# 2

# Static versus Dynamic Subjectivism

> Economic theory is unending, because we are confronted with an *open system.* The idea we could have a (closed) "system of economic theory", say, of the Walrasian type, is a futile one. *Oskar Morgenstern (1972, p. 702)*

## THE QUESTIONS

Proponents of different schools of economic thought have traditionally emphasized the conflicting answers that their respective schools have given the great economic questions. Recently, however, it has become evident that what really separates schools of thought is, in large part, the asking of different questions (Robinson, 1977). Therefore, it seems appropriate to begin our discussion of subjectivist economics in general, and the Austrian approach in particular, with a precise statement of the class of questions that we propose to ask. Specifically, it is necessary to address two issues: (1) What is the "level of reality" in which we are interested? (2) What is our research policy – what precisely are the questions within the chosen level of analysis?

### *Subjective Meaning as the Phenomenon*

Each science specifies, implicitly or explicitly, the level of reality in which it is interested. "Levels" demarcate the different aspects of what, from a more general point of view, might be considered the same phenomenon. Man, for example, may be studied from the perspectives of physics, physiology, medicine, chemistry, biology, and many other disciplines. The level of reality in which we are

interested is the realm of purposes, plans, valuations, and expectations. In other words, we are interested in the realm of *subjective meaning.*[1] The objects of economic activity are thus not even definable except in terms of what actors perceive them to be. A price is not merely a number placed on a label but, more fundamentally, the conditions of exchange on which A and B purposefully interact. This world of subjective meaning is inextricably bound up with the world of everyday life. It rests on our "experience of the existence of other human beings and of the meaning of their actions," which "is certainly the first and most original *empirical* observation man makes" (Schutz, 1954, p. 265; emphasis added).

Having identified the domain of relevance, the economist is now in a position to observe, at least in a preliminary way, patterns of social interaction. These patterns are not the physical coordinates of commodity stocks or quantities of capital goods. Rather, they are the coherent ways in which individuals who are attempting to achieve various goals typically interact. Speculative markets, for example, can be understood as attempts by individuals with different expectations each to "buy low and sell high." No amount of study of the physical attributes of the commodities in question will make such markets intelligible. It is impossible even to conceive of the term "speculative" in purely physical terms. Recognition of the realm of subjective meaning is therefore a prerequisite for identification of the organized phenomena in which we are interested.

### *General Research Policy*

The task of economics goes beyond the preliminary recognition of certain patterns of interaction based on subjective meaning. There are, in addition, the three further, yet closely related, tasks: (1) more precisely identifying interaction patterns; (2) specifying their logical or static "origins"; and (3) explaining the historical or causal processes that give rise to them.

A science of subjective meaning permits a more precise recognition of interaction patterns than is possible on the basis of preliminary or commonsense observational theories (Hayek, 1955, pp. 55–6). A more exact understanding of the concepts of rent and supply elasticity, for example, places us in a position to see a common element in exchanges that are far removed from the



original context of land transactions. Rent can thereby be seen as an ubiquitous economic phenomenon. None of this involves a denial of the original subjective meaning contexts with which we began our pattern recognition. On the contrary, we are simply engaging in the refinement of our ability to recognize such patterns.[2] The abstract concept of rent is thoroughly suffused with subjective meaning because, apart from that, no sense can be attached to constitutive terms like transfer price and the perception of alternative opportunities on which the latter is based.

To understand the subjective meaning of a price is not automatically to understand the relation of that price to the valuations of all individuals in a market. How does it come about that consumers and producers with a myriad of different valuations can create or tend to create a single price? The theory of price determination under static conditions enables the economist to "build up" the market price from given individual valuations. This does not specify causal processes in which learning and the transmission of information are involved. However, it does demonstrate how the aggregate phenomenon and its subjective meaning is, in turn, built up from the meanings of many individuals (Hayek, 1955, pp. 36–42).

