

Critical Political Economy

Complexity, rationality, and the logic of
post-orthodox pluralism

Christian Arnsperger

**Foreword by
David Colander**



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Critical Political Economy

Does today's mainstream economics really provide the theoretical concepts and the teaching and research practices that could foster a truly free economy? Isn't it, on the contrary, a discipline that stifles criticism and neglects our most basic faculties of reflection and imagination? This book asks how a more liberating economics could be constructed and taught. It suggests that if economists today are serious about emancipation and empowerment, they will have to radically change their conception about what it means for a citizen to act rationally in a complex society.

Arnsperger emphasizes that current economics neglects an important fact: Many of us ask not only "what's in it for us," within a given socio-economic context; we also care about the context itself. The author argues that if citizens keen on exercising their critical reason actually demanded economic theories that allowed them to do so, economics would have to become a constantly emerging, open-ended knowledge process. He claims that in a truly free economy, there would be no all-out war between "orthodox" and "heterodox" approaches, but an intricate and unpredictable "post-orthodox" pluralism that would emerge from the citizens' own complex interactions.

Offering an original and path-breaking combination of insights from Hayek, the theory of complexity, and the Frankfurt School of social criticism, Arnsperger discusses how such a free economy would generate its specific brand of economics, called "Critical Political Economy." The result is a challenging and sometimes disturbing book which will be of interest to economists as well as philosophers of social science.

Christian Arnsperger is Senior Research Fellow with the Belgian National Science Foundation (FRS-FNRS) and Associate Professor at the University of Louvain-la-Neuve, Belgium.

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To Jean-Pierre Dupuy, long-time inspiration and intellectual role model, in debt and respect.

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Foreword

David Colander

In the 1800s the study of what is now called “economics” was called the study of “political economy.” The term “economics” was reserved for the study of the pure science of economics, which, at the time, was primarily a deductive exercise. That changed in the early 1900s, with the publication of Alfred Marshall’s *Principles of Economics*. In it, Marshall chose to explicitly call his field of study “economics” rather than “political economy.” The change stuck, and thereafter the term “economics” has been used to describe all aspects of the field of economics, not just the pure science of economics, as it did earlier.

Although Marshall changed the name of the field, he did not change its content; what he did under the name economics was essentially political economy, not what Classical economists called the science of economics, or positive economics. Marshall’s work was applied, and its foundations were to be found in moral philosophy; he incorporated value judgments into the tools that he developed, but felt that they were the value judgments of the society he lived in. Marshallian economics was designed to be relevant to policy.

Arthur C. Pigou carried on the Marshallian tradition at Cambridge, and in *The Economics of Welfare*, he developed tools and concepts that he felt would help economists carry on their craft—suggesting how to improve society, and providing guidance in government’s interface with the economy. Pigou recognized that the economics he was doing was not pure science, but rather a combination of what he felt were socially accepted goals and economic reasoning. To differentiate his approach from the science of economics, he called his economics “realistic economics” or “fruit-bearing economics” which he contrasted with the pure science of economics or “light-bearing economics.”

The Marshallian/Pigovian tradition did not last. During the 1920s and 1930s, another tradition in economics was gaining a foothold in England—the Walrasian general equilibrium tradition—and, beginning in the 1920s, in serious theoretical work, the Walrasian approach displaced the Marshallian approach. Whereas the Marshallian tradition leaned toward the applied side of economics (political economy), the Walrasian tradition leaned toward the pure-science side of economics. The acceptance of the Walrasian approach

led to an increased use of mathematics in economics, and a greater emphasis on specifying and understanding the complicated inter-relationships among markets, even if that understanding came at a cost of applicability. As the Walrasian tradition became dominant, and the political-economy branch of economics withered away, the field of economics became more precise in its conclusions, but less directly applicable to policy. Thus, it is a delight to see books like Christian's bringing back important political-economy questions into the economics conversation.

Christian's work highlights an essential need in political economy—the need for a pluralist institutional structure in which there is competition for ideas. Since individuals holding specific views will naturally think that they are right, such pluralism does not come naturally—whichever group gets power within the profession will try to restructure institutions to let its views dominate. In the science of economics, the commitment to empirical verification places a limit on such power-grabs, but in the more ambiguous areas of political economy, where argumentation and appeals to reason and educated common sense, not empirical tests, must reign, there is no limit, and a well-functioning profession has to be structured in such a way that competition of ideas is embraced. All too often that hasn't happened. What's especially nice about Christian's book is that it goes beyond the standard heterodox/orthodox divide and, drawing on a wide range of literature, makes the argument that a truly self-consistent economics has to be pluralistic.

