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CHAPTER 2

From Outer Circle to Center Stage: The Maturation of Heterodox Economics

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Over the last century, mainstream economists have become increasingly defensive and sectarian, increasingly rigorous in excluding dissidents, sometimes blighting careers at a hint of disagreement with the standard orthodoxy, or, when someone had managed to achieve recognition outside their reach, saying—as I've heard it said about the late Ken Galbraith—"well, he's very clever, but of course he's not really an economist!" One result of this circling of the wagons was the creation of an outer circle of critics and dissidents: economists who thought of themselves as "alternative" or "heterodox." The outer circle, which contains many serious and creative thinkers, has continued to grow and to pose serious challenges to the mainstream emphasis, assumptions, methods, and conclusions.

This essay will briefly describe how the inner circle has limited its horizons, increasing the scope for heterodox economists to claim ever more of the most important issues. A unifying theme will be the tension between two values: that of being scientific ("scientificity") and that of relevance. These need not—and should not—be in conflict; an important goal for economics in the future is to bring them into better harmony.

Across all sciences—back to the days of alchemy and before—there has been a hierarchy of prestige and self-image. A physicist in the last century remarked that only physicists are true scientists; all the rest are stamp collectors. Other natural scientists, often looking up at physics, tend to look down on the social sciences. The latter have competed to assert various kinds and degrees of scientificity, with economics staking out its claim as "the queen of the social sciences."[1] Adopting a "scientific" value cherished by the positivists of the nineteenth and

early twentieth century, and following what was perceived in the 1940s as the course mapped out by physics, economists have often boasted that their discipline was value neutral. Carried to an extreme, as it too often has been, this stance has been especially detrimental to the relevance of twentieth-century economics.

To understand the future paths that are now open to the discipline of economics, particularly for its maturing "outer circle," it is helpful to review the recent history of economics and the sharpening tensions between relevance and scientificity.

The Consolidation of Mainstream Economics

Much of the history of the economics discipline in the twentieth century may be seen as an attempt to secure its place in the elevated ranks of the "real" sciences—distancing itself from other, less "rigorous" social sciences. In 1877, the discipline received a nasty blow to its pride and prestige when Francis Galton proposed to exclude economics from the British Association for the Advancement of Science. A vigorous debate on the nature and validity of economics ensued. The upshot was that

> economic orthodoxy, accused on all sides in the 1870s and 80s of both theoretical inadequacy and social irrelevance, resolved this position not by a successful answer to these criticisms, but by capturing a dominant position in which it could largely ignore its critics. (Maloney 1985, 4)

In most of the Western world, certainly in the Anglo-American world, Alfred Marshall was the dominant figure in economics for the first quarter of the twentieth century. He had an exceptionally lively awareness of the dangers of being seduced by mathematical formalism, away from the moral purposes and the human realities that were, to him, the essential subject matter. John Maynard Keynes, though a student and friend of Marshall, sneered at his Victorian morality, referring to a

> Conflict between an intellect, which was hard, dry, critical, as unsentimental as you could find, with emotions and aspirations, generally unspoken, of quite a different type. When his intellect chased diagrams and Foreign Trade and Money, there was an evangelical moralizer of an imp somewhere inside him, that was so ill-advised as to disapprove. (Keynes 1924, 37)

Marshall viewed his personal enjoyment of mathematics as a dangerous temptation. Keynes suggested that Marshall should have given in wholly to that

temptation—a suggestion that Keynes's ghost may subsequently have had cause to regret.

The rise of Marx-inspired theory and practice in Russia gave strong support to the dominance of what was coming to be called "neoclassical" economics; as the world increasingly fell into the opposing camps of socialist and capitalist economic organization, political powers in the West were glad to support the dominant theory that upheld their side. Keynes's practical responses to the Great Depression of the 1930s were followed by what we can, with hindsight, term the Keynesian pump priming of World War II. From that war the United States of America emerged as the world's dominant economic power, with the greatest ability to define economics in the Western world.

In the 1940s Lionel Robbins proposed to clarify this definition by narrowing the focus of economics to a few topics: scarcity, choice, and prices. Milton Friedman followed with his famous declaration that it did not matter whether economists described the real world; all they had to do was to create internally consistent models with predictive power (see note 4). Nevertheless, the field was still subject to the blooming, buzzing confusion of reality, until Paul Samuelson came in like a god of order to tidy it up. Demonstrating a masterful ability to reduce everything to elegantly simple models, Samuelson's "neoclassical synthesis" claimed to make a seamless whole of neoclassical-cum-Keynesian economics, but in fact did violence to a number of Keynes's essential intuitions.[2]

Having reached the middle of the last century in this rapid survey, we should pause to note a remarkable effect on the teaching of economics that fell out of Samuelson's imposition of order. Consider the sequence of courses taken by any student who wishes to become an economist. First comes an introductory course, or a pair of courses, on the principles of micro- and macroeconomics. After taking a few other classes on topics with some application to the real world (such as labor, finance, and international trade), the student takes the intermediate theory courses. These repeat exactly the same material as the introductory sequence, with more rigorous modeling and less time to spend on real-world examples. The graduate-level micro and macro continue the same trajectory: same content but fancier methods and less real-world application.

Does any other discipline teach in this way—organizing its pedagogy around a core sequence in which students go over the same material three separate times, with virtually no new facts, only fancier ways to prove the same things, more abstractly? This essay will not devote much attention to what's wrong with the dominant economic theory, since that topic has been well covered by many,

many people.[3] However, more will be said about the uniquely bizarre pedagogical approach of standard economics education.

The 1950s and 1960s were the golden age for Western—especially U.S.—capitalism and also for the neoclassical theory that purported to explain and predict its workings. Real incomes were growing rapidly. Business was booming, and entry for the poor into a comfortable middle class was an increasingly realizable dream. On the academic side, the intellectual position of positivism, under serious attack in the natural sciences, was still widely accepted in the social sciences. Economics, clearly the most mathematized of the social sciences, could claim, on positivist grounds, to be the most "scientific" of the group. At the same time, in its relationship to the real world, academic economic theory was billed as being available, like a rack of ready-made suits, to be slipped onto real-world problems.

