Fox, Hedgehog, and Owl: Three Temperaments in Economic Discourse

Elias L. Khalil
Ohio State University, Mansfield

Isaiah Berlin starts his famous essay on Leo Tolstoy by quoting the Greek poet Archilochus: "The fox knows many thing, but the hedgehog knows one big thing." I add to this typology a third temperament, the owl, which knows many facts while maintaining a more-or-less one big idea. While recognizing the multitude of criteria, I show that economists in relation to temperament could be roughly divided into these three types according to the kind of question they ask. Such temperaments are clarified further with respect to how they treat the problem of time. The proposed typology could help economists to be conscious of their different temperaments, and hence improve the quality of their conversations and debates.

The literature on the history of economic thought has witnessed many attempts at periodization. In fact, every economist, especially ones who attempt a profound contribution, usually divides the history of thought in such a way that distinguishes or locates his or her research program.

To start with Adam Smith, he drew a distinction between himself and what he called the "mercantile system" in order to advance his advocacy of free trade. Karl Marx coined the term "classical economics" in order to group the economists who regarded bourgeois economic relations and the law of value as natural. John Maynard Keynes used the same term to depict the economists who adhered to Say's law which implies that the labor market is self-correcting.

It is fashionable among modern textbooks to divide the history of thought into the broad categories of mercantilism, classical economics, neoclassical economics, and the Keynesian school. With the recent interest in methodology - enhanced by the challenges posed by deconstruction, rhetoric, and hermeneutics - the periodization of economic thought has become an issue of debate.

I want to propose a way of classification, which could as well apply to other disciplines and endeavors. The proposed classification emphasizes the form or temperament of theories, rather than their substance or content. Thus, the suggested classification cuts through more-or-less different schools of economics and cannot be regarded as an alternative to other attempts at periodization, but rather a complementary one.

The article attempts indirectly to answer one challenge posed by Thomas Kuhn and Paul Feyerabend. Namely, they basically argue that competing paradigms in the same discipline are incommensurable; i.e., paradigms cannot be adjudicated according to an independent, external ground. In another article [Khalil, 1987a], I suggested that the conception of time by different paradigms in economics could offer an opportunity for comparison, and maybe judge which one is the most promising approach in relation to the question at hand.

To prepare the reader, the paper is concerned neither with philosophy nor with economics per se. It seeks to propose a typology of theories whose ultimate utility lies first, in enhancing the conversation among differently tempered economists and their followers. For example, if a Sraffian and a Kaleckian economists are debating the theory of price, it would be fruitful for the discusants to know that each one is asking a different question, and hence would be better to debate the utility of each one's level of abstraction. Second, the proposed classification of temperaments would benefit the uninitiated student who tries to make sense of the life work of different economists. Once the temperaments are made clear, a student of thought can find it easier to get in and out of disparate texts.
1. Fox, Hedgehog, and Owl

Broadly speaking, diverse theorists in economics, could be more-or-less classified into three broad intellectual dispositions, which I dub "operational," "hypo-deductive," and "visionary." Such simplification runs into the problem of doing injustice for the diverse, whole-life work of an economist. It would tend to focus on the more publicized work, to the neglect of worthy others. But this is the problem with any kind of classification, and I may add with any theoretical appropriation of the diverse phenomenal field. The ultimate test is whether the proposed typology clarifies more than obscures.

In his famous essay on Leo Tolstoy, Sir Isaiah Berlin [1966] distinguished two dispositions through the metaphor of the fox and the hedgehog. One can easily introduce such a metaphor into economics from literary criticism because economist, like other human beings, are characterized by temperaments which somehow influence the questions they ask. Berlin based his classification of temperaments on a line from the ancient Greek poet Archilochus: "The fox knows many things, but the hedgehog knows one big thing." According to Berlin [1966, p.1], foxes, or what I called operational thinkers like Keynes, "pursue many ends, often unrelated and even contradictory, connected, if at all, only in some de facto way, for some psychological or physiological cause." In contrast, the hedgehogs, or what I dubbed hypo-deductive thinkers like Walras and Sraffa, "relate everything to... a single, universal, organizing principle in terms of which alone all that they are and say has significance."