Developing a methodology for complex Political Economy

I first met Christian when he wrote me and asked me to sit in on the outside committee for his Habilitation, a type of post-PhD dissertation in which a researcher makes a contribution to his field that is formally defended to an outside committee. I accepted because, upon reading a short summary of his proposed Habilitation, it was clear that Christian's interests paralleled mine, and what he had to say was interesting. When I actually received and read the entire Habilitation, I discovered what Christian already knew when he first wrote me—that we were both struggling with the same issues, which can be summarized as searching for the moral-philosophy foundations for the study of the political economy of a technically complex economy. Although we were approaching the issues from different perspectives, it was surprising to me how similar the questions we raised were.

My work was concentrated on (1) how the field of economics was changing, and how those changes could be informed by, and better understood through, knowledge of its historical evolution, and (2) how the new work in complexity science was offering new approaches to formerly intractable analytic problems. I was arguing that while the complexity movement in economics is still in its infancy, it had already generated numerous interesting developments, such as behavioral economics, experimental economics, neuroeconomics, and econophysics, and that these developments were

changing the face of economics. But I also argued that the changing face had a path dependency to it; because most of modern economists' training is highly technical, and included little training in economic literature and almost no training in moral philosophy, the complexity work had concentrated on the pure science of economics, and, to my knowledge, other than for a very small literature of which my work was a part, had shied away from discussing the policy implications of complexity, the study of which belonged in political economy, not in economic science.

I felt that even though the technical challenges of complexity theory were enormous, and the work was highly mathematical, it was necessary to simultaneously try to study the broader foundations and implications of picturing the economy as a complex system. I organized conferences on the history of complexity in economics, complexity and the teaching of economics, and complexity and economic policy. At the history conference, the general feeling was that the primary economist who had seriously struggled with these issues earlier was Friedrich Hayek. But many of us also felt that Hayek's work put too much of a libertarian bent to the policy implications of complexity theory. In our view an appropriate moral-philosophical foundation of complexity economics should have no ideological bent at all: it should just be a philosophically neutral method of looking at a complex world.

Despite my work being outside the normal economists' interests, compared with Christian's it was much more accessible to mainstream economists because it was based in economics. Christian's work was much more philosophical; it tied developments in complexity studies with the recent developments into the Marxian, Frankfurt School, as exemplified in the work of Max Horkheimer. Christian's work went beyond the interests of the majority of economists in the US who had little or no knowledge of philosophical foundations of economics, let alone of Marxian philosophical foundations. Economists of my vintage (i.e., educated in the 1960s and 70s) had, at least, been introduced to the Frankfurt School, since such issues were all the rage back then. But I had moved far away from it, as the postmodern movement replaced a far too radical and socially destructive position for my tastes. Thus, reading Christian's work meant returning to a literature that I had read decades ago, and reintroducing myself to ideas that had been pushed to the far corner of my aging mind.

What I find especially fascinating about Christian's approach is the way in which he blends the Hayekian tradition with the Frankfurt School tradition, showing that both, in their own way, are struggling with the same issue—the moral-philosophical foundations of a complex economy. By blending Horkheimer with Hayek, he provides a way of eliminating the libertarian bias of Hayek and the radical bias of Horkheimer. By mixing two extremes one arrives at a relatively neutral moral-philosophic position that can usefully be integrated into the complexity foundation of economics. Christian's blending of Hayek and Horkheimer is novel, and in my view, is a real contribution to the literature. I salute him.

What one draws out from the blending depends on one's temperament and training. What I draw out is agnosticism, with little call for action following directly from any academic's work. I hold this position not because I believe that no action is needed, but simply because I don't believe we academics understand a whole lot about the political and practical pressures for change. Positive change in a complex system cannot be expected to come about from academics who lack day-to-day experience in the institutional structure for which they are suggesting change, and experience with the institutional structures within which those changes must be made. In my view a deep knowledge in these institutional structures, which can only come from experience within them, is a necessary foundation for positive change. *Métis* trumps all theoretical analysis developed by cloistered academics.

