

FRIEDRICH HAYEK'S TERRA INCOGNITA OF THE SELF

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ABSTRACT

The subject of the following study is Friedrich Hayek's belief that there is a *terra incognita* of the self; that human beings are incapable of becoming thoroughly self-aware of their own cognitive processes. My thesis is that Hayek affirms Friedrich Nietzsche's claim that "we are unknown to ourselves," and that he does so improving on Nietzsche's connectionist theory of mind. I then go on to demonstrate how this improved theory of mind informs both Hayek's political and economic theories.

FRIEDRICH HAYEK'S TERRA INCOGNITA OF THE SELF

Shortly before his death in 1984 "the greatest of Nietzsche's modern disciples,"¹ Michel Foucault, began assigning his students the works of Friedrich Hayek. According to his American biographer, Foucault

advised his students...to read with special care the collected works of Ludwig von Mises and Friedrich Hayek—distinguished Austrian economists, strident yet prescient critics of Marxism, apostles of a libertarian strand of modern social thought rooted in a defense of the free-market as a citadel of individual liberty and a bulwark against the power of the state.²

But why should Foucault's philosophical reflections veer off in this surprising direction if his Nietzschean views and the views of Hayek are normally associated with opposite ends of the political spectrum?: Hayek's with the libertarian right and Nietzsche's with the post-modern left. Why should Foucault assign Hayek if "Hayek's work is in the tradition of classical liberalism"³ while Nietzsche is "best known...as an opponent of political liberalism?"⁴ Perhaps Foucault recognized something

¹ Edward W. Said, "Michael Foucault, 1926-1985," After Foucault: Humanistic Knowledge, Postmodern Challenges ed. Jonathan Arac (New Brunswick: Rutgers University Press, 1988), 1.

² James Miller, The Passion of Michel Foucault (New York: Simon and Schuster, 1993), 310.

³ John Gray, Hayek on Liberty, 2nd ed. (Oxford: Basil Blackwell, 1986), 1.

⁴ Walter Kaufmann, Nietzsche: Philosopher, Psychologist, Antichrist, 4th ed. (Princeton: Princeton University Press, 1974), 412.

others overlooked. Perhaps he recognized a philosophical parallel between these disparate thinkers.

In the following pages I attempt to demonstrate that there is just such a parallel between Hayek and Nietzsche. I contend that both thinkers maintain that "we are unknown to ourselves;"⁵ that there is a *terra incognita* of the self. The focal point of this paper, however, is that Nietzsche leaves us stranded. He does not explain adequately why we are inhibited from knowing ourselves. My thesis is that Hayek rescues us from where Nietzsche leaves us marooned, and that he does so by improving on Nietzsche's theory of mind. Indeed, I argue that Hayek surpasses Nietzsche insofar as he offers us a more detailed explanation as to why a portion of the mind must remain unknown to the conscious self. The paper is organized into three sections: In the first section I will review the parallels between Hayek and Nietzsche's theories of mind. In the second section I will demonstrate how Hayek improves Nietzsche's theory. In the third and final section I will focus on how Hayek's improvement informs both his political and economic theories.

I. A REVIEW OF THE PARALLELS BETWEEN HAYEK AND NIETZSCHE'S THEORIES OF MIND

Hayek's theory of mind is not located in a single text. Rather, it is contained in the corpus of his writings. Nevertheless, Hayek's first and most substantial foray into the subject of mind occurred when he began writing *The Sensory Order* in

⁵ Friedrich Nietzsche, *On the Genealogy of Morals* trans. Walter Kaufmann and R.J. Hollingdale (New York: Vintage Books, 1967), 17.

1921. Soon after embarking on the manuscript, however, Hayek's attention was drawn to issues of economic theory and he was unable to complete the project until 1948. The book's immediate goal was to criticize the positivist psychology of Ernst Mach which dominated the field of theories of mind from before 1918.

Mach was unsatisfied with the notion that there are two domains, a physical domain and a mental domain, between which interaction is impossible. Mach was one of the first in a long line of adversaries of such dualism. He maintained that the belief that there is a 'real' world that lurks behind the veil of what appears to our minds is mistaken. Mach rejected the view that there is another realm behind our sensory experiences. Instead, every object has sensory characteristics; colors, sounds, temperatures, odors, mass, etc. For Mach the physical world and the objects in it are nothing other than complexes of such sense data. A chair is nothing more than a collection of the sensory qualities of color, shape, feel, etc. In Mach's words, "Bodies do not produce sensations, but complexes of sensations make up bodies."⁶

Groupings of sensations that regularly appear together or that "cohere strongly,"⁷ comprise what Mach calls items; items

⁶ Ernst Mach, The Analysis of Sensations (Chicago: Open Court, 1902); quoted in Robert P. deVries, "The Place of Hayek's Theory of Mind and Perception in the History of Philosophy and Psychology," Hayek, Co-ordination and Evolution: His Legacy in Philosophy, Politics, Economics and the History of Ideas ed. Jack Birner and Rudy Van Zijp (London: Routledge, 1994), 316-317.

⁷ Ibid., 317.

which we often identify with labels such as star, atom or chair. This position is called "neutral monism."⁸ "Monism" because sensory data are the *only* elements in the universe. "Neutral" because sensations are neither physical or mental. There is simply a one to one correspondence between the sensory qualities of the physical world and our sensations of these characteristics. Reality and our perception of it, argues Mach, are comprised of ontologically homogeneous elements.

Hayek's *The Sensory Order* takes its starting point with Mach's universe of sensory characteristics. Like Mach, Hayek distinguishes between the singular and the plural: The singular consists of the sensory element itself; the plural consists of the grouping of sensory elements with each other. With this definition both Hayek and Mach recognize that observation is not limited to the digestion of singular sensory elements. Instead, it entails the event of an active grouping of sensory elements with each other.

Mach's views regarding this grouping process, however, are not fully worked out. According to Hayek, Mach does not appreciate the implications of the grouping process that oversees our conscious observations. Whereas Mach maintains that every item we observe can be deconstructed into its component sensory characteristics, Hayek warns that Mach underestimates the ongoing

⁸ Robert P. deVries, "The Place of Hayek's Theory of Mind and Perception in the History of Philosophy and Psychology," Hayek, Co-ordination and Evolution: His Legacy in Philosophy, Politics, Economics and the History of Ideas ed. Jack Birner and Rudy Van Zijp (London: Routledge, 1994), 317.

process which supervises their ordering in the first place. Indeed, Hayek points out that the process by which sensory elements are ordered is embedded in the very observation of an item. Accordingly, Hayek claims that any conception of the world must take into account *our taking* of the world to be as we perceive.

In his critique of Mach's theory of mind it thus becomes apparent that Hayek accords a central importance to the event of organizing sense data. Indeed, Hayek explains that in the chaos of innumerable sensory experiences, things do not have self-evident meaning. Things have "meaning only within a given order [of] relation[s];"⁹ relations which our mind imposes on the swirl of our sensory experiences. With this recognition Hayek begins his discussion of the complex construction of human understanding.

Comprehension, for Hayek, does not begin with the sensory event at hand. Comprehension, rather, is forged by the *connection*, the "linkage"¹⁰ of new sensory information, optical, acoustical and otherwise, to previous sensory experiences. That is to say, the mind operates by assembling new sensory data into associations with our accumulated inventory of knowledge or, more

⁹ Friedrich Hayek, The Sensory Order (Chicago: University of Chicago Press, 1952), 4-5.

¹⁰ Friedrich Hayek, "Philosophical Consequences," The Essence of Hayek ed. Chiaki Nishiyama and Kurt Leube (Stanford: Stanford University Press, 1984), 229.

precisely with our mnemonic archive.¹¹ Hayek explains:

the apparatus by means of which we learn about the external world is itself the product of a kind of experience. It is shaped by the conditions prevailing in the environment in which we live, and it represents a kind of generic reproduction of the relations between the elements of this environment which we have experienced in the past.¹²

The result of this process is a network of "links" Hayek calls the "sensory order,"¹³ an order which enables each individual to navigate through storm of sensory information.

The process of comprehension thus does not begin with particular sensations, but precedes them; it operates on previous sensory events which organize them into a pattern which becomes the basis for their mental significance. "We may express this also," explains Hayek, "by stating that experience is not a function of mind or consciousness, but that mind and consciousness are rather products of experience."¹⁴ Since sensory experience precedes understanding in this way, Hayek argues that

¹¹ This connectionist model seems to have some basis in modern neuroscience. Neuroscientists maintain that neural connections are worn by experiences, especially recurrent or traumatic experiences. What results is a process called long term potentiation or LTP. The LTP process involves a change in the efficiency of synaptic transmissions along pathways that link neurons—in other words, electrochemical signals travel more easily along LTP pathways. According to this theory these electrochemical pathways connecting neurons possess a class of postsynaptic excitatory amino acid receptors known as NMDAs. NMDA receptors are activated each time the brain is confronted by a sensory event. Over time the receptivity of neurons with worn NMDA is enhanced. The ability of the brain to comprehend sensory information is thus shaped by the historical paths seared into the neural network.

¹² Hayek, *Philosophical Consequences*, 225.

¹³ *Ibid.*

¹⁴ *Ibid.*, 226.

meaning is not given but invented. The attributes of a given sensory event are not intrinsic qualities that are somehow "communicated"¹⁵ to the mind. Rather, to understand something is to relate it or "link" it to things external and prior to it. Sense is *brought to* things before they are comprehended. As such, what is comprehended is merely the by-product of the constructive activity of the human mind rather than an objective reality given to it by the world. Indeed, Hayek purposes that:

...the classification of events in the external world effected by our senses proves not to be a 'true' classification, i.e. not one which enables us adequately to describe the regularities in this world, and...the properties which our senses attribute to these events are not objective properties of these individual events, but merely attributes defining the classes which our senses *assign* them...¹⁶

Accordingly, says Hayek, "the fact that the world which we know seems wholly an orderly world" is not the result of a translucent *logos*, but "merely a result of the method by which we perceive it."¹⁷ If *logos* were self-evident there would be no hesitation regarding meaning; the order of our ideas would simply conform to the order of things, doubt would be eliminated and we would possess knowledge for all eternity. On the contrary, Hayek does not view knowledge as a ubiquitous logic but as an intelligibility arrived at through the domestication of our

¹⁵ Ibid.

¹⁶ Hayek, *The Sensory Order*, 173. Emphasis added.

¹⁷ Hayek, "Philosophical Consequences," 235. Emphasis added.

sensory experiences. Knowledge is only the *aftermath* of this ongoing process.

This emphasis on the notion that we construct our objects of knowledge by actively organizing or sense experiences distinguishes Hayek's theory of mind from that of John Locke. Indeed, for Hayek, we *initiate* knowledge by bringing meaning to our environment, but Locke holds an essentially *causal* theory of perception, one that states "that the way in which the senses furnish us with knowledge of nature is by the qualities of objects *causing* ideas in our minds."¹⁸ To put this distinction another way, the Lockean view of the relationship between subject and object can be represented by a receiving antenna into which external reality—albeit distorted—is intaken; whereas in Hayek's view of the subject and object relationship, the activity of knowing can be represented by a broadcast antenna which transmits an order onto the media of the world around us. In either case the initiation of knowledge flows from opposite sources; for Locke knowledge proceeds from the external, for Hayek knowledge proceeds from the internal.

