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Abstract: This paper offers a sociological explanation for why the field of economics has so severely restricted the scope of its analysis to the point where it failed to foresee the financial crises, economic recessions, and other large shifts in economic activity that have characterized the global economy in recent decades. This paper's analysis of the culture of economics draws heavily on the work of Pierre Bourdieu, the French sociologist who developed a useful framework with which to analyze the culture of an intellectual field like economics. Specifically, the paper describes how the neo-liberal *doxa* supports the restrictive neoclassical (marginalist) modeling approach that is a central element of the *habitus* of mainstream economics. Bourdieu's concept of *symbolic violence* shows how the orthodox economics culture perpetuates itself even in the face of the complete failure of the culture's favored neoclassical and rational expectations models to anticipate recent macroeconomic crises. The paper concludes with some thoughts on how this understanding of the culture of economics can enable economists to free themselves from the oppressive culture of mainstream economics.

Keywords: culture, neoclassical economics, orthodoxy, pluralism, sociology

Homo oeconomicus, as conceived (tacitly or explicitly) by economic orthodoxy, is a kind of anthropological monster: this theoretically minded man of practice is the most extreme personification of the scholastic fallacy, an intellectualist of intellectualocentric error very common in the social sciences, by which the scholar puts into the heads of the agents he is studying – housewives or households, firms or entrepreneurs, etc.— the theoretical considerations and constructions he has had to develop in order to account for their practices.

Pierre Bourdieu (2005b, p. 209)

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Introduction

Economists often remind students that in an economy "everything depends on everything else." Economists are also famous for the reply "it depends" to any and all economic questions. These observations suggest that economists have a real appreciation for the complexity of human existence. Yet, in practice economists often limit their perspectives by ignoring relationships between economic variables and broader social, environmental, and political factors that are often quite obvious to the general public. And even when social, political, psychological, and other "non-economic" variables are deemed to be relevant, economists take such variables as givens, as "exogenous variables" that are determined outside the model.

Another criticism of modern economics is that most economists from nearly all countries of the world effectively embrace scientific reductionism and use models that assume a static economic system that is a linear sum of its parts. Such models cannot, of course, predict or explain non-linear outcomes like financial collapses and sudden reversals of economic growth. When the Queen of England, during her 2009 visit to the London school of Economics, asked why economists had not anticipated the recent financial crisis and economic recession, they struggled to answer the Queen's question.

This paper offers an explanation for why the field of economics so severely restricts the scope of its analysis and why it has been so inept at predicting or explaining disruptive episodes such as financial crises, economic recessions, and other sudden shifts in economic activity. We argue that the fundamental explanation is to be found in how humans normally deal with complexity, which is to look for support from their social culture. The field of sociology provides insight into how the field of economics developed a culture that effectively blinded economists to the instability and complexity of economic systems. The paper concludes with some thoughts on how economists can begin to free themselves from their oppressive culture. This liberation is urgently needed because today, more than five years after the real estate bubble in the United States burst and triggered the 2007 financial meltdown and the global Great recession, the same economic paradigm continues to dominate the field of economics.

The complexity of human existence

Human existence is complex. For example, the environmental economist Herman Daly (1998) reminds us that "the macroeconomy is not the relevant whole, but is itself a subsystem, a part of the ecosystem, the larger economy of nature." Economists must also recognize that economics is a *social science*, and that the economy is an integral component of a broader social system. In sum, the economic sphere is linked to the social sphere in many complex ways, and human society, in turn, interacts with the natural environment, or the natural sphere, in many more complex ways. Figure 1 illustrates how the economy is mostly contained within human society, from where it interacts directly and indirectly with nature. Each of these three spheres of human existence are complex system in their own right, and they are linked in many ways to form an incredibly complex system.

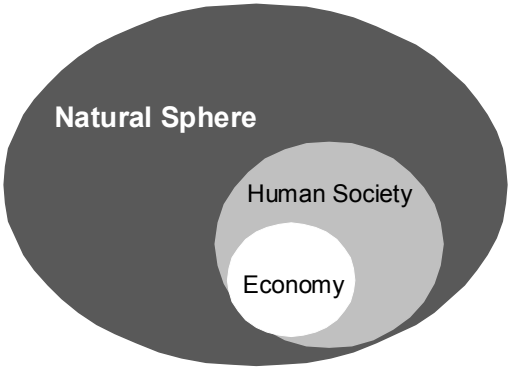

Figure 1 The Economy's Position in Society and the Natural Environment

This complexity of human existence is reflected in the natural and social stresses humanity faces today. Humanity has already expanded its exploitation of the Earth's *natural services*, which are all the natural renewable resources such oxygen, clean water, wind power, soil nutrients, rainfall, climate, pollination, etc. that humanity depends on for its existence, beyond the Earth's capacity to

sustain those natural services. Wackernagel and associates (2002) and the World Wildlife Fund (2008) estimate that humanity's demand on the planet's living resources now exceeds the ecosystem's capacity to replenish itself, and nature's many services are beginning to decline. Ominously, humanity has mostly ignored the potential effects of the environmental degradation and social stress.