This not to say that academics are meaningless. I think of them as catalysts for change, and I think of universities as incubators for ideas. But before an idea is translated into policy, it has to leave the incubator and be massaged and taken up by others with practical knowledge. This means that academics, in their role as theorists, have to shy away from definitive pronouncements (even this one), no matter how strongly they believe them, or how tightly they follow from their reasoning. Ultimately, reason does not provide final answers.

I shy away from giving too much credence to academic critical thought for the same reason that I shy away from the Frankfurt School's views—not because I deny the need for critical thought, but because of my belief that complex systems are not logically designed and cannot be fully understood through critical thought. The only thing we truly know about complex systems of which we are a part is that they are working at least for now. They have evolved and have been gerrymandered into working in ways that I do not believe we can fathom, and thus changing them from theoretical design, although often necessary, is perilous. While I agree that planning and change are both necessary and possible, and take a more activist role for planners and for theorists than do Hayek and his supporters, I see the actual changes coming from non-academics who are directly involved in the system, and not from academic theorists. The theorist's role is to provide ideas. Thus, as a theorist, I shy away from all pronouncements about how things should be done, or how the system should operate.

The above arguments mean that I cannot accept Christian's claim that "there can be no acceptable alternative to Critical Political Economy and its pluralism" and that "no pluralism at all should be allowed as to what regards our views of a genuinely liberating economy." These claims, in my view, give too much weight to theory (specifically his theory), and suggest that the claims are not subject to debate. That goes against my beliefs and sensibilities. It suggests that academics, not the system, can make definitive pronouncements about how the competition of ideas should be conducted.

I think we both agree that pluralism and competition of ideas is a good thing. Who doesn't? But I see a much messier situation in deciding what is

acceptable. Christian, I think, sees far too little competition of ideas in the current institutional structure of the economics profession. I do too, but I am not willing to state that it definitely is too little. There's a lot of freedom of ideas out there, and I can think of many systems that would be far worse than what we have. My hope is for workable competition of ideas, where workable is to be determined by the issues at hand, not by pronouncement. I also believe we as academics are not the ones to decide on the degree of freedom society gives to academics. We would always prefer more. Society supports academics, and with that support comes the right, and need, to guide academics.

Academics themselves are part of a complex system and, as such, need checks imposed on them by the society that funds them. If, after hearing an academic's arguments for the competition of ideas, society chooses to limit that competition, as it has generally done, it may well mean that sustainable complex systems must limit the degree of critical thought that their institutions are held up to. Complex systems, looked at from a critical perspective, will always fail to meet expectations. It is possible that continually pointing out those failures can undermine the sustainability of a complex system. It may be for this reason that real-world sustainable complex systems have always developed protection mechanisms that either prevent too much critical thinking, or that push the serious critical thinking outside of the mainstream of the system—into such places as academic environments. So I am open to the possibility that critical thought itself must be reflexive and accept that critical thought is limited.

I support more pluralism than we have, not because of theory but because of my read of history. Successful societies have always been societies that have allowed some degree of critical thinking and pluralism. It makes the system adaptable. Thus, it may be that just as too much critical thought can undermine the stability of a complex system, so too can too little critical thinking undermine a society's ability to adapt to changing circumstances. Thus, I suspect that there is a continual tension between the two needs that reason cannot ultimately resolve. They must be resolved in real time. Societies will always be struggling with finding which right amount of openness and critical thinking to allow. These concerns lead me to question Christian's hope for a "self-criticizing system." It may well be that all we can hope for is a system that allows a reasonable amount of self-criticism, while simultaneously protecting itself from the ever-threatening chaos, the verge of which a complex system is always on.

From my read of history, one of the strengths of Western democracy has been its ability to allow a reasonable amount of critical thinking to take place, while at the same time keeping the system together, where "reasonable" is determined by historical comparison to other societies that have existed. In my view the National Science Foundation of Belgium's support of Christian's research is an example of precisely the type of openness that Western democracies often exhibit, and always should exhibit.

