

MUTUAL UNDERSTANDING, THE STATE OF ATTENTION, AND THE GROUND FOR INTERACTION IN ECONOMIC SYSTEMS

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Abstract: Neoclassical economic theory assumes that people pursue utility maximization within an objective framework, evident to all, that serves as the basis for the interaction. Agents are assumed to be detached observers who see the situation as it is in objective reality. It is argued in this article that there is no objective ground for interaction that exists apart from the understanding of economic agents. Agents have orientations that change over time depending on the way that the situation is currently understood. Depth of understanding and the extent of common ground depend on the quality of attention and the will to openness and honesty. Efforts to maintain connections with others make possible mutual understanding and visions of the common good that enable the coordinated pursuit of desired states of the world.

Thus the understanding is ... itself the lawgiver of nature. Save through it, nature, that is, synthetic unity of the manifold of appearances according to rules, would not exist at all.... Immanuel Kant, *Critique of Pure Reason*

It is assumed in neoclassical economic theory that people disclose information only insofar as it gains them strategic advantage in the pursuit of utility maximization. This pursuit takes place within an objective framework, evident to all, that serves as the basis for the interaction. Agents are assumed to be detached observers who see the situation as it is in objective reality. Although there is room for "learning" in model construction, the basic framework for interaction, which includes the utility functions that agents strive to maximize, is invariant to any particular understanding that agents may enjoy. I wish to put forward another conception of the economic agent. Rather than assuming fixed utility functions and a detached understanding of the situation, I will argue that agents have orientations that change over time depending on the way the situation is currently understood. The associated understandings are communal in nature, conditioned by historical experience, and concretely embodied in the languages in which they are articulated. The extent of mutual understanding, and hence common ground for interaction, depends on the quality of attention and the will to be open and honest in seeking the joint articulation of visions of the common good.

Economic theory finds itself in a philosophical quandary when it assumes a situation that is invariant to the knowledge of its agents. Prior to the birth of the rational expectations paradigm, knowledge assumptions focused on features of the marketplace such as prices and qualities of available products. As the problem of expectations of the future became troublesome, however, economists were forced to deal with the question of agents' knowledge of the very structure of the economy. It is now standard to assume that expectations are consistent with the proposed model regardless of its specification. In effect this means that agents act as if they know the model itself. Given the variety of models available for any particular situation, the assumption has been subject to criticism (e.g., Frydman and Phelps, 1983; Shiller, 1990).

The problem is evident in Frankel and Rockett's (1988) study of international macroeconomic policy coordination.¹ Noting the lack of agreement among ten of the leading econometric models of the world economy, Frankel and Rockett ask what happens when this set of models is used to represent the views of policymakers in the OECD countries. Running simulations based on all combinations of beliefs and true models that could be chosen from the set, they find that when policymakers disagree on the model, coordination of policy actions often leads to reduced welfare—as judged by some “true model” of reality. A country that knows the true model is usually much better off adjusting policy accordingly than coordinating with others. The gains from coordination are very small even when both countries know the true model.

Frankel and Rockett know there is no basis to assume that policymakers agree on the true model, or that any of the currently available models is “exactly right.” In the midst of the confusion, though, they cling to the belief that a true model can exist in principle. All outcomes are compared to a hypothetical “true model of reality,” to the “true utility-improving direction,” or to the “true optimum point.” But I wish to argue that a model that would claim to represent reality, and hence (since a model of human action must have some extension in time) be able predict the future of human interaction, cannot be true. Such a model cannot be formulated in terms that are comprehensible to humans, and therefore cannot serve as the ground for evaluation of outcomes. Such a model cannot be known, and agents cannot act as if they know it. Reality is not such that it can be represented by a true model.²

The difficulty lies in the necessity of including the understanding of the practitioners in the formulation of the model. Giddens' (1977) notion of the “double hermeneutic” applies, in that theoreticians must interpret a subject matter which has already been interpreted by the agents under study. In his study of “popular models,” Robert Shiller (1990) distinguished between the models of academic economists and those that represent the practical understanding of economic agents. Calling the rational expectations move of collapsing the two models into one a “gross oversimplification,” Shiller used survey techniques to articulate the models of economic actors in the terms of their ordinary language. There was considerable difference between popular and academic models in the markets

for common stock and real estate, both of which have stakes high enough to elicit rational economic behavior. Economic agents pay little attention to what economists characterize as market fundamentals, but are well aware of investor psychology and recent history. The assumption that agents act as if they know the models of economists ignores the role of the practical understanding and ordinary language of agents in market outcomes. A true model cannot disregard the language and understanding of economic agents.

To summarize the argument: What is in question is the nature of the fundamental objects that constitute economic systems, their relation to economic agents, and the relations between agents themselves. As understood in current theory, economic agents are detached observers who see the situation as it is in objective reality. An inquiry into the nature of observation will, however, find no objective standpoint outside of the historical and communal movement of attention, language, and understanding. The perception of any fundamental objects that would purport to determine human action is contingent upon this historical complex. Hence attention, language, and understanding form the fundamentals in economic systems.³

There Is No True Model

The notion of a true model plays a key role in neoclassical economic theory. Countless econometric studies suppose that “the true model generating the observations” is specified in such and such a way.⁴ Studies in financial economics assume that the true value of a financial asset is determined by a relationship between given variables. These true models serve as the ground for valuation, for comparison of other (incorrect) specifications, or as the basis for welfare analysis as in Frankel and Rockett’s study. What is the vision implicit in this notion?

In discussing the lack of agreement among policymakers about the true model, Frankel and Rockett conjecture that either the speed of convergence of understanding is too slow or reality is changing too rapidly to allow a consensus to form. Implicit is the idea that reality at any point in time can be reduced to a set of variables with fixed relations (either deterministic or stochastic) between its members. These fundamental objects, which exist regardless of the state of our knowledge, form the reality that underlies human activity. The particular values of the objects may vary, but their invariant relation provides the basis for predicting the outcome of future human interaction.

The role of humans in this scheme is problematic. The key insight of rational expectations is that agents act on the basis of their understanding of the situation. A true model must therefore incorporate the understanding of the agents in order to correctly represent their actions. At the same time, agents are assumed to be rational, which means they are objective observers who see the situation as it is (or at least they act as if they do). Of course, agents cannot directly observe one another’s understandings. They cannot read each other’s minds—they only observe the actions of others and interpret them on the basis of their own

understanding. They infer the understandings of others on the basis of their knowledge of the fundamental objects that underlie the economy. These objects are in plain sight for all to observe, and it is common knowledge that each agent observes them and can make the same sorts of inferences from the actions of others. Common knowledge of the structure of the situation links the players, allowing them to see things the same way and enabling the coordination of their interaction.

Neoclassical economic theory rules out the possibility of mutual understanding that is not empirically verifiable. For economics, actions speak louder than words. In the absence of objective grounds for judgement there can be no trust. But the possibility that agents may see things differently from each other poses grave difficulties for the paradigm. Many models have been created where the players have different information, but there is always assumed to be a common structure in which they interact. Once that structure is in doubt the question of the relation between the players comes to the fore. The players will be fundamentally isolated from each other if there is no objective ground for interaction.