Water tables are falling in many agricultural regions, desertification is reducing the extent of arable land, and climate change is imposing adjustment costs in many countries. The growing demand for material output has already triggered wars over oil supplies in Kuwait, Iraq, Georgia, Iran, Libya, and elsewhere, repeated threats of war by petroleum importers such as the United States against oil producers Iraq, Iran, Venezuela, and Ecuador, caused civil wars over resource ownership in at least a dozen African countries, fueled new wasteful military arms races among large countries such as China, the United States, and Russia, and motivated the development of nuclear weapons to protect national resources from foreign predators in Pakistan, North Korea, and, possibly, Iran. At the same time, population growth and income growth have greatly increased demand for food and motivated industrial farming based on intensive energy usage, monoculture that drastically accelerated the loss of biodiversity, and substituted machines for labor at such a rapid rate that traditional rural communities were destroyed and hundreds of millions of people were pushed into urban slums and unemployment.

The essence of these casual observations is that, in general, economic activity does not occur in an isolated bubble free from social and natural constraints and influences. At the same time, economic activity has very substantial social and natural consequences. This means that economists cannot focus only on the economic sphere of human existence and study the economy as an isolated phenomenon that exists separately from the social and natural spheres of human existence.

How neoclassical analysis came to dominate economics

Most economists would probably agree that general equilibrium analysis, which relates a specific economic activity of interest to some representation of the "rest of the economy," is clearly preferable to partial equilibrium analysis, which looks only at a narrow relationship under the *ceteris paribus*, or "all other things equal," assumption. Early economists, in fact, often explicitly linked

economic and social phenomena. For example, Adam Smith's (1776) Wealth of Nations touched on many issues, such as political developments, commercial organizations, social institutions, religion, and the social role of education, that would today be viewed by many economists as "non-economic." In 1799, the Classical economist Thomas Malthus related economic growth to population growth. And, in the mid-nineteenth century, Karl Marx linked the evolution of the social system tightly to the dynamic of a capitalist economic system. The systemic predictions suggested by these early "holistic" economists did not always come to pass, as evidenced by Malthus' failed prediction of eternal poverty and Marx's prediction that communist revolutions would occur first in the most advanced capitalist economies. But the implicit acceptance of complexity by the early economists also produced many useful insights into complex economic issues, for example, that population growth causes a real economic burden, that capitalist profit depends on consumer demand for output, and that economic growth creates instabilities. These insights inspired some later economists, industrialists, and policymakers such as John Maynard Keynes, Henry Ford, and Franklin Roosevelt to push for economic changes that benefited large segments of human society. Since the late nineteenth century, however, most economists intentionally began to limit their perspectives to phenomena within their own narrow fields.

Scientific reductionism

In the late nineteenth century, most American and British economists abandoned efforts to seek broad and unified explanations of economic outcomes within complex social and natural systems. They increasingly began to embrace the unsound strategy of *scientific reductionism* by focusing their attention on individual markets, banking and finance, and, above all, resource allocation within the narrow confines of the economy's market sector. Economists effectively began to assume, as most mainstream or orthodox neoclassical economists still do today, that a good understanding of the economic system's component parts is sufficient for designing the economic policies and institutions. Furthermore, economists also increasingly limited their attention to the economic activities that took place in organized markets. Textbooks in the late nineteenth and early twentieth centuries used the *ceteris paribus* assumption to examine specific economic issues, which freed their analysis from having to deal with the more complex systemic relationships across all three spheres of

human existence. The best selling economics textbook beginning in 1890 was Alfred Marshall's *Principles of Economics*, the eighth edition of which was published in 1920. Even though Marshall was wise enough to recognize many aspects of economic complexity, his textbook helped to establish the neoclassical paradigm, which effectively accepts scientific reductionism, in mainstream economics.

Of special interest for our discussion of holism is Léon Walras' (1874) modeling of an economy as a huge system of equations, one for demand and one for supply in each of the millions of markets where consumers were assumed to purchase all goods and services from producers, governments purchased goods and services from producers, where producers purchased capital goods from other producers, where producers purchased labor from individuals, and where producers rented land from landowners. Specifically, in Walras' model there are m products, n factor services, m product prices, m product quantities, n factor prices, n factor quantities, and mn technical coefficients. There were thus 2m + 2n + mn - 1 unknowns, with one of the products serving as *numeraire*, the measure in which all other variables are valued. In general, a system of equations can be solved if the number of unknowns is equal to the number of equations, and Walras designed his conceptual system to satisfy that requirement.

Walras' mathematical model seems to be a general equilibrium model that links all parts of the economy. But, it was also a system of linear equations with fixed parameters, and that implied that the relationships among the component parts of the system could not vary. That is, it was not a holistic system in which variations in the relationship among the component parts could substantially alter overall systemic outcomes. Ironically, Walras' elaborate simultaneous equations model probably served to discourage economists from adopting a truly holistic approach to analyzing economic issues across the economic, social, and natural spheres. The reason for this was that, despite the simplifying assumptions of linearity and the existence of complete markets for all human production and consumption, Walras was not able to solve his system. While Walras' intuitive conclusion that there had to be a solution to his system of equations was accepted by most economists, the complexity and impossibility of actually solving the Walrasian model simply led economists to focus on individual markets rather than the interconnections and the overall system. The belief was that as long as the individual components of the system, the individual mn markets, functioned well, the overall economic outcome would be

optimal. That is, economists embraced as their modus operandi *scientific reductionism*, the belief that the whole system was the stable sum of its component parts, and things would work out well as long as the component parts functioned well.

