

# 1. Socio-economics: A self defeating project

We fully recognise that the sketch we have given in the Introduction to this part is less than satisfactory.\* We have made a number of claims about the self defeating character of one prominent line of work in the social and economic sciences. In this chapter and the two which follow, we will attempt to detail the thinking which lays behind these claims. In a nutshell, it is that analytically pure disciplines such as Sociology, Psychology, and above all Economics tend to be extremist.<sup>1</sup> They take ideas and see how far they can be purified and extended. Hence the methodology of these disciplines militates against mutual incorporation and mutual adjustment. The upshot of this is that putative syntheses turn out to be even less satisfactory than the original, analytically pure disciplines.

To demonstrate how this comes about, we will take a single example, that of the recently developed Socio-Economics associated with the work of Amitai Etzioni.<sup>2</sup> Having set out Socio-Economics' goals and the ways in which it is envisaged they may be achieved, we will delineate why we find the proposal to be misguided. In brief, our claim will be that without an explicit theory of the relationship between disciplinary phenomena or objects, all we have to fall back on is a constancy hypothesis. Under this hypothesis, when Economics, Sociology and Psychology describe and analyse instances of economic choice, for instance, they are describing "the same" phenomenon. We will find the constancy hypothesis untenable and hence its implicit use as the basis for synthesis unsupportable. The demonstration of the untenability of the constancy hypothesis is contained in our discussions of the modes of reasoning underpinning what we will term **Cartesian Economics** and its application to entrepreneurial activities which is contained in the next chapter.

## Socio-Economics: the new synthesis

In recent years, Amitai Etzioni has been attempting to build an "interstitial discipline" which he calls Socio-Economics. The aim of Socio-Economics is to provide the basis for the mutual compatibility and elaboration of findings in a number of contiguous disciplines. In Etzioni's view, Socio-Economics

.....may require combining contributions from psychology, sociology and political science, hence the reference to socio-economics. While psychology may provide much of what is necessary, other social sciences may need to be drawn upon in the study of macro elements such as the relation between groups (as distinct from those between individuals and groups) and that of the polity. These in turn may need to be combined with economic concepts which recognize the role of supply and demand and prices without the neo-classical economic assumptions. (Etzioni 1986b, p. 479)

To begin with, then, Socio-Economics is a discipline which combines elements, approaches and findings from already existing ones. However, its very existence and outlook will, of itself, generate novel areas for investigation and require the interconnection of newly developed theories. Etzioni has himself enumerated several: consumer behaviour and the theory of rational choice; utility theory; perfect and imperfect competition; organisational decision making; and of course the area of our primary concern entrepreneurship.<sup>3</sup> In each case, it is imagined that the introduction of the broader perspective and a wider range of investigative methods will have much the same consequences.

Introducing greater reliance on induction, drawing upon experiments, observations and attitude surveys, may turn out to be the single most important corrective socio-economics will provide to the highly deductive approach of neo-classical economic behavior. Those who do not regularly follow neo-classical economics may find it hard to believe how far it is removed from empirical testing, at least in the way that this term is understood in many other sciences, and all other social sciences....(Etzioni 1986b, p.480)

As an example of the kind of broadening effect which the new discipline provides, Etzioni discusses some recent work in the "economics of crime".

Neo-classical economists in recent years have attempted to show that crime is a rational choice behavior by ordinary individuals rather than the result of distorted personalities, poor socialization, deviant peer cultures and such, the lines of interpretation many psychologists and sociologists follow. Cost (punishment) and benefits (size of the loot) were shown to correlate with the levels of crime, even crimes of passion such as rape and murder. However, most recent work shows that such "economic" factors account for only about one third of the

variance, while factors traditionally studied by psychologists and sociologists, such as the capacity to defer gratification and moral socialization, also account for about a third of the variance.....hence the value of systematically studying both kinds of factors in one framework. (Etzioni 1986b, pp. 479-80)

What Socio-economics provides, then, is not so much a picture which "corresponds to reality" but an account which incorporates and integrates our developing knowledge, thereby contributing towards the theoretical unification of the social sciences and hence the possibility of a better fit between "the real world" and our theories of it. At the end of an outline of the methodological basis of his new discipline, a basis which he deliberately labels "Kantian", Etzioni offers arguments which are these days virtually conventional in Sociology and most of the other social sciences.