By the 1970s, with stagflation as major evidence of the inadequacy of economic theory to explain or predict real-world events, came a growing awareness of the divergence between economic theory and economic reality—a divergence that, in fact, had been growing since the turn away from Marshall's institutional path. Policymakers and the public, though having no real alternative to turn to, nevertheless began to express cynicism about the reliability of academic economists. (There was also a mild wave of a more generalized anti-intellectualism, going beyond opinions about the specialty of economics; the two trends fed one another.) On their side, academic economists, when faced with a choice between addressing real-world issues or writing papers that could be published in the leading journals, chose the latter; all the incentives in the academic system pushed them to that choice.

The earlier described response of a beleaguered economic orthodoxy at the end of the nineteenth century was repeated in the last decades of the twentieth. Thatcherism and Reagonomics were the political response to a feeling of defensiveness among the economic elite. The elite in academic economics supported the political/economic elite in providing the theoretic basis for the global spread of neoliberalism. The "Washington Consensus" was a bundle of ideas that justified the imposition of the neoliberal financial, trading, and small-government regime on the less developed nations of the world. The increasingly well-documented failures of this approach have been used in the global revolt against globalization and its theoretic underpinnings, which sets the stage for economics in the twenty-first century. Before looking forward, however, I will look back again at the development of economics in the twentieth century, now focusing on critics of and alternatives to the mainstream.

Early Twentieth-Century Alternatives

While Robbins, Friedman, Samuelson, and others were creating standards for the field in which symmetry, order, and difficult mathematical modeling techniques were given priority over other possible values, all was not agreement. The most fully developed alternative to neoclassical economics was Marxism—a system of theory that was widely accepted for a substantial part of the twentieth century as the best way to understand economies and societies. During that time at least a third of the world's population lived under regimes that were guided by, and that educated their populations in, some variant of Marxian theory.

The Marxian alternative lost most of its viability in 1991 with the fall of the Soviet Union. However, this apparent move toward uni-polarity in the world's economic *systems* did not mean the end of debate on economic *theory*—rather the contrary.

Prior to the end of the cold war the situation in some capitalist countries, such as Italy or France, was that the Marxians had largely captured and dominated the alternative-to-neoclassical side of the debate. In others, such as Argentina or the United States, where there was overwhelming public sentiment against Marxism, *any* alternative had been suspect as possibly leading in that forbidden direction. While the cold war continued, these circumstances had tended to dampen debate on economic theory or to channel it into predictable grooves. Once the Marxian alternative to the capitalist way of organizing economic activity was widely viewed as discredited, it became easier to question the dominant paradigm openly and to discuss a variety of theoretic alternatives with greater freedom.

In any case, the Marxians had not been the only source for critiques of mainstream economics. The Austrian School had long objected to the neoclassicals' heavy dependence on a theoretical ideal of perfect competition, with its assumptions of perfect markets and perfectly rational human beings. However, their distrust of government was so profound that they ended up, politically, in a very similar place to the neoclassicals. Even if markets are not perfect, the Austrians so greatly prefer markets to governments that their policy prescriptions, for example, for removing trade barriers and minimizing government "interference" come out in very nearly the same place as the most extreme of the neoclassicals/neoliberals.

This raises another issue that will deserve more attention. That is, when we differentiate among various groups of economists, most broadly separating the neoclassicals from the heterodox, what screens will we use? The screens that have turned up so far in this brief historical survey are, on the theoretical side,

scientificity and relevance; on the side of action, they are pedagogy and policies. We will return to a consideration of how these are best applied.

While Marxist regimes claimed a wholly different way of thought, with clearly very different policy implications, and the Austrian School denied some neoclassical premises, accepted others, but ended up with similar policy conclusions, the third major alternative to neoclassical economics was quieter and less well organized. These were the institutionalists, including such early twentieth-century thinkers as Veblen, Clark, and Commons. Their outstanding characteristic, in the terms we have been using, was an insistence on relevance, especially with respect to the actual facts of how people create groupings, with norms and rules, to organize their economic activities.

By midcentury the institutionalists were to be found mostly in the low (and getting lower) prestige fields of economics: labor, agriculture, and development. Not coincidentally, these were the fields in which it was most difficult to ignore reality in favor of well-behaved models. In 1992 Paul Krugman (while he was still more committed to theory than to policy) pronounced what many regarded as the funeral oration over the coffin of the institutionalists, especially development economists.

Krugman described the divergence of two paths: the neoclassical path, toward ever more sophisticated and mathematized techniques of analysis; and the institutionalist path, whose classic writings "began to seem . . . not even wrong—simply incomprehensible" (1992, 14). "From the point of view of a modern economist," he said, "the most striking feature of the works of high development theory is their adherence to a discursive, non-mathematical style." They have been swept away because they "failed to turn their intuitive insights into clear-cut models that could serve as the core of an enduring discipline" (ibid.).

Krugman did not suggest it was lack of mathematical ability that caused the high development theorists to persist in talking a language that became unrecognizable to the mainstream; rather, he stressed "the difficulty of reconciling economies of scale with a competitive market structure." Because of this, he says, "development theorists were placed in an awkward bind, *with basically sensible ideas that they could not quite express in fully worked-out models*" (1992, 15; emphasis added). This supports a conclusion that is presented early on in the paper:

> There are, unfortunately, no general or even plausible tractable models of imperfect competition. The tractable models always involve some set of arbitrary assumptions about tastes, technology, behavior, or all three. This means that *in*

> *order to do development theory one must have the courage to be silly,* writing down models that are implausible in the details in order to arrive at convincing higher-level insights. (7; emphasis added)[4]

Krugman's conclusion may be seen as a watershed: a line of demarcation between those who choose to continue as though living in the neoclassical world characterized by such unrealities as immobile capital and no increasing returns to scale, and where issues such as relative power are rarely seen to be important, versus those who abandon these fictions to seek an alternative way of apprehending real-world economies.