Hayek's un-Lockean constructivism nevertheless points to a definitively Nietzschean theory of mind. Like Hayek, Friedrich Nietzsche contends that "No event exists in itself. Everything that happens consists of a group of phenomena that are *gathered* and

¹⁸ John Dunn, *Locke* (Oxford: Oxford University Press, 1984), 78. Emphasis added.

selected..."¹⁹ and knowledge is "nothing more than this: Something strange" which can be connected or "traced back to something known by the senses."²⁰ Both thinkers thus recognize that comprehension is constructed. It consists of creating coherence through the use of associations so that the tempest of sensory events can be organized into various forms and patterns. Otherwise, as William James points out, if we were unable to order our sensory experiences, we would simply get each successive moment of experience as a sea-anemone on a reef receives whatever nourishment that washes by. But through ordering we harness our sensory experiences and drive them to our pragmatic ends.²¹

Since sense is something grafted onto the abyss of sensory experiences Nietzsche, like Hayek, argues that meaning is not self-evident, but something that is constructed, something that is brought to things before they are comprehended. As Nietzsche explains, "man finds in things nothing but what he himself has *imported* into them"²² and "There are no 'facts-in-themselves,' for

¹⁹ Friedrich Nietzsche, Werke, Grossoktavausgabe, 2nd ed. ed. Kroner (Leipzig: Kroner, 1901-1913 and 1926), XII, § 2; quoted in Jean Granier, "Nietzsche's Conception of Chaos," The New Nietzsche: Contemporary Styles of Interpretation ed. David B. Allison (Cambridge: The MIT Press, 1994). 135. Emphasis partially added.

²⁰ Friedrich Nietzsche; quoted in A Nietzsche Reader trans. and ed. R.J. Hollingdale (New York: Penguin, 1977), § 40.

²¹ William James, Some Problems of Philosophy (New York, Longmans, 1940), 51.

²² Friedrich Nietzsche, The Will to Power trans. Walter Kaufmann and R.J. Hollingdale (New York: Random House, 1967), § 606. Emphasis added.

a sense must always be *projected* into them before they can be 'facts.'"²³ The compatibility of Hayek's connectionist theory of mind with Nietzsche's, however, does not end here. Connectionism leads both thinkers to four common conclusions: that the mind is self-referential, that error is a condition of the mind, that the mind is in a perpetual state of becoming, and that a portion of the mind is hidden from the conscious self.

A. SELF-REFERENTIALISM

As we have seen, Hayek contends that the mind is a weave of new and old sensory data in a network of connections or "links" called the "sensory order." This network, he maintains, involves past sensory information to which new sensory information is connected; i.e. sensory data has significance insofar as it shows a certain regularity in appearance to things we have experienced in the past. The implication of this process is that each sensory event is colored by experiences which are not a part of the particular "linkage" which is occurring, but shaped by what exists within the web of one's prior experiences. As a result of this process, understanding cannot be broken down into component sensory events. Each sensory event's identity is defined not by itself as a discrete unit, but by its interrelations to other sensory events, events which are not occurring. They are "linked" with one another in such a way that they actually determine what each one is through their interconnections. Our sensory experiences are thus not singular in nature. Instead, each bit of

²³ Ibid., § 556. Emphasis added.

sensory experience is intertwined with the numerous other bits of sensory information that comprise our personal history i.e. all sensation are embedded in a complex of relations to other sensations; there is only sensory information in intersubjective relations with other sensory information, their essence lies in their relation to the others and their interpenetration of the same. Ultimately, where one part ends and another begins is undecidable. The mind, concludes Hayek, "is a polycentric order, that is...its actions are determined by the relation and mutual adjustment to each other of the [multiple] elements of which it consists."²⁴

As with all wholes that are subject to such intersubjectivity, no sensory experience is insular or autonomous or, as Umberto Eco might put it, a sensory event becomes different when it is connected to another. "The connection changes the perspective" so that "every detail of the world, every voice, every word written or spoken has more than its literal meaning, it tells a *secret*."²⁵ It "resonates" with what Jaques Derrida might call "traces" of something "other."²⁶ Consequently, Hayek concludes that the "sensory order" will "remain forever in a realm of its own...we shall never be able

²⁴ Friedrich Hayek, Studies in Philosophy, Politics and Economics (London: Routledge and Kegan Paul, 1967), 73.

²⁵ Umberto Eco, Foucault's Pendulum trans. William Weaver (New York: Harcourt Brace Javanovich, 1989), 378. Emphasis in original.

²⁶ Jaques Derrida, Of Grammatology trans. Gayatri Spivak (Baltimore: Johns Hopkins University Press, 1976), *passim*.

fully to explain or to 'reduce' [it] to something else."²⁷ We shall never be able to refer to sensory data in a purely self-contained or singular way, nor be able to describe sensory experiences in a complete manner.

Hayek's contention that sensory experiences are not discrete, but always inherently plural corresponds to Nietzsche's claim that our sensory experiences cannot be reduced to singular events. "If I remove," he writes, "all the relationships, all the properties...of a thing, the thing does not remain over,"²⁸ once "one removes other 'things,' then a thing has no properties," no context and, therefore, no meaning.²⁹ For Nietzsche then, there is no such thing as sensory data in itself. Rather, there is only sensory data in relations with other sensory data. The implication of this understanding is that sensory experiences cannot be analyzed irrespective of the *other* contents of the mind which contains them. Under this view, in order to describe a sensory experience all the way through you must describe its relations to other bits of information which in turn are related to further bits, and so on in an infinite regress. Logically, any attempted description of a sensory experience would thus have to take into consideration the complete order that arises from each person's previous sensory experiences.

²⁷ Hayek, "Philosophical Consequences," 251.

²⁸ Nietzsche, The Will to Power, § 558.

²⁹ Ibid., § 557.

Conceiving of the mind as a whole in this way implies that "what we know at any moment about the external world is determined by the order of the apparatus of classification which has been built up by pre[vious] sensory linkages."³⁰ That is to say, "we interpret any new event in the environment in light of...experience."³¹ Since each person's experience is uniquely conditioned by what precedes it in their specific life, every sensory experience is not uniform, it is relative to one's experiential background. Our cognitive template or "sensory order," in other words, is biographical or, more figuratively, historically finger-printed. Under this view, question like "What is X?" has strict meaning only within relation to the perceiver's unique historical experience. This leads Hayek to the conclusion that each person's capacity for understanding is distinct from all others. Just as there are no two identical snowflakes, there are no two identical sensations of a snowflake. Instead, all knowing is historical and all histories are unique.

In underlining the historicity of knowledge, Hayek concludes that the world we perceive is only "an interpretation based on the experience of the individual"³² or similarly, "every sensation, even the 'purest,' must...be regarded as an interpretation of an event in light of the past experience of the

³⁰ Hayek, "Philosophical Consequences," 227.

³¹ Ibid., 225.

³² Hayek, The Sensory Order, 42.

individual."³³ Indeed, Hayek poses a scenario in which an archaeologist discovers an item and cannot discern whether it is a manmade artifact or a product of nature that by chance appears to be an artifact. With respect to this scenario Hayek claims that:

There is no way of deciding this but by trying to understand the working of the mind of prehistoric man, of attempting to understand how he would have made such an implement...[but ultimately our archaeologist] interprets what he sees in terms of the workings of his *own* mind."³⁴

Such self-referentialism conforms to a distinctively Nietzschean approach to knowledge. Like Nietzsche, Hayek claims that we understand everything in light of our previous sensory experiences. Indeed, we are like historians confronted with a collection of documents which must be interpreted. Although the documents may suggest some hypotheses, the data must be organized in order to arrive at a explanation of the past that has some coherence. There is, however, an intermediary sphere between historian and document, subject and object, a sphere occupied by our previous experiences. Understanding is thus mediated by the specific experiences of the historian/observer. As a result, reports Karl Jaspers, Nietzsche maintains that "All knowledge is an interpretation of being provided by a living and cognizing subject...Thus conceived truth is not something independent, unconditioned, and absolutely universal. Rather it is

³³ Hayek, "Philosophical Consequences," 226.

³⁴ Friedrich Hayek, The Counter-Revolution of Science: Studies in the Abuse of Reason (Indianapolis: Liberty Press, 1979), 46. Emphasis added.

inextricably involved with the being of the living subject and the world that he has constructed."³⁵ In other words, says Nietzsche, "facts are precisely what there is not, only interpretations."³⁶

Conversely, we cannot interpret what our experience does not provide us a "link" to. Indeed, according to Hayek, "We can only know such kinds of events as show a degree of regularity in their occurrence in relations with others"³⁷ already in our mind or, as Nietzsche puts it, "nobody can get more out of things...for what one lacks access to experience one will have no ear."³⁸ In short, a sensory event which has no relation to anything previously perceived can not be comprehended. We sit within our historical net, explains Nietzsche, "...and whatever we may catch in it, we can catch nothing at all except that which allows itself to be caught in precisely *our* net."³⁹

Self-referentialism is thus a common theme to both authors. To be sure, Nietzsche admits that he has no right to claim to have understood his mentor: "I am far from believing that I have

³⁵ Karl Jaspers, Nietzsche: An Introduction to the Understanding of His Philosophical Activity trans. Charles F. Wallraff and Frederick J. Schmitz (Tuscon: The University of Arizona Press, 1965), 184-185.

³⁶ Friedrich Nietzsche, The Will to Power, § 481.

³⁷ Hayek, "Philosophical Consequences," 235.

³⁸ Friedrich Nietzsche, Ecce Homo trans. Walter Kaufmann (New York: Vintage, 1967), 261.

³⁹ Friedrich Nietzsche, Daybreak: Thoughts on the Prejudices of Morality trans. R.J. Hollingdale (Cambridge: Cambridge University Press, 1992), § 117. Emphasis in original.

truly understood Schopenhauer, rather it is only through Schopenhauer I have learned to understand *myself* a little better"⁴⁰ and elsewhere he comments, "I assume that everyone now understands how much these truths are only—*my* truths."⁴¹ Similarly, Hayek claims:

My gain from hearing or reading what other people thought was that it changed, as it were, the colors of *my* own concepts. What I heard or read did not enable me to reproduce their thought but altered *my* thought. I would not retain their ideas or concepts but modify the relations between *my* own.⁴²

Furthermore, Hayek asserts that it is possible to "understand only what is similar to our own mind, it necessarily follows that we must be able to find all that we can understand in our *own* mind."⁴³ In other words, knowledge arises from a latent capacity that exists *antecedent* to comprehension. A sensory experience unique in all its aspects, therefore, will be utterly incomprehensible; information is only intelligible when it can be associated with that which is *bekannt* or already familiar to us. Consequently, concludes Hayek, "much that we believe to know about the external

⁴⁰ Friedrich Nietzsche, Gesammelte Werke, Musarionausgabe 23 vols. (Munich: Musarion Verlag, 1920-1929), § 7:140; quoted in Leslie Paul Thiel, Friedrich Nietzsche and The Politics of the Soul: A Study of Heroic Individualism (Princeton: Princeton University Press, 1990), 35. Emphasis added.

