist foundationalism, 112-14, 118
post-foundationalist methodology, 235
pragmatism, 112, 185
prediction, 119, 132, 137, 158, 186, 207, 235
Pribam, 70
Price, 214
price, 5, 80
privacy, 214
probability, 113, 141, 144, 146, 173, 174, 175, 178, 179
production, 154, 163
progress, 13
propensity to consume, 181
prophecy, 235
psychologism, 31
psychology, 24, 38, 69, 101, 167, 171, 173, 184, 185, 188, 218
pure, 36, 37, 49, 50, 56, 57, 61, 67, 71, 72, 77, 78, 82, 99
puritanism, 16, 190, 209
Q
Quesnay, 70
Quine, 52, 131
R
Ramsey, 142, 177, 178
rational, 78, 96, 105

© Alan Storkey
rational order, 76
rationalism, 17, 42, 102, 110, 151, 158, 159, 161, 172, 192, 214, 216, 228
rationalist traditions, 45-48
Rawls, 225
realism, 19, 21
reason, 17, 18, 71, 204
Reichenbach, 43, 110, 115, 141, 142, 176
relational, 200, 206
relational consumption, 224-28
revealed preference, 42, 66, 113, 124, 125, 122, 132, 133
revelation, 18, 45, 202
Ricardo, 6, 46, 151, 160, 162, 179
Robbins, 41, 42, 48, 66, 91, 97, 98, 99, 101, 102, 97, 104, 111, 180, 207, 224
Robertson, 145, 178
Robinson, 178
romantic, 18, 21
romanticism, 19
Roscher, 171
Ruskin, 4, 208
Russian, 183
Ryle, 184
Samuels, 220
Samuelson, 8, 42, 47, 66, 83-88, 106, 113, 123, 122-25, 126, 131, 132-34, 137, 139, 225
saving, 214
say, 77
Scanzoni, 104
scarcity, 76, 88, 147
Schlick, 25, 42, 110, 111, 114
Schmiedeskamp, 192
Schmoller, 94, 153, 166
Schultz, 145, 148
Schumpeter, 7, 42, 47, 53, 80-83, 123, 145
Schwartz, 140
science, 14, 16, 23, 29, 51, 69, 75, 77, 78, 82, 98, 102, 112, 115, 117, 119, 125, 130, 135, 136, 160, 162, 171, 172, 185, 197, 201, 203, 204
scientific materialism, 152, 153, 154
scientism, 83
Scitovsky, 43, 66, 69, 189-91, 224
search, 231
second-hand, 121
security, 121, 213
Senior, 171
sensationalism, 116
set theory, 131
shadow prices, 105
Sidgwick, 40, 158, 165, 174
Simmel, 104
Sismondi, 163
Skidelsky, 166, 172, 173
Skinner, 186
Slutsky, 55, 62, 63, 67, 87
Smith, 6, 77, 151, 153
social welfare function, 90
Socialism, 10, 19, 76, 167, 199
socialist, 208
sociology, 19, 58, 60, 95, 101, 167, 171, 200
Sonquist, 192
Spencer, 13
Sraffa, 178
stability, 84
stable, 167
standard of living, 125
static theory, 59, 61, 64, 85, 89, 90, 140, 155, 166
stewardship, 236
Stigler, 53, 126, 145
Stone, 110, 145, 146, 148
Storkey, 22, 36, 217, 221, 222, 231
Strigl, 73, 85, 97, 99
Strumpel, 192
Sturm und Drang, 18
subject, 22, 32, 95, 109, 121, 204
subject-thing, 206
subjective, 27, 40, 48, 58, 80, 95, 97, 103, 105, 142, 158, 160, 176, 181, 183, 186, 200, 210, 213
subjectivism, 38, 57, 60, 170, 192, 200
substitution, 63
Swamy, 126
synchronic, 155
synthetic, 29, 52, 71, 73, 77, 130, 131
system, 85, 155, 158, 177
T
taboos on consumption, 210
Tarski, 52, 130, 135
Tawney, 208, 211
teleological, 103