Finally, to understand the subjective meaning of a price and how it can, in a static sense, be recomposed from the valuations of individuals is only the first step toward a genuine causal explanation. Causal explanations involve the description of processes through time and hence must allow for learning. A dynamic theory theory of price formation consists not only of showing how individual valuations interact to form prices but also how the acquisition of knowledge and the projection of expectations are involved. Again, none of this requires any deviation from the subjectivist character of our discipline because learning and expectations are pre-eminent subjective-meaning concepts.

In the foregoing paragraphs we have outlined, in effect, three major steps in our research program.

1. On the basis of commonsense observational constructs, the empirical reality of intended meanings is perceived. In a preliminary way, patterns of social interaction (e.g. money, prices, etc.) are identified.
2. Further refinement of these patterns and identification of still others is achieved by a more precise conceptualization of the

commonsense observational categories. The scientist eliminates their concrete associations and builds up an abstract or general framework of subjective meaning. Substitution, complementarity, elasticity, money, prices are all examples of such abstract subjective-meaning concepts. They are essentially constructs of commonsense constructs (Schutz, 1953) i.e., the distillation or typification of everyday concepts.

3. The final stage of analysis is achieved when the economist recomposes or builds up, either statically or dynamically, the overall pattern (viewed as a "social fact") from its individual elements, i.e., the meanings of individual actors. The main feature that takes us beyond mere description of the phenomena is the attempt of the research program to show how these are the unintended outgrowth of purposeful behavior. More precisely, our self-imposed question is: *How can individuals acting in the world of everyday life unintentionally produce existing institutions or, more generally, the overall patterns of social interactions?*[3] (Compare Menger, 1963, p. 146.) The subjective meanings of actors do not directly, as by mere command, bring economic events into existence. Instead, there is a complex chain of mutually reinforcing actions that produces results beyond those that can be individually apprehended or intended.[4]

In the remaining sections of this chapter we shall examine the central features of subjectivism as a method. In particular, we shall contrast the method's two important forms: the traditional static subjectivism that emanates from the standard theory of consumer choice, and the more recent thoroughgoing variety that affirms the "creativity" of human decision-making. In a final section, the relationship and interdependency of these approaches will be examined. We shall conclude that both are necessary for a comprehensive analytical framework.

## THE METHOD OF SUBJECTIVISM

The mere posing of our question determines, in large part, the method that will be used in answering it. The methodological subjectivist constructs a model of an individual mind or a fictitious consciousness that is endowed with certain goals, constraints, knowledge and expectations. This *mind construct* (see the similar



terms in Machlup, 1978a, p. 221) is then portrayed as engaging in activity that must bear an "understandable" relation to the phenomenon we wish to explain (Schutz, 1953). The familiar economic concepts of the consumer, producer, firm, and entrepreneur are all examples of a mind construct. Our preliminary investigation of the subjectivist method will then be centered around the following two issues: (1) the permissible contents that can be attributed to the mind construct, and (2) the meaning of an "understandable" relation.

Since we are concerned not with an actual real-world individual but only with a model of such an individual, the contents of its mind need be only those things necessary to generate the appropriate behavior. Whether it believes in the Virgin Birth is presumably irrelevant to an explanation of why the price of lima beans has risen. Thus, the imputed contents of our fictitious consciousness must satisfy a *minimum sufficiency* requirement.

The creator of the mind construct cannot attribute any type of knowledge to it that will ultimately rationalize the phenomenon in question. The construct ought to possess only that knowledge which, in terms of its position or what it deems relevant, would have been reasonable to acquire.[5] It is not appropriate to attribute to a farmer construct, for example, knowledge of demand and supply conditions in the steel industry or of the general equilibrium prices of the commodities he grows. Nevertheless, at some point we needn't explicitly account for the knowledge possessed by our construct if that is so general as to be warranted by merely its existence in a given society or its "human" character.

An "understandable" relation must be understandable in the structural terms of commonsense interpretation of everyday life. Hence the scientific constructs must be *consistent* with, although not identical to, the mental constructs of everyday life (Schutz, 1953). This follows from our statement of the research program's central question: How can we relate action in everyday life to the overall patterns of social interaction?