⁴¹ Friedrich Nietzsche, Beyond Good and Evil trans. Marianne Cowen (Chicago: Henry Regnery Company, 1966), § 231. Emphasis in original.

⁴² Friedrich Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas (Chicago: The University of Chicago Press, 1978), 52-53. Emphasis added.

⁴³ Friedrich Hayek, Individualism and Economic Order (London: Henley and Routledge, 1949), 68. Emphasis added.

world is, in fact, knowledge about ourselves;" it is a disclosure of who one is historically.⁴⁴

B. ERROR AS A CONDITION OF THE MIND

Given the constructed nature of knowledge, Hayek maintains that there is no basis to believe that the representation of physical reality which it makes possible is an accurate representation of the world as it is. Each mind functions, he says, through a recognition of what is similar to that mind at the expense of what is particular to that item. "What we perceive of the external world," says Hayek,

are never all the properties which a particular object can be said to possess objectively, not even only some of the properties which these objects in fact do possess physically, but always only certain 'aspects,' relations to other kinds of objects which we assign to all elements of the classes in which we place the perceived objects. This may often compromise relations which objectively do not at all belong to the particular object but which we merely ascribe to it as a member of the class in which we place it as a result of some accidental collection of circumstances in the past.⁴⁵

In other words, our observations are illusory. Our "sensory order" is not a strict catalogue of empirical representations, but an abstracted collection of similarities and connections, of incomplete representations which do not capture the full detail of things. As A.E Galeotti summarizes this point, "We do not know tokens, but kinds."⁴⁶ Nevertheless, our "sensory order" comprises

⁴⁴ Hayek, The Sensory Order, 6.

⁴⁵ Ibid., 143.

⁴⁶ A.E. Galotti, "Individualism, Social Rules, Tradition: The Case of Friedrich Hayek," Political Theory (May 1987), 170.

the vary mechanism through which we interpret new experiences and are able to interact with our environment at all.

Since what we experience is abstracted, Hayek argues that we must "divest" ourselves "of the habitual assumption that all we have learned from experience must be true...knowledge based entirely on experience may be entirely false."⁴⁷ Moreover, since knowledge must always refer to abstracted "elements which are defined by certain relations with other elements," knowledge is ultimately be based on the "assumption that these relations actually exist."⁴⁸ In short, Hayek questions the authenticity of the image that our mind presents to us because only a selection of what we are observing is being ordered. Hence, he argues, our knowledge of the surrounding environment is duplicitous and we should not dogmatize it; hold all you positions open to criticism, he says, even this one.⁴⁹

This skepticism reflects a Nietzschean approach to the subject of knowledge. Like Hayek, Nietzsche claims that "The entire apparatus of knowledge is an apparatus for abstraction and simplification"⁵⁰ Our mind attempts "to subsume, to schematize, for the purpose of intelligibility"⁵¹ and "Everything of which we

⁴⁷ Hayek, "Philosophical Consequences," 228.

⁴⁸ Ibid., 232.

⁴⁹ Gerard Radnitzky, "The Evolution of the Extended Order: Reflections on Hayek's Theory and its Political Implications," Organization and Change in Complex Systems ed. Marcelo Alonso (New York: Paragon House, 1990), 184.

⁵⁰ Nietzsche, The Will to Power, § 503.

⁵¹ Ibid., § 515.

become conscious is arranged, simplified, schematized, interpreted through and through."⁵² This abstraction, he continues, results in a kind of deception, a lie, an error which does not contain the essences of things. As one commentator summarizes Nietzsche's view, all our knowledge is an "illusion" because our observations are incomplete, they do not penetrate into the essences of things.⁵³ Our observations, in short, *are falsehoods*. As Nietzsche puts it, "That which we now call the world is the result of a host of errors and phantasies which have gradually accumulated."⁵⁴ Knowledge is, moreover, only the "measuring of earlier and later errors by one another," of the mind's organization of inaccuracies.⁵⁵ Consequently, Nietzsche remarks that the order which we find in the world allows us to pragmatically function it, but it "does not prove them. Life is no argument. The conditions of life...include error."⁵⁶

Nietzsche and Hayek thus both agree that the mind is neither a passive receptacle nor an unblemished mirror for reality. Instead, our mind abstracts and falsifies our surroundings so that we can pragmatically function in the world.

⁵² Ibid., § 477.

⁵³ Jaspers, Nietzsche: An Introduction to the Understanding of His Philosophical Activity, 185.

⁵⁴ Nietzsche; quoted in Jaspers, Nietzsche: An Introduction to the Understanding of His Philosophical Activity, 186.

⁵⁵ Nietzsche, The Will to Power, § 520.

⁵⁶ Friedrich Nietzsche, The Gay Science trans. Walter Kaufmann (New York: Random House, 1974), § 121.

Indeed, Hayek argues that untruth or abstraction is a precondition of pragmatic human activity. Similarly, Nietzsche argues that our incomplete "Truth is a kind of error without which a definite species of living being cannot live."⁵⁷ Hayek and Nietzsche evidently recognize the primacy of practice over accuracy in the construction of human mind.

Since error is a condition of the mind, both thinkers are ultimately led to doubt that humans are capable of apprehending elementary or pure sensations from which we can form a foundation for human knowledge. Because everything we understand undergoes selection and ordering, the resulting map or model we form of the world is in no important respect grounded in the basis of sheer sense data, themselves incorruptible. Both thinkers, in short, stigmatize the Lockean view that our sensory experience "of natural objects correspond in some strong fashion to the way natural objects actually are."⁵⁸ Rather, the picture we form of the world emerges straight from our interaction with the world, and it is always abstract in integrating things among the infinite aspects which it contains.

Since we cannot separate our means of perception, our mind, from that which is being perceived, we have no other way of observing the world, i.e. "we behold all things through the human

⁵⁷ Nietzsche; quoted in Jaspers, Nietzsche: An Introduction to the Understanding of His Philosophical Activity, 186.

⁵⁸ Dunn, Locke, 78.

head and cannot cut off this head."⁵⁹ There is no unmediated vantage point from which this knowledge can be gained, for such a vantage point implies a possibility not granted to us; the possibility of transporting ourselves outside of our existence so as to objectively behold it. Instead, participation in existence is our only window unto the world. We cannot escape from our cognitive template, our "sensory order's" lense, so as to attain a presuppositionless or unsituated perspective on the world as a whole in itself. Our mind's ordering principles "are the basis for all our judgments and 'knowledge'--there is absolutely no escape, no backway or bypath in to the *real world*."⁶⁰ The very means by which we observe the world intervenes in what we can observe and although we can reflect on aspects of our sense experiences, we must realize that reflection is *always* secondary and cannot stand independent to sense experience itself.

The belief that there is an objective viewpoint which gives an accurate account of the world, concludes Hayek, thus "must break down."⁶¹ No such world is accessible. Our view of the world is unavoidably mediated by the very means by which we view it or, as Nietzsche analogizes, humans are like creatures with their backs to reality and a mirror before them. No matter how close to the edge of the mirror they go their view of the whole of the

⁵⁹ Friedrich Nietzsche, Human, All Too Human: A Book For Free Spirits trans. R.J. Hollingdale (Cambridge: Cambridge University Press, 1986), § 9.

⁶⁰ Nietzsche, Daybreak, § 117. Emphasis in original.

⁶¹ Hayek, "Philosophical Consequences," 233.

reality behind them will always be mediated by their own eye. "Why does man not see things?" he asks, because "He is himself standing in the way."⁶²

That we cannot achieve an unmediated view of the world leads Hayek to conclude that the historical aim of philosophy to develop a transcendental metaphysics must be abandoned. The objective of philosophy cannot be the formulation of a metaphysical system, but rather the investigation of the limits of human knowledge. Moreover, says Hayek, such an investigation must be reflexive since, in the end, all philosophical inquiry is immanent inquiry. Hayek is Nietzschean then in repudiating the belief that metaphysics can expose the essences or natures of things. Against Mach and other positivists Hayek rejects the belief that there is available to us "immaculate perception"⁶³ or pure sensations which can contribute to an objective picture of the world. Instead, everything we observe is imbued with presuppositions. The notion that there are pristine sensations which "involve some direct communication of properties of the external objects, or...[which] constitute irreducible mental atoms or elements" is worthless because of the vary "lack of meaning of these hypotheses."⁶⁴ Moreover, Hayek is emphatic that "the conception of an original pure core of sensations...is an

⁶² Nietzsche, Daybreak, § 438.

⁶³ Friedrich Nietzsche, Thus Spoke Zarathustra: A Book For Everyone and No One trans. R.J. Hollingdale (New York: Penguin, 1969), 144.

⁶⁴ Hayek, The Sensory Order, 165.

entirely unnecessary fiction."⁶⁵ Our view of the world, rather, is mediated by our mind's ability to sort through the chaos of the infinite number of stimuli that can be perceived and create order where none exists so as to make the world intelligible.

Dependence on our mind's abstracted ordering thus leads both Hayek and Nietzsche to deny that we can know how things are in the world. We can only know how our mind orders our sensory experiences. In other words, both thinkers assert that we do not observe a translucent representation of the world *ding an sich*,⁶⁶ rather, our minds impose an *a priori* pattern on it making it impossible to observe the supposed things that lurk behind appearances.

This intersection with Kant, however, should not be exaggerated. Although all three thinkers similarly recognize that objects of cognition are synthetic, Kant is alone in going no further. Hayek and Nietzsche, on the other hand, espouse an emergent theory of the mind. They not only argue that the objects of cognition are man-made, but that they are fluid in their character; i.e. they change. Hayek and Nietzsche thus distinguish themselves from Kant in their view that the phenomenal image our mind presents to us is in motion.

C. THE BECOMING OF THE MIND

Given our movements through time and space Hayek argues that the contents of our "sensory order" are not fixed data. The

⁶⁵ Ibid., 42.

⁶⁶ Immanuel Kant, The Critique of Pure Reason trans. N.K. Smith (New York: St. Martin's Press, 1961), *passim*.

things we know are but the result of the connecting activity of the mind as it orders experiences and is modified continuously by experience. Our "sensory order," in other words, evolves with each additional sensory experience; its contents and the relations between them are continually being updated with the introduction of each new bit of sensory information. Occasions arise, however, when our network of connections does not provide a ready binding point for a new experience. In this case, our "sensory order" is compelled to reorder so as to assimilate the new experience. Such an event "forces us to revise [our] classification[s]" to incorporate inconsistent experiences and make pragmatic adaptations to the world that we inhabit.⁶⁷ Hayek conceives the human mind then like a sorting device that spontaneously reprograms to incorporate new experiences; it modifies itself so as to reclassify what would otherwise be meaningless information. Such reordering occurs whenever existing orders are disappointed by new experience. These inconsistencies are overcome when the experience that was formerly treated as a member of an unknown set is synthesized into a new set that encompasses both new and old events. Reordering is thus performed when regularities are reshuffled and a principle of connection is discovered that explains both new and old sensory experiences. Such a process is analogous to learning. Indeed, consider Robert deVries' linguist metaphor:⁶⁸ Suppose that someone with little

⁶⁷ Hayek, "Philosophical Consequences," 228.