Observation and Understanding

Thus it is interesting that Frankel and Rockett ask what the true model is when the players understand the situation differently. Since the players and their beliefs are included in the situation the true model must incorporate the beliefs of the players who subscribe to the incorrect models. In order for one of the players to know the true model he must know the beliefs of the other players. Suppose, for example, that there are two players (numbered 1 and 2) whose understandings can be represented by models A and B. In order to know the true model player 1 must understand model B and the implications of player 2's belief in that model for market outcomes. But how is player 1 to come to such knowledge? The fundamental isolation of the players makes this problematic. It is unlikely that player 2 will say what his beliefs are. If anything, player 2 will want player 1 to think he has some other set of beliefs. If player 1 tries to observe player 2 in order to ascertain his beliefs, player 2 may act in a way intended to mislead player 1. Even if player 2 tells 1 the truth about his beliefs, how can 1 know it is indeed the truth? In this way a meta-game arises where the players must determine each other's beliefs.

Perhaps this is the true model. In order to play this game player 1 needs to know if player 2 knows that 1 believes model A, because 2's actions will depend on what he thinks 1 believes. Likewise 2 needs to know if 1 knows that 2 knows that 1 believes model A. There is an infinite series of beliefs about beliefs that arise as each tries to determine the understanding of the other. What, then, can be the true model?

Suppose we take the perspective of an impartial observer who is able to see the players acting at a distance. It may be possible to come to a model that

incorporates the understandings of the players if the observer is not included in the situation. We must inquire first, however, into the nature of this perspective. The observer is assumed to be embodied. He is situated at a particular place in space and time. He sees things from that point of view. In addition, the observer must have an orientation. Regardless of his distance from the situation, he cannot take in all possible stimuli that impinge on the senses. There will be no meaning to what is observed unless some features of the situation are selected at the expense of others that are ignored. Selective attention determines what the observer sees. The essence of observation is attention.⁵

In order for the observer to come to an understanding he must have a connection with the object of interest. If he is isolated from the object it cannot be comprehended. In order for a connection to be established, the object must be contained within and selected out of the field of possible stimuli impinging on the senses. This means that *attention* establishes connections with objects, and is therefore the foundation for understanding. Of course, one must be at a particular location in space and time in order to apprehend the object, but the location of the body is not the primary determinant of what one contacts. Embodiment constrains the field of possible stimuli, but what is actually selected is attention. When lost in thought it matters little that one is embodied and in a physical location. The body is where one is physically, but attention is where one is phenomenologically. Attention is our point of contact with reality.

Understanding is about ways of attending to things.⁶ It determines the ways in which agents perceive situations and tend to daily affairs, as manifest in patterns of worldly engagement such as rules, norms, and principles of action. Theoretical understanding is also to be seen in this light, for it determines how the theoretician sees the world and goes about theoretical activity.

There is an intimate relationship between attention, understanding, and language. Understanding takes place when an object of attention is seen from a perspective that is embodied in the terms of a particular language community. When an object of attention is understood in a certain way, the evocation of its terms directs attention in the formation of new objects. In this way the meaning of the terms becomes one's own; it becomes part of one's apprehension of the world. One sees things from that point of view, and tends to things in a corresponding way. There is thus an understanding embodied in the terms of a language that directs the attention of those who speak it, which is in turn the ground for further understanding.⁷

Some ways of understanding are better than others. To understand poorly means to fail to see differences or connections between things. To understand well, on the other hand, means to be able to make fine distinctions and to see objects in relation to the whole. Depth of understanding depends on fineness of articulation and breadth of perspective, which depend in turn on the acuity and steadfastness of attention. The contact that attention brings ensures that the terms of understanding are well suited for their objects.⁸

Language and Interaction

It is now possible to consider the nature of human relations from this perspective. Since our connections with objects are established by way of attention, contact with others is established when we focus jointly on the same objects at the center of attention. We are indeed condemned to a solitary existence if we attend to objects that are cut off from the attention of others. Economic theory, of course, assumes an objective ground, evident to all, that serves as the basis for interaction; but when it is understood that attention establishes connections with objects it becomes necessary to inquire into the basis for joint attention to any such objective ground.

That is precisely the role of language. By directing the selection process, language forms a common world from what would otherwise be the disjointed objects of attention of isolated individuals. Rather than a given set of fundamental objects, language directs agents to select the same objects for perception. It unites attention and therefore provides a fundamental connection between all individuals, establishing the ground for mutual understanding and negating the isolation of the observer of economic theory.

Since understanding is embodied in language, it is fundamentally communal in nature. Language is acquired in communities that are characterized by a particular understanding of how to be in the world. For instance, the observer understands that he is an observer of particular objects. This self-understanding makes him an observer. He is not a machine that has been created to observe. His understanding of what he is about determines how he focuses on the players as they interact, and the way he focuses is the essence of his constitution as an observer. The observer comes to this self-understanding by way of socialization in a community where particular understandings of self are available. Membership in that community is therefore ontologically prior to any isolation that may characterize the existence of the individuals who make up the community. The community is united by the understanding of self that stems from community.

The observer must also have a prior connection with the community of players if he is to make sense of their actions. In order to determine the understanding of the players the observer must understand the language in which the interaction takes place, which in turn requires some sort of prior contact. Furthermore, if he wishes to observe their actions and infer the associated understanding, he must have a preconceived notion of the meaning of those actions and a theory that allows the inferences to be made. That is, in order to interpret the players' actions the observer must approach the situation with an understanding based on membership in the community of observers and prior connection with the community of players. Thus the observer believes model C is the true model. He has his own understanding of the situation which differs from that of the players. There would be no point to observation if each had the same understanding.

The essence of the observer is that he attends to the situation of interest. He reaches a new understanding by way of renewed contact. Thus by definition the

understanding and hence the constitution of the observer undergoes perpetual transformation. Similarly, as the players interact and observe one another they also come to a new understanding. The embodied observer is thus included in a situation in which understanding and its terminology are always shifting. In turn, understanding and language determine the movement of attention of the observer. How is the observer to distance himself from a situation in which the very act of observation that makes him what he is moves with the understanding that is constitutive of the situation itself? How can he see the situation as it is?

Language, Attention, and Understanding

All agents are similarly situated, of course. Language, attention, and understanding move in lockstep as understanding and articulation take place at the center of attention. Language develops as the attention of practitioners is engaged in everyday activity, and thus embodies their practical understanding. At the same time, the movement of attention is determined by the understanding that is embodied in language. Attention brings renewed contact and understanding, while the withdrawal of attention results in erosion of understanding. The transformation of understanding and language that takes place with the movement of attention serves as the basis for its further action.

Configurations of language and understanding are profoundly historical in nature. Taylor (1989), for instance, traces the genesis of terms such as "the self" and the associated language of inwardness to the time of Augustine. This language and understanding of ourselves did not exist in earlier times, such as that of Plato, but we are now embedded in such an understanding. It is impossible not to use such terms when making sense of our lives.⁹

It follows that if a model is to predict the outcome of future human interaction, it is insufficient to simply capture the understanding of the players; it must also account for any shifts in understanding that may occur. It may be argued that researchers could approach such a model by rigorous adherence to scientific methodology. But if the understanding of researchers is to approach the true model it must be posed in a language that is comprehensible to humans. This model would have to explain the movement of attention, understanding, and language of economic agents in terms that they themselves could understand.

Can the historical movement of attention and language be explained by recourse to relations between a set of fixed non-linguistic factors? I have argued elsewhere (Berger, 1989) that the movement of attention cannot be reduced to relations between the fixed objects such as costs and preferences that are assumed to underlie the economic environment, for the constitution of such objects is altered by the very movement of attention and language which is to be explained. All such objects are partly constituted by knowledge, and since the acquisition of knowledge takes place at the center of attention the nature of the object changes as attention and articulation are brought to bear on it. What can be the nature of the fixed ground that determines the movement of attention?