The above consistency requirement is met by preserving the basic structure of decision-making but not the individualized contents of particular decisions or plans. This structure moves beyond the mere logical implications of human action to include some of the typical contexts of such action. An incomplete, but illustrative, list of the common structural components of decision-making can be stated in five propositions.

(1) The decision to take a specific course of action is the outcome of a process of projecting and weighing the consequences of the various courses of action.
(2) This projecting is based on a stock of knowledge, part of which is individually acquired and part of which is socially transmitted through institutions.
(3) An individual's chosen courses of action fit into an overall plan.
(4) The social world consists of many such acting individuals.
(5) There is a social distribution of knowledge and plans and, consequently, of chosen courses of action. Not all individuals know or do the same things.

In the subsequent sections of this book these important components of decision making will be extended and integrated into a coherent theory of individual action. This theory, in turn, will be the basis for our overall analysis of the market process.

## DIMENSIONS OF SUBJECTIVISM

In the previous section we discussed the subjectivist method of mind constructs without acknowledging the two different forms that method can take. The first form is most closely related to the traditional subjective theory of value and we shall call it "static subjectivism." In this case, the mind is viewed as a passive filter through which the data of decision-making are perceived. To the extent that this filter can be understood, the whole process of decision-making is perfectly determinate. The second form, on the other hand, views the mind as an active, creative entity in which decision-making bears no determinate relationship to what went before. Here, decision-making is literally a "cut," a new beginning (Buchanan, 1982a). This form of subjectivism we shall call "dynamic subjectivism."

Static subjectivism is perfectly consistent with the well-known covering-law model of scientific explanation (Hempel and Oppenheim, 1965, pp. 246–51). In this model, explanation proceeds by way of an explanatory apparatus, consisting of logically antecedent conditions and a general ("covering") law. From the conjunction of the conditions and law, a statement of the event we are attempting to explain is logically derived. Thus, from the antecedent conditions of tastes and knowledge of the relevant constraints in conjunction with the law of constrained utility maximization, we are able to derive a statement of the consumer's bundle of choices. The explanatory schema appears to determine exactly the particular outcome. In principle, the outcome could have been predicted given complete knowledge of the antecedent conditions and appropriate laws before occurrence of the event (Hempel and Oppenheim, 1965, p. 243). This determinism-in-principle is closely related to the "apodictic" praxeological theorems of Mises (1966, pp. 30–71) and the "exact laws" of Menger (1963, p. 218). For both of these economists, there was a variant of subjectivism that had much in common with the rigidly deterministic systems of classical mechanics.



The deterministic ideal is not, however, a fully realizable research program. The most obvious problem is that it is rarely possible to specify the antecedent conditions and relevant law completely. All sorts of difficulties, both conceptual and pragmatic, stand in the way of such an achievement. Thus, static subjectivists must offer explanations that are incomplete even in terms of the theoretical framework in which they appear. A perfect fit between the explanatory schema and the relevant phenomenon is consequently out of reach.

Still more important are several considerations that make deterministic explanation unachievable *even in principle.* Recall that, from a statement of initial conditions and a general law, we derive a statement of the particular event. It is clearly impossible to relate this *statement* in a deterministic fashion to the actual real-world event. D. J. O'Connor explains this point concisely:

> No prediction can distinguish the predicted event in such a way as to discriminate it from any of the other possible events that could fall under the same set of measurements . . . . The statement which expresses our prediction is never capable of identifying without ambiguity one and only one event whose occurrence would satisfy the prediction, for a description can do no more than specify a *class* of closely similar events, whose differences lie beneath the threshold of discrimination . . . . (O'Connor, 1957, p. 313)[6]

A second reason why attempts at purely deterministic explanations must, in principle, fail arises from the fact that the "economy" is an open system (Morgenstern, 1972, p. 709). Conditions

at the boundary of our analysis are always changing, thus upsetting our best efforts at prediction. For example, economists cannot explain the formation of tastes, and hence when these change the predicted effects of supply shifts may prove entirely wrong. To "close" the system would require building a model of an order of complexity far in excess of what the human mind seems capable. Everything that could possibly interact with the "economy" would have to be accounted for in a precise quantitative way. This, of course, cannot be done. As a consequence, explanations of a fairly complex phenomena usually must be limited to general "explanations of the principle" or of the class of such phenomena (Hayek, 1967b, 1967c) and hence cannot be deterministic.