The scientific reductionist tendencies in economics were temporarily reversed in the 1930s when the world economy plunged into the Great Depression. Economists were reminded that an economy's overall equilibrium could suddenly change very substantially, as it did from 1929 to 1930, even though component parts such as the number of workers, the capital stock, and natural resources did not change much at all. In 1936, the British economist, John Maynard Keynes, published his *General Theory of Employment, Interest, and Money*, the work that effectively created the field of macroeconomics. Keynes introduced a macroeconomic model that explicitly showed how aggregated categories of consumers, producers, and government agencies interacted to determine the total levels of output and employment. His system was not linear, and he showed how the systemic interactions could generate the unemployment and negative growth that characterized the 1930s. For a while, economists entertained the possibility that the economic system was unstable, non-linear, and not self-correcting.

A historical note on neoclassical economics

The school of economic thought associated with Walras, Marshall, and the many other late nineteenth century economists who implicitly accepted scientific reductionism is now commonly referred to as the *Neoclassical school*. A principal feature of neoclassical thinking is that it views the economy from the static perspective of a fixed set of resources, which effectively means that the economy's principal problem is how efficiently to allocate the fixed set of scarce resources so that consumer welfare is maximized. The neoclassical economists have developed a modeling framework, or *paradigm*, that supports the concept of *the invisible hand* that operates through free markets to channel self-interested economic behavior into an optimal level of human welfare. Neoclassical economists attribute the invisible hand to Adam Smith (1776), who casually mentioned the term, but they ignore Smith's much more substantial writing about the failures of markets and the potential breakdown of market competition.

Neoclassical analysis is no longer exclusively microeconomic in nature. The latent recognition that scientific reductionism is logically unsound has, in the tradition of Walras, led neoclassical economists to develop an integrated set of models that systematically link the economy's individual consumers, workers, producers, bankers, and investors to the economy's aggregate performance. Modern macroeconomists have specified models referred to as the *microfoundations* of macroeconomics. But, just as Walras discovered more than 100 years ago, strong simplifying assumptions are necessary in order to build practical macroeconomic models that are logically compatible with simple models of individual and firm behavior. The quest for microfoundations has resulted in unrealistic microeconomic models of individual behavior linked to unrealistic macroeconomic models.

Labor markets are most often modeled as competitive markets where labor is paid its marginal product. The presence of unions, efficiency wages and employers' use of compensation to motivate workers, the costs of hiring and firing workers, or the common presence of unemployed and underemployed workers in nearly all economies were facts that were simply ignored by these models. The assumption that producers always face rising costs was commonly made so that, more generally, the assumption of perfect competition and the absence of oligopolies or monopolies could be sustained throughout the modeling structure. Given today's industrial concentration, this assumption surpasses any reasonable standard of simplification that is appropriate for economic modeling. Also notable is the widespread acceptance of the *Coase theorem*, which distorts the intent of its alleged originator, Ronald Coase (1960) to suggest that, because people, firms, and governments are motivated to find ways to negotiate the mutually beneficial sharing of external costs or benefits, *externalities* will not, in general, cause markets to fail. In reality, externalities persist throughout every economy. In fact, most people, firms, and governments are seldom fully aware of the externalities they themselves generate or the externalities imposed on them by the actions of others.

Modern macroeconomics and efficient financial markets

Modern macroeconomists extended the microfoundations to include financial markets. They accepted Fama's (1970) model of efficient markets that assumed all available information was always built into asset prices and Friedman's (1953) hypothesis that speculation always stabilizes financial markets, and they

assumed as normal the special conditions Jensen and Meckling (1976) showed were necessary for managers of private firms to act as faithful servants to the firm's stockholders. Financial markets were also described as highly efficient in motivating people to save and financial firms to allocate those savings to the economy's most profitable investments and innovative projects, aided by the assumption of rational expectations first presented by John Muth (1960) and incorporated into a new macroeconomic model by Robert Lucas (1972). This hypothesis assumed that investors always use all available information to make rational, unbiased long-run decisions.

In reality, borrowing, lending, and intertemporal decisions involving long-term projects with high up-front costs and delayed future payoffs must deal with *uncertainty*, which is the situation in which no one knows all of the possible outcomes, much less the probabilities of their occurrence. Long-term financial transactions are often not carried out because information about the future is simply not available. In reality, financial markets often fail. But macroeconomists drew on the work of Kenneth Arrow and Gerard Debreu (1954) and Debreu (1959), who constructed elaborate general equilibrium models reminiscent of Walras' model, in order to eliminate uncertainty. Specifically, Arrow and Debreu ignored uncertainty by assuming financial markets only face *risk* defined by known probability distributions and expected values. They then eliminated this risk by assuming the existence of competitive markets in *contingent commodities*, which they defined as contracted future transactions and payments that are carried out when certain pre-specified conditions are met. Wrote Debreu (1959, p. 98): "This new definition of a commodity allows one to obtain a theory of uncertainty free from any probability concept and formally identical with the theory of certainty...."

While a modern financial industry does provide insurance against *contingencies* such as fire, theft, automobile accidents, and other reasonably predictable events, the 2008 financial crisis and the massive government bailouts of financial firms suggest that the financial sector has been unable to create viable insurance instruments that cover less predictable contingencies that can arise. Of course, Arrow and Debreu's contingent markets are really just a theoretical fantasy that serves to hide the ubiquity of uncertainty of future outcomes in the evolving complexity of an economic system. Yet in their rational expectations models John Muth (1960) and Robert Lucas (1972) assume expectations are simple calculations of a mathematical expected value based on known probabilities.