Suppose that there was such a model of the movement of attention and lan-

guage. If attention were brought to bear on the non-linguistic factors that make up the model there could be no change in their relationship, for the model must depict the invariant relationship between the factors that determines the movement of attention. Suppose now that an individual could learn the model at a particular point in historical time. Since the model is expressed in a language that is comprehensible to humans, there is nothing in principle that would prevent this. The individual would then know the future movement of his attention and language together with the associated understanding. But then that future language and understanding would be understood at the moment of discovery of the model, and would no longer be the language and understanding of the future. The model will have changed.¹⁰

A model that explains the future movement of attention, language and understanding cannot be expressed in terms that are comprehensible to humans, and therefore cannot be known. Once attention is brought to bear on the factors that determine its future movement, understanding appropriates that knowledge and attention is immediately directed in the corresponding fashion. Any objective ground that would guide attention cannot be expressed in terms that would yield it access, for once encountered the objects do not retain the same power over its movement. Attention thus enjoys a primacy over any discernable grounds that would constitute it.

Acting As If One Knows the Model

It may be argued that agents act as if they know the true model even though they actually cannot. However, the theory of rational expectations says that the basis for action is understanding. Agents act to achieve states of the world that are seen in terms of a particular understanding, focusing on those that are understood to be desirable. Action is oriented toward states that require an unwavering focus for their realization. Agents cannot act as if they have an understanding that they do not have.

Consider Milton Friedman's (1953) expert billiard player. He does not know the laws of physics that govern the movement of billiard balls, but it is argued that he acts as if he does because of the understanding achieved from investing many years of attention into the game. But it must be recognized that the billiard player has an understanding that is embodied in a specific language. He knows that the various cue strokes have certain actions and that the billiard balls will interact and traverse predictable paths as a result. The player thinks in terms that embody that knowledge. The cue strokes have names such as "draw" and "massé;" there are types of "English," such as "low right" and "high left," that the player can apply to the billiard balls. Although it may not be expressed in mathematical terms, the player has a particular understanding that can be transmitted to other students of the game.

The player does not act as if he knows the laws of physics with their associated terminology. He has his own highly intelligent understanding that is expressed in its own terms. He could very well defeat a player who knows the laws of

physics. If the expert goes on to learn the laws that have been articulated to date, he will see things on the billiard table in a new way and consequently play the game differently. He will attend to the game in a way that corresponds to the new understanding. Players do not act as if they have a particular understanding. They act according to the understanding that they have in the terms that they understand.

Agents cannot act as if they know a model that is expressed in terms other than their own. But perhaps the true model is expressed in a language that is incomprehensible to humans. In that case they certainly could not know the model, but it may be argued that they act as if they do. Such a model, of course, could not have been created by academics, nor could it result from the convergence of scientific method. Can agents act as if they understand a model that can only be expressed in an incomprehensible language?

In order for there to be interaction, the players' actions must be intelligible. The actions are intelligible when they are seen to be oriented toward states of the world that are understood to be desirable. Actions are signs that are interpreted on this basis in the course of interaction. They are the expression of the understanding and thus part of the language associated with the model. If the language were incomprehensible, the actions would be unintelligible and there could be no interaction. People do not act as if they have an understanding that they do not have.¹¹

A true model of human interaction cannot be formulated in terms that are comprehensible to humans, and agents cannot act as if they know it. There may be a model that explains human action in terms that we cannot understand, but we do not act as if we understand it. That is not for us to know. It is possible to gain insight into the historical determinants of human orientation, there are reasons why shifts of attention have taken place, and it is possible to say true things about attention, language, and understanding, but the primacy of attention means that any non-linguistic determinants of the movement of attention are subject to change as attention is paid or not paid to the selfsame objects. Thus the same reflexivity that renders all (sufficiently powerful) formal systems incomplete also negates the possibility of a true model of the movement of attention, language, and understanding.

Attention and Equilibrium

It is the attempt to derive human understanding and action from more fundamental objects that is wrongheaded. Understanding determines how we see things. It imbues objects with meaning. It is understood, for instance, that money is accepted in exchange for goods and services (which is itself predicated on an understanding of rights to property). We see certain objects as money. It is not a pre-given, natural object, but an understanding we have come to that could be otherwise. Money means a great deal to us because of its importance in the complex of understandings that form the ground for interaction.

It may be argued that it doesn't matter whether understanding or objects come first, because a steady state can be reached in which there are no further changes in understanding. In this state the associated objects of attention form the objective environment for economic activity and the basis for predicting the future. But since attention is the foundation for understanding, it would have to be in a corresponding state in order for a steady state of understanding to exist. Attention would still be guided on the basis of the accepted understanding, but its deployment could not lead to any new insights. The state of attention would have to be such that there was no new contact with reality. There would be no purpose to observation.

This does reflect some unfortunate aspects of contemporary existence. People fall into routines, and life becomes dull and meaningless. Events such as sickness and death may disrupt the process, but a state of normalcy soon returns. In this case all individuals know the model, and it is common knowledge. This is the true model of economic theory. It depends on a particular assumption about the state of attention of economic agents, and a precarious one at that, for the understanding must be maintained as it is. There can be neither further understanding nor erosion. Such a state would not be expected to last long, for attention tends to move from interest to interest—leaving understanding in its wake and the rest to obscurity.

There is nothing to prevent a steady state from prevailing for a period of time, but it could not be achieved as a result of the convergence of understanding to pre-existing objects that underlie human action. Action depends on understanding, which in turn determines how objects are seen. A change in understanding means that objects are seen in a new way, and action changes in a corresponding fashion. There is no pre-given environment underlying human action to which understanding could converge—for action is based on one's current understanding of the world and one's place in it—and thus no ground for a steady state of understanding. Even though some ways of understanding are better than others, there is no guarantee that they will be achieved or maintained. There is no basis for knowing that understanding will not change again, and therefore no basis for predicting the outcome of future interaction in light of the state of current understanding.

It may be argued that understanding matters little when it comes to matters such as survival. It is common knowledge that everyone needs food, shelter, and health care in order to survive. The objective of survival is well understood by all, and it serves as the objective basis for economic activity. But these common desires are not the sole basis for economic activity. Agents act to achieve states of the world that are understood to be desirable, which include but do not exclusively pertain to the maintenance of the physical body. Agents will have recourse to economic institutions when that is understood to be the best way to achieve desired states (in light of any cogitation on the matter that may occur). The full range of human action and understanding must be taken into consideration.

Perhaps, though, all human action serves the sole purpose of ensuring the survival of the species. Since people will always wish to survive, the future is far from enigmatic. On this realist view all activity boils down to the maximization of one's chances of survival (utility serves as a nice proxy here). There is a physical, solid basis for human action, and everyone acts as if they know it. All other descriptions of what people are about are illusory. Their self-understanding really doesn't matter. But suppose that one could come to know the model. One would then know that the sole purpose of one's life was to survive. One would think that suicide would be an attractive option if the sole purpose of existence was its perpetuation. Some of us understand ourselves to be more than that. Understanding is the basis for action.

By orienting agents so that they see things the same way, common understanding enables coordinated activity. Understanding will of course be influenced by theories such as those created by economists, and agents can be oriented accordingly in their daily activity, but it is the understanding itself that links them, not the objects.

Attention and Orientation

Rather than being fundamentally isolated from one another, economic agents are linked by way of the understanding that guides their attention as they apply themselves in the course of daily activity. They are members of communities, corporations, or other organizations with their own cultures and associated understandings of how the world works and how best to live. This is implicit in much work in social science, where the notion of *orientation* is often used to represent the visions that agents pursue.