Two thinkers, of whom I am aware, were inspired by Berlin's usage of the metaphor. G.L.S. Shackle [1966] does not discuss the metaphor at length, but rather reviews his theory of uncertainty and defends its fox character against the hedgehog character of the general equilibrium approach. Morton White [1955, pp. 18-19] uses it as a rough classification of twentieth-century philosophy.

A third thinker, F.A. Hayek [1978], admits in a postscript footnote that he was not aware of Berlin's metaphor when he arrived at the classification "master of his subject" (equivalent to the hedgehog) vs. "puzzler" (equivalent to the fox). Hayek identifies E. von Böhm-Bawerk and Jacob Viner as masters of their subjects, while F. von Wieser and Frank H. Knight as puzzlers.

While capturing the foxes like William Shakespeare and the hedgehogs like Fyodor Dostoyevsky. Berlin missed dubbing, or placing in a different category, visionary thinkers like Leo Tolstoy - the subject of his essay. Tolstoy could neither be branded as a fox nor a hedgehog since he spends hundreds of pages in War and Peace illustrating the complexity of human affairs, but without losing hope of making sense of the human condition.

Likewise, the problem of hard-to-classify thinkers is felt by Morton White [1955] in his introduction to twentieth-century philosophy. White easily classifies Henri Bergson and Alfred North Whitehead as hedgehogs, in the tradition of Plato and Hegel. And he easily classifies Bertrand Russell and logico-analytic philosophers as foxes, in the tradition of Aristotle and Hume. However, he cannot place in either category existentialists, pragmatists, and phenomenologists. He calls them "Hegeloid[s]," since, after Hegel, they aspire towards a total and systematic view of reality, but unlike Hegel they want to attend to the details of scientific theories and to the actual human conduct.

In order to accommodate Tolstoy, the Hegeloids, and their, what I called, visionary counterparts in economics, the owl category seems an appropriate metaphor. The owl type basically includes, among others, economists like Sir James Steuart, Adam Smith, John S. Mill, Joseph Schumpeter, and Kenneth Boulding who basically want to unite history with theory without doing injustice to either. In general, visionary economists, on the one hand, admire operational economists for the detailed attention they accord to historical facts, institutions, and human motivations, but fault them for eclecticism. On the other hand, they admire hypo-deductive economists for their unified, systematic approach, but fault them for irrelevance in regards to factual reality. Their conception of time, inter alia, sets them apart from the foxes and the hedgehogs and allows them to weave history and theory with the least amount of mutilation, which is discussed below.

To elaborate, operational economists or foxes carry in their 'bag' disparate tools of analysis. They are not greatly disturbed if these tools seem somewhat incompatible. What ultimately matters is the ability to do empirical research and provide policy recommendations. Although their concepts like the GNP, effective demand, and the multiplier are fuzzy and imprecise, they are immediately concrete and relevant. The economic theories of Malthus and Keynes are close to the fox temperament since they explain
depressions and recessions by resorting to historical facts like underconsumption and uncertainty, which are not founded solidly within a grand theoretical framework, Joan Robinson, Nicholas Kaldor, and other post-Keynesians also resemble the fox kind since they develop theories only insofar they explicate empirical observations with no regard to systemic forces. Their temperament is one of expediency and relevance in the theoretical field rather than theoretical and mathematical elegance. Shackle has defended this type of theorizing against the mathematical system of general equilibrium:

If we cannot have a system, we can have a scheme, an orderly array of theories differently grounded in basic assumptions, some assuming perfect knowledge, some acknowledging uncertainty, some concerned with progressive, irreversible evolution, some with mechanical, insulated deterministic repetition, an outfit of tools, not an ultimate philosophy [Shackle, 1966, p. 32].