⁶⁸ deVries, "The Place of Hayek's Theory of Mind and Perception in the History of Philosophy and Psychology," 320-321.

formal education, but lots of curiosity began to contemplate the linear order of sentences. This hypothetical person notices the following regularities:

John has called his sister.
Peter can buy a bicycle
People won't die.

and

Has John called his sister?
Can Peter buy a bicycle?
Won't people die?

What does our aspiring linguist do? He sees the following regularity: statements can be altered into questions by reversing the order of the first two words of a sentence.

But then our would-be linguist encounters some new experiences that falsify this pattern of regularities.

The big house is cheap.
People without lungs will die.

and

Is the big house cheap?
Will people without lungs die?

If his pattern of regularities were applied the above questions would have the following syntactic form:

Big the house is cheap?
Without people lungs will die?

Since these questions are meaningless, our linguist's principles of organization no longer account for his experience i.e. the first and second words of a sentence are demonstrated not to be the fundamental elements of the grammatical world. When this realization occurs our linguist is compelled to reorder his linguistic universe to behave pragmatically in his relations with the external world. He may then notice a second pattern of

regularities, one that states that sentences can be changed into questions by reversing the order of the object and the finite verb. This second pattern would not only have explained his old experiences had he held it before, but it *also* explains his new experiences. Such a reordering of experiences is analogous to the process Hayek claims spontaneously transpires in the "sensory order" when old systems of connection are reconstituted.

This emphasis on the continual motion of the mind in light of new experience echoes Nietzsche's belief that the human mind is in a state of becoming. Indeed, Nietzsche is clear in his recognition that the human mind is an evolving phenomena. He explains:

The power of the mind to absorb foreign elements reveals itself in the strong tendency to make the new like the old. to simplify the manifold...its purpose is the incorporation of new "experiences," the adding of new material to old, its *growth*... Really, the mind is more like a stomach than anything else."⁶⁹

Yet, unlike Hayek, Nietzsche is not explicit in his recognition of cognitive reordering. What Nietzsche does say is that we seek to "master the chaos one is, to compel one's chaos to become form."⁷⁰ What exactly this "mastering" entails is not made clear. He does mention, however, that man "is that which must overcome itself again and again."⁷¹ Whether or not this implies the reordering of our sensory data to "incorporate new 'experiences'"

⁶⁹ Nietzsche, Beyond Good and Evil § 230. Emphasis in original.

⁷⁰ Nietzsche, Will to Power, § 842.

⁷¹ Nietzsche, Thus Spoke Zarathustra, 138. Emphasis removed.

is not stated. Nevertheless, Nietzsche does claim that the mind evolves. He explains: "We ourselves keep growing, keep changing, we shed our old bark, we shed our skins every spring...we are no longer free to do only one particular thing, to *be* only one particular thing."⁷²

In any case, regarding the human mind both Hayek and Nietzsche see continual motion. They agree that our mind's view of the world is in a constant process of temporal change. Indeed, Hayek asserts, the phenomenal world we perceive is not constant, but "incessantly changing."⁷³ Similarly, Nietzsche states that "all our doing and knowing is not a succession of facts...but a continuous flux."⁷⁴ In other words, both thinkers subscribe to the view that the contents of the human mind are in a discursive state of becoming. Of central importance to both theories of mind, however, is that this process is ultimately unknowable to the conscious self.

D. THE UNKNOWN SELF

Some thinkers, such as Karl Popper, acknowledge the existence of a 'submerged' portion of the mind, but they deny that this disturbs the unity and continuity of the self. They contend, rather, that the unconscious aspects of the mind can be

⁷² Nietzsche, The Gay Science, § 371. Emphasis in original.

⁷³ Hayek, "Philosophical Consequences," 234.

⁷⁴ Friedrich Nietzsche, "The Wanderer and His Shadow," Human, All Too Human, § 11.

"recalled" or accessed from the surface of consciousness.⁷⁵ Hayek and Nietzsche are not convinced. Both thinkers maintain that everything that is "made conscious...belongs only to the surface, the skin which, like any skin reveals something but *conceals* even more!"⁷⁶ Indeed, they contend that much of our cognitive activity is hidden beyond the scope of self-conscious introspection.

In order to understand what Hayek and Nietzsche mean when they claim that a portion of the self is hidden, we must begin with their shared belief that "that which becomes conscious is involved in causal relations which are *entirely withheld* from us."⁷⁷ According to both thinkers, there is a process which orders the contents of our consciousness, but which is beyond our self-awareness. We are, they argue, subject to the workings of an evolving cognitive framework which organizes our sensory experiences into our conscious mind and which is implicit in everything to which our mind refers, but which is nonetheless introspectively inaccessible to our conscious mind.

It is important to recognize the precise sense in which Hayek and Nietzsche maintain that a portion of the self is "*entirely withheld*" from us. A claim that we can know the cognitive processes which result in our conscious mind would mean that we could arrive at a substantive explanation of why we hold the views we do and how we know what we know. In such a case the conditions

⁷⁵ Karl Popper, The Self and Its Brain, Part I (New York: Springer-International, 1977), 129-131.

⁷⁶ Nietzsche, Beyond Good and Evil, § 32. Emphasis added.

⁷⁷ Nietzsche, The Will to Power, § 524. Emphasis added.

would be favorable for deliberately directing our consciousness. We could on the basis of our conscious knowledge be able to successfully direct our own mind's activity. To make this conclusion, however, would entail positing the presence of a Cartesian self, of a free floating consciousness which is independent of the precursory workings of our becoming mind. Hayek and Nietzsche reject the possibility of such an autonomous engineer of consciousness, such a Cartesian self.

In Hayek's view, that which we call the conscious mind is generated from the micro-level interactions or connections of new and old sensory information. The mind which arises from this micro-level activity has its root therein, and it emerges therefrom, but does not belong to it. It instead constitutes a new order of complexity which cannot describe in reverse its own construction. In other words, we can no more recursively describe how our conscious mind was arrived at than can tell from the number 5 that it was arrived at from $2 + 3$, $7 - 2$ or any other of an infinite number of other calculations; this information resides on a different level of complexity--one which governs the order of numbers or minds, but which is not demonstrable from the level of numbers or minds themselves. Based on this description of the mind, Hayek argues that there is a *terra incognita* of the self; the process which orders the contents of our conscious mind is beyond our self-conscious capacity to know. There is in other words, "on every level or in every universe of discourse, a part

of our knowledge which although it is the result of experience, cannot be controlled by experience."⁷⁸

In this respect, our mind encounters some of the same limitations as an "executive routine" of a computer program; i.e. consciousness arises from a process which arranges, simplifies, and schematizes the contents of our minds, but like an "executive routine" we do not have access to the process which oversees the ordering of this information. For an example, the "executive routines" of current chess-playing programs do not have access to the principle of play employed by the software, but only to the "summary judgment" of its "move evaluator." This "summary judgment" is a numerical quantity which represents the result of the program's application of its principle of play, yet this "summary judgment" conveys *no* information back to the "executive routine" regarding the process by which it was derived. An "executive routine" thus does not directly consider the principle upon which it functions.⁷⁹ It instead operates on the basis of the results of its "summary judgment." Like a chess-playing program, the conscious mind is ordered by a process which cannot be accessed or self-consciously explicated. Indeed, Hayek contends that the mind is ordered by a process which we cannot consciously articulate—we only have access to the consequences of our "summary judgments." The mind, in short, is subject to a

⁷⁸ Hayek, "Philosophical Consequences," 229.

⁷⁹ Daniel Dennett, Brainstorms: Philosophical Essays on Mind and Psychology (Cambridge: The MIT Press, 1981), 150-151.

process which operates on the contents of consciousness but which cannot itself be consciously known.

It is important to realize, however, that this analogy is not fully appropriate. Unlike chess playing software the unconscious process Hayek speaks of does not consist of innate or Platonic ideas which are preprogrammed into human beings. Instead, he argues that the connective process is incidental. It simply refers to how the ongoing micro-level interactions of past and incoming sensory experiences spontaneously determine the overall order of the contents of our conscious mind.

Hayek warns us, moreover, that just because these micro-level connective processes occur on an unconscious level that they should not be characterized as "sub-conscious." He puts this point clearly when he explains that "it is generally taken for granted that in some sense conscious experience constitutes the 'highest' level in the hierarchy of mental events, and that what is not conscious has remained 'sub-conscious' because it has not yet risen to that level."⁸⁰ Indeed, Hayek does not doubt that many mental processes through which stimuli evoke actions do not become conscious because they proceed on literally too low a level, "but this is no justification for assuming that all the [cognitive] events determining action to which no distinct conscious experience corresponds are in this sense sub-

⁸⁰ Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas, 45.

conscious."⁸¹ Hayek goes on to claim that if his conception is correct that processes of

which we are not even aware determine the sensory qualities which we consciously experience, this would mean that of much that happens in our mind we are not aware, not because it proceeds at too low a level but because it proceeds at too high a level. It would seem more appropriate to call such a process not 'sub-conscious; but 'super-conscious,' because they govern the conscious process without appearing in them. This would mean that what we consciously experience is only part, or the result, of processes of which we cannot be conscious, because it is only the multiple classification by the super-structure which assigns to a particular event that determined place in a comprehensive order which makes it a conscious event.⁸²

The point Hayek makes here is that the order which emerges from the complex interaction of past and present sensory experiences "seems never to be the outcome of a conscious process, not something at which we can deliberately aim, but always a discovery of something which already guides its operation."⁸³ If this connective activity *were* consciously accessible, we could know the rules upon which our vary thoughts are based. But this, Hayek argues, is impossible because we cannot self-consciously calculate the activity to which all are conscious thoughts necessarily refer. In other words, to direct our own consciousness on a micro-level would "require that we should know more than we actually do, which is, of course, a contradictory

81 Ibid.

82 Ibid.

83 Ibid., 46.

statement."⁸⁴ More importantly, as a result of this limit to introspection, there can be no orchestrating or Cartesian self. We instead function on the results of our mind's non-conscious ordering activity. "Our mental activities are not guided by the particulars at which they are consciously directed, or of which the acting mind is aware, but by abstract rules which it cannot be said to know yet which nevertheless guide it."⁸⁵

Like Hayek, Nietzsche contends that consciousness is simply a "shadow" of connective activity that is elsewhere delineated.⁸⁶ What we experience as consciousness is a symptom of our mind's ordering of our "thousandfold complexity."⁸⁷ It is the outcome of "a multiplicity of subjects whose interaction and struggle is the basis of our thought and our consciousness."⁸⁸ Under this view, everything that enters consciousness as a 'unity' is already tremendously complex. Hence, Nietzsche sees consciousness not as a beginning but as an end, the last link of a chain, the verdict of underlying micro-level activity.

Nietzsche sees consciousness then not as *self*-conscious, but as an awareness subordinate to an ordering and arranging self which is not conscious, i.e. it is not a "master" conscious, but

⁸⁴ Hayek, The Counter-Revolution of Science: Studies in the Abuse of Reason, 86.