At any point in time there can be more or less fixed patterns to the deployment of attention. Orientation is a pattern of selective perception and projection of possibilities for the future, depending on how we understand what our lives are about and what we aim to accomplish. In particular, value orientation refers to relatively enduring dispositions to seek desired end states of existence or engage in particular modes of conduct (Rokeach, 1973). Orientation will vary with understanding and tend to shift over time as changes in understanding take place.

Talcott Parsons' theory of action includes a comprehensive discussion of the notion of orientation. Parsons and Shils (1951) understand culture to be a mutual normative orientation which determines appropriate modes of action. Of particular importance in the organization of systems of action are patterns of value orientation which define reciprocal rights and obligations and direct actors in their choices of means and ends. The role of value orientation is to discipline the parts with a view toward the organization of the whole. Orientation may vary with respect to the focus of agents on immediate gratification versus a disciplined evaluation of the consequences of action for other aspects of the system, and on private versus collective goals and interests.¹²

Orientation translates into the utility functions that agents are assumed to maximize in current economic theory, but there are fundamental differences under this conceptualization. Orientation is not static. Recent experience is a very important influence. Scott (1976), for instance, argued that the harsh reality of previously experienced famines explained the subsistence orientation of Vietnamese peasant farmers, which in turn resulted in an ethics based on rights to subsistence and a number of social and technical arrangements designed to ensure the most stable yields possible.¹³

Orientation can vary over time. Russell (1980) found that work orientations can shift over the course of the employment experience. Inglehart (1988, 1990) argued that western societies have moved from an orientation facilitating economic development to a "postmaterialist" posture, emphasizing environmental protection and quality of life due to fading memories of economic insecurity. Roberts (1990) studied 114 technology based firms and found a pattern of evolution away from consulting, R&D contracting, and engineering, toward product, sales, and marketing orientations.

Although there has been little theoretical discussion of orientation, there is a wide body of empirical research that employs the concept.¹⁴ Given the bewildering array of typologies that have been employed in the literature, it seems problematic to compare one orientation with another. Complicating the task is the fact that theorists themselves must have an orientation. Nevertheless it is often argued in these studies that some orientations are better than others. For instance, it is argued that a market orientation is better than an orientation to profit maximization (Kohli and Jaworski, 1990), which in turn is superior to a competitive orientation (Armstrong et al., 1991); intrinsic motivation is better than extrinsic motivation (Culbert and McDonough, 1986); and an orientation to subsistence is inferior to a risk neutral stance (Kunreuther and Wright, 1979). A theory of orientation may provide some guidelines for assessment.

It has been argued that there is no fixed, unmediated framework for interaction that is evident to all. There can be many understandings and associated orientations—that is an empirical matter. I will now argue that the quality of attention and extent of orientation toward mutual understanding determine the extent to which there is such a common ground. The framework for interaction can be more or less robust depending on the state of attention and the will to be open and honest with one another. We all have access to language and attention and therefore the potential to understand one another. These are the fundamentals (whose movement cannot be predicted) that enable the possibility of deeper understanding. What is required is sustained attention to a jointly articulated vision that recognizes the understandings and interests of all parties. Rather than a given environment and objective functions, understanding and orientation can change for the better.

Unity of Focus

Since attention is the foundation for understanding, the quality of attention is a key determinant of the caliber of human action. This is highlighted in Kuhl's

(1985) distinction between action and state orientation. Although individuals may intend to undertake particular actions on the basis of their desires and beliefs, they will fail to do so if they are not properly oriented at critical times in the decision process. Action oriented people will focus on the key features of the situation that call for attention, whereas state oriented individuals focus on internal and external states, ruminating on some present, past, or future state, therefore failing to attend to the demands of the current situation for action. When driving a car, for example, a state oriented person will tend to drift off in thought or be otherwise distracted, whereas an action oriented person will be more likely to pay attention to the road.

The interventions of researchers can influence the quality of attention of subjects, sometimes with striking results. In a study conducted by Gardiner and Edwards (1975), Californians had been split on economic and environmental lines with respect to the issue of coastal development. Protagonists tended to focus on one aspect or the other. When the authors had subjects assign a weight to each dimension, however, it was found that the groups were basically in agreement. The decision procedure forced the subjects to focus on more dimensions of the problem. Similarly, Tversky, Sattah and Slovic (1988) found that subjects asked to choose among alternatives tend to focus on the most prominent dimension, whereas more tradeoffs are made when subjects are asked to set the value of a variable in order to achieve indifference.

Poor decisions are made when attention is paid to only one aspect of a matter. Attention can shift from one feature to another over the course of time due to circumstances, and if resources are deployed accordingly investments will be made that are rendered obsolete when the focus shifts again. During the course of decision making relevant aspects will ordinarily be considered in sequential fashion, but when the quality of attention is sufficiently high other aspects of the matter will simultaneously be brought to mind. The absence of such a state can mean distraction by factors that are fortuitously salient at critical times. Bowman (1963, p.316), for instance, cited distraction by environmental stimuli (e.g., the last phone call) as an explanation for the "bootstrapping" phenomenon, where linear decision rules outperform managers whose behavior provides the basis for the rules themselves. Only when the quality of attention is maintained and a holistic perspective reigns will the tendency to focus on currently salient aspects be overcome.

The state of attention determines the extent to which all aspects of a decision are considered. Bellah et al. (1991, p.254) said it well:

Paying attention is how we use our psychic energy, and how we use our psychic energy determines the kind of self we are cultivating, the kind of person we are learning to be. When we are giving our full attention to something, when we are really attending, we are calling on all our resources of intelligence, feeling, and moral sensitivity.

When we pay full attention a *united focus* may obtain in which all relevant aspects of a decision are called to mind. The deployment of resources that

results will reflect that consideration of the whole. On the other hand, when attention is distracted the associated resource deployment will suffer from the lack of coordination with other relevant factors. Thus whereas a scattered focus means lack of coordination and wasted effort, a united focus means coordinated deployment of resources in the pursuit of desired states.

Mutual Understanding

Rational expectations theory assumes that agents see the environment in an objective fashion and act accordingly, but when orientation is understood to be fundamental what agents see are the orientations of others. They see that they are confronted with agents similar to themselves, who are pursuing visions of the good that are drawn from communal sources (ultimately, from the world community). They see that all are oriented toward achieving states of their shared world. Rather than being aware of an objective environment, agents can have a more or less profound understanding of the orientations of others.

When agents gain insight into each other's orientation, they see things from a broader perspective. Each sees the other as having an understanding worthy of respect, having been drawn from the communal stock of understandings, and the fusion of such horizons (Gadamer, 1990/1960) opens each to a more inclusive point of view. An orientation based on such a perspective is superior because it is based on an understanding that includes and transcends the prior understandings. This is not to say that such an understanding lays claim to objective validity, but only that a mutual understanding is Pareto-superior to that which precedes it.¹⁵

When communication is oriented toward achieving mutual understanding (what Habermas (1984, 1987) calls "communicative action"), each party wishes to see how others understand, and allows others to see how they themselves understand, a shared situation. It is then possible that a broader, more comprehensive understanding may arise that subsumes the prior understandings. If agents come to a mutual understanding concerning the nature of an endeavor, they will be collectively oriented toward achieving the good that has been articulated. A united focus will then marshal all of the resources of the community in the desired direction.¹⁶ Mutual understanding serves as the basis for such cooperative efforts, establishing a more robust framework for the interaction.