Another clear strand of the fox approach is represented by the writings of Schmoller and Sombart of the German historical school who objected to hypo-deductive theorizing. Also one might characterize the contribution of Veblen as within the fox temperament since he offered rich insights about habits, status, power, and technology in the working of consumer society, without a unified theoretical framework. The same judgment could be passed in relation to the work of John Galbraith.

In contrast, the hypo-deductive economists or hedgehogs seek a unitarian, axiomatic ground from which they can deduce most other economic laws. Quesnay resembles the hedgehog approach since he modelled economic exchanges after the circulation of blood. David Ricardo is the epitome of the hedgehog temperament since his economic theory is concerned with the fundamental problem of the production of surplus, which he illustrated in a one-commodity model (corn). And certainly his modern promoter, Piero Sraffa, is a hedgehog, since he defined surplus in a fundamental theoretical framework, viz., the production of commodities by means of commodities.

I also consider Marx close to the hedgehog approach since he grounded his economic theory on the law of value. Even Marx's discussion of historical materialism (modes of production) falls within the hedgehog temperament, since it is based on fundamental conceptions of rationality (control of relations of production) and nature (control of forces of production) which both come to be realized in socialism. As I show elsewhere [see Khalil, 1990c, 1991], such universal conceptions underlie his concept of labor process and the law of value.

The economics of Carl Menger and the mature Ludwig von Mises fall somewhat within the hedgehog category since they are based on the fundamental notions of ontological individualism and human praxeology. Also the later contribution of Nicholas Georgescu-Roegen might be classified within the hedgehog temperament, since he fashions the economic process as simply the extension of the law of entropy and even tries to make such law more important than the whole corpus of physics [see Khalil, 1991b].

The economics of Léon Walras, Stanley Jevons, John Hicks, Kenneth Arrow, Frank Hahn, George Stigler, Gary Becker, Milton Friedman, and James Buchanan [see Khalil, 1987b] are close to the hedgehog temperament. They define the economic problem in such fundamental terms, viz., the maximization of given functions subject to constraints, which some of them extend to other spheres like the family, law, and the state. This does not mean that these economists could not be pragmatic in regard to policy questions. The empirical works of Walras and Hahn exemplify pragmatism.

I would like to reserve the word "pragmatic" to describe the hedgehogs who are ready to qualify, usually with ad hoc auxiliary statements, their high theory when the confront empirical anomalies. They are not foxes since they still adhere to the axiomatic mode of conception; and they are not owls since they resist modifying the high theory itself in face of the anomalies. Besides Walras and Hahn, the category of pragmatic hedgehogs includes Paul Samuelson, John Hicks, James Tobin, Franco Modigliani, Robert Gordon and a host of other mainstream Keynesians. They basically introduce monkey wrenches, like sticky prices and sticky wages (long-term labor contracts), into the axiomatic theory of general equilibrium. In this manner, they could explain the phenomenon of involuntary unemployment without ditching what Keynes called "classical economics" (i.e., self-adjusting, full-employment models). In light of such pragmatism, it is harder to classify such mainstream Keynesians. However, ultimately they are closer to the hedgehogs than to the
eclectic foxes because they explain involuntary unemployment as the result of the failure of self-adjustment rather than of the deficiency of effective demand.

In contrast to the hedgehog and fox types, the visionary or owl-like economists pay special attention to historical facts, while simultaneously attempt to synthesize such comprehensive knowledge in a somewhat coherent scheme of thought. As a result, they offer historical visions of economic development and social transformation which are more-or-less unified. The visions try to combine the richness of historical events (which exemplify the foxes) with an over-arching understanding of the fundamental economic question (which typifies the hedgehogs).

The owl type includes John S. Mill, who viewed the economy as a sphere within the system of liberty. Alfred Marshall could also be categorized as an owl, since his tremendous historical knowledge and analytical tools are unified by the quest for a theory of the development of firms and industries in relation to their environment. Kenneth Boulding is closest to the owl temperament because he attempts to understand the economy in terms of general system theory or general forces which are isomorphic across different levels of nature ranging from the cell, organism to communities and ecosystems.