In short, it is not enough for neoclassical economics to give up its imperialism, its attempts to understand non-economic behaviour in rationalist, egoist terms. The role of moral commitments and the factors which shape them must be taken into account in studying economic behavior, including subjects such as saving, incentives to work, behavior of markets and productivity. An integrated paradigm of social factors (among which only moral ones were explored here) and economic factors is to be tested is to be tested by the same criteria by which neoclassical economics is judged: the ability to predict and explain, parsimony, and the ethical implications of the paradigms for those who view the world through its framework. (Etzioni 1987b, pp. 37-48)

What is clearly the major pay-off of the synthesis is the way in which it will allow the empirical grounding of analyses in what we have called "real world economic and business life".

Obviously we do not have the space, nor is it necessary to explore all of the possible topics which Etzioni proposes are ripe of the socio-economic approach. We will focus only his account of entrepreneurship. Here what he suggests is that the "facts" with regard to the psychological predispositions of entrepreneurs are relatively well known and the economic rationale for their activities is more or less clear. What is not so easily pinned down, though, are the reasons for the relative success or failure of particular lines of entrepreneurial activity. Here, he says, we have to turn away from the individualistic conception of the entrepreneur and look towards a social conception of it.

It is commonplace to observe that entrepreneurship is (a) often not an individual undertaking but a team task (although much of the literature focusses on entrepreneurs as individuals), and (b) that much entrepreneurship work is not an ad hoc improvised activity (as implied in many of the personal accounts by and of entrepreneurs) but a routinized activity in societies that legitimate entrepreneurship, especially those that rank it as a highly approved activity. (Etzioni 1987a, p.187).

Rather than seeing entrepreneurs as sort of “randomised” responses to changes in the economic environment, their success or failure can be patterned along lines of legitimation.

Entrepreneurship is studied here as the force which promotes social reality testing. Societal patterns (institutions, organizations, rules, etc.) tend to ossify, lagging ever more behind constantly changing environments. Entrepreneurs, by promoting new patterns, help bring society and its component units in touch with reality. Unlike many discussions which focus on entrepreneurs as individuals, exploring their traits or personalities or decision-making styles, the focus here is on the contribution of entrepreneurship to the society at large and to the economy embedded within it. (Etzioni 1987a, p.175)

This conception builds upon the analysis of the function of entrepreneurial behaviour offered by Schumpeter and others<sup>4</sup> The way in which entrepreneurs are able to perform this adaptive function for society is through their exploration and exploitation of profit opportunities created by the differential rates of socio-economic change to be found within the system. However, the permanent existence of a dis-articulation between patterns of activities and their consequences and the sets of normative and value orientations by which such activities are guided, make the possibility of entrepreneurship more feasible in some areas rather than others. The dynamism of social, economic, politico-legal, psychological and other forms of cultural change is such that opportunities for the pursuit of short-run profit are not randomly but socially distributed. They occur in some places rather than others, and for clear cut reasons. Forms of entrepreneurship are tied to forms of social structure. As “reality testers” entrepreneurs enable the adaptation of socio-economic patterns of activity to changes in the environment in which they are found. This, in essence, is the Schumpeter line (Schumpeter 1961). What is different is that Etzioni proposes that in some societies, entrepreneurship has been routinised and legitimated. He connects up, then, economic relationships and patterns of moral, ethical and legal ones.