In his study of the incentives of multinational corporations, Velasquez (1992) provides examples of common goods such as public health and safety and a clean natural environment. Such goods are indivisible and benefit all members of a society. He argues, however, that in the absence of an international enforcement agency firms will not be morally obligated to contribute to the pursuit of common goods, because their dominant end is to increase profits, "and in a competitive environment, contributing to the common good while others do not, will fail to achieve this dominant end ... What endures is each organization's single-minded pursuit of increasing its profits in a competitive environment (p. 38)." But the particular understanding that any entity enjoys at a given point in

time is an empirical matter. Such firms must be sufficiently profitable to be able to survive and flourish in the future, but the single-minded pursuit of increasing profits is not the only orientation available to a company. Although economics teaches that the purpose of the business firm is to maximize profits, it seems evident that the reason for the existence of business is to provide the services that are the source of possible profits in the first place.

In fact, the fundamental concept of the discipline of marketing is that of market orientation (Kohli and Jaworski, 1990). A customer focus is the key dimension of a market orientation, with profitability a consequence and not a central element of such an orientation. Kohli and Jaworski argue that a market oriented firm will have better *esprit de corps*, higher job satisfaction, and more satisfied customers.¹⁷

The case of Merck and Company would also suggest that there are alternatives to the single-minded pursuit of profits. Due largely to the understanding of firm's research scientists that the company's mission was to promote the well-being of humanity, Merck developed a drug to cure river blindness with little possibility of earning a profit. Indeed, the company decided to provide the drug free of charge, delivering it under most adverse conditions and at considerable additional cost (Business Enterprise Trust, 1991).

The particular understanding that holds in any community is an empirical matter. Workers, for instance, could very well see their jobs solely as a means toward other ends, in which case their actions would be dictated by monetary incentives. It is, however, also possible that they understand themselves to be part of an organization that is devoted to the pursuit of loftier aims, in which case they will be motivated to act in accordance with that understanding. It is often argued that the workforce will be considerably more productive when such a vision has been articulated.

This in fact is the essence of the notion of "worker empowerment," which has been widely discussed as a means of motivating workers with more than economic incentives. Culbert and McDonough (1986) see empowerment as a work orientation that is pursued with high energy and commitment. The role of articulation and communication of organizational values has been emphasized in the literature. A shared vision orients all individuals to the pursuit of the goals that have been brought into focus in the articulatory process. The development of consensus on that vision enables members of the firm to put organizational goals and values ahead of more narrow understandings of self-interest (Bowie, 1990). Culbert and McDonough argue that such a concern for the overall welfare of the system is necessary for organizational success. When an orientation to the good of the whole goes unrecognized, however, workers tend to focus more narrowly on either the needs of a particular subunit or on publicly observable performance measures at the expense of the long term interests of the organization.¹⁸

There is no basis for assuming that firms cannot come to an understanding of their role in the provision of common goods, and then be obliged to take actions

that would possibly sacrifice profits. It is true that a firm that incurred such costs could risk survival, especially if others failed to follow suit, but there is no reason to believe that all will expect others to choose the course of action that is "individually rational." The possibility that firms may come to an understanding that imposes a moral obligation on all to abide by its strictures cannot be ruled out.

It may be argued that individuals or groups can have world views that are incommensurate with one another, thereby preventing the possibility of mutual understanding and orientation to the good of the whole. A world view that dictated behavior on the part of one that was unacceptable to the other would imply irremediable conflict regardless of efforts to achieve mutual understanding. In the case of technological uncertainty there could very well be no grounds for the resolution of conflict.

But mutual understanding means that each sees things from the other's point of view. There is no *a priori* reason why individuals or communities in a shared world cannot understand one another. Given honest efforts and enough exposure to the other's way of life, joint attention is the ground for the development of a common language and a meeting of the minds. Insight into the basis for one another's actions means at a minimum that each respects the orientation of the other, and impositions that are at variance with the other's understanding become less likely. If each keeps the perspective of the other in mind, then both parties will be more likely to act in a way that the other sees as acceptable. Lapses of attention, on the other hand, are likely to lead to conflict.

Take the case of industrial pollution. Here there is considerable room for variance in the positions taken by different groups, depending on their world views and value orientations. In the face of such divergent postures there would seem to be little benefit from mutual understanding. The lack of consensus among experts makes the situation all the more difficult.

But when each is open to the other, shifts can take place in positions that would otherwise seem to be immutable. The fact that different perspectives can exist means that a united attention can forge shared ways of seeing situations that are not objectively evident to all. As a result, one side may become more willing to invest in pollution control in light of the concerns of the other; and the other may see that, in the short run at least, imperatives that arise from the current configuration of economic institutions put limits on how far companies can go in this regard. In case of radically divergent views, where experts may differ (e.g., on the toxicity of certain pollutants), each will at a minimum have more insight into the position of the other. Together they may recollect that they are both part of a larger reality, and come to an articulation of their common dilemma that enables a more harmonious stance in the face of the uncertainty. Economic theory gives us little guidance in cases such as these. The typical approach is to assume commonly known probability distributions over states of the world, and then analyze the behaviors of the parties as a function of their preferences and technologies. We learn that the social optimum is where benefits

from additional pollution abatement expenditures equal costs, and see how deviations from that optimum arise from the structure of private incentives, but there is no recognition of the role of the deployment of attention in the eventual outcome.¹⁹ When parties focus solely on those aspects that affect their narrowly understood self-interest, the resulting conflict comes at the expense of all. When they try to understand the positions of others, however, the very effort may result in a new understanding of the situation. What is missing is a recognition of the costs of conflict and the benefits of efforts at mutual understanding, which could orient all parties to achieve jointly articulated visions of the common good. The mistake is to assume an objective, invariant ground for the interaction.

Haas's (1989) study of pollution control in the Mediterranean shows how divergent views can be reconciled in the presence of a broader understanding. The norms and principles espoused by a community of ecologists and marine scientists led to a transformation of states' understanding of their interests and a shift toward cooperative practices in the face of considerable costs of compliance, political antipathies, and economic disparities. Although individual scientists tended to focus on varied dangers, depending on their areas of expertise, these perspectives were subsumed in a shared ecological outlook and core set of beliefs that were facilitated by the United Nations Environment Program. In turn, the ascendancy to bureaucratic power of the group enabled the promotion of a broad formulation of concerns that led to harmonization of the divergent views of the critical interests in the region. In such a position of authority, members were able to interpret events for traditional decision makers in ways that led to new modes of behavior. The transformation was particularly striking in countries such as Algeria and Egypt, who were originally staunchly opposed to cooperation as not conducive to their primary interest in industrial development.²⁰

This is not to say, of course, that a broader understanding will be maintained indefinitely once it has been put in place. Attention is the ground for understanding, and can tend to disperse unless appropriate efforts are exerted. Efforts to maintain connections with others, particularly in the face of changing circumstances, are necessary to prevent deterioration of common understanding and erosion of visions of the common good. In the absence of such a cohesive force agents will fail to attend to factors that do not affect their narrowly conceived projects, resulting in the further decomposition of mutual understanding. Efforts of intentional openness and attentiveness which enable renewed contact and reestablished connections are required in order to revitalize common understanding and cohesion. The quality of attention during the course of interaction determines the extent of mutual understanding—that is the way to broader perspectives, and an orientation of all to the welfare of the whole.

Conclusion

As understood in neoclassical economic theory, rational agents are detached, isolated observers who see the situation as it is in objective reality. An inquiry

into the nature of observation, however, found no objective standpoint outside of the historical and communal movement of attention, language, and understanding. Rather than being fundamentally isolated from one another, agents are linked by way of the understanding that directs their attention in the course of daily activity. Attention, language, and understanding form the fundamentals in economic systems.