We should not forget that the quintessential owl is Adam Smith. In The Theory of Moral Sentiments, he viewed human conduct, ranging from self-interest to beneficence and justice, as stemming from a unified principle of sympathy [see Khalil 1990b]. However, unlike hedgehogs like Jeremy Bentham, who reduced human action to the promotion of the greatest happiness of the greatest number, Smith never neglected the complexity of human motivations and affairs. Smith advocates a notion of "self," which is represented by the spectator within the breast (conscience), that gives rise to diverse needs and virtues. Also in The Wealth of Nations, he attended to the details of human commercial activity without losing sight of the unified theme of the creation of wealth.

The work of Joseph Schumpeter on the future of capitalism is best understood as inspired by an owl temperament. He wanted to account for diverse phenomena, like the business cycle, the evolution of capitalism, and the development of technology through a coherent scheme united by his concept of the entrepreneur. One interesting and original owl economist, who has not received as much attention as he deserves, is David Levine. He tries to construct a post-Keynesian theory of product development and business fluctuations through a comprehensive framework of social (as opposed to naturally given) determination of personality, needs, and capital accumulation [see Khalil, 1987c].

These owls are, on the one hand, comfortable with purely intellectual pursuits which the foxes shy away from, and on the other hand, adroit with policy issues and dexterous in handling worldly matters which some hedgehogs judge as too worldly.

2. A-series vs. B-series Types of Time

Among other things, I find that the conception of time distinguishes the owl temperament from both the fox and hedgehog dispositions. I first contrast the treatment of time by the owl type with the hedgehog disposition, and in specific with neoclassical economics as epitomized by the new Chicago school.

Neoclassical economics conceives time similar to the way it supposes agents, immersed in worldly concerns, view time. Neoclassical economics examines events as the product of alternative or fungible choices made by agents, and hence to understand the events one has to take the position of the agents. Such agents exist at a period of time which necessitates classifying goods according to date, e.g., good A at times t₁, t₂, ..., tₙ. In such manner, time enters as a mere character which differentiates goods: today's orange is distinct from tomorrow's orange. In this fashion, time enters the calculation of efficient allocation of scarce resources between present and future oranges.

In contrast, the owl type conceives time as the temporal blend of events, similar to how a tapestry is the spatial blend of shapes. The owl temperament takes the view of the disinterested spectator, in the sense of not trying to give an ultimate rationalization of any system. In other words, the owl theorist is not immersed in the world and hence not pressed to provide an answer to how to allocate efficiently scarce resources. As a result, such a disinterested spectator affords watching the phenomenal behaviour of agents over succeeding moments of time.

Although different, either type of time has factual basis. However, John McTaggart [1927] has exploited the difference in order to prove that they are contradictory, and hence deny the
existence of time altogether. McTaggart’s sophisticated philosophical argument does not concern me here. I am merely interested in his juxtaposition of the two types of time. He called one type - which I find to be the basis of hypo-deductive neoclassical economics - A-series, while he named the other type - which I find to characterize the visionary type - B-series. The A-series type orders events along the axis part-present-future, while the B-series type orders events along the axis earlier-later.

For example, the statement “the interest rate is 10% at present,” “ten apples today is preferred to ten apples next month,” or “temperature is expected to rise tomorrow” belongs to the A-series category, because it arranges the event according to the past-present-future axis; while the statement “the stock market crash preceded the great depression” or “fish appeared earlier than amphibians in natural history” belongs to the B-series classification, because it categorizes events along the earlier-later dimension.

The A-series statement views an event, interest rate, or temperature from the perspective of an agent at a specific time; it cannot always be true, since it depends on the temporal location of the agent. In contrast, the B-series statement views a sequence of events, like a stock market crash and a depression, from no specific ground; it is always true, since it is independent of temporal location.