One of the reasons that I shy away from criticizing our society for limiting openness is my experience with "critical thinking" being put into practice in

the 1960s in the US. There, I saw firsthand the internal workings of radicals' calls for change in decision processes in the hope of restructuring all society. Based on that experience I became rather cynical about academics' ability to effect positive change, and came to believe that, in politics, the maxim that the best is often the enemy of the good, is a useful one to follow. So, in my view, any call for critical thought and freedom, calls that I generally support, must be accompanied by a warning about the difficulty and the costs of change. Critical thought has costs as well as benefits.

Economists must be inside the economists' model

Although there are major differences between my and Christian's views about the implication of the analysis for policy, these differences should not be overstated; we are talking the same language, and our views on how to conceptualize the problems of developing a political economy for a complex system are quite compatible. For example, we both agree that currently a problem of economic policy analysis is that that analysis is carried out as if economists are outside the model. Somehow economists have assumed that they have a vantage point that lets them see everything—perhaps not with twenty-twenty clarity, but nonetheless with a perspective above the fray. In a complex economy, being above the fray is impossible, which means that the economist must be an agent in the model that he is modeling.

This simple idea that economists must be in their own model means that their vantage point for policy analysis cannot be an outside perspective, as it is in the standard neoclassical model. That outside perspective assumes understanding that someone in the system cannot have. In terms of modeling, this means that economists must be agents in the model that they are modeling. It follows that you cannot assume that economists are more knowing than other agents; or if they are more knowing, the model must specify how they became that way, and specifically model economists as influencing the workings of the model. Moreover, in a complex model, we both agree that the interesting elements are likely to be in the interaction of agents, not in the decisions of an all-knowing agent, which means that the representative-agent models so prevalent in modern macro are not going to be helpful. These two propositions lead to the conclusion that if one accepts the complexity vision as the appropriate vision of the economy, much of modern macroeconomic theory has little relevance.

Interestingly, this sense of equal knowledge of the economist and the agent played a key role in the rational expectations revolution that took place in macro over the last couple of decades. But the resolution that rational expectations researchers reached—to assume that the world is essentially populated by all-knowing, economist-like agents who also know the true model—is precisely the opposite one that Christian and I believe is appropriate for a complex system—that neither the economists or the agents in the model know the true model.

The reason that rational-expectations researchers chose the assumptions they did was that they were the more analytically tractable assumptions. These researchers were following the economic science approach where rigor and precision trumps all else. Christian's and my approach follows more the political-economy tradition that I discussed above. That approach, which in other work I have called the Post-Walrasian approach, holds that fully modeling a complex economy from micro-foundations is an analytically intractable task. To model a complex economy requires new methods, and one of those important new methods is agent-based modeling. In agent-based modeling one essentially studies the economy by creating a virtual economy, which is then used to simulate policies. These simulations are used to guide policy-makers. No equilibrium needs to be imposed on the system; all one needs to do is specify the characteristics of the agents and the environment they operate in.

In agent-based modeling the question of how to model an economy reduces to questions of what characteristics we endow the agents in our agent-based model with, and what we specify for the environment we put them in. It is in answering these questions where Christian has, I believe, added to the debate. In my post-Walrasian work, I have argued that within a complexity approach, it made sense to model agents who are locally, but not globally, rational. That is still true, but almost all previous models have limited agents' interests to local areas that they can influence. For example, in Rob Axtell's "Sugarscape" environment, agents search for sugar within their immediate environment. Christian's analysis points out that the local-knowledge approach is incomplete. Since economists are inside the model, and economists are worried about the overall nature of the system, then we must model agents as worrying about that as well. One way to do this is to make ideology part of the characterization of agents.

I haven't fully thought through the implications of placing economists inside the model. But in thinking about those implications I find Christian's arguments persuasive and although I am not fully convinced by all of them, I can commend them to all serious economists who are interested in complexity and policy. I suspect that the next time Christian and I meet we will debate whether "Critical Political Economy" is the end of economic ontology, as he argues it is, or simply a stage in a never-ending process of understanding, as I tend to see it. But where we both agree is that it is important that economists think about these issues. I wish you all a good read; it is a read that will be well rewarded.

Dave Colander
Christian A. Johnson Distinguished Professor of Economics
Middlebury College
August, 2007

1 Introduction

Think again!

What would you think if, upon opening your morning newspaper, you found a list of axioms that, unbeknownst to you and without any public consultation that you were aware of, a group of well-intentioned economists had put together as the “solution concept” for—say—the distribution of incomes or the allocation of public subsidies? What would you think if these axioms were affirmed from the top down as “scientific” and there was no visible room for you or your fellow citizens to influence their content in the future?