The formidable obstacles in the path of rigid determinism have not, however, led to the abandonment of static subjectivism or the covering-law model of explanation. Machlup, for example, views determinateness as an ideal characteristic of a well constructed model (Machlup, 1978b, p. 280). All theoretical models should be deterministic in the sense that the statement of the phenomenon we wish to explain can be logically derived from the explanatory apparatus. Determinism is thus a feature of the model and not of the world. The applicability of a model in any given instance, on the other hand, is not determinate but may, in fact, be highly uncertain. From Machlup's perspective, then, indeterminism has no role in the context of model-building itself but presumably does have a role in the empirical application or testing of a model. As we argue next, this view is tenable *only* if indeterminism were unimportant to those whose behavior we are trying to explain. In such circumstances indeterminism could be treated as a residual unexplained variation in the relevant phenomena that is of interest only on the level of the analyst-observer. In principle, this cannot be the case, and thus we must reject Machlup's position.

The essential premise of dynamic subjectivism is that decisions are not the determinate result of clearly specifiable causes (Shackle, 1969, pp. 3–7). This fundamental premise manifests itself both in the learning process and in the formation of expectations. Genuine learning is not merely the result of a determinate processing of what is already known. It must go beyond those narrow confines and include unpredictable shifts in the method of processing itself. Similarly, expectations must not be confined to the



discovery of an already-determined future. Much of the future is the result of the free, indeterminate decisions of actors and hence is actually created by them. Dynamic subjectivism is incompatible with rigid determinism and perfect predictability.

Dynamic subjectivism requires that the models themselves embody non-deterministic processes in an essential way. This is in sharp contrast to Machlup's suggestion that indeterminism be viewed as a feature of the model's applicability rather than of its structure. The reason for this difference is not merely a matter of taste. We contend that the actor *must* see his own decision-making as indeterminate and, hence, cannot be in a position to predict his actions. As a consequence, it is logically impermissible to develop mind constructs in which decisions are purely deterministic. This can be demonstrated in two useful ways.

Our first argument is derived from Karl Popper's demonstration that it is impossible for an individual to predict his own future knowledge (Popper, 1950, pp. 117–33, 173–95; O'Hear, 1980, p. 141). Because actions are based on the individual's stock of knowledge, if he cannot predict his future knowledge, he also cannot predict his future decisions.

Suppose P (predictor) has complete knowledge of his initial circumstances at $t_1$ as well as of the appropriate theories of learning, and wishes to predict his knowledge at $t_3$. Can this be done? P will take some finite amount of time, say until $t_2$, in order to deduce his state of knowledge at $t_3$. However, the knowledge gained at $t_2$ will affect P's state at $t_3$. Again, it will take a finite amount of time, until $t_3$, to determine precisely how this will affect his state at $t_3$. But then complete self-prediction of future states of knowledge is obviously impossible.[7] If P cannot have his knowledge at $t_3$ until $t_3$, he also cannot know exactly what he will *decide* at $t_3$ until $t_3$.[8] Thus, no individual can have total foreknowledge of his decisions.