The A-series type presupposes a moment called “now.” In an A-series sentence, time is conceived as either “past,” which contains experienced events, “future,” which holds anticipated events, or “present,” the cut-off point between the two. In contrast to real categories, the past-present-future axis is a nominal or fictional category [Khalil, 1990a], since it denotes a distinction which is only meaningful in reference to a point in time. In contrast, the B-series type does not presuppose “now.” In a B-series sentence, time is conceived as “earlier” and “later.” The earlier-later dimension is a real category because it denotes a dimension which exists independently of human standards.

In other words, while the A-series is situational, the B-series is historical. The A-series adopts the perception, or what it presumes it to be, of the agents under study; while the B-series views human behavior from a distance, like observing the behavior of other organisms or the weather.

These two conception of time may co-exist, depending on the type of discourse. For daily pursuits undertaken by decision makers, what matters is the A-series, the past-present-future axis. On its basis, agents make a choice among alternatives and create new alternative futures as well. However, for scientific discourse, the B-series is more appropriate, since it is free from nominal or human-bound standards of measurement. This should not mean that it disables the description of subjective motives, purposes, and endeavors of agents. The B-series is capable of describing such phenomena from a distance.

On the basis of the B-series, scientists observe how natural phenomena change over time in a way which make the scientists free from the subjectivity of the present. From such observations, they may construct theories about deeper temporal changes. Rather than starting with the subjective view of the agents under focus, scientists commence with B-series conceptions of phenomenal events and then attempt to reach into a deeper reality which regulate them.

Neoclassical economics fashions itself as the science of choice: a person has to choose among alternatives, adjusting given endowments in light of given preferences and relative prices. This presupposes a subjective view of time, since choice is contingent on the agent’s position in the present. In fact, any economic theory which makes its entry point to the study of economic life through a theory of price (the phenomena which I call “price theory fetishism”) has already committed itself to A-series kind of theorizing. This does not only include neoclassical economics, but also Sraffian and Marxist economic theories. If one wants to avoid A-series statement, one has to start with observations of regularities in the economy, and discuss theory of value only within such context.

It is true that standard, neoclassical economic theory could present commodities or events in sequential periods (T_1, T_2, ..., T_n). However, such periods are indirectly based on the consciousness of the agents at discrete points in time.

The construction of theory from the point of view of the agent ultimately makes it harder to describe the historical forces which regulate the action of agents. While Neo-Austrian economics starts with the subjective actions of agents and consequently constructs the unintended consequences of such actions, it is unable to explain the subjective actions in the first place. Neo-Austrian economics lacks a theory of the historical process which underlines and shapes
the subjective choices of agents, probably because the entry point of the theory is characterized by an A-series mode of conception. It conceives time from the point of view of the entrepreneur who is concerned with creating new futures.

In contrast, the core of visionary economics, the owl disposition, is of the B-series type. It describes the temporal flow of events prior to adopting the views of time which historically-situated agents carry.

While neoclassical economics is clearly based on the A-series conception of time, it is less transparent that this applies also to the operational disposition, the fox type. It is less clear because the operational type does not ground itself on rigorous foundations. Nevertheless, the case of Keynes’s theory of involuntary unemployment, e.g., rests ultimately on the subjective expectations of the agents. In fact, Shackle finds the A-series type as the only common feature between neoclassical general equilibrium (which he calls the “momentary model”) and Keynes’s approach:

Let us be clear about one respect in which the momentary model is entirely true to life: life is experienced ‘one moment at a time’. We live in the solitary present. Whatever is actually happening to us or being done by us is happening or being done now [Shackle, 1966, p.20].

Furthermore, operational economists depend on A-series models since their bottom-line concern is the furnishing or ready-made recipes for how policy makers should respond to different events. This has led most of its practitioners to view events, from recessions to inflations, from the vantage point of the present. Generally speaking, such fox economists have avoided making a comprehensive understanding of the forces which underlie such events. In comparison, the owl temperament is most interested in deep forces because it does not attempt to provide a cookbook recipe for policy makers.