It is possible to agree with much of Krugman's analysis of the reasons why high development theory became marginalized within the mainstream and still to disagree with his normative conclusion. Rather than having the courage to be silly (something that, after all, does not take much courage when all about you are doing the same), an alternative prescription would be for the courage to go in a different direction from the dominant paradigm. In particular, where mainstream methodologies demand excessive simplification—where they require throwing out important elements of reality that cannot be made to fit the Procrustean models—the alternative may be to find ways for the human mind to cope with a richer set of complexity.

Cracks in the Edifice

The path of neoclassical economics was designed, in the minds of its best exponents (e.g., such pioneers as Marshall and Samuelson), to do precisely what I have just called for: that is, to use mathematics, models, and the computers that could wield the advanced versions thereof to digest a degree of complexity that, in its raw state, is beyond the human mind. In many areas this approach to making complexity comprehensible has not worked. Indeed, mainstream economists have repeatedly been led to topics that their methods could deal with rather than addressing many of the most humanly important economic aspects of the real world around us.

In spite of this perversion of focus, the mainstream's system of marginalizing dissenters worked well for much of the twentieth century. However, while the tight logical structure of the discipline encouraged its adherents to claim great internal consistency, important aspects of this claim were being unanswerably refuted by outstanding economists who continued to work (more or less) within the mainstream. These included Joan Robinson (1953–54, 1974), Kenneth Arrow

(1951), Kelvin Lancaster and Richard Lipsey (1956–57), Harvey Leibenstein (1976), and Amartya Sen (1977, 1986).[5]

Problems with the large assumptions of equilibrium, perfect competition, and perfect rationality as norms could not be entirely ignored. Nor could Arrow's uncertainty principle, Lancaster's law of the second best, or Leibenstein's X-inefficiency. In standard texts, however, these devastating exceptions are brushed aside as intellectual oddities or exotic special cases. The interested reader is directed to carefully circumscribed journal articles that relax one assumption at a time. For example, when relaxing the assumption that perfect future markets for all goods exist, the assumption of perfect rationality among economic actors would nevertheless be maintained; if markets were allowed to be other than perfectly competitive, convenient assumptions about homogeneity of factor inputs would not simultaneously be abandoned.

Neoclassical economists have pursued scientificity to an extent that not only excludes relevance but also ends up hurting their claim to good science. They have failed to meet the broad-based challenges, listed previously, to one scientific test: that of *internal consistency.* At the same time, they have neglected the even more critical test of *external consistency*—consistency, that is, between theory and empirically observed reality.

Turning away from relevance and toward this narrow conception of rigor, the incentive and reward system of academic economics has selected, for graduate training, individuals whose chief strength is in mathematics, while broader interests in the implications and applications of the field have had, if anything, a negative effect on the student's chances for successful completion of an economics doctorate. Each year the graduates of these programs are, on the whole, narrower in their interests and their knowledge than the existing practitioners in the field. As the narrowest of them are, in turn, the ones likely to be selected for academic promotion and tenure, mainstream economics has progressively turned its back on subjects that other people think should be important to the field.[6]

Here is where the neoclassical insistence upon claiming value neutrality is most evidently harmful to the discipline. Economists who feel free to admit to values as critical elements in their work have a strong link to relevance: they can ask, "What is the purpose of an economy? By what standards do we judge a better versus a worse economy?" Questions like these lead to examination of the issues that most people regard as meaningful and important in their lives.

In fact, there is also a strong, though denied, normative basis for some central tenets of neoclassical economics. The central explicit value in neoclassical economics is efficiency; economics is designed to aid efficiency regardless of the

definition of "utility," assumed to be the ultimate goal that is to be "efficiently" pursued. In addition, however, there is an implicit value: consumption. This appears in myriad economics writings as the proxy for utility; the more utility—or the more consumption—the better off the society is presumed to be. As evidence for this assertion, consider the following quotations from the 1985 college text by Samuelson and Nordhaus:

> Efficiency is a central (perhaps *the* central) concern in economics.
> An economy is efficient if it is organized so as to provide the consumers the largest possible combination of commodities, given the resources and technology of the economy. More precisely: *Allocative efficiency occurs when there is no possible reorganization of production that would make everyone better off.* (1985, 28 and 483; original emphasis)

The interesting thing to note in these passages is the elision whereby provision to consumers of the largest possible combination of commodities becomes identified with making everyone as well off as possible. Efficiency—the overt goal of neoclassical economics—is about getting more of everything. The covert goal is the maximization of consumables and, therefore, of consumption.

Without getting into a long discussion of this interesting issue, several points should, nevertheless, be made. One is that this is a goal that, under certain circumstances or up to a certain point, is absolutely essential; if we did not have a science that focused on efficiency as a means to increase consumption opportunities, we would have to drop most other efforts in the field and turn to the invention of such a science. The second point, however, is that this goal is most urgent in societies that are characterized by deficiency of basic consumption goods. With increasing affluence, after output per capita has been increasing for a reasonable period of time, the continued goal of maximization of output becomes questionable: is more *always* better?

The third point is a reminder that neoclassical economics did not arise in a political or social vacuum; rather, it was developed with direct reference to a particular type of social/economic organization: industrial capitalism. The industrial revolution, with its great unleashing of technical and organizational productivity, required a commensurate expansion of consumer demand in order to justify and pay for the increase in output. There were times when there appeared to be a real possibility that the industrial revolution would collapse if consumer demand could not be induced to expand rapidly enough. The economy that we have inherited from the nineteenth century's combination of technological, managerial, social, and psychological innovations is one that

continues to be dangerously threatened by depression or recession whenever consumer demand falters.

To bring this point home, consider the need to build in automobile obsolescence, through changing fashions as well as by production of vehicles with a life expectancy shorter than technologically possible. What, it is worth asking, would happen to the U.S. economy if every buyer kept his or her car for thirty years? Or, what if we could keep using the same computers for thirty years?

It appears, therefore, that the economic system with which the neoclassical system of economic theory is paired requires that the theory have as its goal, whether open or hidden, the maximization of market purchases.