Economic theory takes the framework for interaction as given. Agents are assumed to disclose information only to the extent that it aids them in the pursuit of utility maximization. But theorists miss the dynamic nature of the connections that exist between individuals. They fail to see that the ground for interaction depends on the extent of mutual understanding, which depends in turn on the quality of attention and the will to openness and honesty. When the quality of attention is poor agents tend to focus on limited features of their situations, but when the quality is high a broader perspective may reign in which more aspects are taken into consideration. The articulation of the associated language, with its visions of the common good, will likewise depend on how attention is deployed. Instead of an invariant, objective ground for interaction, the extent of cooperation and mutual understanding depend on the state of attention.

There certainly is room for competition and diversity of orientation in the presence of mutual understanding. Rather than homogeneity of orientation, it means joint recognition and respect for the existence of the other, which may facilitate cooperation and peaceful coexistence. Agents may be oriented toward achieving a wide spectrum of goods as long as they are pursued with a cognizance of the welfare of the whole.

The particular understandings and associated orientations that hold in any situation are an empirical matter. A wide range of typologies are employed in the social sciences that may be more or less appropriate, depending on the fit between the theoretical orientation of the researcher and the nature of the subject matter. Much of the work is normative in nature, suggesting that some orientations are better than others in the pursuit of desired states of the world.²¹

Rational agents know that they are part of a larger reality. They know that the language through which they understand themselves and their relation to the whole is communal in nature. When agents understand themselves in this way attention is directed toward articulating the good of the whole. A united focus grounded in an understanding of mutual roots in community takes into account all aspects of communal life and results in a superior deployment of resources. In the absence of such an understanding the aspects that capture public attention at critical times set the tone for investments that are eventually called into question by those that are ignored. An atomistic understanding of self fails to see that, as parts of the whole, agents are oriented toward states of a shared world which require for their actualization the sustained affirmation of all those who constitute it.

Orientation depends on how agents understand themselves, and that can change for the better. When agents understand themselves to be atomistic individuals the community suffers, but when they see their roots in community that

self-cognizance results in an orientation toward the welfare of the whole. Agents can understand themselves to be part of the whole and then act with the good of the whole in view.

The state of the world today suggests that we are far from this sort of understanding. We all have access to language and attention and can therefore understand one another, but that is only the ground for the possibility of deeper understanding. It is also the point from which divergence can take place. What can turn possibility into the reality of a more harmonious union?

Action can only be taken from within the complex of attention, language and understanding. But we cannot act directly on language, and shifts in understanding depend on the movement of attention which in turn is determined by understanding itself. The point of access lies in the possibility, based on an understanding of the nature of attention itself, of voluntary attentiveness.²² That is the way to deeper contact with, and understanding of, reality. Attention can enable us to better understand what we are. United in that knowledge there is nothing we cannot achieve. We must focus therefore on the state of *attention* if we wish to change the state of the world.

Notes

¹See also Ghosh and Masson (1991).

²Faced with a wide range of types of models, and in light of poor econometric test results, Visser (1989) despairs of the possibility of there being a true model of the world economy. The lack of unanimity among economists means that the market itself lacks a solid model to guide expectation formation. With lags in the digestion and diffusion of information, differing beliefs about the rationality of other traders, asymmetric expectations of future innovations, the possibility that expectations will influence returns prior to an actual anticipated event, the possibility of rational and irrational speculative bubbles (which can affect fundamentals; Miller and Weller, 1990), and fashions in investor behavior, it is not unreasonable that investors will be influenced by considerations that are difficult to ascertain after an action takes place, let alone that economists can forecast. Visser concludes that human behavior is only imperfectly predictable, and that expectations cannot be captured in an econometric specification. See also Gauci and Baumgartner (1992).

³The argument draws on the work of thinkers such as Gadamer, Ricouer, and Habermas. For resonances in Anglo-American thought see Rorty (1979), Bernstein (1976, 1985), and Taylor (1985).

⁴See, for example, Chin and Kennedy (1987), Pantula and Hall (1991), Dastoor (1990), and Nelson (1988).

⁵The notion of attention is important in the literature of bounded rationality (e.g., March, 1982; Simon, 1978). Attention is defined in the cognitive psychology literature as a limited capacity resource for mental operations (see Eysenck, 1982).

⁶Schick (1987, 1991) has studied the implications for economics of this conception. Discussing the role of understanding in valuation, Schick (1987, p.53) writes: "Where we see [eating] as having a protein-rich lunch, we value it in one way. Where we see it as ingesting cholesterol, we value it very differently. Insofar as the rationality of a choice depends on the valuation of the consequences of the options, the rationality of the choice thus depends on how the agent understands, on how he *sees* these consequences."

⁷See Gendlin (1973) for a related discussion.

⁸The hermeneutical circle of understanding is a dialectical movement from the small to the large, in which details are understood by way of an initial understanding of the whole, which is then re-evaluated in light of the new understanding, etc. See Bernstein (1985) for further discussion. See also Schick (1991, Chaps. 4 and 5) for examples of poor understanding.

⁹Taylor (1989, Chap. 3) provides a good illustration of another aspect of the relationship between attention, language, and understanding. He argues that there are "value terms" that do not have a simple correspondence relationship with behaviors, but rather have the status of real objects in social systems. Value terms are indispensable to the "best available account" that makes the most sense of our lives; they are necessary in order to assess actions and judge people and situations. Without this language it is not possible to focus properly on the issues of significance that arise in life as it is actually lived.

¹⁰MacIntyre (1984, Chap. 8) argues in a similar fashion that the notion of the prediction of radical conceptual innovation is conceptually incoherent. See also Taylor (1985, Chap. 1) and Winch (1990/1958, Chap. 3.7).

¹¹See Taylor (1985, Chap. 1) for a related discussion.

¹²See Taylor (1989, Chap. 2) for a discussion of the relation between orientation and identity.

¹³The importance of recent experience has also been noted in the availability bias (Kahneman, Slovic, and Tversky, 1983), but whereas this refers to estimates of probabilities being unduly influenced by new information, in the case of orientation experience influences the shape of objective functions themselves.

¹⁴Studies which assess orientation and its influence in varied contexts use techniques such as the Organizational Culture Inventory (Rousseau, 1990), the Jenkins Activity Survey (Nagy, 1985), the Self-Defeating Value Orientation Scale (Alsaker and Hovland, 1987), the Rokeach Value Survey (Killeen and McCarrey, 1986), England's Personal Value Questionnaire (Payne, 1988), Kuhl's (1985) Action Control Scale, and the Ring Measure of Social Values (Liebrand and McClintock, 1988). Researchers have studied the influence of orientation in such diverse areas as the adoption of innovation (Ansari and Sethu Rao, 1987), negotiations (Evans and Beltramini, 1987), scientific research (Toren and King, 1982), political action (Turkel, 1980), policymaking (Maggiotto and Bowman, 1982; Lyden, 1988), shopping (Lumpkin, Hawes and Darden, 1986), shoplifting (Kallis and Vanier, 1985), task uncertainty (Mills, Turk, and Margulies, 1987), and savings behavior (Goodfellow, 1987).

¹⁵Kant's maxim of enlarged thought (Critique of Judgement, Sect. 294) urges us to think from the standpoint of everyone else. See Benhabib (1990) and O'Neill (1989, p.26) for further discussion. See also Habermas (1990).