Given that operational thinkers pay most attention to stylized facts, the economics of foxes like Keynes or Kalecki cannot be presented as a complete alternative to mainstream neoclassical economics [see Khalil, 1987a]. The economics of Keynes is usually complemented; and incorporated within the models of neoclassical economics and other hedgehog approaches like Sraffian economics because it generally fails to provide a theory of the systemic forces which underline the economy (like the tendency towards a unified rate of profit).

To make it perfectly clear again, the adoption of A- or B-series type of time does not define a specific economic doctrine. Other substantive theoretical postulates are needed as well. For example, visionary economics includes such competing programs like the French regulation school, institutionalist economics, and Schumpeter’s evolutionary paradigm; while hypo-deductive economics embraces such incompatible approaches like neo-Ricardian economics, neoclassical economics, and neo-Austrian economics; and operational economics comprises such approaches as the economics of Malthus, Keynes, Veblen, and J.M. Clark.

3. Economics of Time vs. Economy in Time

Another way of distinguishing the A-series from the B-series is to examine two types of discourse, the economics of time vs. the economy in time. As worldly actors, agents treat time as a manipulable asset; while as observers, economists are supposed to treat time as the temporal dimension of natural processes. The A-series temperament is involved in constructing the economics of time because it adopts the view of the agents, while the B-series orientation pursues the study of the economy in time because it examines the agents within their natural setting.

The economics of time is unique probably to the social sciences. Practitioners in the fields of physics, chemistry, and biology do not look at the world from the standpoint of the particle, molecule, or cell. They study the subject in its setting and do not examine the surrounding exclusively from the point of view of the present or the subject under study. One might argue that this is a limitation which the social sciences do not have to restrict themselves to, since the observer can identify with the observed. Such an identification, though, could be problematic if it is taken as the entry point of theory, sacrificing the study of the underlying reality. The identification with the observed could lead to a one-sided understanding of reality because the observed could only see, as worldly agents, their condition subjectively.

It is insufficient for anthropologists to distance themselves form their own cultural baggage; they should also refrain themselves
from examining reality from the cultural point of view of the observed. The effort to comb, ethno-centricism has led a great number of anthropologists to adopt the point of view of the native, i.e., cultural relativism. It is as subjective to view, e.g., the Bushmen is southern Africa, from the framework of the Bushmen culture as from the European one. Either framework provides a view of society à la A-series type, which treats time from the standpoint of “now.”

Likewise, political scientists who are interested in studying society in time should not exclusively describe political power from the rhetoric and pronouncements of politicians, who are immersed in the present. Otherwise, political science would become a victim of ideology and propaganda. Scientists who are interested in the study of political life in time should examine power from a distance, afforded by the B-series perspective.

Similarly, in order to study the economy in time one should take lightly the theory of general equilibrium developed to deal with the economics of time: how time is allocated from the point of view of the present. The economics of time might have some relevance to planners at the levels of the household, the firm, and the country. Even at that, general equilibrium theory has proven to be purely a logical exercise.

If economics is a theoretical discipline, rather than a practical or pragmatic endeavour, it should be first motivated by uncovering a deeper reality beneath every-day events. That is, the entry point of economics should not be the study of time: how to maximize profits or utility. Rather, the entry point should be the study of the economy in time: whether events are regulated by a unifying pattern or process. The B-series conception serves as the necessary condition for the study of the economy as a natural phenomenon. This would be the first step in transforming economics into an historical discipline capable of handling complexity of institutions and a temporal discipline capable of handling complicatedness of geographical patterns and fluctuations [see Khalil, 1990a].

4. Conclusion

Speaking broadly, the fox-type temperament and the hedgehog-type disposition are faulted for different reason: one for being theoretically wanting, and the other for being empirically starved; while the B-series type theories, that underline the owl temperament, is an affirmation of the positive sides of each while rejecting their shortcomings.