This interconnection of patterns of economic activity with patterns of political, ethical and legal justification enables Etzioni to suggest that to understand successful entrepreneurship, we have to look to the capacity of such entrepreneurs to mobilise political resources and utilise political rhetoric. This is because those with vested economic interests in the existing but relatively inefficient economic structure (as seen from the point of view of adaptation to reality) will themselves be able to deploy such resources in defence of their positions.

Entrepreneurs, in effect, join the political challenge, by providing new, knowledge-based reasons to discard the old patterns, and above all, point to what new patterns to switch.....now, founders of new Hi Tech industries seek political allies in supporting young “yuppie” candidates, to overcome the resistance of politically entrenched old industries (such as steel and auto) to modify tax laws to allow for more R&D and to keep making international trade freer. (Etzioni 1987b, p. 181)

In being able to change the legitimated structures of values and norms in this way, entrepreneurs are able to effect the distribution of revealed preference, the allocations of

resources by the polity and many of the other resources and constraints in terms of which they operate. But these transformations, once they have occurred, tend to be subjected to the law of diminishing marginal effects. That is to say, the legitimation wears out. As a consequence, given permanent change, existing legitimations exert a weaker and weaker control over patterns of activities. Etzioni proposes that in socio-economic systems such as those of the advanced industrialised nations, such atrophy of legitimation has brought about the routinisation of entrepreneurship. This in turn means that a wholly different conception of entrepreneurship associated not with the individualised economic actor but with the entrepreneurial team has to be developed. In the work which we will discuss in later chapters, we will have a lot to say about the routinisation of entrepreneurship and the operations of an entrepreneurial team.

The problem which Etzioni is addressing is, as he says, the Kantian one of the analytic constitution of reality. Each separate frame of reference offers a partial depiction. The task is to find some synthesising frame which integrates and co-ordinates all of them. This is an exercise in theoretical reconstruction. What the surface plausibility of this reconstructionist approach fails to bring out are two underlying premisses. The first concerns the requirement of analytic separation. To put it somewhat differently, Socio-economics is offered as a solution to a problem generated by a particular methodological strategy. In this strategy, what we encounter and experience of our own and others’ activities is, under the aegis of scientific analysis, decomposed along lines defined by the rubrics of the different analytic disciplines. Having taken our experience apart according to its economic, social, psychological or whatever “dimensions”, we face the task of re-constituting the experience, of synthesising the frames of reference. And, of course, this has proved impossible, at least if we use the recognisability of those activities to those who engage in them as a criterion for success. Analytic descriptions precisely because they are so to speak “category-driven”, remain inescapably vague, abstruse and ‘theoretical’. Furthermore, even by its own lights the strategy has proved to be unsuccessful. The aim in decomposing activities was to isolate the essentially social, economic and psychological (to name but three). What has been found is that the closer you look, the more there is to see. It is rather like an incompetent watch repairer taking a watch apart to see which parts kept the time. Having found that it was the watch which kept the time, or rather having found that no particular parts alone kept the time, we have to put the watch back together again. And we don’t seem to be able to.

The problem with Etzioni’s synthesis is that it is constructed around a contrast between explanations which apply at the level of ‘micro’ behaviour (that of individuals) and those which apply at the “macro” level. He proposes that with an appropriate theorising of the “macro behavioral”, a unification will be possible. The individual economic actor (for instance, the entrepreneur) will be located in a social structure. Unless and until we can provide this, the ineradicably individualistic character of entrepreneurial genius will always stymie us. But this is just another instance of the decomposition strategy. We tear experience into ‘the individual’ and “the social” components and then try to put them back together again.

The second premiss relates to the character of the experience which is being decomposed. Here the presumption is that we know what, for example, economic activities consist in as practical matters for those that engage in them. That is to say, we know what the reality of economic life is to which we bring the decompositional method. But, this is a very contentious presumption. To be sure we know what, again to use the example of entrepre-

neuship, entrepreneurial activities are like from the point of view of rational actor theory, preference theory, decision theory, organisational theory, sociological theory, and now socio-economic theory. But do we know what they look like from the point of view of those who are pragmatically engaged in them? That is to say, do we know what they look like from within? This is a question to which we will return at a later stage in this discussion.