If you were an economic agent such as those who inhabit most of today’s economic theories, you wouldn’t think anything. You wouldn’t react at all. In fact, you wouldn’t be equipped, cognitively speaking, to make sense of my questions. Why? Because you yourself would be a fabrication of those same, well-intentioned economists—and they would have made you up in such a way that you couldn’t question *their* authority. Does the Golem question his maker’s decisions as to how he was fabricated? Does an automaton, or a computer program, question the features its programmer endowed it with? Of course not, because that’s not part of why it was fabricated and programmed in the first place. Automata and, more generally, artificially intelligent “things” don’t have the wiring required for them to look up, to stare into their maker’s eyes and to ask, “Why did you make me like that? I want to be different. I want to be free.” Well, the agents that inhabit today’s economic theories are like that—they may, in more recent and cutting-edge advances, be programmed to have “emotions,” “beliefs,” and other seemingly autonomous features, but nevertheless their *function inside “science”* is to be sophisticated idiots. So not only would a mainstream economic agent not react to my above scenario, he probably wouldn’t even read the newspaper unless the economist who fabricated him wanted to know how the “market for information” works or how to minimize the overall utilization of paper paste. None of these issues, however, can be raised by the agent himself. The economist raises them herself and then constructs the agents she needs to model the corresponding mechanisms and to combine her various axioms into a “solution.”

2 Introduction

Now of course, neither you nor I are *actually* such idiotic, pre-programmed, and adaptive agents. We're reflexive human agents and we sort of know it. But we have also—let's assume—studied economics for several years. As a result, we're *economics-infused citizens* and we might unthinkingly expect the economy “out there” to work roughly in the way our instructors with their sophisticated automata have presented it to us. It's not that these instructors want *us* to *be* automata in our real lives—in fact, they're not automata either. I could test this by going to my next economics class and asking my professor why she keeps presenting models of sophisticated automata. She won't be happy about my question, nine chances out of ten. In the best case, she'll feel she has to find justifications for nevertheless using “simplified” and “streamlined” or “stylized” models where agents aren't reflexive and self-reflexive. In the worst case, she'll just politely chide me for asking “unscientific” questions and for not understanding that the agents in her models *are in fact* free and rational. In fact, she'd be chiding me for my own good, as part of my “economic education.” Her role as an instructor, after all, is to make me “economically literate,” right? Consequently, next time I'll hesitate to ask again, and eventually I and most people like me will end up settling into a vision of the economy where *agents are “rational” without being able to have a critical judgment about the world in which they exercise that alleged “rationality.”* And having gradually persuaded myself, I might become a bit more like those “rational” agents: calm and collected, just a bit cynical, and basically uncritical. (My only way of not becoming like that would be to become an economist myself. We'll get to that in a minute.)

If I've become such a person, my first reaction to the above scenario will probably be something like this: “Well, I wouldn't particularly mind these economists' axioms coming from the top down, since this is the way things are already happening, anyway. We're citizens, not economists, right?” Suppose now that, unlike me, you've resisted the “conversion” into a mainstream economic agent. You'd then be pretty worried about my detached reply. Your advice to me would surely be: “*Think again.* Reflect on that reaction, probe it to understand *why* it is your reaction. Ask yourself if as a first reaction it can be stabilized into a firm *conviction* about how the economy we live in ought to work. During your reflection, talk to me, to others, read, write up arguments and tear them up to write up new ones, and so on. You might end up having your own list of axioms as well as a pretty elaborate theory about the kind of economy these axioms ought to be translated into, and about how the required changes could be pushed for without hurting or killing those people who don't immediately agree with you.” That's probably more or less what you'd tell me.

But suppose I've been chided often enough by my instructors so that I ended up persuading myself that their models are an acceptable “scientific” representation of how the economy works. If that's the case, then you'll find me shrugging and saying, “Oh come on, that's all just too much work and

brain-wrangling. That's the economists' job, isn't it? Haven't they told us that all through our studies? I have other things to do with my life, like making good profit in my business and trying to get my children into a good school so they'll have good job market opportunities later." You'll feel I'm not showing a great degree of cognitive empowerment by reacting in that way. Sure, doing those things is important as long as the economy works the way it does, but do we need to just accept the way it works? Shouldn't we have asked our economics instructors to give us tools that we could use to criticize the economy in which we're currently immersed? Isn't *critical acceptance* of the world more important than uncritical, passive acceptance?