Put bluntly does, this mean that visionary, owl-type economics should be preferred over the other two types? Any answer to this cannot abstract from the kind of question in which the economist is interested. If the economist is interested in logical possibilities, which have their role in the profession, the hedgehog-type endeavor is the most rewarding approach. As put succinctly by Kenneth Arrow and Frank Hahn in defense of their exposition of hedgehog-type analysis:

The immediate “common sense” answer to the question “[w]hat will an economy motivated by individual greed and controlled by a very large number of different agents look like?” is probably: There will be chaos. That quite a different answer has long been claimed true and has indeed permeated the economic thinking of a large number of people who arc in no way economists is itself sufficient ground for investigating it seriously. The proposition having been put forward and very seriously entertained, it is important to know not only whether it is true, but whether it could be true. A good deal of what follows is concerned with this last question, which seems to us to have considerable claims on the attention of economists [Arrow & Hahn, 1971, vi-vii].

Put differently, the pursuit of general equilibrium analysis answers logical possibilities if a system of equations which remotely resembles human economy could be worked out in the abstract [see also Sen, 1989]. Such economic questions are as interesting as the hundreds of thousands of mathematical theories produced annually worldwide. General equilibrium economists should be paid for their services as much as academia recognizes the fruitfulness of other types of mathematics. However, hedgehog economists - Walrasian or Sraffian - usually forget that their equilibrium models are merely logical exercises; they start extrapolating policy prescriptions from them. This is what in fact frustrates the critics of general equilibrium.

In contrast, an economist interested in generating a policy recommendation for an immediate problem like inflation or sluggish growth would be better off with undertaking the kind of questions asked by the foxes. While the
theory might not be founded on ultimate grounds and systematically connected with a grand view of the human condition, it could be easily argued that the world of phenomena is full of complexity and trends which are not unambiguously accessible.

However, if the economist is interested in making a connection between the rich phenomenal field of observations and a fundamental view of the human condition, obviously the owl-type, based on B-series of time, is the most fruitful avenue. It produces a well-rounded social theorist, endowed with wisdom, and not merely with expertise. Such owl economists, like the pragmatist and existentialist philosophers, are in constant review of their cognitive map in light of new experiences, new developments around the world, and the findings of historical research.

This process of review involves maintaining theoretical coherence without losing factual relevance. Adam Smith (1980, see Khalil, 1989b), after the study of the history of astronomy, viewed the scientific process as the oscillation between the countervailing poles of theoretical simplicity and empirical corroboration. Smith admired Newton’s *Principia* not because it is factually true, but because it has come closest to fulfilling the stipulations of the two poles; it exemplifies the economy of principles with a comprehensive coverage of diverse facts (the motion of planets and terrestrial gravity). When a scheme of thought achieves both, it affords an aesthetic satisfaction as long as the vision or image has not encountered factual anomalies [see Boulding, 1956; Wechsler, 1978].

The aesthetic stipulation has no patience with pen-and-paper gymnastics, which are legitimate for the hedgehog-type questions. For the visionary, owl-type economist, such gymnastics sever the phenomenal field into self-constituted components and rearrange it arbitrarily. The aesthetic criterion encourages the elucidation of conceptual architecture of spatial and temporal form, rather than the construction of flat maps. It is interested in the laws of nature (why are things the way they are?), rather than the laws of matter (how things move?). It is about pictorial images of non-metric potentiality, rather than about contrived models of exact variables.

Models which generate exact prediction of actual events are highly prized in the current scientific milieu, and especially in economics. Such models attain exactitude by virtue of carrying a single idea to its logical conclusion, which is intellectually intriguing, but involves a mutilation of the complex reality. In another place [see Khalil, 1989a], I argue that ideology has the same character, namely reducing complex phenomena into a set of simple rules.