The failure of the Keynesian revolution

In Chapter 12 of his revolutionary *General Theory of Employment, Interest, and Money*, John Maynard Keynes (1936, pp. 161-2) provides a more realistic assessment of long-term risk than Arrow and Debreu and most modern macroeconomists incorporate into their models:

> Most, probably, of our decisions to do something positive, the full consequences of which will be drawn out over many days to come, can only be taken as a result of animal spirits–of a spontaneous urge to action rather than inaction, and not as the outcome of a weighted average of quantitative benefits multiplied by quantitative probabilities.

That is, when we project a complex dynamic system into the future, it makes no sense to assume stable expectations based on a mathematical expected value. If we broaden financial transactions to include innovation, invention, research, and development activities, Keynes' description of investment as being driven by "animal spirits," that is emotion, rather than precise mathematical calculations of probable economic outcomes, is an even more realistic model of financial activity. But, Keynes' model of uncertainty ultimately was not able to displace the neoclassical paradigm.

Despite its great popularity when it was published, Keynes' *General Theory* was quickly condensed into Hicks' (1937) IS-LM model, whose graphical version was easily grasped by neoclassical economists but misrepresented Keynes' macroeconomic model. In the IS-LM model, investment decisions were modeled in a static and simplistic manner that did not at all reflect the insightful discussion of expectations in Chapter 12 of Keynes' famous work. In fact, Keynes' valuable contribution to understanding the volatility of expectations was totally absent from the IS-LM model, and the potential of financial instability was soon forgotten. Then, with the inflation of the 1970s, neoclassical economists had a relatively easy time pushing the IS-LM fixed-prices model out of the mainstream with Lucas' (1972) clever rational expectations model. Interestingly, about that time Hicks (1976) admitted his IS-LM model was not an accurate depiction of Keynes' dynamic macroeconomic model.

Today, the Keynesian episode of initial receptivity but eventual suppression is being repeated. In 2008 and 2009, there were numerous calls for reform and the revival of the ideas of Keynes, and the fiscal stimulus programs to address the

pending recession in 2008 were often justified by the pseudo-Keynesian IS-LM model. But now, five years after the U.S. real estate bubble popped and triggered a financial meltdown, neoclassical economic analysis, with all its biases and shortcomings, still dominates the field of economics. The calls for reforms of the financial system in the U.S. and most other countries where the financial crisis struck have died down. Keynes' explanation of financial instability, made more understandable by the work of Minsky (1978, 1982), has not been mentioned in policy circles or used to sustain interest in financial reforms.

In short, the neoclassical analysis used in most economic research and taught in nearly all universities throughout the world is of questionable validity. Yet the neoclassical models are seldom questioned, either by economists themselves or the decision makers who depend on the economists' analysis. The persistence of a modeling framework that is failing to explain or predict clearly observable events flies in the face of science. But economics is not the first science or social science to violate the idealized scientific method. In his analysis of the history of science, Robert Kuhn (1962, p. 2) observed that "science does not tend toward the ideal that our image of its cumulativeness has suggested. Perhaps it is another sort of enterprise." Kuhn noticed that, throughout human history, small scientific advances often followed systemic cumulative paths, but truly revolutionary scientific changes were usually completely incommensurable with earlier knowledge and lacked even a common standard of measurement. Even the axioms, or commonly accepted truths, often differed between major scientific thrusts. Kuhn suggested that revolutionary science involved a shift in *paradigms*, by which he meant a completely new way of observing the world, analyzing the evidence, and reaching conclusions. In economics we often refer to such a paradigm as a *school* of thought.

The word *paradigm* is derived from the Greek word *paradeigma*, which means "pattern." Neuroscience, psychology, and behavioral economics, among other fields, have shown that the human brain is very much aware of patterns, and it tends to try to fit everything it sees into familiar patterns. These patterns, often incorporated into stories, ceremonies, procedures, social organization, and social norms, effectively become part of human culture. A paradigm tells practitioners what they should observe and study, the types of questions that they should seek answers to, how they should go about answering those questions, and how they should interpret their findings. To understand why a paradigm, or the culture of a field, becomes so entrenched, we need to understand the dynamics of culture.

Understanding the origins of culture

Specifically, *culture* consists of the set of common patterns of human activity in a society as well as the assorted symbols and patterns of behavior that people value and identify themselves with. The United Nations Educational, Scientific and Cultural Organization (UNESCO) defines culture as follows:

> ...culture should be regarded as the set of distinctive spiritual, material, intellectual and emotional features of society or a social group, and that it encompasses, in addition to art and literature, lifestyles, ways of living together, value systems, traditions, and beliefs.

More specifically, culture consists of informal institutiosn, such as traditions, myths, religions, norms of behavior, manners, artistic expressions, and symbols that influence individual human behavior. Sociologists have studied culture extensively because it is a very important institution of human civilization. Culture enhances social cohesion by inducing independently-thinking but socially-inclined individuals to conform to others who embrace the same culture. More fundamentally, culture is necessary for complex systems like an economy or society to function.