### The Constancy Hypothesis: an unrecognised problem

If all that Etzioni was saying was that economic activities are located within social life and have to be understood in relation to the rest of the activities which we engage in, then this would be neither remarkable nor novel. It was precisely the implications which were supposed to follow from agreement on just this view which led Talcott Parsons and Frank Knight to debate the relationships between Economics and Sociology almost half a century ago (Parsons 1940, Knight 1940). Again, it has been a major theme in the institutionalist tradition in Economics stemming from Veblen and others (Mirowski 1987a). No, what Etzioni is very self consciously offering is the basis for a completely new and unified discipline not simply a re-hashed version of tried and tested theories. Socio-Economics will build upon but be distinctive from Economics, Sociology, Psychology, etc.

This raises a crucial methodological question. How is the unification to be achieved? There are at least two ways in which this could be done. One could seek to build a new discipline out of elements of the superceded ones by a method of accretion or extension. Etzioni himself expressly rejects just this possibility when he pours scorn on the "silliness" of attempts to offer one-sidedly social or economic accounts of phenomena (Etzioni 1987b, p. 43). Whether the concepts being used are economic or sociological, the net effect is an unwarranted imperialism and colonisation. The second line of attack might be to form a wholly novel set of concepts out of the debris of the discarded theories and disciplines, somewhat, say, as Marx formulated his concepts out of the debris of German Idealist Philosophy and classical Economics, or Talcott Parsons, to whom we have already referred, forged his concepts out of the "theory of action" he saw inchoately emerging in the work of Pareto, Marshall, Durkheim and Weber. The new concepts have a broader remit than their progenitors. This certainly appears to be the strategy which Etzioni favours. We are a little diffident here simply because exactly what Etzioni is attempting to do is never outlined explicitly. In all of the programmatic statements, methodological considerations are subservient to substantive ones. We are repeatedly told how different approaches and findings to particular topics must be taken into account. What we are not told, though, is how to do this. And yet this methodological issue is crucial.<sup>5</sup>

What is at stake in all of this has been very well summarised in a recent paper by Hirsch, Michaels and Friedman (Hirsch et al. 1987), although we would not follow them in all of their diagnosis of its origins and certainly not in the remedy which they offer. They set up the contrast as follows

Microeconomics became the paradigm for the discipline as a whole. Thus contemporary economics exemplifies a highly abstract, deductive approach to social science. Its style is characterised by the development of models based on deliberately, vigorously, and rig-

idly simplified assumptions. The elegance of the models, their "parsimony", is prized and the intent is that they be predictive.....Sociology on the other hand tends to value description or explanation over prediction. That is, the realism of the concepts and propositions used, their resemblance to the perceptions and meanings of participants is highly valued. (Hirsch, Michaels and Friedman 1987, p. 318).

The first consequence which they see following from the outlook of Economics just described is, of course, exactly that castigated by Etzioni, namely a lack of interest in empirical reference, at least in the way that sociologists conceive it. If it is achieved at all, it has the general character of what Ryle (1949) called 'retrodiction' and results from what are, in essence, "curve fitting" exercises. The second relates to the character of theorising in the two disciplines. Both are built upon a conception of human action. The sociological is predicated upon the plasticity of human response, values and behaviour. It follows that sociological theory has to remain, abstracted, generalised and abstruse in order to encompass the myriad of social forms to which it will be related. The economic conception of human action is much more fixed and determinate being predicated in the universality of a calculative ratiocination. The psychology of Homo Economicus is a narrow set of axioms from which the theorems of macro and micro economics can be formally deduced. These core assumptions are, as Hirsch and his colleagues suggest, expressions of a preference for a certain "extremist" style of theorising; one in which primary assumptions are pushed to their logical conclusions. In Sociology's case, this results in a welter of contradictory theoretical positions all contending over the ground made available the central conception of the socially determined character of human nature. In sociological accounts, the social actor could, therefore, be dubbed *Morph the plastic man*. In Economics, what emerges is a unity of style and outlook, by and large, within which technical expertise, sophistication and professional skills, have come to dominate through general agreement over the features of *Algy the Ready Reckoner*.