All in all, the usefulness of the demarcation of the foxes, hedgehogs, and owls depends on whether it affords us productive self-reflection. Of course, as expected from any simplified categorization, there are hard cases like how to classify the mature work of institutional economists and the contribution of modern Austrian economists. Certainly there will be disagreements about Marx and Georgescu-Roegien. The fact that there might be disagreements on how to classify an economist should not mean the proposed typology is useless. It only proves that there are disagreements about how to interpret a particular text, which affirms the usefulness of the proposed typology of temperaments.

I would submit that conversation among economists would improve greatly by being conscious of the different questions they ask, usually formulated by the different temperaments. The typology of theories recommended here may allow communication across paradigms, which Thomas Kuhn has maintained to be incommensurable. The failure to find a common language among paradigms might be more the result of unconscious temperaments than anything else. Self-reflection may permit economists in different paradigms to recognize how to start listening to each other.

---

**Notes**

* It was Betsy Kohn who introduced me to Isaiah Berlin’s metaphor. I would like to thank, without implication, A.W. Coats, Ross Thomson, Donald McCloskey, Ross B. Emmett, Don Lavoi, Metin Cosgel, and Maurice Laguex for their comments, as well as the audience at the methodology session at the History of Economic Society 18th annual meeting, University of Maryland, College Park, 15 June 1991. I want to thank also Carole Brown for her assistance in editing the paper. The paper was substantially rewritten while visiting as a seminar fellow at the Institute for the Study of Economic Culture, Boston University, Summer 1991.

1. R.D.C. Black [1986] makes a similar classification in his opening to his edited collection, but without being aware of Berlin’s metaphor. Black discusses the difference between two types of economists, dentists (foxes) and preachers (hedgehogs). According to Black, economists should act like dentists who successfully adapt the newest technique to a specific diagnosis - but avoid the dentists’ dictum that what is new is always better. Economists
should also act like preachers who exude commitment to past doctrines as the perennial truth - but avoid falling into the preacher's maxim that what is old is always better. The balance between dentistry and preaching would keep economic policy from turning into crude engineering or didactic fundamentalism.

A somewhat similar distinction, without being aware of Berlin's metaphor, is drawn by the historian Jack Hexter [1961]. He distinguishes between "present-minded" historians (hedgehogs) and "history-minded" historians (foxes). The present-minded historians seek generalizations and grand theories of history in order to shed light on the meaning of the present (but most of the time end up understanding the past in terms of the present, rather than on its own terms). In contrast, the history-minded historians pay attention to facts and details, shunning away from forcing them into a theoretical scheme.

2 An appropriate name for the visionary approach is *al-baseera*, which literally means, in Arabic, the internal eye of the mind. Arab philosophers widely contracted *al-baseera* with *al-basir*, vision. The common etymology of the words suggested to the philosophers that the mind is *not* a *tabula rasa* that is composed by empirical impressions. Rather, the mind 'sees' in a unified manner the complex phenomenal field.

3 The same judgment cannot be passed on the visionary outlook of F. Hayek since, while embracing methodological individualism, he rejects ontological individualism and sees human action as the basis of unintended, spontaneous, order which cannot be designed by human reason. Interestingly enough, though, his rejection of the idea that the modern welfare state could be one of those unintended consequences, generated by social evolution, underscores a contradiction in his thought, which might tempt one to classify him as a hedgehog like his mentor, von Mises.

4 I do not call such pragmatism "practical" economics. I would like to reserve the term "practical" to describe technicians ranging from carpenters, engineers to medical doctors and business managers. Since such skills are vocational, practical knowledge is outside the scope of this article.

5 The same could be said about Marx's or von Mises's views of historical sequence of events, which does not disqualify them from being hedgehogs or upholding A-series type of theorizing. Namely, they construct the sequences from the vantage point of view of an *ideal* system of coordination of decisions, which is characterized by collective rationality (planning) for Marx or by individual rationality (market) for von Mises.

References