Human culture emerged from the process of human evolution because it enabled humans cope with complexity. Those humans and earlier human ancestors who were better at finding solutions to life's problems were more likely to survive, and so the genes of humans with relatively larger brains were more often passed on to later generations. It is tempting to interpret humans' development of large brains as implying that humans are increasingly capable of engaging in rational thought and that they gradually abandon the inherently irrational traditions, habits, and norms that make up culture. Seabright (2010) highlights humans' ability to engage in abstract thinking as the reason for humanity's success as a species. But Seabright also suggests that they used their mental capabilities in practical ways that do not match modern economics' definition of rationality. In reality, the complexity of life is much too great for humans to rationally deliberate their every action, as Muth and Lucas hypothesized. According to Douglass North (2005), knowledge about our physical and social environments is woefully incomplete, and even perfectly logical abstract thinking will not give us the solutions we urgently need to deal with pressing problems and complex natural and social systems. North (2005, pp. 15-16) writes:

> Throughout human history there has always been a large residual that defied rational explanation— a residual to be explained partly by non-rational explanations embodied in witchcraft, magic, religions; but partly by more prosaic non-rational behavior characterized by dogmas, prejudices, "half-baked" theories. Indeed despite the...assertion by eminent theorists that it is not possible to theorize in the face of uncertainty, humans do it all the time; their efforts range from ad hoc assertions and loosely structured beliefs such as those encompassed in the labels "conservative" and "liberal" to elegant systematic ideologies such as Marxism or organized religions.

Sociologists classify these "half-baked ideas" and "ad hoc assertions and loosely structured beliefs" as *culture*.

The well-developed human brain is a complex organ, and it by no means functions like an electronic computer according to programmed rational functions. As Patricia Churchland (2002, p. 308) explains:

> The Brain's earliest self-representational capacities arose as evolution found neural network solutions for coordinating and regulating inner-body signals, thereby improving behavioral strategies. Additional flexibility in organizing coherent behavioral options emerges from neural models that represent some of the brain's inner states as states of its body, while representing other signals as perceptions of the external world. Brains manipulate inner models to predict the distinct consequences in the external world of distinct behavioral options.

The human brain evolved not only to be capable of explaining the complexity that humans observed, but also to find practical rules to guide human actions within that complexity. Life is precarious, constantly threatened by predators and competitors, and decisions had to be made quickly. Also, humans evolved as group animals in order to exploit the safety in numbers.

Research by Robin Aimee Lebeouf (2002) and Douglas Medin and Max Bazerman (1999), among others, have confirmed that the automatic and emotional processes in the human brain depend largely on the recognition of patterns. Neuroscientific experiments show that the human brain becomes agitated when unfamiliar patterns emerge or familiar patterns cannot be found in what is being observed. An interesting experiment by Shane Frederick (2005) finds that even the most intelligent people routinely misinterpret a problem or an observation because they place it in a familiar pattern that, in fact, does not apply to the problem at hand. That is, they confidently use a model that does not accurately describe the reality they observe, and as a result they end up reaching

inaccurate conclusions. The patterns studied by neuroscientists and psychologists are fundamental elements of what economists and sociologists call culture.

Culture served another important evolutionary purpose: it helped to maintain social cohesion. Humans did not survive on abstract thinking and clever short-cuts alone; they survived because they maintained cohesive groups in which members could efficiently interact to generate a social outcome greater than the sum of individual actions. By giving the various shared ad hoc assertions and beliefs great significance, humans were able to partially suppress independent thoughts and actions that could be detrimental to the survival of their social groups.

Culture and the need for reflexivity

We can now begin to explain why orthodox economics has developed a culture in which the neoclassical paradigm is viewed by the great majority of economists as the correct, or *orthodox*, way to analyze all economic phenomena despite the paradigm's inaccuracy and the presence of many alternative paradigms. The neoclassical paradigm has effectively become the culture of mainstream economics in the United States and most other countries that follow the example of the United States in their universities. Today, when economics teachers challenge students to learn to "think like an economist," they are really demanding students to frame economic questions within the neoclassical paradigm.

The study of culture falls within the field of sociology, in which the influential twentieth century French sociologist Pierre Bourdieu urged his fellow sociologists to actively undertake a systematic and rigorous self-critical analysis of their own field. Bourdieu (1988, 1989a, 1990, 2005a) and Bourdieu and Wacquant (1992) referred to such a self-analysis as *reflexivity*. Bourdieu devoted his career to describing how societies developed cultures and how those cultures perpetuated social structures that, from an objective perspective, were clearly not always optimal for human development. Over the years he came to the conclusion that sociologists often let their own culture bias their analysis and interpretations of other cultures. Bourdieu argued that sociologists should know better than anyone how culture distorts perceptions of reality, and he urged his colleagues to engage in a "sociology of sociology." According to Bourdieu (quoted in Loïc J. D. Wacquant 1989, p. 55):

> I believe that if the sociology I propose differs in any significant way from the other sociologies of the past and the present, it is above all in that it *continually turns back onto itself the scientific weapons it produces*.

Bourdieu's prescription is equally valid for all intellectual fields. We economists, too, should follow Bourdieu's suggestion and be more aware of the culture of our field and how it restricts our analysis. We need a sociology of economics.