A second, similar, argument is based on the proof that the ability to foresee one's own decision at $t_2$ *logically precludes* the ability to decide at $t_2$ (Schick, 1979, pp. 240–2). Suppose an individual, P, is both "deductively thorough" – that is, he believes all of the logical consequences of his initial beliefs – and "belief-retentive" – that is, between the point of attempted prediction and the point of choice he will not change his beliefs. Let us further suppose that at $t_1$ P knows his preferences, prices and in-

come at $t_2$. Because he is deductively thorough at each instant in time, he also knows that he will decide X at $t_2$. Therefore, P believes at $t_1$ that it is true that X is the case. Because P is belief-retentive, he will also believe that X is the case at the moment of his decision. If X is *already* the case, then where are the options at $t_2$? Clearly, there can be none, and hence the decision was already made at $t_1$, the moment of the "prediction." Hence self-prediction of a decision can only be made simultaneously with the decision. This, of course, means that self-prediction is impossible.

From the foregoing two arguments, we draw an important general conclusion. Mind constructs that yield the required behavior as a determinate implication of initial conditions and a theory cannot be genuinely dynamic. If we allow time to pass, then we must in effect be claiming that the individual can predict his own decisions. Consider, for example, a determinate choice-theoretic model of a process. This would require the postulation of a mind whose decisions at $t_2$ are perfectly determined by its own self-conscious[9] state at $t_1$. If this is logically impossible, as we have argued, then such a model would be inconsistent, or, more exactly, would be based on inconsistent foundations. "Surprise" is thus integral to the lives of individual actors.

The covering-law model, therefore, does not provide an adequate form of explanation for dynamically subjectivist theories. An essential feature of these theories is that logical deducibility of the statement of the relevant decision or phenomenon is no longer possible. This, of course, does not mean that explanation is no longer possible, but merely that one variety of explanation has been excluded. "Not deducibility, but intelligibility constitutes the basic feature of the logic of explanation" (Yolton, 1959, p. 207; see also Lachmann, 1971, pp. 36–38; Lachmann, 1943, p. 14). One clear and useful meaning we can attach to the intelligibility relationship is that the choice-theoretic explanatory schema must render the given phenomenon more likely than if the particular model had not been presented. This does not imply predictability, or even a high likelihood, but merely *increased* likelihood of occurrence.[10] "The need [is] for favourable relevance rather than high mathematical probability" (Cohen, 1977, p. 300). Thus, within a mind-construct model a number of alternative decisions can be seen as possible, but, given the model, that which actually did occur is rendered more likely than it would have been given some alternative model. On this view of the role of a theoretical explanation, the observed decision need not be the most likely of the various alternatives. Even the least likely of these can, if it were to occur, be explained by the model so long as there is "favourable relevance."[11]



Favorable relevance may be viewed from either an *ex ante* or *ex post* perspective. In an *ex ante* sense, the hypothesis will have a certain *marginal* predictive value. What might have appeared highly unlikely before the hypothesis was proffered may now appear somewhat less unlikely. From an *ex post* perspective, on the other hand, the relationship between an event, after it has already occurred, and an explanation will be such that the "retrospective likelihood" of an event is increased in the light of the explanation (Rizzo and Arnold, 1980, p. 1408 and passim; Rizzo, 1981, p. 1030). One of the main differences between a retrospective calculation of likelihood and an *ex ante* calculation is that, *ex post*, we may know more about what has happened to conditions at the boundary of the system. Thus, after the price of soybeans rises we may know, at least indirectly, what happened to tastes or expectations. Consequently, it might be possible to construct an explanation with favorable relevance only after the event has occurred and not before. In either situation, the explanation can render the event more intelligible.

There is another method of relating an explanatory schema to a given event that is consistent with dynamic subjectivism. This is captured in the idea of "pattern explanation" or "pattern prediction" (Hayek 1967b). If a model yields a determinate implication for a *class* of phenomena, each element of that class will be perfectly consistent with the explanatory schema. Thus, with respect to the specific event itself, the schema is not deterministic. Other events in the class could have occurred without producing any change in the proffered explanation. This concept of non-deterministic explanation is consistent with the favorable relevance view discussed above in the case where the competing hypothesis entirely excludes the event in question. Then, of course, the likelihood of that event will be greater on the accepted hypothesis than on its competitor. In most cases, however, the two methods are not identical. Nevertheless, for the broad purpose of specifying principles of explanation consistent with dynamic subjectivism, both the favorable relevance and pattern explanation ideas are acceptable.