⁸⁵ Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas, 39.

⁸⁶ Nietzsche, The Gay Science, § 179.

⁸⁷ Nietzsche, The Will to Power, § 523.

⁸⁸ *Ibid.*, § 490.

a "slave" conscious in relation to a "master" who is not conscious.⁸⁹ Consciousness arises when a whole is subordinated to a superior whole. It is born in relation to micro-level cognitive activity of which consciousness is the result. Regarding our consciousness, concludes Nietzsche, "That a higher court rules over these things cannot be doubted."⁹⁰

This view leads Nietzsche to address what is called the "actor-action" presumption.⁹¹ The "actor-action" presumption holds that actor A wills action B; i.e. actor A *brings about* action B. Such a distinction places the emphasis on the deliberate subject and implies that he/she has some meaningful discretion over action B. It implies that actor A has the ability to do otherwise and exercises an independence of action B.

For Nietzsche, the most important consequence of the "actor-action" presumption is its overestimation of the conscious self. Under the "actor-action" presumption the subject is separated from his/her acts and given the status of a preeminent author. But in Nietzsche's view, consciousness is not qualitatively separable from the unconscious process which already arranges, simplifies, schematizes and interprets the contents of our consciousness. As a result, the unitary subject does not exist; the 'I' is merely a fiction attributed to the

⁸⁹ Gilles Deleuze, Nietzsche and Philosophy trans. Hugh Tomlinson (New York: Columbia University Press, 1983), 39.

⁹⁰ Nietzsche, The Will to Power, § 524.

⁹¹ Tracy Strong, Friedrich Nietzsche and the Politics of Transfiguration (Berkeley: University of California Press, 1975), 63-72.

actor whose movements are based upon precursory cognitive activity. In this sense, actor and action are the products the *same* unconscious cognitive events. To say that actor A wills action B is then like saying the "lightening flashed;" it simply states two aspects of the same event and imposes a non-existent causal relationship between them. With regard to consciousness, Nietzsche concludes that there is *no* deliberate relationship between subject and action. We incorrectly believe "ourselves to be causal in the act of willing;" we incorrectly believe an action's causes are "to be sought in consciousness;" and, above all, we incorrectly believe "that the 'I' causes the thought."⁹²

In the end, Nietzsche, like Hayek, destabilizes the notion of the Cartesian self. Under his view, "thinking" does not necessarily imply the presence of a singularity, an "I" which "thinks." Instead, "thinking" is the by-product of an underlying multiplicity of cognitive interactions. The self is not a unity, it is "something *complicated*, something that is a unity in word only."⁹³ A unitary or Cartesian subject is thus not the prime mover or sovereign architect of human thought. Rather, thought is a by-product of elementary cognitive operations, operations which culminate in the form of the conscious self.

⁹² Friedrich Nietzsche, Twilight of the Idols, quoted in Tracy Strong, Friedrich Nietzsche and the Politics of Transfiguration (Berkeley: University of California Press, 1975), 70-71.

⁹³ Nietzsche, Beyond Good and Evil, § 19. Emphasis in original.

Nietzsche goes on to argue that our mind's elementary cognitive operations are beyond our capacity to know. Indeed, he claims that the mind's "great principle activity is unconscious"⁹⁴ and that "by far the greatest part of our spirit's activity remains unconscious and unfelt."⁹⁵ That these cognitive processes are inarticulate, however, is no excuse for dismissing them as inferior to conscious processes. For Nietzsche, it is an error to

regard the indistinct idea as a lower kind of idea than the distinct: but that which removes itself from our consciousness and for that reason becomes obscure *can* on that account be perfectly clear in itself. Becoming obscure is [only] a matter of perspective of consciousness.⁹⁶

For Hayek and Nietzsche then, our behavior is *not* guided by a 'declarative' or 'deliberate' self. Rather it is mediated by a different system, one which operates above our conscious awareness. They argue that we do not have introspective access to these workings and interactions, but only to the consequences—such as the way we behave and feel. Thus thoughts are conscious products of a non-conscious process. It is crucial to remember that the subjective experience we call the consciousness is, therefore, not the primary business of the system which generates it, but shaped by introspectively inaccessible process. Nietzsche, however, does not provide an explicit explanation as to why we cannot become self-aware of the connective process which

⁹⁴ Nietzsche, The Gay Science, § 354.

⁹⁵ *Ibid.*, § 333.

⁹⁶ Nietzsche, The Will to Power, § 528.

culminates in our conscious mind—he simply states that it is the case. Hayek, on the other hand, goes further than Nietzsche regarding this subject and effectively surpasses Nietzsche's theory of mind.

II. HAYEK'S IMPROVEMENT ON NIETZSCHE'S THEORY OF MIND

Hayek's belief that our connectionist mind is in perpetual motion leads him to certain important conclusions regarding the mind's operation which *improve* on Nietzsche's theory of mind. Foremost, Hayek recognizes three properties in the mind's operation—iteration, sensitivity to initial conditions and unpredictability—which offer an explanation as to why a portion of the self is "entirely withheld" from conscious awareness. These properties normally occur in what complexity theorists call "emergent" phenomena.⁹⁷ An "emergent" phenomena is a natural phenomena, such an eco-system or weather pattern, in which evolving orders arise out of a complex array of interactive components. They are called "emergent" because they are *moving through* what physicists call "state space" where a "state point" is defined as the mathematical conception whose coordinates describe the state of a phenomena at a given point or snapshot in elapsing time.⁹⁸ "State space," however, is not literal or physical space but something that can be understood by direct analogy.

⁹⁷ Roger Lewin, Complexity: Life at the Edge of Chaos (New York: Macmillan Publishing Company, 1992), 9-14.

⁹⁸ Steven H. Strogatz and Ian Stewart, "Coupled Oscillators and Biological Synchronization," Scientific American (December 1993), 103.

"State space" is a conceptual "space" which contains the various aspects or "dimensions" acting upon a phenomena. For example, consider your personal characteristics of age, height, weight, hair color, gender, income, level of education and occupation. Each of these characteristics corresponds to a one point on eight different charts, charts which contain the respective range of possible ages, heights, weights, etc. Now suppose the ranges of all eight charts could be represented simultaneously by a multidimensional space, and a single point within that space represents all eight aspects of your character at a particular moment in time. In this case, your character is reduced to a single "state point" in multidimensional space, yet this point still contains all the information that has been recorded about you. Consider further that as your characteristics change with time the point representing you appears to meander within this multidimensional space.⁹⁹

In a major respect, the concept of an "emergent" phenomena is compatible with Hayek's notion of the "sensory order." Like an "emergent" phenomena, Hayek conceives of cognitive activity as neither on a continuum nor on a grid, but moving through a "state space" which contains all the dimensions and potential connections of our past, present and future sensory experiences. Moreover, the properties of iteration, sensitivity to initial conditions and unpredictability would account for our

⁹⁹ J. Richard Eiser, Attitudes, Chaos and the Connectionist Mind (Oxford: Blackwell, 1994), 225-229.

connectionist mind's discursive movement through this "state space."

A. ITERATION

The first property Hayek identifies in functioning of our "sensory order" is iteration. Iteration is the successive process by which new information is integrated into present and future frameworks of an ongoing phenomena. In the case of the "sensory order" this process entails the "linking" of new sensory data into the present mental network. But when the "sensory order" incorporates a bit of sensory data it is itself is altered by that data; it recontextualizes. In other words our connectionist mind is like a mental encyclopedia which, at each successive moment publishes a revised edition into which the next relevant entry is inserted. As a result, each new sensory event one witnesses will be interpreted within the relative context of an updated network system of connections, one which incorporates the immediately preceding sensory information.

The "sensory order," consequently, is *not* a timeless phenomena. A timeless phenomena is a closed system such as a collection of musical notes where the possible patterns that can be played today are identical to the possible patterns that can be played next week, next year, next century. But what happens when the unity is broken and a new note is introduced? The whole nature of possible permutations is changed. No possible permutation of the former set of notes can replicate a sequence of the new sounds. The introduction of a new note, therefore, dramatically changes the possible outcome of all future melodies.

Similarly, the introduction of each new bit of sensory information alters the "sensory order's" possible future scenarios. Indeed, the "sensory order" is perpetually changing. As one continues this process of weaving new information into the network, one's mind not only redefines relations between given sensory events and other events which are actually observed, but also between new and old events, and even conjectural relations between events. Added to this already dynamic picture is the process of mental reorganization. When reorganization occurs, says Hayek, the configurations of earlier orders are recombined into still more complex configurations. Each recontextualized order that then emerges contains within it the earlier orders, and the events of these orders acquire novel qualities which did not exist in them prior to their integration within the new order. As a consequence of such iteration each contemplation is unique or, as Heraclitus might put it, you cannot step into the same stream of thought twice. The structure of the connections in the mind, explains Hayek,

is modified by every new action exercised upon it by the external world, and since the stimuli acting on it do not operate by themselves but always in conjunction with the process called forth by the pre-existing excitatory state, it is obvious that the response to a given combination of stimuli on two different occasions is not likely to be exactly the same. Because it is the whole history of the organism which will determine its action, new factors will contribute to this determination on the later occasion which were not present in the first. We shall find not only that the same set of external stimuli will not always produce the same responses, but also that altogether new responses will occur...¹⁰⁰

¹⁰⁰ Hayek, The Sensory Order, 123.

B. SENSITIVITY TO INITIAL CONDITIONS

It is significant that Hayek notes that "there are several fields in which practical difficulties prevent us from thus elaborating known explanations of the principle to the point where they would enable us to predict particular events. This is often the case when phenomena are very complex, as in meteorology..."¹⁰¹ Indeed consider the case of MIT meteorologist Edward Lorenz. In 1960, Lorenz created a primitive weather simulator using twelve variables. Through the observance of dramatic fluctuations based on minute variations in initial values, Lorenz concluded that long range weather forecasting was doomed. No one listened, and by the 1980s millions of dollars and manhours had been spent in an attempt to program a Cray supercomputer to predict the weather. A network of measuring stations was established and the resulting half a million variables were inputted into the computer. The result was no better than using satellite photographs; "beyond two or three days the world's best forecasts were speculative, and beyond six or seven days they were worthless."¹⁰² But suppose that even more data could be inputted into the computer. "[S]uppose the Earth could be covered with sensors spaced one foot apart, rising at one foot intervals all the way to the top of the atmosphere. Suppose every sensor gives perfectly accurate readings of

¹⁰¹ Hayek, "Philosophical Consequences," 243.

¹⁰² James Gleick, Chaos: The Making of a New Science (New York: Penguin, 1987), 20.

temperature, pressure, humidity and any other quantity a meteorologist would want...The computer will still not be able to predict whether Princeton, New Jersey will have sun or rain on a day one month away."¹⁰³

The inherent impossibility of such long-range weather forecasting is the result of the fact that wether systems are extremely sensitive to initial conditions. That is to say, if the calculated temperature inputted into a wether forecasting computer is 75.0000°, but the actual temperature is 75.00001°, then this slight miscalculation in conjunction with others will evolve over time into prediction-wrecking size. Accordingly, the lighting of matches and the opening of refrigerator doors in Richmond today would have to be taken into account to accurately predict the weather in Williamsburg next month.