A sociology of economics

Bourdieu (1977a, 2000) provided a framework of analysis that is very useful for analyzing how the subculture of the field of economics evolved within the broader cultures of social science, the workplace, and society as a whole. Bourdieu's sociological framework also reveals why a particular subculture often survives strong scientific evidence that clashes with its main tenets. Bourdieu draws on the early twentieth century sociologist Max Weber (1978), who argued that people generally embrace more than one culture because individual status in society often cuts across traditional concepts of class or subcultures. Bourdieu moves beyond the accepted fact that every individual embraces several cultures; he also explains why some subcultures are more important to that individual than others and why those cultures tend to be very persistent.

Bourdieu's first concept is the *field*, which he defines as the social or intellectual arena within which people spend much of their day and within which they focus their efforts to advance their primary social interests. People normally identify with a broad national or ethnic culture, but in going about their daily activities they tend to pay attention almost exclusively to their immediate professional or social environment. Often, a field is one's work, which means that people identify themselves with the culture of a particular job, industry, or profession. For academics, the term *field* is straightforward because most of an intellectual's life is spent within a well-defined intellectual field. However, Bourdieu's concept of a field is more general than an academic field. Teenagers tend to embrace the culture of their high school environment, members of the military adopt a distinctive military culture, and athletes embrace many routines that involve repetitive training, specific concerns about eating and health, and a rather competitive attitude to excel.

While there are many different fields, each person usually engages in just one *field*. The field, according to Bourdieu, is the subculture where people principally judge their success in life. A teenager may clash with the culture of his/her household or even that of his/her country, but showing up in school wearing clothes that clash with the school culture would be unthinkable! Similarly, economists come from a great many ethnic, national, and other social cultures, but at a conference they tend to all dress, act, and talk in very similar ways, and they will tend to judge their colleagues not by their ethnic group or national culture, but by a nearly identical set of criteria covering the subjects, methods, and procedures that are deemed appropriate in economics. Note that this example reflects the fact that economics satisfies Bourdieu's definition of a field.

The field of economics most definitely has a peculiar culture that nearly all practitioners in the field adhere to. Bourdieu develops two concepts that define the culture of a field. First, people in a field adopt certain attitudes, behaviors, and dispositions, which Bourdieu defines as the field's *habitus*. This term was used by Aristotle and Max Weber. The habitus is a set of *subjective* but persistent perceptions, customs, conventions, norms, mannerisms, behaviors, and outward expressions. The habitus effectively constitutes both a person's personal disposition towards others and the set of behaviors by which others within the field judge him/her. Interestingly, Bourdieu straddles the long-running debate in sociology between subjectivity and objectivity by defining the field as objective and the habitus as subjective. Bourdieu argued that people develop the *subjective* dispositions and attitudes of the habitus in order to be successful in their well-defined *objective* field. A soldier is likely to adopt a habitus characterized by a willingness to engage in aggressive behavior, an unquestioning respect for authority and rank, as well as a strong affirmation of group loyalty. A businessperson's habitus may be characterized by an admiration for aggressive salesmanship, a disdain for government regulation, and a positive response to monetary rewards. An economist's habitus includes the use of neoclassical models to analyze a set of issues that fall almost entirely within the economic sphere.

Bourdieu points out that there is an uneasy relationship between the reality of one's field and the inherently arbitrary nature of much of what comprises the habitus. Psychologically, it is difficult for an intelligent person to deal with this combination of an *objective* field and a *subjective* habitus. Human societies, or groups within human societies, thus develop sets of beliefs, symbols, and popular stories that provide some justification for the subjective habitus

associated with one's objective field. Bourdieu calls these sets of well-established but largely unproven beliefs, stories, and philosophies *doxa*. These include the "half-baked ideas" that we quoted North (2005) arguing for as necessary social constructs for societies to deal with the poorly understood complexities they face. But doxa are also likely to include well-developed religious dogma and carefully thought out philosophies. Together, the doxa and habitus constitute *culture*.

Symbolic violence

Bourdieu (1986, 1989b) explicitly argues that culture becomes oppressive when, in order to gain acceptance within the group, people consciously or unconsciously begin to interpret reality in ways that lead them to act against their own interests. Recall that for someone to be successful in their field they have to behave in accordance with the field's habitus, which may prescribe behavior that is not necessarily in the long-run interest of that individual.

Bourdieu (1986, 1989a) explained cultural oppression by focusing on the role of various forms of *cultural capital*. *Inherited cultural capital* includes specific traditions and culture that can take considerable time to transfer and absorb, such as habits developed during upbringing, language and dialect, social mannerisms, and personal relationships. *Objectified cultural capital* includes real physical things such as a musical instrument, a carpenter's tool box, or, in the case of economists, an office computer and shelves of books. In each case, the musician, the carpenter, and the economists would lose status if they did not posses such objectified capital. Finally, *institutionalized cultural capital* includes diplomas, awards, certifications, and other official credentials. Together, these forms of cultural capital give those who possess them power. The use of this power to impose one's will over another person with less cultural capital is referred to by Bourdieu (1977b, 1986, 1989b, 2001) as *symbolic violence*. Note that Bourdieu's incorporation of the word *capital* is correct because many aspects of human culture are accumulated only gradually over time through education, social experience, family upbringing, assimilation, and learning. Redistributing this cultural capital in order to reduce symbolic violence is, therefore, inevitably a slow process.