The Outer Circle Today

The foregoing outline of the complex history of economics in the twentieth century suggests how an ascendant mainstream, which came to be known as "neoclassical," consolidated its position through various claims to scientificity and through its alignment with (and usefulness to) the most powerful elements of society: the owners and managers of capital and of economically productive activities. As the century wore on, adherents to this dominant paradigm increased their own power, within universities and as consultants to policymakers. At the same time they became increasingly defensive, marginalizing dissenters when they could or else segregating areas of dissent, to protect the discipline's core beliefs.

This process has resulted in a growing "outer circle" of economists who have been denied the more desirable opportunities to teach and do research or who have voluntarily declared themselves as outsiders because they simply could not agree with some essential mainstream tenets. As I set out, in this section, to describe the characteristics most likely to be held in common by the heterodox "outer circle," I am finally obliged to confront the question of how to define whom it includes.

I have mentioned several possible screens: pedagogy and policy, methodology and values. I will leave aside questions of pedagogy and methods for now, because the heterodox groups have too often rather tamely accepted the neoclassical definitions of what this social science should look like, as a science, and in its approach to teaching. (There are some important individual exceptions, especially in the International Network of Economic Method [INEM].) Instead, at this point I will focus on core values, looking at them in part as they are revealed through policies.

The Austrian School, which has not claimed value neutrality with as much stridency as the neoclassicals, has emphasized the value of a particular kind of freedom, namely, freedom from government interference. One may contrast Amartya Sen's book, *Development as Freedom,* which emphasizes freedom to develop oneself as an individual and within a participatory society (1999). Here government is not seen as necessarily the primary enemy of freedom (though, obviously, bad governments can be such an enemy). This contrast highlights how the values of the Austrian School align with the neoclassical efficiency and consumption values. The policy conclusions are very similar, and the reasons for arriving at "free-trade, free-market" policies come out of the same history. If you look at the world through the eyes of the owners of capital and the managers of businesses, there is likely to be a convergence of values: against government and in favor of raising consumption as a means to the end of keeping the economic wheels turning.

Among the heterodox economists of today, those who are most likely to be in sympathy with the last mentioned goal—to raise consumption as a means to the end of keeping the economic wheels turning—are the radical economists. By focusing on workers' needs for employment, radicals (and some Keynesians) may skate dangerously close to the topsy-turvy value system of the neoclassicals and Austrians, who claim Adam Smith's tradition of viewing consumer well-being as the goal of an economic system but who, in fact, end up supporting policies that manipulate consumers to support the interests of the producers or owners. The obvious difference is that the "radical" concern is with the *workers* as producers, while the neoclassical and Austrian policy prescriptions effectively support the *owners and managers* of production.

If the pro-employment emphasis of radical and Keynesian economists has resulted in some apparent convergence with the mainstream support for the industrial revolution project—and the modern "development" project—of raising output, nevertheless the underlying value orientation is very different. The radicals are committed to increasing human well-being. They have inherited from the Marxian stream of thought a tendency to emphasize the well-being of people in their roles as workers—an important counterweight to the implication in much neoclassical writing that economists' prime concern should be with the well-being of people in their roles as consumers.

The well-being of owners and managers is sometimes directly addressed by popular, supply-side writers—rarely by serious academic economists. However, both neoclassical and Austrian economic theories often support policies and politics that enhance the welfare of that group, even at the expense of workers

and/or consumers who are not among the economic elite. This point is not about which systems of economic thought are based on values; I have tried to demonstrate that they all are. The point, rather, has to do with *which* values are used to set the goals of the discipline (whether implicit or explicit); *whose* welfare is really served by the economic system that the theory in turn serves; and *on what grounds should it be judged* whether economic systems are moving in desirable or undesirable directions.

Having embarked on what is, admittedly, a somewhat artificial exercise—an attempt to decide which groups should be included in a definition of "the outer circle"—I am opting for a distinction that mixes political outcomes with basic values. In graduate school I was told that "economics is about equity and efficiency: we don't really know how to deal with equity, so we will focus on efficiency." The outer circle, as I see it, includes those economists who *reject* that conclusion, who are at least as concerned with equity as with efficiency. This means that I will attempt to embrace most of the heterodox schools but will leave out the Austrians.

With that decision made (not entirely comfortably), the remainder of this section will survey the characteristics of the outer circle. These include—or can include—social (and socio- and humanistic) economists; Keynesians and post-Keynesians; neo-Ricardians; radical (including Marxian, neo-Marxist, and political) economists; feminist economists; ecological economists and their anti-growth allies (followers of Gandhi and Schumacher); and institutionalists (whether "old" or "new" or "evolutionary"). A significant number of labor, agricultural, and development economists (especially those who use the term *human development*) are still either overt or closet institutionalists, in spite of attacks like Krugman's. However, the instititutionalist label has also been claimed by some economists who simply apply neoclassical assumptions and methods to a slightly expanded universe of topics and as such do not belong in the outer circle. Some members of the outer circle, as I see it, are also to be found among those who focus on history of thought, applied economics, and behavioral economics. (I have probably inadvertently omitted a few groups, for which I apologize in advance.)

What, then, are the points of agreement among this diverse band in the outer circle? A common starting point is a conviction that the neoclassical paradigm is seriously flawed. Along with this, the heterodox groups just cited have tended to share a friendly acceptance that new ideas are important and that virtually any new idea merits a respectful hearing. There is considerable redundancy as well as diversity, with myriad individuals undertaking to rethink the basic issues,

sometimes from the same starting point, sometimes from different ones. In a period of change such as this, redundancy is healthy and helpful. This is a charmed and charming time, in which every one of our fellows shines with the potential of being a new star—the next Keynes or Marx or Adam Smith. (Perhaps, at last, a female will reach such a level! The outer circle is, in any case, intentionally and, most of the time, actually less male dominated than the inner circle.)