Now we can pull out the conclusion which Hirsch et al come to.

*What all this means for productive dialogue and collaboration between the two fields is that it cannot be managed via a simple transformation of one or another aspect of one field or the other* (Hirsch et al. 1987, p. 333 italics in original)

This is because each field defines problems, poses questions, evaluates results and designs research in entirely different ways. But if it is not to be a simple transformation, what would a complex one be? It would, we suggest, be a fully worked out theory of disciplinary objects and relations; that is, a theory of how the alternative conceptions of theoretical objects given in the disciplines (rational choice, utility, preference, entrepreneurialism, for example) could be aligned and made compatible. In the absence of such a theory, and as we have indicated with Socio-Economics, at the moment there is such an absence, all we have to fall back on is the naturalistic assumption that since these terms all refer to "the same thing" there must be something in common ("the same") for them to refer to.<sup>6</sup> Each is a partial, distorted, imprecise or whatever rendition of "how things are in themselves" - to invoke the noumenal/phenomenal distinction which clearly Etzioni has in mind. This naturalistic presumption, we

will call "the Constancy Hypothesis".<sup>7</sup> While this hypothesis might have great practical efficacy as one of the guiding principles of daily life, it is untenable as even an implicit presupposition for scientific or theoretical endeavours. Even if Socio-Economics were to be able to formulate a theory of objects such as the one we have indicated is required, we cannot see how, on its own terms, it could do so without recourse to some version or other of the constancy hypothesis. This being the case, we would argue that Socio-Economics, and perhaps all such syntheses, are inherently self defeating. We will now show why.

### The character of the constancy hypothesis

It is quite clear from his avowedly Kantian stance that Etzioni does not think that scientific or other facts "speak for themselves" in the sense sometimes associated with what is to-day called 'naive realism'. Understanding, comprehending, **perceiving** the world involves judgements and interpretations of some kind. The world-as-perceived is constituted through such judgements. This much is both philosophically and theoretically uncontentious. What are a great deal more contentious are the implications drawn from this agreement and the theoretical moves which are premissed within them. On the one hand we might want to say that while objects and phenomena appear in different guises when we look at them from different points of view and in different lights, in reality, as they are in themselves, they do not change. They are, to put it more formally, constant across different transformations. If we now suppose that, for example when dealing with a physical object, while it may look, feel, or sound different under varying conditions, its physical constitution really remains the same, then we are grounding the examination of perception, and hence Psychology as an investigative discipline (and perhaps, the other social sciences too), in Physics. This form of "naturalism" and the assumptions on which it is built are for us part of our Western rational-scientific ethos.

In these terms, a psychologist, to explain perception, starts from the universe conceived by physics and then considers the human organism as a physical system acted on by physical events.....(In the course of his elaboration the psychologist progressively substitutes physical systems for perceptual things. (Kersten 1971, p. 525)

As Kersten goes on to put it, "access to the world" is seen to be provided by the naturalistic assumption of constancy of objects.