So you'll keep on asking me to reflect more, to become more reflexive and self-reflexive. "How," you'll inquire, "can the things you want to do with your life be completely disconnected from the kind of economy in which you do them? Is it because in the end you really think there is *nothing wrong* with the economy, so that you can pursue your goals in it unreflexively? Or is it because some customs, habits, or sanctions evolved and established within the economy keep you from reflecting?" At that point, I might pause and start to think. But equally likely, your insistent interrogations might remind me of my own past queries, which were brushed aside by my instructors. So I might get a bit impatient and snap back, "Look, I'm *telling* you, I don't *want* to reflect, I want to *live*. The economy demands so much of me already that I can't see how adding these issues you're raising now will make my life better, or help me to succeed. Sorry."

At that point, you'll probably just leave me alone and look around for someone else to reflect with. And if everyone you meet reacts in the same way as me, you'll consider becoming a Taoist or a Stoic practitioner, trying to live out your own axioms of a better economy without anyone else cooperating, accepting the current capitalist market economy but trying to improve the quality of your participation in it, accepting commercial culture but trying to "de-commercialize" your own tastes if you can, and so on. Who knows, maybe you'll find out that I was right after all, or maybe after having accumulated my own experiences of unreflexively "doing things," I'll remember our conversation and call you up again.

This kind of interactive dynamics is what this book is about. I want to argue that one important way in which today's economics can be made more fruitful is by breaking away from models in which the axioms used to assess the "economic environment" are supplied from the top down by an external economist. Today's economics can be made more relevant by attempting to model the interacting agents themselves (one of whom might be the economist, now no longer external) as harboring *critically reflexive knowledge* about the economy in which they are interacting and as using that knowledge to act rationally toward furthering a better economy. So the basic position I defend here is that, eventually, I'll call you up again and say, "You were right, after all this time running around and opportunistically trying to make the

best out of the economy as it is, I know I need to take a critical step back and reflect. I've experienced successes and failures, but through these experiences I've come to question what it means to be free and to be genuinely human. I've spent my time adapting, thinking about how to use the system without questioning it, and I've lost track of how the economy could become a better place. Do you know of theories that could help me to remedy this?" This book seeks to offer a framework in which such questions make sense.

This is a book about the conditions under which economics, given the way it has been practiced for the past half-century and is evolving today, could come to be viewed as an *emancipatory discipline*. More precisely, it argues that in a liberating economy, economics has to be viewed first and foremost as a *critical and political discipline* aimed at steering an economy's course toward better modes of interaction and steering individual agents' course toward better ways of being rational actors. This requires two main things. On the one hand, economic phenomena should be freely emerging, unplanned, and non-fully controllable. On the other hand, economic agents should be freely thinking, reflecting, and non-fully mechanical. If either of these two things fails to hold, the economy in question is not genuinely liberating. In a liberating economy, therefore, reality should be a set of *complex, emergent phenomena* constantly arising from interactions within structures of emergence lucidly adopted by *critically reflexive agents*. How to build an economic science that would cater to such a liberating economy is what this book is about.

Economics in a liberating economy

To designate this specific brand of economics, I offer the expression "Critical Political Economy." It is not meant to be a rallying call for either a new orthodoxy or a united heterodoxy. In fact, as will become clear along the way, Critical Political Economy views economics as being, *in a genuinely liberating economy*, beyond the traditional orthodoxy/heterodoxy split. In a nutshell, this book seeks to convey the idea that a *genuinely "liberated" economics*—which requires a genuinely liberating economy and especially a population of genuinely reflexive and critical economic agents—is a "*poly-dox*." By this I mean a brand of economics which recognizes its essential nature as a socially and politically embedded science and accepts within itself a non-arbitrary plurality of mutually irreducible theoretical views of the economy. Each of these views would, in a genuinely liberating economy, be offering a critical theorization of what would be a better way to be a rational individual agent and better ways of interacting in a rational economy.