¹⁶It may be argued that there can be serious deficiencies in a community's understanding of the good of the whole even in the presence of mutual understanding, but that can only be judged by way of another understanding that is drawn from the world community's stock of understandings. The persistence of a deficient understanding would be due to a failure of mutual understanding at a higher level, for if it were indeed deficient it would be subject to transformation in the fusion of horizons.

¹⁷Narver and Slater (1990) argued that this can translate into higher profits. Assessing the orientation of 140 strategic business units of a major corporation by way of questionnaires, they found market orientation to be an important determinant of profitability. On the other hand, Armstrong et al. (1991) found that profitability suffers when firms are oriented to the pursuit of objectives measured relative to the performance of competitors, such as relative market share.

¹⁸Several other studies suggest that individuals can be more or less oriented toward the welfare of the whole. Liebrand et al. (1986) classified subjects as cooperators or defectors,

and found that defectors did indeed defect more in social dilemma games and would be even more so inclined after being told that the majority had defected. McClintock and Allison (1989) assessed the social value orientations of 644 undergraduates, classifying them as either cooperators, individualists, or competitors, and found that cooperators were willing to contribute more time to a worthy cause. Dawes, van de Kragt, and Orbell (1990) found that cooperation can increase from the usual 30% to 85% by allowing discussion and other means to increase group identity (see also Dawes and Thaler, 1988).

¹⁹Schick (1991) provides several examples of how the focus of attention influences action: Ulysses had himself restrained so that when he focused on the sirens he would not head for the shore. Orwell's soldier holding up his trousers was seen as a fellow human being, not a Fascist to be shot. Huck Finn saw Jim as a friend, not an outlaw. Similarly, Simon (1985, p.302) writes that "campaign oratory is much more an art of directing attention (to the issues on which the candidate believes himself or herself to have the broadest support) than an art of persuading people to change their minds on issues." March and Shapira (1987) show how managerial behavior with respect to risk depends on whether the focus is on success or the survival of the firm.

²⁰Anthony de Reuck's (1983) study of an approach to conflict resolution known as "problem solving" also illustrates the possibility of transformation of understanding. Parties to a dispute are joined by an interdisciplinary group of social scientists in the quest for a common definition of their situation that will enable transformation of the grounds of the dispute and an outcome that is advantageous to all involved.

²¹The fact that economic theory misses this possibility is evident in its explanation of the role of education. Spence (1973), for instance, sees education as an investment that higher-skilled individuals make in order to differentiate themselves from those with lesser abilities. It seems strange that educators would see their profession in this light.

²²William James (1958/1899, p.127) said it well:

In all this the power of voluntarily attending is the point of the whole procedure. Just as a balance turns on its knife-edges, so on it our moral destiny turns.... Our acts of voluntary attention, brief and fitful as they are, are nevertheless momentous and critical, determining us, as they do, to higher or lower destinies.

Bibliography

- Alsaker, F. and Hovland, O. 1987. "Irrationality as a Self-Defeating Value-Oriented: A Further Study of the SVO-12 Scale." *Journal of Rational-Emotive Therapy*, 5:118-124.
- Ansari, M. and Sethu Rao, M. 1987. "Value Orientation and its Relationship with the Adoption Behaviour of Varalaxmi Cotton Growers." *Indian Psychological Review* 32(8-9):12-14.
- Armstrong, J.S., Colgrove, R., Collopy, F. and Sanders, S. 1991. "Competitor-Oriented Objectives and their Effects on Profitability." Mimeo, University of Pennsylvania.
- Bellah, R., Madsen, R., Sullivan, W., Swidler, A. and Tipton, S. 1991. *The Good Society*. New York: Knopf.
- Benhabib, S. 1990. "In the Shadow of Aristotle and Hegel: Communicative Ethics and Current Controversies in Practical Philosophy." In M. Kelly, ed., *Hermeneutics and Critical Theory in Ethics and Politics*, pp. 1-31. Cambridge: MIT Press.

- Berger, L. 1989. "Economics and Hermeneutics." *Economics and Philosophy* 5:209-33.
- Bernstein, R. 1976. *The Restructuring of Social and Political Theory*. Philadelphia: University of Pennsylvania Press.
- Bernstein, R. 1985. *Beyond Objectivism and Relativism: Science, Hermeneutics, and Praxis*. Philadelphia: University of Pennsylvania Press.
- Bowie, N. 1990. "Empowering People as an End for Business." In G. Enderle et al., eds., *People in Corporations: Ethical Responsibilities and Corporate Effectiveness*. Dordrecht: Kluwer.
- Bowman, E. 1963. "Consistency and Optimality in Managerial Decision Making." *Management Science* 9:310-321.
- Business Enterprise Trust. 1991. "Merck & Co., Inc." Cases 90-013 to 016. Stanford: Business Enterprise Trust.
- Chin, C. and Kennedy, P. 1987. "On Inferring the True Model's Direction." *Canadian Journal of Economics* 20:876-879.
- Culbert, S. and McDonough, J. 1986. "The Politics of Trust and Organization Empowerment." *Public Administration Quarterly* 10:171-188.
- Dastoor, N. 1990. "A Note on Model Discrimination After Model Testing." *Canadian Journal of Economics* 23:236-244.
- Dawes, R. and Thaler, R. 1988. "Cooperation." *Journal of Economic Perspectives* 2:187-196.
- Dawes, R., van de Kragt, A., and Orbell, J. 1990. "Cooperation for the Benefit of Us—Not Me, or My Conscience." In J. Mansbridge, ed., *Beyond Self-Interest*. Chicago: University of Chicago Press.
- de Reuck, A. 1983. "A Theory of Conflict Resolution by Problem Solving." *Man, Environment, Space and Time* 3:53-69.
- Evans, K. and Beltramini, R. 1987. "A Theoretical Model of Consumer Negotiated Pricing: An Orientation Perspective." *Journal of Marketing* 51:58-73.
- Eysenck, M. 1982. *Attention and Arousal*. Berlin: Springer-Verlag.
- Frankel, J. and Rockett, K. 1988. "International Macroeconomic Policy Coordination When Policymakers Do Not Agree on the True Model." *American Economic Review* 78:318-340.
- Friedman, M. 1953. *Essays in Positive Economics*. Chicago: University of Chicago Press.
- Frydman, R. and Phelps, E. 1983. *Individual Forecasting and Aggregate Outcomes*. Cambridge: Cambridge University Press.
- Gadamer, H. 1990. *Truth and Method*. New York: Crossroads. Revised translation by D. Marshall and J. Weinsheimer.
- Gardiner, P. and Edwards, W. 1975. "Public Values: Multiattribute Utility Measurement for Social Decision-Making." In M. Kaplan and S. Schwartz, eds., *Human Judgement and Decision Processes*, pp.1-37. New York: Academic Press.
- Gauci, B. and Baumgartner, T. 1992. "The Endogenous Economist: Unique-Model and Multiple-Model Representation of Reality." *American Journal of Economics and Sociology* 51:71-85.
- Gendlin, E. 1973. "Experiential Phenomenology." In *Phenomenology and the Social Sciences, Vol. I*, edited by M. Natanson. Evanston: Northwestern University Press, pp. 281-319.