As contrasted with the neoclassical claim that theirs is a value-free system of economic theory, most of the alternative groups proceed from overt and explicit goals. As was the case with classical economics in the eighteenth, nineteenth, and early twentieth centuries, the modern alternatives are called forth by the desire to create *a science that can help in making the world a better place.* Most heterodox economists share urgent concerns about value issues such as equity, quality of life, securing the future, and the need to recognize the economic meanings of power and of institutions. They criticize the mainstream paradigm for either ignoring these concerns or, in fact, supporting harmful tendencies in our economic system toward more inequality and concentration of power, less attention to or respect for ethical issues, and increasing degradation of the natural world.

A widely shared complaint among members of the outer circle is that the world described and analyzed by standard economic theory is not the real world. Heterodox economists in general believe that external consistency is at least as important as internal consistency; in this respect, relevance precedes (though most agree strongly that it should not preclude) scientificity. The neoclassicals' increasing reliance on highly mathematized modeling techniques has required excessively simple assumptions (such as perfect competition, perfect information, and complete markets) and has fostered a reluctance to grapple with issues that are not amenable to such modeling. Meanwhile, this drift has meant that fewer and fewer people can participate in an ever more obscure—and less relevant—discourse.

While most heterodox economists object to how far the dominant paradigm has gone in abstracting from the real world, different groups emphasize different aspects of the left-out context. Some focus on the inadequate attention given to the relations between economic systems and the natural world, while others emphasize various social realities that are missed, such as power relationships; ethical and other motivations that are ignored in the assumption of economic man single-mindedly maximizing his own interest; or the economic roles played by women and the activities that occur in places traditionally considered women's domains.

Essential contributions from the radical economics groups show up especially in the matter of emphasis. For example, their focus on the quality of the worker's life is an important antidote to the neoclassical tendency to judge economic success solely in terms of the choices available to consumers. The radical groups have been especially consistent in their attention to the value of equity. Another, related emphasis is on power—not just the narrowly defined market power admitted by the neoclassicals but the reality that, for a wide variety of reasons, different individuals and groups possess different kinds and amounts of power. This reality bears significantly on many economic outcomes—including, of course, the intrahousehold allocations of work and of resources that are emphasized by the feminist economists.

Ecological, social, and feminist writings all point to a critical recognition: that we must give attention to something more than the traditional trio of essential economic activities—production, distribution, and consumption. Of equal importance is a fourth—resource maintenance. It is well known that firms are obliged to maintain their produced capital—plant, equipment, and inventory. If roads, communications systems, and so forth are allowed to deteriorate, future resources will have to be diverted to rebuild what could have been maintained. The uneconomic results of failure to maintain natural resources—for example, pollution—are becoming equally obvious. However, the maintenance of systems for personal and social support and well-being has received far less economic attention.

Socioeconomists have pointed out how essential functions carried out in homes and communities may be eroded by the business sphere, urging selfish materialism, consumerism, and competitive individualism—for example, in repeated pronouncements that "you deserve it all" and "you've got to be the best." Marxists have talked about social reproduction, with significant overlaps to the meaning of "maintenance" as defined and discussed by feminists. Institutionalists have insisted not only upon the relevance of institutions but also, in varying degrees, upon the ways in which economic outcomes both affect and are affected by all the other elements of the psychological/social context for economic activity.

Ecological economics gives prominence to Herman Daly's seminal observation that the economic system exists within, and is dependent upon, the ecological system. This is one of those "aha!" ideas that, in retrospect, look like a simple statement of obvious fact; but until Daly had spent the decades of the 1970s and 1980s insisting on it, economics had managed to achieve much elegant simplification by ignoring this critical reality. Once recognized, it logically leads, for example, to skepticism about the possibility of sustaining economic growth as we

know it—in part because there are limits to the substitutability between natural and produced capital. The fact that the global biosphere is finite also suggests that, sooner or later, there will be a limit to the size of the physical flow of production that can be maintained over time.

The urgings of environmentalists have had at least one positive effect on mainstream economists, who are wrestling with efforts to "internalize" the costs of economic activity that have been "externalized" to the natural world. However, other "meta-externalities"—*unwanted side effects of the whole economic system on its physical and social contexts*—continue to be invisible to the theory. Critical meta-externalities show up in the impact of the economic system on the social context. The culture promoted by advertising runs directly counter to the reality that productive enterprises need a workforce that has been socialized to be able to defer gratification, to think independently and sometimes creatively, and to be honest and responsible. Citizens and politicians need to care about the long run and to be able and willing to address intelligently the myriad highly complex issues that face modern societies.

Institutionalist economists are a loosely defined group who tend to describe the "real world" more accurately than most others, because they have eschewed the common economic approach: to select a standard core of "economic variables" and ignore all else. Institutionalists discuss whatever variables seem to be of most relevance to a particular topic, problem, or circumstance. For this reason their writing is often extremely interesting and illuminating. However, it has been difficult to relate one piece of institutionalist writing to another or to build a cumulative discipline upon their often brilliant contributions.

Where Do We Go from Here?

Although I have criticized the overdeveloped formalism of neoclassical economics, I accept that a discipline, in order to fit into the structure of existing educational systems, does require certain formal elements.

1. It must be teachable. That means that it must contain a recognizable core of ideas that can be applied to a wide variety of circumstances.
2. It must be testable. Teachers have to live within the structures of educational institutions, which require that they give grades indicating how well the students have learned each subject. Employers of economists, also, should have some standards—other than the old boy network—by which to assess candidates.

3. It must be cumulative. This requires a common language and—especially important—a structure, such that each generation of thinkers can build on the understanding of those who have gone before. Similarly, if new discoveries or ways of thinking suggest that the old ones are inadequate, the relation between the new and the old must be sufficiently obvious so that there is a basis for comparison or argument.
4. It must be relatively complete. That is, it must provide an outline of the subject that it covers and must provide some coverage for all of the major topics within that outline.

While the second of these points may seem like a relatively lower-order priority, it explains a good deal about the direction in which the field of economics has drifted. More mathematized subjects are obviously the most easily tested: tests of mathematical technique are easy to construct and the answers are easy to grade. The relatively discursive style of institutional economics is, in fact, at a disadvantage in all four of the criteria just listed. At the same time it has a major, counterbalancing advantage in being adaptable; it can accommodate realities that the formal models cannot, such as a world in which perfect competition and perfect rationality are oddities rather than the norm.