## RELATIONSHIP BETWEEN STATIC AND DYNAMIC SUBJECTIVISM

While there are extremely important differences between static and dynamic subjectivism, there are also important logical dependencies and interrelations between them. This section will be devoted to an analysis of that relationship. We shall divide the discussion into two arguments.

(1) Within a broader perspective, both the static and dynamic approaches are consistent.
(2) The static form of decision-making (or, more precisely, its real-world analogue) is a necessary empirical foundation for "creative" decision-making.

The static subjectivist view is that four factors determine choice: (1) the ordinal ranking of goals or wants, (2) knowledge of the relationship between courses of action (or commodities) and want satisfaction, (3) knowledge of prices, and (4) knowledge of the income constraint. This is determination in a purely logical sense. The four factors are mental constructs: we have recomposed the choice in terms of its constituent parts. So the choice is determined in a causal sense by itself; or, more precisely, the theory does not tell us what the causal determinants are. This has been recognized in terms of the ranking of wants by Schutz – "goals do not exist at all before the choice" (1967, p. 67) – and by Mises – "The scale of value is nothing but a constructed tool of thought" (1966, p. 102) – but the principle clearly applies to the other three factors as well.

If the determinants of choice do not exist except as constituent parts of the choice, how do individuals choose? Goals in a disembodied sense can exist prior to choice; it is only the finalized ranking that does not. The individual, in his imagination, projects the likely consequences of different courses of action, including what must be sacrificed to achieve them. This "phantasying" takes place sequentially, with each fantasy informing and affecting the other (Schutz, 1967, p. 38). In this process, the individual clarifies his ranking of the imagined consequences, his knowledge of the relationship between particular courses of action and those ranked consequences, and his perception of prices and income. The point



at which the ranking and perceptions are finalized *is*, or constitutes, the point of decision. They exist simultaneously, and thus this four-pronged apparatus does not determine the decision in any causal sense, for that would require temporal priority of the cause.

What an individual decides to do depends, in large part, on what he expects other individuals to decide. Therefore, it is impossible to examine adequantely the nature of decision-making without paying attention to the content of expectations. Unless an individual can expect a great deal of predictable decision-making on the part of others, he will find it impossible to make a meaningful choice.

### *Single-valued Expectations*

For simplicity, let us begin our analysis with the case in which expectations are of one, and only one, possible outcome. Where an individual does not envisage a probability distribution over a set of possible outcomes, the only criterion of forecasting accuracy is how far the single-valued estimate deviates from the actual outcome. In such a world there must be a base of "tolerably" predictable or habitual actions. These actions need not be automatic reflex motions but can be purposeful activity whose contents have been routinized (Berger and Luckmann, 1966, p. 53). "Habituations" are the empirical counterparts to static decision-making. In such cases the logical constituents of a decision remain unchanged from period to period.[12] Therefore, the tastes and knowledge of the previous period can be viewed *as if* they causally determined the choices of the current period. In the final analysis, however, this is merely an illusion of determinism, because the individual is actually freely choosing to repeat his activity. Since this type of activity provides the necessary predictable foundation for all forms of decision-making, including the most creative and spontaneous, static analysis is itself the necessary foundation for dynamic theory.

In a world of univalued expectations in which the individual must be able to predict fairly accurately in order to make meaningful decisions, all activity still need not be habitual. Truly creative, indeterminate decisions are possible so long as they do not too heavily disappoint the expectations of most decision-makers. In fact, creative activity can disappoint some expectations while at the same time ensuring the fulfillment of others. The lure of profits

as the reward for facilitating the activities of other individuals means that sometimes creative activity will make the decision-making environment more stable, on balance, than otherwise (Kirzner, 1982).