- Ghosh, A. and Masson, P. 1991. "Model Uncertainty, Learning, and the Gains from Coordination." *American Economic Review* 81:465-479.
- Giddens, A. 1977. *Studies in Social and Political Theory*. New York: Basic Books.
- Goodfellow, J. 1987. "Consumer Perceptions and Attitudes Toward Savings and Investment." *International Journal of Bank Marketing* 5(3):32-48.
- Haas, P. 1989. "Do Regimes Matter? Epistemic Communities and Mediterranean Pollution Control." *International Organization* 43:377-403.
- Habermas, J. 1984. *The Theory of Communicative Action, Volume One: Reason and the Rationalization of Society*. Trans. by T. McCarthy. Boston: Beacon Press.
- Habermas, J. 1987. *The Theory of Communicative Action, Volume Two: Lifeworld and System: A Critique of Functionalist Reason*. Trans. by T. McCarthy. Boston: Beacon Press.
- Habermas, J. 1990. "Justice and Solidarity: On the Discussion Concerning 'Stage 6.'" In M. Kelly, ed., *Hermeneutics and Critical Theory in Ethics and Politics*, pp. 32-52. Cambridge: MIT Press.
- Inglehart, R. 1988. "The Renaissance of Political Culture." *American Political Science Review* 82:1203-1230.
- Inglehart, R. 1990. *Culture Shift in Advanced Industrial Society*. Princeton: Princeton University Press.
- Kahneman, D., Slovic, P. and Tversky, A. 1982. *Judgement under Uncertainty: Heuristics and Biases*. Cambridge: Cambridge University Press.
- Kallis, M. and Vanier, D. 1985. "Consumer Shoplifting: Orientations and Deterrents." *Journal of Criminal Justice* 13:459-473.
- Killeen, J. and McCarrey, M. 1986. "Relations of Altruistic Versus Competitive Values, Course of Study, and Behavioral Intentions to Help or Compete." *Psychological Reports* 59:895-898.
- Kohli, A. and Jaworski, B. 1990. "Market Orientation: The Construct, Research Propositions, and Managerial Implications." *Journal of Marketing* 54(2):1-18.
- Kuhl, J. 1985. "Volitional Mediators of Cognition-Behavior Consistency: Self-Regulatory Processes and Action Versus State Orientation." In J. Kuhl and J. Beckman (eds.), *Action Control: From Cognition to Behavior*. Berlin: Springer-Verlag.
- Kunreuther, H. and Wright, G. 1979. "Safety-First, Gambling, and the Subsistence Farmer." In J. Roumasset et al. (eds.), *Risk, Uncertainty, and Agricultural Development*, pp.213-230. New York: Agricultural Development Council.
- Liebrand, W. and McClintock, C. 1988. "The Ring Measure of Social Values: A Computerized Procedure for Assessing Individual Differences in Information Processing and Social Value Orientation." *European Journal of Personality* 2:217-230.
- Liebrand, W., Wilke, H., Vogel, R. and Wolters, F. 1986. "Value Orientation and Conformity: A Study Using Three Types of Social Dilemma Games." *Journal of Conflict Resolution* 30:77-97.
- Lumpkin, J., Hawes, J. and Darden, W. 1986. "Shopping Patterns of the Rural Consumer: Exploring the Relationship Between Shopping Orientations and Outshopping." *Journal of Business Research* 14:63-81.

- Lyden, F. 1988. "Value Orientations in Public Decision Making." *Policy Studies Journal* 16:843-856.
- MacIntyre, A. 1984. *After Virtue*. Notre Dame: University of Notre Dame Press.
- Maggiotto, M. and Bowman, A. 1982. "Policy Orientations and Environmental Regulation: A Case Study of Florida's Legislators." *Environment and Behavior* 14:155-170.
- March, J. and Shapira, Z. 1987. "Managerial Perspectives on Risk and Risk Taking." *Management Science* 33:1404-1418.
- March, J. 1982. "Theories of Choice and Making Decisions." *Society* 20:29-39.
- McClintock, C. and Allison, S. 1989. "Social Value Orientation and Helping Behavior." *Journal of Applied Social Psychology* 19:353-362.
- Miller, M. and Weller, P. 1990. "Currency Bubbles Which Affect Fundamentals: A Qualitative Treatment." *Economic Journal Conference* 100:170-179.
- Mills, P., Turk, T. and Margulies, N. 1987. "Value Structures, Formal Structures, and Technology for Lower Participants in Service Organizations." *Human Relations* 40:177-198.
- Nagy, S. 1985. "Burnout and Selected Variables as Components of Occupational Stress." *Psychological Reports* 56:195-200.
- Narver, J. and Slater, S. 1990. "The Effect of a Market Orientation on Business Profitability." *Journal of Marketing* 54(4):20-35.
- Nelson, C. 1988. "Spurious Trend and Cycle in the State Space Decomposition of a Time Series with a Unit Root." *Journal of Economic Dynamics and Control* 12:475-488.
- O'Neill, O. 1989. *Constructions of Reason: Explorations of Kant's Practical Philosophy*. Cambridge: Cambridge University Press.
- Pantula, S. and Hall, A. 1991. "Testing for Unit Roots in Autoregressive Moving Average Models: An Instrumental Variable Approach." *Journal of Econometrics* 48:325-353.
- Parsons, T. and Shils, E. (eds.) 1951. *Toward a General Theory of Action*. Cambridge: Harvard University Press.
- Payne, S. 1988. "Values and Ethics-Related Measures for Management Education." *Journal of Business Ethics* 7:273-277.
- Reyes, P. 1990. "Individual Work Orientation and Teacher Outcomes." *Journal of Educational Research* 83:327-335.
- Roberts, E. 1990. "Evolving Toward Product and Market-Oriented: The Early Years of Technology-Based Firms." *Journal of Product Innovation Management* 7:274-287.
- Rokeach, M. 1973. *The Nature of Human Values*. New York: Free Press.
- Rorty, R. 1979. *Philosophy and the Mirror of Nature*. Princeton: Princeton University Press.
- Russell, K. 1980. "The Orientation to Work Controversy and the Social Construction of Work Value Systems." *Journal of Management Studies* 17:164-184.
- Schick, F. 1987. "Rationality: A Third Dimension." *Economics and Philosophy* 3:49-66.
- Schick, F. 1991. *Understanding Action*. New York: Cambridge University Press.
- Scott, J. 1976. *The Moral Economy of the Peasant*. New Haven: Yale University Press.

- Shiller, R. 1990. "Speculative Prices and Popular Models." *Journal of Economic Perspectives* 4:55-66.
- Simon, H. 1978. "Rationality as Process and as Product of Thought." *American Economic Review Proceedings* 68:1-16.
- Simon, H. 1985. "Human Nature in Politics: The Dialogue of Psychology with Political Science." *American Political Science Review* 79:293-304.
- Spence, M. 1973. "Job Market Signalling." *Quarterly Journal of Economics* 87:355-374.
- Taylor, C. 1985. *Philosophy and the Human Sciences: Philosophical Papers II*. Cambridge: Cambridge University Press.
- _____. 1989. *Sources of the Self: The Making of the Modern Identity*. Cambridge: Harvard University Press.
- Toren, N. and King, J. 1982. "Scientists' Orientation toward Their Work: The Relative Effect of Socialization versus Situation." *International Journal of Comparative Sociology* 23:1-2.
- Turkel, G. 1980. "Privatism and Orientations toward Political Action." *Urban Life* 9:217-235.
- Tversky, A., Sattah, S., and Slovic, P. 1988. "Contingent Weighting in Judgement and Choice." *Psychological Review* 95:371-384.
- Velasquez, M. 1992. "International Business, Morality, and the Common Good." *Business Ethics Quarterly* 2:27-40.
- Visser, H. 1989. "Exchange Rate Theories." *De Economist* 137:16-46.
- Winch, P. 1990. *The Idea of a Social Science and Its Relation to Philosophy*. Melksham: Redwood Press. Original Publication 1958.