The institutionalist school has contributed an enormous number of extraordinarily valuable insights into the social, cultural, historical, as well as the institutional contexts of economic activity, but their insights have not been woven together into a cumulative discipline. Viewing them more sympathetically than did Krugman in 1992 (I don't want to hold him to that—he may feel differently by now), I believe that the great contributions of the institutionalists, as they have pursued a deep understanding of what is really happening in each situation, have weakened their ability to challenge the mainstream in some necessary, practical ways.

The outer circle has in common a number of very significant strengths, with attendant weaknesses, which I have emphasized in focusing on the institutionalist school. The strengths include a starting point in what is humanly important; an emphasis on clarity of expression, reduction of jargon, and other unnecessary barriers to common understanding; and reference to a real world that, by its familiarity, is intrinsically easier to understand than a counterfactual world of perfect markets and robotically simplified human beings. The alternative groups I have discussed share a commitment to developing the field to resolve problems and contribute to human well-being. The challenge is to do so in ways that are sufficiently teachable, testable, cumulative, and complete so that teach-

ers, students, and users of economics have an alternative that is not only closer to what is true and what is important but is also viable in practical terms.

The result to be sought does not have to look like neoclassical economics. This point is so important that it deserves to be repeated, with emphasis. Neoclassical economics has seemed to claim that it has the only proper model for a truly "scientific" social science. In fact, there is much yet to be learned about what "science" or "scientific" means in this context (Mazlish 1998).There have been many developments in the natural sciences since the mid-twentieth century that have cast doubt on the positivist model of physics upon which neoclassical economics was modeled. It is now possible to see that economics can be teachable without following the uniquely repetitive and fact-averse pedagogy of the neoclassical school. It can be testable, as other social sciences are, by focusing on knowledge about the real world leavened with the ability to explain situations with reference to theory; this is unquestionably more difficult than simply testing methods, but relative difficulty is no reason to go on searching under the lamplight for a key that was dropped somewhere else. An economic theory can be cumulative without pretending that every statement is deductively traceable to a single axiom; and it can be sufficiently (never, of course, perfectly) complete by taking a fresh look at the world and asking, "What matters to us here? What is important?"

The remainder of this essay will describe an alternative system of theory that is being developed according to these observations.

An Alternative: Contextual Economics

Given the neoclassical ability to ignore or transform anything that threatens it, I do not believe that it is possible simply to insert corrections, one by one, into the existing paradigm. Accordingly, since 1994 I have been working with a number of colleagues to develop a full alternative that we call *contextual economics.* The name comes from our conviction that an economic system can only be understood when it is seen to operate within a *social/psychological context* that includes ethics, norms and human motivations, culture, politics, institutions, and history and a *physical context* that includes the built environment as well as the natural world.

The development of contextual economics began as a project suggested by Wassily Leontief to produce an introductory economics textbook that would be appropriate for the particular social, institutional, and other contexts of Russia in its transition to a market economy. Tom Weisskopf and I started with an

agreement with Kelvin Lancaster that would allow us to begin by revising his old, but excellent textbook, *Economics: Principles and Practice.* Later Frank Ackerman joined the team to help us finish the first, transitional economies edition of *Microeconomics in Context,* which has been translated and is in use in Russia and Vietnam. Houghton Mifflin has now published a U.S. edition; Julie Nelson has been a major force in the latest round of rewriting.

As we continued in this project, the construction of contextual economics was like putting together a patchwork quilt. Most of the needed patches had already been created, some by economists in the inner circle and more by economists in the outer circle. Contextual economics was of necessity inclusive in ways that would allow us to draw on important elements from any school of economic thought. A major part of our job was to find the pieces we needed and fit them together. Sometimes that required reshaping or reorganizing parts so that they could make a continuous pattern. My colleagues and I were responsible for creating and imposing that pattern. I have already mentioned two of its major elements in the commonsense idea of understanding economics within its physical and social contexts and in the recognition that it is necessary to start by inquiring into the goals of what we are doing: What are the appropriate goals for an economy? In relation to that, what are the appropriate goals for the discipline of economics?

Contextual economics emphasizes that most traditionally understood economic goals—efficiency, maximizing production or consumption, earning money—are best understood as *intermediate goals,* that is, means to other ends. The relevant *final goals* might include, for example, the satisfaction of basic physical needs; happiness (including a good balance of comfort and stimulation); self-respect and the respect of others; self-actualization and a sense of meaning; fairness in the distribution of life possibilities; freedom; democracy and participation; and a natural environment that supports healthy human survival, including the need for beauty.

This list seems like a good sampling of things that many people would regard as valid ends in themselves. However, particular individuals might argue for removing one or more items or for adding some. Our textbook, *Microeconomics in Context,* encourages students to begin by considering the relation between their own final goals and the intermediate goals (efficiency, economic growth, consumption) that are assumed in most economic discussion.

As for the goals of the discipline itself, contextual economics proceeds from the assumption that, like other social sciences, its goal is to contribute to accurate understanding and analysis of some portion of human behavior in order to as-

sist people to achieve and improve their well-being. Additionally, *it does not leave it to the market to decide whose well-being counts;* contextual economics, as a social science, adopts the goal of providing understanding and analytical tools that can improve the well-being of all humans, in the present and in the future, and regardless of the extent of their involvement in market transactions.

A focus on caring labor and on the nonmonetized, cooperative economies of households and communities inspired in contextual economics a structure that organizes discussion of a modern economy in three spheres.