### *Multi-valued Expectations and Decision Weights*

The single-value expectations approach is ultimately an inadequate portrayal of the position of the decision-maker. Normally, there are many *possible* actions that could be undertaken by other relevant parties. Not only is that number probably quite large, but, more importantly, the particular combination of of such actions will affect the consequences of the decision-maker's choice. A still further element of complexity emerges when we realize that the "order" of such actions also matters. The particular identity of the individuals who engage in certain actions will itself have an effect since some individuals are closer than others, in an economically relevant sense,[13] to the original decision-maker. Hence we must be concerned with the total number of permutations of the possible actions. Even in a very small society this number will be extremely large. Thus, it is imperative that people be able to weight these various possibilities in terms of their likelihood in order to make the process of decision-making humanly manageable.

Weighting possible actions of others does not necessitate being able to specify all the possible outcomes. If an individual feels that one or more decisions might be made of which he knows absolutely nothing, his own decision-making can proceed unimpeded if he places a low weight on these. Such a requirement may seem a bit awkward at first because the individual is expected to know something about the likelihood of unknown eventualities. This, however, is not at all implausible because the contrary assumption would paralyze all action. We cannot be blocked by the mere possibility that something just might happen to upset our plans.

The weights that we have been discussing are, like the determinants of choice under certainty, logical constructs used to identify the constituents of a decision. They are fully subjective attributes of the methodological mind construct. To say that they are "subjective" does not mean, however, that there is nothing in the objective world to which they refer. In order to see this, let us analyze three possible views of decision weights.



1. The weights refer to nothing objective: they are merely arbitrary and personal, like tastes. If this is so, then decision-making is almost entirely a leap of faith. Not only are sufficient grounds for choice thereby eliminated, but any grounds, in the sense of interpersonal justification, are impossible. The consequences of any course of action would be limited only by wishful thinking. Furthermore, in this kind of world any degree of *ex ante* coordination of plans could occur only by sheer accident. Presumably, then, exchange and social institutions as we know them would be virtually impossible.[14]

2. The weights are *only* social conventions. Again, even the most casual observation refutes this view. If this were the case, then no amount of disappointment would ever lead people to change their weights. The real world would provide no useful feedback of any kind, and hence learning would be impossible.

3. The weights are *attempts* to perceive objective propensities (Popper, 1959b). If we say that a great deal of what individuals will do is affected by objective propensities, then the requirements of meaningful decision-making are met. The huge number of possible consequences of different courses of action can be pared down by a weighting scheme. This scheme, in turn, is something that bears a relationship to the external world and is not merely self or social delusion. Thus, there must be a base of "loosely determined" behavior. With respect to this base, although something completely unexpected could happen, it is not likely. And what is not completely unexpected is more or less likely to happen as specified by underlying objective propensities.

On this base of loose determinism, there can be erected a domain of creative decision-making. This is determinate in neither the strict nor the loose sense. Yet it is possible only because it is limited. In a stimulating passage of an introductory mathematics book, Alfred North Whitehead comes to a very similar conclusion:

> It is a profoundly erroneous truism, repeated by all copybooks and by eminent people when they are making speeches, that we should cultivate the habit of thinking of what we are doing. The precise opposite is the case. Civilization advances by extending the number of important operations which we can perform without thinking about them. Operations of thought are like cavalry charges in a battle – they are strictly

> limited in number, they require fresh horses, and must only be made at decisive moments. (Whitehead, 1939, p. 61)

Creativity in decision-making that is both unbounded in degree and quantitatively unlimited is a contradiction. No decisions at all can be made when the future is completely unpredictable. Yet this does not imply that creativity must be unimportant. Like Whitehead's cavalry charges, it can occur at decisive moments and hence be of profound importance. The key behavioral aspect of its limitation must be that it does not render decision-making pointless. Whether decisions are to be viewed as efficacious or not is obviously a determination that only acting individuals can make. The maximum amount of indeterminism consistent with genuine choice is not a subject that can be addressed on purely *a priori* grounds.