The human mind's sensitivity to initial conditions is no different in Hayek's view. Even a slight variation in the initial condition of your "sensory order" means that you are beginning from a different point than calculated. Subsequently, at each moment your understanding is evolving under different circumstances and each new experience carries you further from what you expected. Moreover, large collections of sensory experiences may exhibit seemingly random behavior. Like all complex systems the mind is extremely sensitive to minute influences. The sight of a familiar face, therefore can trigger an abrupt shift in the thought pattern and a corresponding shift

¹⁰³ Ibid., 21.

in one's awareness. For these reasons Hayek claims that we are in no better position to predict the specific future motions of the mind than we are "able to predict the shape and movement of [a] wave that will form on the [surface of the] ocean at a particular place and moment in time."¹⁰⁴

The role of minute variables thus becomes important to Hayek's view, especially regarding "'more highly organized' or essentially complex phenomena as we encounter in the realms of life, *mind* and society."¹⁰⁵ There are, he notes, many examples in nature that elucidate the property of sensitivity to initial conditions. For example:

We can never produce a crystal or complex organic compound by placing the individual atoms in such a way that they will form a lattice of a crystal or the system of bezol rings which make up an organic compound....What does in these instances determine not only the general character of the crystal or compound that will be formed but also the particular position of any one element in them? The important point is that the regularity of conduct of the elements will determine the general character of the resulting order but not all the details of its particular manifestation. The particular manner in which the resulting abstract order will manifest itself will depend, in addition to the rules which govern the actions of its elements, on their initial position and on all the particular circumstances of the immediate environment to which each of them will react in the course of the formation of that order. The order, in other words, will always be an adaptation to a large number of particular facts which will not be known in their totality to anyone...¹⁰⁶

¹⁰⁴ Hayek, "Philosophical Consequences," 243.

¹⁰⁵ Friedrich Hayek, Law, Legislation and Liberty: A New Statement of the Liberal Principles of Justice and Political Economy, Vol. I: Rules and Order (London: Routledge & Kegan Paul, 1973), 41. Emphasis added.

¹⁰⁶ *Ibid.*, 39-40.

Another example from physics is in some respects even more instructive of Hayek's view on the role of minute influences on complex phenomena.

In the familiar school experiment in which iron filings on a sheet of paper are made to arrange themselves along the lines of force of a magnet placed below, we can predict the general shape of the chains that will be formed by the filings hooking themselves together; but we cannot predict along which ones the family of an infinite number of such curves that define the magnetic field these chains will place themselves. This will depend on the position, direction, weight, roughness or smoothness of each of the iron filings and on all the irregularities of the surface of the paper. The forces emanating from the magnet and from each of the iron filings will thus interact with the environment to produce a unique instance of a general pattern, the general character of which will be determined by known laws, but the concrete appearance of which will depend on particular circumstances we cannot fully ascertain.¹⁰⁷

In short, although the general pattern of growth and function of a complex system might be discovered and predicted, prediction of sub-patterns are precluded by the impossibility of accumulating all the information which contributes to its specific manifestation.¹⁰⁸

107 Ibid.

108 Because Hayek's account of the the properties of the "sensory order" resemble those we observe in physical phenomena we are brought to confront his position regarding physicalism. Physicalism is the view that objects of cognition are only the result of underlying material activities so that your joys and your sorrows, your memories and your ambitions, your sense of personal identity and free will, are in fact no more than the the behavior of a vast assembly of nerve cells and their associated molecules. Hayek subscribes to this physicalist view. He argues that the mind is simply the by-product of the interaction of brain material. The mind, he argues, "operates on the physiological events and arranges them into a structure or order that becomes the basis for their mental significance." Or, more explicitly, the mind's networking process is governed by "connections created in the nervous system by past linkages" and the ordering process is "determined by the system of connections by which impulses can be transmitted from neuron to neuron."

C. UNPREDICTABILITY

Given the presence of iteration and sensitivity to initial conditions in the "sensory order" the question that inevitably arises for Hayek is whether one's "sensory order" can be predicted. The position he arrives at is that the number of

"Mind," in short says Hayek "is the order prevailing in a particular part of the physical universe—that part of it which we call ourselves."

This view is not entirely inconsistent with Nietzsche's philosophy. According to Leslie Paul Thiele, Nietzsche "reduced mental and spiritual activity to the status of physiological events." Indeed Nietzsche argued that moral and aesthetic judgments are merely the "'subtlest nuances' of the physis" and "My objections to the music of Wagner are physiological objections: why should I trouble to dress them up in aesthetic formulas? After all aesthetics is nothing but a kind of applied physiology." More importantly, however, Nietzsche is with Hayek in remaining skeptical as to the possibility of determining the origins of our physiological states. According to Nietzsche all conscious activity is suspected to have a specific physiological basis, but we may never know precisely "how deep and high the physis reaches."

Indeed, Hayek's physicalism, leads him to a conclusion that is the opposite of the one that normally follows from it; namely unpredictability. Hayek subscribes to what is called a token identity theory of the mind. The token identity theory holds that each psychological state corresponds to a physical state. While preserving a commitment to physicalism the token identity theory, however, does not insist that the same mental state in two separate individuals has the same physical identity—only that each mental state corresponds to a physical state. Hayek makes this qualification because he recognizes that which is remarkable about the human brain is not its universally present material, but the unique connections that emerge within this material. To put this notion another way consider what is called the idea of "grandma neurons." Suppose everybody's idea of "grandma" was universally determined by the same physical collection of neurons in everyone's brain. If those "grandma neurons" died in one person's brain not only could they not say "grandma," they could not think of her even if she were standing in front of them. Although neurons die and malfunction with regularity, nothing like this has ever been observed. The implication of this matter is that humans do not universally share the same physical state when they share the same mental state; i.e. there are not neurons in each person's head that correspond to the idea of "grandma." Instead, similar mental states have a different sort of physical manifestation; they arise from the historical connections that are woven into our individual brain material. The token identity theory of the mind thus allows Hayek to at once claim that the mind is a physical phenomenon, and yet not concede any sort of uniformity or predictability from mind to mind.

variables—past, present and future—that would have to be taken into account are too numerous and detailed. It is impossible, he says, to accumulate and compute all the facts which contribute to the exact behavior of the "sensory order." Although we may know general knowledge of how a "sensory order" functions through the process of "linking," Hayek nevertheless asserts that we

will rarely if ever enable us to predict the precise result of any situation. While we can explain the principle on which certain phenomena are produced and can from this knowledge exclude the possibility of certain results, for example, of certain events occurring together, our knowledge will in a sense only be negative; that is, it will merely enable us to preclude certain results but not enable us to narrow the range of possibilities sufficiently so that only one remains.¹⁰⁹

With this assertion Hayek distinguishes between "explanations in principle" and "explanations in detail." The former are designed to explain *kinds* of events or processes, the latter explain *particular* events or processes.¹¹⁰ Indeed, "explanations in detail" refer to the logical structure of the unique manifestation of an event or process. Unlike an "explanation in principle," an "explanation in detail" accounts for the properties of sensitivity to initial conditions and iteration in a phenomena. Hayek argues, however, that since we cannot account for these properties and are accordingly inhibited from giving an "explanation in detail" of our own mind's working. "If it should turn out," he says, "that it is basically impossible to state or communicate all the rules

¹⁰⁹ Hayek, The Counter-Revolution of Science: Studies in the Abuse of Reason, 74.

¹¹⁰ Hayek, Studies in Philosophy, Politics and Economics, 6-7.

which govern our actions...this would imply an inherent limitation of our possible knowledge and, in particular, the impossibility of ever fully explaining a mind of the complexity of our own."¹¹¹ Given the presence of iteration and sensitivity to initial conditions, Hayek argues that the number and detail of possible link patterns that would have to be taken into account to predict the cognitive activity of our own "sensory order" is greater than that which can be ascertained and effectively manipulated by our own mind. In other words, Hayek argues that there are far too many potential patterns of "links" or what he calls cognitive "constellations" to be effectively computed by one's own mind.

Hayek uses a calculator to elucidate this point that the number of "constellations" the "sensory order" can possibly become through additions and reorganizations is of a far greater magnitude than that same "sensory order" can compute: Suppose the highest value a calculator can display is 999,999,999. There are 500,000,000 sums of two positive numbers which equal 999,999,999. Furthermore, there are 499,999,000 combinations of two positive numbers that equal 999,999,998; etc., etc. As a result, the total number of summation the calculator can perform is greater than the largest number it can display. To this number would have to be added all the combinations of three numbers, four numbers, etc. Ultimately the total number of distinct combinations the

¹¹¹ Hayek; quoted in Gray, Hayek on Liberty, 2d ed., 22.

calculator can perform far exceed the calculator's display capacity.¹¹²

Applying this same principle to the human mind, Hayek concludes that although "linking" or connecting sensory events provides an explanation of the general principle on which our "sensory order" operates, we shall never, by means of the same brain be able to arrive at a detailed explanation of its working in particular circumstances, or be able to predict what the results of an operation will be. To achieve this would require a higher order of complexity because, in addition to showing how any one sensory experience will behave in a particular situation, we would also have to be capable of showing how any one of these sensory events would behave in any one of a large number of *other* situations. Prediction, in other words, is based on the impossible capacity to self-consciously know the behavior, over time, of each sensory event under varying future conditions. Like Hayek's calculator, the sheer number of possible future scenarios exceeds our conscious computational capacity. Although the principle upon which the function and pattern of growth of our complex "sensory order" may be appreciated, the impossibility of knowing all the facts which contribute to its specific features precludes predictions in particular cases. Consequently, we cannot introspectively access our own mind's operation. The properties of Hayek's connectionist theory of mind thus leads him to the conclusion that there is no overseeing or Cartesian self who

¹¹² Hayek, "Philosophical Consequences," 246-247.

directs our cognitive activity in a conscious manner. Instead, there is a *terra incognita*, an unknown territory of the self. This conclusion however, is not without profound implications for both political and economic theory, implications which Hayek explicitly recognizes.

III. HOW HAYEK'S IMPROVEMENT INFORMS BOTH HIS POLITICAL AND ECONOMIC THEORIES

As we have seen, Hayek improves on the Nietzschean theory of mind and demonstrates that the unified subject, far from being a self-certain foundation, is a fiction, a historically contingent construct beneath whose apparent unity teams a welter of non-conscious cognitive activity. It is out of this material, says Hayek, that all societies and economies arise and change. They result from the complex interaction of preferences and motivations as they manifest in millions of seething "sensory orders." Societies and economies, in other words, are the composites of supporting and counteracting actions and reactions of individual "sensory orders," amalgams of multiple relations in motion. Accordingly, all sociological phenomena, from local economies to international wars, are the by-products of the interplay of motivations of individual human beings. Customs, laws, culture, etc. are a part of the natural history of civilization; they emerge directly from the composite of individuals' dealings with each other, they coeval with the emergence of society. The views people form of each other and things thus forms the basis of the social structure. Consequently, when we speak of a particular society or economy,

we are not talking about a unitary thing. Instead, says Hayek, it is just a short-hand way of referring to an interactive collection of people's motivations, opinions, preferences and ideas, and to speak of it as if it were a unitary whole obscures all these complex relationships which contribute to the overall pattern of activity that results in a society or economy.