Discrimination and harassment are overt forms of symbolic violence. But there are many subtle forms of symbolic violence, such as a frown or look of disapproval by a parent that makes a child change its behavior or the concerned

mention of "unfinished work" by a boss that effectively signals to an employee that (s)he had better put in some extra hours over the weekend. Symbolic violence among adults is fundamental to the perpetuation of gender, ethnic, and age inequalities. Bourdieu (2001) shows that symbolic violence often leads people to accept what are, objectively, injustices because they adjust their doxa to match the social field they inhabit. Working class children accept the social order as legitimate and thus accept the educational success of their upper- and middle-class peers as a reflection of the latter's greater ability or harder work rather than of social privilege. Similarly, in many fields men are perceived to hold more cultural capital than females. But, given the need for income, prestige, or simply an employer's health insurance, a worker will be prone to accept the underlying doxa that justifies the sub-optimal habitus.

More important for our purpose here, symbolic violence serves to sustain a dominant culture. By intimidating actual and potential purveyors of alternative paradigms, symbolic violence protects both the doxa and habitus from what Thomas Kuhn (1962) called anomalies that, if allowed to be discussed and examined, can ultimately bring about a paradigm shift.

It is not uncommon to see a Marxist economist up for promotion convince himself or herself that it is appropriate for a Marxist to write an article whose analysis is based on a neoclassical model that reflects an idealized capitalist economic structure because that is more likely to get published in what the habitus deems to be a "first-tier" economics journal. More generally, economists seldom actively question the neoclassical models because they receive continual implicit reassurance from colleagues who also embrace the field's habitus.

Bourdieu (2001) further shows that people who are the object of symbolic violence are often complicit in their own subordination because they adjust their habitus and doxa in order to maintain their sense of dignity within what they subconsciously accept as the immutable reality of the social or professional field they inhabit. Thus, economics graduates of lower-rated universities (say, the University of Nebraska) see the professional success of the graduates of higher-ranked universities (Harvard or MIT) as a legitimate reflection of the latter's greater ability or their harder work, even though in reality the institutionalized cultural capital (the diplomas) are seldom more than the result of class-based inherited cultural and economic capital.

The habitus and doxa of economics

There is a well-established doxa that underlies economics' neoclassical habitus. This doxa has been referred to as the neo-liberal paradigm, which is a set of beliefs that include the equivalence of markets with the "freedom to choose," the elevation of the rational individual to the position of central player in the economy, and the ubiquity of complete and efficient markets so that the invisible hand can transform self-interested individual behavior into a maximum of social well-being. The set of policies imposed on many indebted developing economies by the International Monetary Fund, the so-called *Washington Consensus*, were a direct reflection of the neo-liberal doxa, and they included free trade, privatization of government assets, conservative monetary policies to reduce inflation, balanced government budgets, the elimination of labor market regulations, and diminished financial market regulation. It is still not at all obvious that these policies would improve human well-being, but the policies were nevertheless put into effect without much debate. Once the doxa gains widespread acceptance, the habitus does not need to be questioned.

The doxa of free markets and individualism most closely reflects fundamental aspects of the U.S. social culture, and somewhat less so for the overall culture of Western countries. Economists, by projecting their culture onto the rest of the world, are, therefore, forcing Western culture on others in the guise of science. Third World economists trained at Western universities or taught from Western economics textboooks inadvertently become the foot soldiers for Western culture in their native countries. Respected Western economists use neoclassical models to judge economies and economic policies everywhere in the world. Economists thus behave like the Western sociologists Bourdieu (1990) criticized for judging foreign cultures from the perspective of their own Western cultures.

An obvious example of bias in the subject matter of economics is the tendency for economists to focus exclusively on market activities, to use data generated by markets, and to intepret the observed results as if all economic activity occurred in well-defined competitive markets. Hence, most economic research analyzes activities included in measured GDP, uses market prices and quantities to quantify human economic activity, and quantifies outcomes in terms of market generated prices and quantities. There are relatively few economic studies of household activity, and there are few studies that look at the social and ecological consequences of economic activity, even though the most casual

observations of the real world suggest that most human economic interactions occur outside formal markets (Van den Berg and Van den Berg, 2012).

The egregious logical error committed by neoclassical economists, and perpetuated in the field's most popular textbooks, is the defense of the limited perspective of their field with the claim that issues such as human psychological happiness, environmental problems, and non-market household activities are "non-economic issues" and thus beyond the scope of economics." The narrow scope of most economics journals reinforces this aspect of the economics habitus, which is clearly encouraged by the neo-liberal doxa. Ravetz (1995, p. 165) argues that the narrow perspective of the neoclassical framework that is economists' habitus does not serve to expand positive knowledge. Robert Heilbroner openly recognized the doxa of economics when he stated that "[t]he best kept secret in economics is that economics is about the study of capitalism." (quoted in Palley 1998, p. 15)

We again point out that in economics, as in all fields, it is the accumulation of social capital that protects the dominant culture. If an individual economist does openly question the doxa or fails to act in accordance with the habitus, (s)he will immediately face symbolic violence. In economics, the symbolic violence is often carried out by the field's most highly regarded members who serve on the editorial boards of professional journals that determine the fate of economic research and the faculty committees that hire, promote, and fire new faculty members. Thus, a young assistant professor seeking to publish and gain tenure will be "well-advised" to write articles that apply only neoclassical analysis. Course content in the leading economics departments, dissertation advice, and the selection criteria for research grants further install the orthodox habitus and doxa in the minds of young students, some of whom will become our future economists. Outside of academia, the corporate-funded think tanks, the Federal Reserve and other central banks, international agencies such as the IMF, World Bank, and OECD, the business press, and private financial firms also strive to keep the orthodox paradigm firmly entrenched. Symbolic violence is not always subtle; sometimes it is overtly exercised in order to protect the cultural, social, and economic capital of vested interests. This danger is becoming increasingly probable given the gradual privatization of higher education in the United States, the United Kingdom, and in most other countries.