### *Institutions*

One of the main focal points of habituations are institutions. Outside of the special theoretical case of univalued expectations, institutions do not perfectly determine the behavior of their participants. Instead, they "[posit] that actions of type X will be performed by actors of type X" (Berger and Luckmann, 1966, p. 54). For example, the institution of the post office enables us to predict the actions of the ideal typical postman (e.g., he will pick up the mail, deliver it, etc.) Similarly, typical firemen, butchers, doctors, and so on can be counted on to engage in certain predictable patterns of behavior. For any given real-world individual, institutions enable us to narrow the range of possible actions to some specifiable class[15], perhaps even to rank the elements of that class in terms of their likelihood. Thus, institutions reduce but do not eliminate uncertainty; they provide, as it were, "points of orientation" (Lachmann, 1971, pp. 38, 49–91).

## CONCLUDING REMARKS

The discussion of dynamic subjectivism in this chapter has established a theme that will be pursued throughout most of this book. The creative aspects of human decision-making appear in many forms in subjectivist economic theory. The process of learning, the



characterization of time and uncertainty, the construction of a useful equilibrium concept – all must entail appreciation of the non-mechanistic and indeterminate aspects of individual action. The development of this theme even in the more applied areas later in the book will reveal its importance. Practical issues such as antitrust law and government regulation of industry can be seen in a new light from a dynamically subjectivist perspective.

## NOTES

1 "Praxeological reality is not the physical universe, but man's conscious reaction to the given state of this universe. Economics is not about things and tangible material objects; it is about men, their meanings and actions" (Mises, 1966, p. 92).

2 "Theoretical economics has the task of presenting not merely the *laws*" of economic phenomena to us but also their '*general nature*.' A presentation of the above science, for example, which would, to be sure, enlighten us on the laws, but not on the *nature*, of goods, of value and the various forms in which value appears, of economy, of price, of ground rent, or income on capital, of speculative gains, of money, etc., would at any rate have to be designated as incomplete" (Menger, 1963, p. 198).

3 This definition of the economic question is intentionally broad since the boundaries between economics and the other social sciences are, to a great extent, merely conventional.

4 It is conceivable that institutions could be the *intended* consequences of human action. This may, in fact, be true in certain selected cases. However, in general, considerations such as the divergence of individual plans and the social division of knowledge make it unlikely that complex outcomes could be completely intended.

5 "My knowledge of everyday life is structured in terms of relevances. Some of these are determined by immediate pragmatic interests of mine, others by my general situation in society" (Berger and Luckmann, 1966, p. 45).

6 The quotation continues: "We can indeed make this class smaller and smaller without limit by making our description more and more detailed. But however far we go, it is a necessary consequence of the nature of language that we can never make the description perfectly determinate" (O'Connor, 1957, p. 313).

7 This doesn't depend on how the periods are divided (Ackerman, 1976, p. 45).

8 It makes no sense to argue that P will decide at $t_3$ on a course of action on the basis of what he knows only up to $t_2$. Why should P ignore information that, by assumption, he has on hand?

9 How could a mind not be conscious of what, *ex hypothesi*, has been attributed to its consciousness?
10 For a development of this principle in the area of legal causation see Rizzo and Arnold (1980, p. 1410 and passim) and Rizzo (1981, p. 1022).
11 In principle, there may be many theories that increase likelihood or provide favorable relevance. Choice among them must proceed, *inter alia*, on some notion of relative degrees of likelihood and the ability of a theory similarly to explain other phenomena.
12 Some habituations are merely the result of the same maximization exercise being repeated time after time while others are non-maximizing rules of thumb. The former can be approximated under roughly static conditions. The latter are consciously followed as an alternative to maximization under non-static conditions. See chapters 5 and 6 for further discussion.
13 People with whom one expects to engage in one exchange per year may be of less importance to the success of one's plans than people with whom one trades every day.
14 We would also never observe actors spending resources to learn what is more or less likely. They could merely "conjure up" the relevant weights.
15 On this idea of prediction in general see Popper (1965, p. 73) and Hayek (1967b, and 1967c).

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