The point is, of course, that the presumption of a constancy of objects is a presumption of practical life in the commonsense world. Without it, it would be impossible to trust our senses. This suspension of doubt is part of what Kersten following Husserl (1970) and Gurwitsch (1974), calls "the natural attitude" (hence the use of 'naturalism' above). To transfer that presumption across from the sphere of practical activity in the commonsense world to that of theoretical activity in science requires a "bridge-theory" of the relationship between the disciplinary constitution of appearances. While it might be natural to presume that the reality of objects as they appear ordinarily to us is underpinned by theories in Physics, grounding that would require us to provide a theoretical account of the relationship between objects as they appear to Physics and objects as they appear to commonsense, a theoretical account independent of and logically prior to both Physics and commonsense. If it were not independent in this way then the argument would simply be circular. Were it not prior, then

there would be no grounds for treating it as other than a further, equivalent account. In the absence of such a theory, the constancy hypothesis serves. It achieves the desired relation by presuming the grounding of our ordinary perceptions (and hence their psychological explanation) in Physics.<sup>8</sup>

Etzioni's Socio-Economics is not seeking the reduction to or substitution of social scientific accounts by physical ones. Nonetheless, it faces much the same problems as a reductionist Psychology faces. It has to show theoretically that objects and relations as they are conceived across the social sciences are **essentially** the same. This could be done by a version of reductionism, by saying, for instance, that the psychological underpins the sociological and the economic aspects. As we have seen, Etzioni eschews this. No one account is foundational for the others. This version of naturalism is not open to him. On the other hand, he could demonstrate that phenomena as they are constituted by the theories of Economics, Psychology and Sociology are in fact grounded in a set of categories or concepts which is independent of and transcends them all. Such a transcendental argument would provide for the possibility of synthesis. The category of rational action might, as Parsons (1968) suggested for instance, be a contender for this role. Without an explicit theoretical account, we have nothing to justify the synthesis other than the constancy hypothesis. Because Psychology, Sociology and Economics all have theories of entrepreneurial activity, those theories refer to the same underlying phenomenon. Amalgamate the partial descriptions which are given in each of the disciplines and the essence is revealed.

In Gurwitsch's discussion, the constancy hypothesis appears in relation to perceptual asymmetries. The sort of cases he has in mind are those where, for instance we are picking out carpets to go with our furnishings and you insist that a particular tone is "jade" and I insist that it is "aquamarine". We look at a colour card and see agree the colours are different. You still say the carpet in view is jade; and I still disagree. Or again, we are looking out of the window and you say there is a greenfinch on the bird table. No it is not, I say, it is a female sparrow. In both of these cases we accept that what we think we see can be affected by lighting, speed of movement, posture, contiguous colours or whatever. That is, we accept that what we are looking at at any moment is seen against a ground from which it is picked out. The whole constitutes a gestalt and variations such as the ones listed can affect the way in which we constitute the gestalt, as a collection of objects in view.

But familiar and interesting as these examples may be, they are not paradigms for the sorts of cases we have in mind. These are more like those of the "Compton-effect". The Compton-effect describes the behaviour of light under certain (experimental) conditions. When light is scattered by forcing it to collide with electrons, the resultant patterns could be described both as the fragmentation of a beam of particles (photons) and as the diffusion of a wave of energy. In the Physics of the time, these two descriptions were incompatible. Resolution of the contradiction came through the unification of the two incompatible descriptions within Quantum Mechanics. That is, it came about through the provision of a further theory. But this further theory was not an amalgamation of the rivals. It departed from completely different postulates and marked a complete break with the premisses for the two rival theories.

As far as we are concerned, two important things have followed from this. First, contemporary Physics is now almost completely detached from commonsense understand-

ings of the physical world. The constancy hypothesis has to be invoked because the two sets of theories cannot be alligned. Second, there is the related meta-theoretical issue, namely consideration of what it is for something to be an object for Physics has, perforce, become a matter for metaphysical consideration. Part of this has involved raising problems of the relationship between modern physical science and the commonsense physics we all utilise in our ordinary activities, with its reliance on determinacy, continuity, spatio-temporal coordination, cause and effect, all of which are thrown into doubt by the statistical character of Quantum Mechanics. Such issues of ontological commensurability have much pre-occupied philosophers of science.