The brief sociological examination of the culture of economics suggests that, in order to avoid yet another failure to predict major shifts in economic performance like the 2007-2009 Great Recession, economists must find a way to free themselves

from the constraints imposed by the field's habitus and doxa. This means economists must first recognize the problem, and then they must find a way to mount a meaningful resistance to the symbolic violence of the field's culture.

A case for pluralism

Even though the dominant culture of the field restricts perspectives by limiting practitioners to certain paradigms, there are actually many paradigms that provide different ways of interpreting observed phenomena. There are alternative perspectives on every economic issue for the simple reason that the economy is a very complex organism that is linked in many ways to the even more complex social and natural spheres of human existence. In effect, almost nothing is beyond the scope of economics, and a more scientific approach to economics has pushed some economists to break out of the neoclassical constraints on economic thought and research.

Behavioral economists, for example, have combined psychology and economics in order to analyze economic issues with much more realistic models of human behavior and more complete measures of human welfare. Ecologists and environmental economists are addressing the environmental externalities that neoclassical economists have largely ignored. Political scientists have provided valuable insights that political economists have used to analyze the causes and effects of economic policies. Feminist economists have begun to investigate household activity and gender in the workplace, two topics ignored by orthodox neoclassical analysis that tends to focus on market activities and most often treats workers as homogeneous or "representative" individuals devoid of gender, age, class, culture, or other distinguishing characteristics.

One potential strategy for achieving paradignmatic liberty is, therefore, to seek ways to reduce the symbolic violence against these alternative paradigms. Policies in academia could be intentionally changed to eliminate discrimination against practitioners who adhere to an alternative doxa and habitus. Varied interests could establish a variety of think tanks; the New Economics Foundation, the Levy Institute, and the Economic Policy Institute come to mind as good examples of non-orthodox research institutes that are willing to address issues outside the dominant economics culture. Better yet, as argued in Van den Berg (2011), the profession could actively pursue pluralism, which is the intentional application of alternative paradigms in economic analysis.

Perhaps we can take inspiration from John Maynard Keynes, who wrote in the Preface of his revolutionary *General Theory*:

> The composition of this book has been for the author a long struggle of escape, and so must the reading of it be for most readers if the author's assault upon them is to be successful,–a struggle of escape from habitual modes of thought and expression. The ideas which are here expressed so laboriously are extremely simple and should be obvious. The difficulty lies, not in the new ideas, but in escaping from the old ones, which ramify, for those of us brought up as most of us have been, into every corner of our minds. (Keynes 1936, p. viii)

While Keynes did manage to have great impact with his "escape from old ideas," we have already noted earlier in this paper that Keynes' influence waned after about 30 years. Today most of the "old ideas" have been fully restored as the habitus of the field of economics. It is not easy to shift paradigms.

By actively looking at issues from multi-paradigmatic and inter-disciplinary perspectives, social scientists would be less likely to be symbolically intimidated by their own field's imposed habitus and supporting doxa. Interestingly, pluralism is not entirely incompatible with the current doxa of economics. Beliefs in the "freedom to choose" clearly suggest a tolerance for pluralism. The belief in free markets could be extended to apply to "the market for ideas," which legitimizes alternative ideas in the field's habitus. However, George Monbiot (2011) is probably correct about the neo-liberal doxa of economics when he writes that the freedom from government regulation often becomes "the freedom of the powerful to exploit the weak, the rich to exploit the poor." Given what Bourdieu's analysis tells us about the power of culture and its symbolic violence, the neo-liberal doxa may similarly not be transformable beyond the "the freedom of a powerful culture to continue to exploit the weaker cultures." In the absence of explicit efforts to establish a culture of pluralism, the "free market of ideas" has little chance of bringing about a paradigm shift over the resistance of a well-entrenched culture.

On the other hand, the fact that the profession of economics is increasingly international may undermine the doxa that has supported the neoclassical "capitalist" habitus. The neo-liberal doxa is clearly very Western, even Anglo-Saxon, in nature; foreign-born economists may not find the neo-liberal doxa as compelling as American and British economists do. Without unquestioning faith in a doxa, the subjective habitus cannot be sustained. Since there are overwhelming anomalies that conflict with the predictions and explanations of

the neoclassical habitus and the neo-liberal doxa, Kuhn's (1962) description of science suggests that we may be approaching a critical mass of anomalies that can trigger a paradigm shift.

Rifka Weehuizen (2007) reminds us, however, that every paradigm has its doxa and habitus, which tend to oppress potential revolutionaries and ignore cultural "outsiders." There is no guarantee, therefore, that a new paradigm will be less dominant once it is installed in power. Waiting for foreign cultures to weaken the neo-liberal doxa may not result in a fruitful paradigm shift. The better answer to the problem of biased perspectives in economics is, therefore, for concerned economists to actively pursue pluralism.

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