Critical Political Economy is, therefore, not itself an alternative economic worldview. It is not one more heterodox theory or, for that matter, one more version of a revised orthodox approach. Critical Political Economy aims at providing the conceptual toolbox that would allow any student, any citizen, any economist, to fight off misguided attempts at consolidating the incumbent orthodoxy or at replacing it with a new, formerly heterodox one. Critical Political Economy is a way of thinking about economics as a socially embedded cognitive practice, so that *any* pretense at orthodoxy, i.e., at “right thinking” about the economy, will be unmasked as one more partial program of political and anthropological construction. In other words, within Critical Political Economy, any economic worldview and any economic model pertaining to it is considered to be a critical theory, that is, a *critically descriptive proposal for a better economy*, rather than as a positively descriptive picture of the actual economy. This implies that in a genuinely liberating economy, methodological and theoretical pluralism in economics would be beyond any claim to orthodoxy—economists would be laboring freely within a *post-orthodox pluralism*.

In this perspective, economics appears more as a process guided by a dynamic, historical, and political search for a better social world, than as a set of methods imposed by static, ahistorical and apolitical criteria of scientificity. In fact, as it will turn out, part of what makes an economic theory “scientific” will be its widespread appeal as an individual tool for political action—this is what will be called an economic theory’s *reflexive appeal* for economic agents currently engaged in an economic reality which they *critically—rather than just passively or adaptively—accept*. As a result, economics in a liberating economy is a path-dependent process along which what counts as a legitimate scientific critique of current economic arrangements varies from period to period.

Path-dependency is in staunch opposition to postmodern arbitrariness or “anything goes.” In Critical Political Economy, legitimate scientific criticism will be seen to be irreducibly plural (contrary, for example, to what older Marxist dogmatists believed, but also contrary to what today’s orthodox economists postulate), but it will be a circumscribed plurality: in a liberating economy composed of cognitively empowered individuals, each period of history is characterized by what I will call an *Esprit Critique*, i.e., a “normative and reflexive atmosphere” providing a set of path-dependent criteria that delimit the range within which emerging worldviews can be regarded as acceptable. This does not preclude the possibility that, at some epochs, racist or sexist economic worldviews might be viewed as legitimate; they have been in some past periods (see, for example, Gibson-Graham 1996; Levy 2001; Peart and Levy 2005), and Critical Political Economy cannot be utilized to deny this historical fact. However, neither can it be used to argue that racist or sexist economics might be alright at *any* epoch—such as the beginning of the twenty-first century—since our *present* normative and reflexive atmosphere offers us criteria to reject such anti-progressive approaches.

The idea of Critical Political Economy

In a sense, Critical Political Economy is a way of pushing mainstream economics to its own inherent limits, so that it eventually self-subverts. Indeed, as this book purports to show, extending today's orthodox mainstream into complex-process economics will eventually force it to recognize the *constitutive plurality* of reflexive and critical economic cognition, provided one very crucial consistency condition is satisfied: complexity economists should accept that in any economy, economists and non-economists interact in the attempt to grasp the reality of which they are *all* part.

This consistency condition seems to me to be the most basic one that should be imposed in order for an economy to qualify as liberating. It means that in a liberating economy, all citizens exercise *critical rationality* when leading their economic lives, and in that endeavor citizens who are not economists obviously need the assistance of citizens who are economists. Since, however, the individual's impetus to form and modify her critical theory of the economy comes from her lived experiences as a member of the economy—her failures and her successes as an economic agent along the process of unfolding of ongoing economic reality—there is every reason to think that critical rationality is inherently situated or, as some would put it, “positionally objective” (Sen 1993a). Each of us views and rationalizes the world given the experiences we have had, and our critical stance toward the world stems from those experiences. While irreducible to subjectivity, objectivity possesses an inescapably subjective component, so that all views of the world are part of the world. In particular, all views of the economy are part of the ongoing economic process.