- The *business sphere* is composed of profit-oriented firms, which, however, contain other important motivating forces beside the drive to maximize profits. It is worth noting that corporate charters were at one time granted on the assumption that corporate activities would promote human well-being. This concept is often forgotten, but—as is sometimes stressed in radical economics—the potential remains for it to be revived.
- The *public purpose sphere* is composed of governments and nongovernmental organizations (NGOs). Like firms, they use money as the principal (though not the only) medium of exchange for procuring labor. Unlike firms, they have an announced goal of advancing the well-being of some defined portion of society and do not have shareholders or owners to whom they must return a profit.
- The *core sphere* is composed of households and communities. Their principal use of money is for exchanges with the other two spheres. The motive for economic behavior in the core is the survival and well-being of individuals: self, family, and other community members. The resource-maintenance activities of the core sphere include the work that develops and maintains human capital. For children, that means nurturing, nutrition, basic education, and socializing; and for those already in the workforce, it means the refreshment of mind and body and spirit for enhanced health and vigor.

This tripartite division emphasizes that, while the business sphere is responsible for much produced capital as well as many final goods, all of its production and distribution ultimately depends on the natural, human, and social capital that are derived from the physical context of nature and from the social context, which includes the core and the public purpose spheres.

Many of the differences between the contextual and neoclassical approaches stem from a refusal to depend upon the theoretical ideal of perfect competition.

It is widely recognized that this ideal diverges dramatically from the reality of modern markets. It is time for theory to take the leap, to follow reality.

There are several reasons why this leap has not been made within mainstream economic theory. One is that it is difficult to do—especially if one is determined to end up with a theory that looks like neoclassical economics. The mainstream methodology—the types of mathematics it employs, the sort of models it presents as "theory," the reliance on the "long chains of deductive reasoning" against which Marshall so presciently warned a century ago[7]—has developed in absolute dependence upon the elegant simplifications of a complex world that are made possible if we make just one little assumption: that *perfect competition is the norm.* If we refuse to make that assumption, we give ourselves (as Krugman noted) a very difficult task: to develop new tools—new methods, assumptions, procedures, a new idea of what a social science should look like—that can deal with the much greater complexity of a world that is nowhere near perfect competition.

The other reason why this leap has not been made is that perfect competition and the models and theories based on this assumption are the foundation for a great deal of modern policy-making regarding trade treaties, tax regimes, wage policies, and much, much else. This is a reality, but it is a special kind of reality: for policies, like theories, are human constructs. We are not stuck with this sort of individual construct—the way we are stuck with gravity or the speed of light.[8] To be sure, we need to understand the basis on which current and past policies are made; but only historical path dependence[9] causes us to maintain this image, when the fallaciousness of the basic assumption has become so evident.

In sum, the two reasons for continuing with the assumption of perfect competition, while understandable, are neither intellectually nor morally justifiable.

Toward a New Methodology

My critique of the mathematization of neoclassical economics does not mean that I see no useful place for formal modeling approaches. However, I believe that, given the topics of intrinsic interest to economics—mostly to do with human behavior—there was, from the beginning, a finite and relatively small subset upon which such methods could most effectively be brought to bear. Much of this territory has been explored, over and over again, as disproportionate attention was given to what could be quantified versus what could not.

It is necessary to take a new look at methods—the means that are employed in a discipline. It will be helpful, in doing so, to remind ourselves of the ends

these means are intended to serve. Let us, therefore, briefly consider on what basis an economic theory should be judged.

- An economic theory should contribute to an understanding of the workings of the actual economy to which it is directed.
- As a science, it should provide this understanding in a manner that accords with scientific principles of evidence, logic, and so forth.
- As a *social* science, it should also provide a basis for judging the success of the actual economy and for choosing policies and actions that will cause the economy to develop in a healthy direction.

These criteria suggest a role and a responsibility beyond what neoclassical economics has accepted. The neoclassical claim to be "value free" was originally based on a dual wish: to escape Victorian judgmentalism and to look like a "hard" science (such as physics). More than half a century of attempting to live up to this claim has amply shown that, no matter how desirable it might be (which is questionable, if the previous criteria for a social science are accepted), it is in any case impossible. Neoclassical texts, attempting a strict division of normative from positive science, often repeat the statement that "you cannot derive *is* from *ought.*" True enough; but in fact a great many statements about the world are a mixture of positive and normative, fact and value, *is* and *ought.* You *can* derive a mixed *is*/*ought* conclusion from a mixed *is*/*ought* premise. It is essential to recognize this mixture and to deal with it openly.

The neoclassical notion of what it means for a social science to be "scientific" is not the only possible approach. Thinking this matter through afresh, it appears that a scientific approach requires certain basics, including the following:

- A respect for observed facts.
- A continual attempt by researchers to be as objective as possible. To this end it is important to be aware of personal values and possible biases.
- Recognition of a scientific community that can, collectively, compensate (to some degree) for one another's biases and arrive at more certainty than is possible for a single individual.
- Findings presented in such a way that the logic of the argument can be understood and assessed by the larger community of potential users (i.e., avoid jargon).
- A structure that permits and encourages the accumulation of knowledge and understanding.

- Efforts to achieve a reasonable degree of internal consistency in the theory—noting, however, that a determination to achieve perfect internal consistency can result in premature closure, making it harder to incorporate later improvements.
- Openness to continual change, as the discipline accumulates knowledge and wisdom, as events disprove some tenets, as change occurs in the subject matter of the discipline, and as changing times require different emphases.

These guidelines are the basis for continued development of methods and techniques in contextual economics. The earlier description, of the bases on which an economic theory should be judged, has also guided our selection of subjects to emphasize.

All scientific theory exists in a tension between complexity and simplicity. A critical aspect of any scientific—or social scientific—endeavor is the decision of where to draw its lines: what it will include and exclude. Attention to *contexts* has forced us, in developing contextual economics, to broaden the scope of our inquiry, taking into account things that the neoclassicals have chosen to ignore. Attention to *goals* forces us to pay more attention to the minds of the human beings who are the subjects and the actors in economics. There is likely to be some kind of loss with every gain, and, indeed, it is quickly evident that contextual economics cannot be so tidy as its mainstream competitor. As we gain in relevance and realism, we may expect to lose, for example, the ability to make certain kinds of models look powerful and predictive. I personally believe that the trade-off is worth it—but we still have a lot of work to do before this belief can be fully tested.