A. IMPLICATIONS FOR HAYEK'S POLITICAL THEORY

Hayek's view that the evaluations and opinions of individuals trigger the social sphere contrasts sharply with the view that societies are the products of human reason. Indeed, Hayek claims that the orderly structures we find in society "are the product of the actions of many men, but are not the result of human design."¹¹³ Order, he explains, arises "spontaneously" through the complex interplay of millions of "sensory orders." It is an order which evolves in a gradual and decentralized process, which constitutes an unintended effect of the motivations and actions of many interacting individuals and not human design.

Hayek claims that his notion of "spontaneous order" is descriptive and value free. The notion of the "spontaneous order," he says, simply functions as an explanatory framework for the complex phenomena we call society; it describes the *evolution* of societies without teleological or purposive pretensions. Hayek does recognize that the original meaning of the term evolution refers to a manifestation of potentialities already contained in the germ. His theory of social evolution, however, does not imply

¹¹³ Hayek, Law, Legislation and Liberty, 36-37.

such a succession of *specific* steps. Hayek disagrees with those like Karl Marx and August Comte, who assert that "evolution implies a necessary sequence of predetermined stages or phases through which the development of an organism or institution must pass."¹¹⁴ Instead, Hayek's notion of society is 'blind,' i.e. change is not teleological, societies simply fulfil and consume themselves in a discursive fashion.

Since his theory of "spontaneous order" has no normative content Hayek's concept of the "sensory order" does not lead, at a foundational level, to any commitment to inviolable individual rights. Instead, Hayek claims that all values and 'rights' are the products of and not antecedent to the "spontaneous order." These "particular aspects of culture," he explains, "can be critically examined only within the context of that culture...[and] we must stop with our criticism of something that has no better grounds for existence than that it is the accepted basis of the particular tradition"¹¹⁵ Furthermore, these spontaneously created values are not static:

It is a fact which we must recognize that even what we regard as good or beautiful is changeable—if not in any recognizable manner that would entitle us to take a relativistic position, then in a sense that in many respects we do not know what will appear as the good or beautiful to another generation...It is not only his knowledge, but also his aims and values that man is a creature of his civilization; in the last resort, it is the relevance of these individual wishes to the perpetuation of the group or the species that will determine whether they persist or change. It is, of course, a mistake to believe that

114 Ibid., 24.

115 Ibid., 25.

we can draw conclusions about what our values ought to be simply because we realize that they are the product of evolutions.¹¹⁶

Hayek seems here to make a Weberian point. Like Max Weber, Hayek asserts that our values, "even our highest, our ultimate" values are historically "mutable and transitory."¹¹⁷ Indeed, like Weber, Hayek claims that "value-judgements are made everywhere in a...spontaneous manner"—they are the by-product of the discursive interplay of historical forces¹¹⁸—and the Weberian "mass psychological character"¹¹⁹ that emerges from this interplay is what Hayek calls society.

Inasmuch as nothing in the detailed content of our moral conventions is unchanging or unalterable, Hayek goes on to contend that we are compelled to abandon the whole notion that values have a character or universality or fixity. "There is thus," remarks Hayek, "one possible sense in which we may legitimately regard human values as relative and speak of the probability of their further evolution."¹²⁰ It furthermore raises serious questions about the status of an innate "human nature." Indeed, Hayek claims that:

The important point is that every man growing up in a given culture will find in himself rules, or he may

¹¹⁶ Friedrich Hayek, The Constitution of Liberty (Chicago: The University of Chicago Press, 1960), 35-36.

¹¹⁷ Wilhelm Hennis, Max Weber: Essays in Reconstruction (London: Allen & Unwin, 1988), 146-162.

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ Hayek, Studies in Philosophy, Politics and Economics, 28.

discover that he acts in accordance with rules—and will similarly recognize the actions of others as conforming or not conforming to various rules. This is, of course, not proof that they are a permanent or unalterable part of 'human nature,' or that they are innate, but proof only that they are part of a cultural heritage...¹²¹

With this assertion Hayek joins Nietzsche in his voyage beyond good and evil. Indeed, like Nietzsche, Hayek contends that morality is a social creation which has no static or objective basis. The implicit "realism" of ordinary moral language is overestimated. The fact that a particular norm has evolved does not guarantee that it is optimal, nor that it will continue to function in the future. "Our present values," explains Hayek,

exist only as elements of a particular cultural [historical] tradition and are significant only for some more or less long phase of evolution—whether this phase includes some of our pre-human ancestors or is confined to certain periods of human civilization. We have no more grounds to ascribe to them eternal existence than the human race.¹²²

Similarly, Nietzsche claims that our values are not true all the way through; they are not transhistorical or timeless realities.

Nietzsche explains:

In some remote corner of the universe, poured out and glittering in the innumerable solar systems, there was once a star on which clever animals invented ethics. That was the haughtiest and most mendacious minute of world history—yet only one minute. After nature had drawn a few breaths the star grew cold and the clever animals had to die.¹²³

In this sense, when someone claims that a social structure is "socially unjust," the universe yawns and takes another breath.

¹²¹ Hayek, Law Legislation and Liberty, 19.

¹²² Hayek, Studies in Philosophy, Politics and Economics, 38.

¹²³ Friedrich Nietzsche, The Portable Nietzsche, 42.

It is therefore Hayek's opinion that it is fraudulent to use the words "social injustice" when what one is really talking about is preferences, i.e. what social arrangement one endorses. For this reason "social injustice" has no meaning for Hayek and he reports that "to discover the meaning of what is called 'social justice' has been one of my chief preoccupations for more than ten years. I have failed in this endeavor or rather, have reached the conclusion that...the phrase has no meaning whatever."¹²⁴

Despite his emphasis on the individual, Hayek acknowledges the feedback relationship between society and the self. Indeed, he believes that any political theory must not only take into account the individual, but an individuals' interaction with their environment including the community of people around them. Any description of the individual must therefore be supplemented by a social theory.

Regarding social theory, Hayek contends that social objects emerge when a multitude of individuals converge upon a single system of rules to create social objects such as language, law, and markets. This convergence, furthermore, is essential to the formation of such social objects. For example, no single person can create new words and meanings: language must always be shared. To make sense, individual words must belong to a pre-existing common storehouse of language. As a means of elucidating this account of *public meaning* Neville Wakefield's chess analogy is illuminating: From the point of view of someone new to chess it

¹²⁴ Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas, 57.

might seem logical that one should study chess in terms of all the moves in all the games that have ever been played. But this approach would fail to account for the fact that each individual move is selected as an option from a much larger range of possible moves, and that no single move is significant, except in relation to what preceded it and of course to the projected strategy of one's opponent. To study chess properly, therefore, one must look to a system of principles for making and anticipating the moves—a system which underlies every move at every point in the game. Only when a player converges onto his opponents structure and internalizes it in terms of its overall coherence rather than its individual parts does the game become meaningful.¹²⁵

According to Hayek, a similar convergence upon an "internalized structure" is necessary in the creation of social objects such as language, morals, etc. Hayek calls these "internalized structures" "social rules;" rules which govern shared meanings and social practices. Hayek explains:

We are able to understand one another and get along with one another, are able to act successfully on plans because most of the time members of our civilization conform to unconscious patterns of conduct, show regularity in their action that is not the result...of any conscious adherence to known rules, but of firmly established habits and traditions. The general observance of these conventions is a necessary condition of the orderliness of the world in which we live, of our being able to find our way through it though we do

¹²⁵ Neville Wakefield, Postmodernism: Twilight of the Real (London: Pluto Press, 1990), 73.

not know their significance and may not even be consciously aware of their existence.¹²⁶

And even more explicitly: "We have seen that our capacity to recognize actions as following rules and having meaning rests on ourselves being already equipped with these rules. This knowledge by acquaintance presupposes therefore that some of the rules in terms of which we perceive and act are the same as those by which the conduct of those actions we interpret is guided."¹²⁷ This is definitively a Burkean point. Indeed, according to Edmund Burke we are subject to "prejudices" or "habits" that condition our behavior. As Burke writes,

I am bold enough to confess that we are men of untaught feelings, that instead of casting them away all our old prejudices, we cherish them...Prejudice is ready application in the emergency; it previously engages the mind in a steady course of wisdom and virtue and does not leave the man hesitating in the moment of decision skeptical, puzzled, and unresolved. Prejudice renders man's virtue his habit, and not a series of unconnected acts.¹²⁸

Hayek does appreciate the important role "social rules" play in a society. According to his writings, the efficacious operation of a society depends for its existence on a cultural matrix of historical practices which shape and permeate the moral and intellectual capacities of the individual. Society, for Hayek, hinges upon individuals who are not natural datum but rather historical achievements. "The rules we are discussing," he writes, "are those that are not so much useful to the individuals

¹²⁶ Hayek, The Constitution of Liberty, 66.

¹²⁷ Hayek, Studies in Philosophy, Politics and Economics, 59.

¹²⁸ Edmund Burke, Reflections on the Revolution in France, (Indianapolis: Hackett Publishing Company), 76-77.

who observe them, as those that (if they are *generally* observed) make all the members of the group more effective, because they give opportunities to act within a social *order*."¹²⁹ As an example of what Hayek means by "opportunities," consider the following example: Suppose that long ago any human encountering another would either try to kill him or run away. This sort of behavior would certainly not have led to the formation of ordered groups. When, however, some humans somewhere chose to cease fighting or fleeing they were 'liberated,' they found that they were better able to pursue other ends.¹³⁰ Through this historical experience they gained wisdom. They learned that not fighting or fleeing made for a different social opportunities. Hayek's insight here is that "social rules" may thus be profitably viewed as vehicles of information; they contain the accumulated experiences of many

¹²⁹ Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas, 7. Emphasis in Original.

¹³⁰ This view stands in sharp contrast to Nietzsche's. Nietzsche does not find the cultural matrix of historical practices or "social rules" to have any 'liberating' content. He instead finds them oppressive. He contends that social conventions are not self-evident truths, but products of inheritance, things that are historically beaten into people. All social conventions are the result of this process which culminates in the colonization of people's scope of view and the internalization of conformity. A convention, therefore, is simply the product of historical conquest, the product of "fossilized violence." Moreover, Nietzsche maintains that humans are born into these already constructed matrices of social conventions or "strait-jackets" of "custom" that are historically embedded in our understanding. As a result, how we behave is determined by a historical "archive" of understanding. Our behavior, consequently, is not the product of free thought, but confined by the parameters of an historical inventory. Accordingly, Nietzsche criticizes "social rules" as disciplinary devices. Indeed, he claims that social behavior derived from a "social rule" is not neutral, it is but an inculcated expression of an historical force.

generations and provide us with the ability to see through different social opportunities.