testing, 137, 207
Theil, 148
teleology, 15, 19
Theories of Knowledge, 15-20
theories of knowledge, 17, 20
time, 1-2, 22, 30, 31, 35, 55, 57, 82, 112, 114, 117, 135, 139, 149, 167, 198, 199, 200, 203, 225, 233, 234
theory of types, 129
Thompson, 49
Thomson W T, 4
thrift index, 61, 121, 215, 228, 230, 231
Time, 214
time, 61, 90, 93, 100, 105, 120, 146, 154, 156, 158, 166, 180, 185, 209, 231
Tinbergen, 145, 180
Tintner, 145
Tawney, 208, 211
Transitivity, 215
transitivity, 63, 68, 199
Troeltsch, 99
U
universities, 11, 15, 22, 27, 31, 110, 114
unpriced goods, 127
unstable, 167
utilitarianism, 46, 55, 96
utility maximization, 55, 105, 192
Uusitalo, 211
V
valuation, 58
value, 76, 90, 127, 169, 170, 207, 213, 207-16
value-freedom, 95, 98, 226
values, 102
variables, 120, 143,
<table>
<thead>
<tr>
<th>Word</th>
<th>Page References</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veblen</td>
<td>69</td>
</tr>
<tr>
<td>Venn</td>
<td>171, 176</td>
</tr>
<tr>
<td>verification</td>
<td>97, 116, 117, 118, 130, 135, 167, 175</td>
</tr>
<tr>
<td>verification principle</td>
<td>28, 33, 117, 129</td>
</tr>
<tr>
<td>verificationism</td>
<td>142, 151, 164</td>
</tr>
<tr>
<td>verstehen</td>
<td>98</td>
</tr>
<tr>
<td>Vienna Circle</td>
<td>114</td>
</tr>
<tr>
<td>Vienna circle</td>
<td>42, 97, 111, 118, 129, 134</td>
</tr>
<tr>
<td>von Kries</td>
<td>176</td>
</tr>
<tr>
<td>von Mises L</td>
<td>72, 94</td>
</tr>
<tr>
<td>von Mises R</td>
<td>43, 141, 142, 144</td>
</tr>
<tr>
<td>von Wieser</td>
<td>94</td>
</tr>
<tr>
<td>Wagner</td>
<td>166</td>
</tr>
<tr>
<td>Wald</td>
<td>47</td>
</tr>
<tr>
<td>Wallman</td>
<td>221</td>
</tr>
<tr>
<td>Walras A</td>
<td>47, 74-77</td>
</tr>
<tr>
<td>Walras L</td>
<td>9, 11, 25, 40, 42, 47, 53, 61, 70, 77-80, 87</td>
</tr>
<tr>
<td>Walrasian</td>
<td>102</td>
</tr>
<tr>
<td>Waring</td>
<td>222</td>
</tr>
<tr>
<td>Watson</td>
<td>153, 156, 185</td>
</tr>
<tr>
<td>wealth</td>
<td>4</td>
</tr>
<tr>
<td>Webb</td>
<td>98</td>
</tr>
<tr>
<td>Weber</td>
<td>11, 21, 41, 42, 48, 81, 91, 95, 97, 99, 105, 167, 209</td>
</tr>
<tr>
<td>welfare economics</td>
<td>56, 60, 69, 90, 122, 213, 224, 227</td>
</tr>
<tr>
<td>Wertheimer</td>
<td>191</td>
</tr>
<tr>
<td>Whateley</td>
<td>48</td>
</tr>
<tr>
<td>Whewell</td>
<td>161</td>
</tr>
<tr>
<td>Whitehead</td>
<td>28, 152, 154, 172</td>
</tr>
<tr>
<td>Wilson</td>
<td>224</td>
</tr>
<tr>
<td>Wittgenstein</td>
<td>29, 42, 57, 58, 110, 116, 117, 118, 119, 120, 121, 122, 129, 135, 172, 174</td>
</tr>
<tr>
<td>Wong</td>
<td>26, 34, 123, 124, 125</td>
</tr>
<tr>
<td>work</td>
<td>145, 225, 232</td>
</tr>
<tr>
<td>work and consumption</td>
<td>231-33</td>
</tr>
<tr>
<td>Wundt</td>
<td>40, 184</td>
</tr>
<tr>
<td>Zahn</td>
<td>192</td>
</tr>
</tbody>
</table>

© Alan Storkey