In the face of the possibility of a radical disjuncture between “scientific” and “commonsense” physics such as that just articulated, philosophers<sup>9</sup> have proposed the adoption of a strategy of “ontological relativity”. By this they mean that it should be for Physics to determine what for it the world of physical objects might be. Such ontological relativity implies not only that “scientific” physics might constitute the world differently to “commonsense” physics, but that within the former radical discontinuities would be possible as well. As Ian Hacking (1983) and Nancy Cartwright (1984) among others point out, the key to the possibility of such discontinuities is variability in the kinds of studies made and hence in the investigative interests to hand. What “the world of physical objects” is like depends on what it is treated as and what it is investigated for, that is, the mode of investigative reasoning used. The descriptions (and, for Cartwright, the laws as well) which physics provides are phenomenological in character.

Precisely the same considerations could be brought to the problems posed by the relations between economic, psychological and sociological theories of business life with which Etzioni is concerned. At first blush they look to be ontologically incommensurable, and this, too, may be the consequence of the use of differing forms of investigative reasoning. Unless we can provide a theoretical account which unites these forms, all we can fall back on is the constancy hypothesis, a hypothesis which even on its own home ground (commonsense and scientific physics) is far from self-evidently secure.

Etzioni does not provide a the kind of theoretical account we have suggested is necessary. Nor, to be fair, could he. The modes of theorising, the processes of reasoning, characteristic of the disciplines we are discussing are fundamentally at odds. It is not simply that Psychology is experimentalist and Economics is mathematical while Sociology is neither. Neither is it simply that Sociology is collectivist in its explanations while Psychology and Economics tend to be individualist. Rather, it is that all three are methodologically extremist (to use Hirsch et al.’s phrase again) in different ways and for different reasons. In our view, their extremism makes them increasingly centrifugal rather than centripetal. Our task now is to show why and how. In the next Chapter we will look at length at the nature of economic reasoning and how this outlook is applied to the problem of entrepreneurial activity. We will then turn to how Psychology has approached what is ostensibly the same topic. Having demonstrated the nature and the magnitude of the differences is as we have claimed, we will be able to see that the presumption of the applicability of the constancy hypothesis is unwarranted. The consequence of this line of argument is the proposal we laid out in the Introduction to this Part. If the development of a unifying theory is likely to prove intractable, we will have little choice but to begin investigations in an entirely different way. The exploration of this way will

occupy the rest of this book.

## NOTES

- \* It is hoped a version of this Chapter will appear in a special issue of *The Journal of Inter-disciplinary Economics* (forthcoming)
- [1] This expression is used by Hirsch, Michaels and Friedman in their (1987) paper . We will be discussing this below.
  - [2] Etzioni’s general statement in contained in his (1986b) .
  - [3] C.f. Etzioni (1985a)(1985b)(1986a)(1986c)(1987a)(1987b).
  - [4] C.f. the discussion in Chapter 3.
  - [5] In one sense, the most serious task of all is only addressed *en passant* in Etzioni’s programme, namely the requirement to mathematise sociology so that the formal descriptions provided by both disciplines could be aligned and made consistent all the way through. (See Etzioni 1985a). If a synthesis is to be achieved, such an alignment has to be a *sine qua non*. It is because we do not underestimate the difficulties of moving beyond initial programmatics that we regard the work presented here as exploratory only.
  - [6] In a discussion of a similar order of problem, Schutz called this presumption “naive” and thoroughly offended Talcott Parsons thereby. C.f. R. Grathoff (1978). He meant only that it was a natural, **pre-theoretical** one.
  - [7] The “constancy hypothesis” is discussed in A. Gurwitsch (1964) and applied to the social sciences by Fred Kersten (1971) .
  - [8] The classical empiricist philosophical psychology of “sense data” might serve were it not for the developments in bio-physics. It remains to be seen whether the popular interest in computational and other functional models will be any more effective.
  - [9] See W.V. Quine (1969), N. Goodman (1978), H. Putnam (1975) and (1983).