The word *theory* has a useful, common meaning: it refers to a set of generalizations and abstractions that aid in understanding a defined set of facts or events. When the word is used in neoclassical economics it simply refers to whatever type of symbolic model is in fashion at the moment. In contextual economics the term is restored to its wider, common meaning. Theory abstracts from specific cases, finding the generalizations that will fit a large number of individual cases. This process necessarily depends upon a process of simplification, in which the complexity of the world is presented systematically, through a small enough number of terms and ideas so that they can be grasped, after a reasonable period of study. That process must begin with selection. A useful, relatively "true" theory is one in which

- The necessary *selection and simplification* of facts and concepts are done appropriately, emphasizing the issues that are most important to human

experience as well as those that are most useful for achieving an understanding of economic realities.
- The most critical *logical relations* (such as causality, temporal sequence, and exclusivity) among the selected elements are appropriately identified.
- There are *contextual guidelines* to indicate the circumstances under which the selection of critical elements and the identification of their logical interrelations will be more—and less—relevant.

A social science theory may succeed quite well on the first two of these requirements but still fail on the third. When there is failure to recognize that every simplification has its appropriate range of application, then there is no guard against the tendency to misuse concepts outside of their range.

One motivation behind the growth in sophistication of techniques in neoclassical economics has been the hope that more complex tools could handle a richer, more complex view of reality. Fifty years of intensive experimentation with this hypothesis have failed to confirm it; the evidence suggests, indeed, that this is a dead-end road. "More of the same" will not be the solution; greater realism may require the use of simpler rather than more complex tools.

We have not yet dealt in detail with the methods to be used for teaching and applying contextual economics at a more advanced level. We anticipate that the methodological differences between our approach and the neoclassical will become wider at more advanced levels, where the latter's approach often devolves into little more than a specialized branch of mathematics. We suspect that Web-based, hypertext types of presentations may be important in allowing massive amounts of detail to be offered in such a way that the student can select the relevant ones for a particular problem. (The lack of such a technology has been one of the principal barriers preventing institutional economics from developing a cumulative framework.) Beyond this, we still have much to learn about the methods that will prove to be most useful for higher-level instruction and application of contextual economics.[10]

NOTES

1. This is an interestingly female image for a discipline that has been especially slow to welcome women in its ranks and that is said to suffer from "physics envy."

2. To give just one example, the neoclassical assumption that wages are determined by the sale value of the worker's marginal product turned its back on the essential Keynesian perception that factor prices represent a social balancing of power, not only of the impersonal forces of supply and demand.

3. This essay cites some of the writings by Robinson, Arrow, Leibenstein, Lancaster, and Sen that are among the outstanding critiques from the inside. Critiques from the outer circle are too many to list, but I'll mention a very new addition to the collection: *The Flawed Foundations of General Equilibrium* by my colleague Frank Ackerman and Alejandro Nadal (2004).

4. This statement perpetuates the identification of *theory* with a particular type of model-building exercise. It also, of course, reflects Milton Friedman's dictum, in the 1953 essay "Towards a Positive Theory of Economics," which has been ridiculed by philosophers of science but never abandoned by economists:

> The relation between the significance of a theory and the "realism" of its "assumptions" is almost the opposite of that suggested by the view under criticism [i.e., the common sense assumption that this relation should be a positive one]. Truly important and significant hypotheses will be found to have "assumptions" that are wildly inaccurate descriptive representations of reality, and, in general, the more significant the theory, the more unrealistic the assumptions (in this sense). (Friedman 1953, 14)

For some of the philosophical debate on this subject see Goodwin 1991.

It is possible to accept Friedman's (not fully explicit) argument that the complexity of the real world can never be completely expressed in any model and that a successful hypothesis "'explains' much by little, that is . . . it abstracts the common and crucial elements from the mass of complex and detailed circumstances surrounding the phenomena to be explained" (Goodwin 1991, 219), while still striving to come closer to an ideal of accurate representation. Some simplifications do less violence to the reality they represent than others. The simplifications that are more accurately called *falsifications* than *simplifications* constitute hidden time bombs within a discipline; they are likely to be the basis of what later become "stories that blow up" into paradox or meaninglessness or highly inappropriate policy recommendations.

5. The particular works cited here and in the reference list are merely samples of the work of the economists listed here.

6. In the late 1980s, Thomas Schelling was quizzing me on what I had against neoclassical economics. I tried various issues—unrealistic assumptions, lack of internal consistency, misplaced emphasis—but got no response until I said, "Look at the graduate students your department is turning out." "Ah!" he said. "I see what you mean."

7. "The function then of analysis and deduction in economics is not to forge a few long chains of reasoning, but to forge rightly many short chains and single connecting links" (Marshall [1920] 1982 , 638).

8. Markets and prices, which are the subject matter of the policies and theories, are also human constructs, but of a different kind. The theories and the policies have individual, identifiable authors; I would call these individual constructs. Their authors have discretion in how they describe, or prescribe for, the other type, which I would call joint constructs. The latter—including, besides markets and prices, such things as employment rates, net national product, and national trade balances—are the result of myriad actions taken by myriad actors. Policymakers can try to affect these myriad actors so that they will change their behavior and thus change the relevant outcome; and theorists can try to de-

scribe them in ways that give policymakers predictive and prescriptive power. However, no single individual has direct control over joint constructs.

9. A large part of this path dependence has to do with the structure of political and economic power. The belief in perfect competition is used to justify certain types of trade, tax, and other policies that enhance the political and economic power of particular groups. These groups then support the sources of intellectual justification for the same policies.

10. Since writing *Social Economics* (1991), I have changed the name of the system of theory I was developing from Social Economics to Contextual Economics. The former name already had a good deal of history, which was not all heading where I wanted to go; and I increasingly wished for the name to indicate that this approach would be inclusive of all relevant physical as well as social contexts—and thus of all the economic theories that emphasize the different contexts as part of the real world in which economic activities take place. Volume 2, as such, was never written; the next stage in the project was the writing of the textbook *Microeconomics in Context* (2005), which has appeared in several different editions for different countries.

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