Despite the fact that Hayek has no doubt that it is possible to gain societal opportunities through the use of "social rules," he is emphatic in his belief that arresting these rules is dangerous. By ossifying our "social rules" we ignore the fact that society is spontaneously emerging. To not recognize this movement and force "social rules" prostrate on a society like a rigid and inflexible grid only invites disaster. Indeed, when we impose a preconceived pattern on society we inhibit our ability to adapt to the necessities of future circumstances and says Hayek, "we should not be surprised if society, as such, ceases to function as a creative force."¹³¹ Such a concern for adaptability, furthermore, is implicit in Hayek's critique of democratic statesmen. According to Hayek:

The successful politician owes his power to the fact that he moves within the accepted framework of thought, that he thinks and talks conventionally. It would be almost a contradiction in terms for a politician to be a leader in the field of ideas. His task in a democracy is to find out what the opinions held by the largest number are, not to give currency to new opinions which may become the majority view in some distant future.¹³²

Hayek's recognition of the socializing effect of society on the self, however, is qualified. He contends that the "social rules" that contribute to the shaping of the behavior of individuals are not immutable. As a result, social change is

¹³¹ Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas, 20.

¹³² Hayek, The Constitution of Liberty, 112.

implicit in Hayek's philosophy. Indeed, he announces that "the conservatives among you, who up to this point may be rejoicing, will now probably be disappointed. The proper conclusion from the considerations I have advanced is by no means that we may confidently accept all the old traditional 'values'" or "social rules."¹³³ Nor, claims Hayek, even that there are any "social rules" or moral principles that are beyond question. Instead, he argues that contained within a society is the proformative capacity to initiate change, to innovate—but not because people are outside their cultural context, but because their actions are *underdetermined* by that context; individual human beings are not passive robots programmed to follow the conventions of larger society, instead they are capable of resistance within the context of that society. Each connectionist mind, each "sensory order," he explains, comprises a unique pattern and out of this uniqueness arises a natural diversity which is not wholly determined by the social structure. Consequently, Hayek would reject Marxian claim that it is exclusively a person's "social existence that determines his consciousness."¹³⁴

As a result of this natural diversity, societies are far more ill-behaved and elusive than political theorist formerly imagined. Hayek contends that society is not rendered from the

¹³³ Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas, 19.

¹³⁴ Karl Marx, Preface to A Contribution to the Critique of Political Economy; quoted in Karl Popper, "The Autonomy of Sociology," Mill: A Collection of Critical Essays ed. J.B. Schneewind (Garden City: Anchor Books, 1968), 426.

sort of distinct causes and effects that might be written in Newton's own handwriting. Instead, he claims that society is a centerless phenomenon with constantly shifting borders. He maintains that a society has no essence, no inherent character, no *telos*, it is simply the given or "spontaneous" configuration of historical forces at a given moment in elapsing time. Society is, as Foucault puts it, "nothing other than the instant photograph of multiple struggles continuously in transformation."¹³⁵

In this sense Hayek concludes that *no society is permanent*. No single historical episode, no single historical network of arrangements is inherently static; in all historical episodes and arrangements there is always tension and struggle, both actual and potential, movement is going on at all times in everything—customs, laws, languages, morals, arts, etc. As he points out, prevailing moral systems "do not always give unambiguous answers to the questions which arise, but often prove internally contradictory."¹³⁶ As a result, "we are forced to develop and refine our moral systems *continuously*."¹³⁷ Ultimately, the conclusion that flows from Hayek's theory of mind is not that society is a rigid form, but that it is a shifting and unsteady mass comprised

¹³⁵ Michel Foucault, Foucault Live ed. Sylbère Lotringer (New York: Semiotext, 1989), 183; quoted in Leslie Paul Thiele, "The Agony of Politics: The Nietzschean Roots of Foucault's Thought," American Political Science Review (September 1990), 921.

¹³⁶ Hayek, New Studies in Philosophy, Politics, Economics and the History of Ideas, 20.

¹³⁷ *Ibid.* Emphasis added.

of a multitude of decentralized interactions among many emerging "sensory orders."

B. IMPLICATIONS FOR HAYEK'S ECONOMIC THEORY

In order to understand how Hayek's improved theory of mind informs his economic theory we must understand what he calls the "knowledge problem."¹³⁸ The "knowledge problem" arises because social behavior is *not* based on 'objective' decisions, but upon the subjective motions of individual's "sensory orders," where the key variables are their manifestations in the particular motivations of individuals. Because human action does not exist separate from the emerging cognitive template or "sensory order" of each individual a scientific examination of human action will fail. Human action, in other words, does not have an objective ontological status; there is no Archimedean point from which to describe it. It is contingent rather upon what we 'think' about other people and things.

To make the point clearer that the state of mind of the individuals is what is important to human behavior, consider an example put forth by Joel Schwartz: "When I roast a leg of a lamb over a fire until it is a charred pile of ashes, I may be conducting a unsuccessful barbecue, but when Odysseus does the same thing he may be conducting a successful sacrifice. Indeed Odysseus is not 'roasting' at all since 'roasting' only has meaning internal to the activity of food preparation. Nor are we in fact 'doing the same thing,' although behavioral descriptions

¹³⁸ Friedrich Hayek, "The Use of Knowledge in Society," The American Economic Review (September 1945), *passim*.

or pictures of the movements of our bodies may be identical."¹³⁹ An illustration is taken from Hayek to demonstrate this same point that the subjective motivations of individuals, and not 'objective facts,' are what is relevant to social behavior: Our belief that a magic charm does not work is irrelevant to the social significance of the charm. It is irrelevant to our comprehension of the actions of the individuals who believe in the charm.¹⁴⁰ In his book on Hayek G. R. Steele puts this point more directly:

Human action is never centered upon objective facts. For example, a barometer is capable of giving...information about the physical world; but a barometer becomes changed as a fact once the purpose for which it can be used is known; and this information is an abstraction from the physical attributes of the barometer, which might serve as a paddle, a weapon, or as an instrument to gage air-pressure. In other words, the facts of the social sciences are the opinions held by the people whose actions are studied.¹⁴¹

As a result of this subjectivity, says Hayek, it is impossible to accurately plan an economy without accounting for peoples' emerging "sensory orders." Indeed, because all their perceptions, judgments and attitudes arise from a subjective cognitive framework, people may react to the same stimuli in different ways, and to different stimuli in the same way. Accordingly, to accurately plan an economy the planner would have

¹³⁹ Joel D. Schwartz, "Participation and Multisubjective Understanding: An Interpretivist Approach to the Study of Political Participation," Journal of Politics (Vol. 46, 1984), 1119.

¹⁴⁰ G.R. Steele, The Economics of Friedrich Hayek (New York: St. Martin's Press, 1993), 79.

¹⁴¹ *Ibid.* 80.

to acquire all of the "knowledge" of how these "sensory orders" operate and why human beings act a certain way under certain circumstances. An accurate explanation of any social phenomena must therefore take into the mind-sets of the people who comprise a society. It must take into account how we acquire knowledge to solve our encountered problems. Hence, a theory of human action can succeed only if it accounts for the cognitive operations of human beings and provides an explanation of how knowledge is acquired to solve problems.

As was discussed earlier, however, Hayek demonstrates that "we are unknown to ourselves," that we cannot know our own cognitive workings. If his demonstration is valid, then the economic planner faces a fundamental obstacle in the positivist study of human affairs. Put more precisely, without the direct apprehension of people's cognitive operations, economic planners are effectively denied the access to quantifiable causal imputations of each "sensory order" and hence economic phenomena. Indeed, the economic planner can never decipher or distangle the connective process of their human subject matter and discover the 'causes' of an economy. As David Hubel puts it, "there is an input: Man's only way of knowing the outside world. There is an output: man's only way of responding to the outside world...[a]nd between input and output there is *everything else*...memories, thought, and whatever else makes man human."¹⁴² According to Hayek, this "everything else" is not knowable. The patterns of

¹⁴² David Hubel, "The Brain," Scientific American (September 1979), 32. Emphasis added.

the "sensory order," he says, comprise an intricate tensional network of cross-points and junctions that support and counteract each other. Where these crosscurrents are interwoven, the emergent cognitive landscape is *terra incognita* to even the most inquisitive economic planner.

The broad implication of this view is that economies cannot be centrally planned. Since the basic source of human behavior—the human mind—eludes thorough introspection, economic planning based on social scientific explanations are doomed to err. It is a fatal conceit, he contends, to believe that the technical knowledge necessary to plan an economy is accessible to the central planner. At best, a central planner can acquire limited knowledge about their human subject matter, knowledge that, by the time it is compiled and analyzed, is no longer contemporaneous. Moreover, a planner cannot possibly collect thorough data or "knowledge" on each of the millions of "sensory orders" that are underlay an economy. People's motives are only known only to themselves and not understood properly even by them. The idea that the relevant information to efficiently plan an economy can be concentrated in the calculations of a central planning board is thus absurd.

The central planner cannot possibly calculate all the supplies and demands that will manifest via the comprehensive interaction of millions of subjective "sensory orders." As a result, a planned economy has no means of accurately communicating to consumers and producers the actual supplies and demands that will emerge at a given point in time. The only way

to consistently and accurately determine this, and make full use of all the decentralized information contained in our "sensory orders," is through the forum of the market. Only out of the interaction of all the "sensory orders" in a market can "prices" spontaneously arise to communicate to consumers and producers the supplies and demands of goods at a given point in time. Moreover, as supplies and demands change this information can be fluidly communicated through price changes. In the end, central planners do not have a means like the spontaneous "price" to reflect right quickly the actual supplies and demands in an economy.

Ultimately, says Hayek, unlike the market, central planners do not utilize all of the dispersed "knowledge" or information embodied in our "sensory orders." Central planners instead compress individuals into formulae. Consequently, they use less information than concretely contributes to the motion of an economy; they assume the "knowledge problem" away and, says Hayek, "disregard everything that is important and significant in the *real* world."¹⁴³ They remove the economic world from its given imperfection and unconformability and impose imaginary boundaries on the fluid media of individuals that is the economy. Central planners thus do not deal with reality. They move from any imaginable economic world to an abstract fantasy in which humans are abolished and all that remains are featureless and ahistorical monads. Indeed, to paraphrase Roland Barthes, in

¹⁴³ Hayek, "The Use of Knowledge in Society," 530.

attempting to capture economic life the planner actually sees dead.¹⁴⁴

CONCLUSION

To recap, we have seen that Hayek maintains Nietzsche's claim that "we are unknown to ourselves," and that he does so by improving on Nietzsche's connectionist theory of mind. We have seen also that Hayek demonstrates that our emergent mind is subject to the properties of iteration, sensitivity to initial conditions and unpredictability, properties which forbid self-knowledge of the cognitive processes which culminate in our conscious mind. Based on this *terra incognita* of the self Hayek rejects analyses of societies and economies which force the unique and complex entities that are humans beings into unbending and inactual explanatory grids. Instead, Hayek's theory of the "sensory order" forces him to confront life as it is given; it restores life to its original difficulty by affirming its motion and intricacy.Ω

¹⁴⁴ Wakefield, Postmodernism: The Twilight of the Real, 3.

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