Therefore, in a liberating economy, each economic worldview (as well as the models that come along with it) must be aware of the existence of possibly opposed, but equally objective, worldviews. One of the implications of this is that, *if it aims at modeling a liberating economy and not a freedom-restricting, alienating one*, mainstream complexity economics has to recognize that agents can carry critical theories which may be mutually irreconcilable while, at the same time, neither critical theory can be empirically falsified in the Popperian sense. In that way, by combining orthodox economics in one of its state-of-the-art forms—complexity economics—with the ideal of a cognitively empowering economy, we obtain a seeming paradox: an orthodox, and hence non-pluralistic, conception of how a *cognitively constrained* economy works has to yield to a post-orthodox, and hence pluralistic, conception of how a *cognitively empowering* economy works. By “cognitively constrained,” I mean an economy which, by assumption, operates with all agents carrying the same, identical critical conception of a better economy—that is, a unanimous economy without disagreements between agents about how to stand critically toward actual economic reality. The behavioral and societal assumptions of orthodox complexity economics will therefore turn out to be *a very particular limit*

case of a more general framework where agents interact so as to settle disputes and disagreements on how to criticize the operation of the economy.

The upshot of Critical Political Economy is, thus, that any monistic worldview that postulates—be it only implicitly, as is most often the case—all agents to be agreeing on the fundamentals of how an economy works and ought to work, and on how to make the economy work better, could be viewed in one of two ways. Either the worldview in question (regardless, now, of whether it is “orthodox” or “heterodox”) has been ideologically forced upon an indoctrinated population, or it has been freely adopted by each individual and it just so happens that everyone agrees. So, for instance, a Walrasian or a Hayekian worldview, or a Marxist one for that matter, could *all* be seen either as a totalitarian blueprint or as a unanimously agreed-to conception, depending on how one views the place of critical rationality in the agents’ cognitive deliberation.

Ultimately, then, in Critical Political Economy any self-consistent economic worldview must be seen not as an attempt to describe a world already in existence, but as a political and anthropological blueprint for a better economy and a better humanity, meant to motivate agents to act within an ever elusive, ongoing economic reality which no worldview can ever grasp in full. In a genuinely liberating economy, so this book will argue, economics can only be a political discipline—where the word “political” is taken in its most noble sense of an effort to construct better ways of being human and better ways of interacting socially. In a liberating economy, any economic worldview is a critically descriptive program within an indescribable reality. Thus, no economic paradigm, whatever its underlying view of how the world works and how individuals interact within that world, can ever claim to be “the” scientific account required for any valid utterance about the economy. All paradigms can certainly, and should, aim at being scientific—but in this book the term “scientific” will be stripped of much of its positivistic undertones. We will see that to be truly scientific, any paradigm (with its methodology, hence its social ontology) has to endeavor to offer a critical description of the economy—that is, a description that can be usefully taken on board by certain agents in order to act toward a better economy. Which agents? That will depend on the paradigm’s “situatedness” and its ability to grasp the critical-emancipatory aspirations of a certain category of the population.

Let me emphasize again that while post-orthodox pluralism can be written in shorthand as “POP,” there is *absolutely* no “populism” implied in my approach. Critical Political Economy aims at grasping the broader framework within which various scientific—i.e., critically descriptive—economic theories can coexist. Such a coexistence is, indeed, the hallmark of a liberating economy, not of a populist dictatorship. The role of economists as scientists will not be underplayed, much less denigrated. Rather, it will be shown by Critical Political Economy that, in a liberating economy, each economist has to view herself as providing critically rational citizens with

tools for bottom-up political action, rather than as providing instrumentally rational elites with tools for top-down political management. If this is so, then *the very plurality of (scientific, critically descriptive) paradigms within economics will be a sign of the ability of economics to be an emancipatory social science.* Critical Political Economy as constructed in this book offers a framework in which to make sense of this normative demand for pluralism in contemporary economics.

A self-undermining orthodoxy

As such, this book does not argue in favor of one or the other paradigm. It is, to belabor the point, neither “orthodox” nor “heterodox.” It attempts to establish the conditions under which a *fruitful* antagonism between various paradigms can occur. These conditions have to do with the realization that in a liberating economy, only those paradigms that can be shown to be critical descriptions of the economy can be taken to be truly “scientific.” To qualify as a critical description of the economy, a theory has to satisfy certain conditions that will take up quite a significant portion of the overall development in the book.

To draw up those conditions, I shall be making quite extensive use of the thought of two apparently opposed and irreconcilable thinkers, namely Friedrich von Hayek and Max Horkheimer. The former was one of the tenors of the Vienna School, the latter a co-founder of the Frankfurt School. Since contemporary complexity economics stems mainly from the Santa Fe School, this book can be taken as a rough travel guide for moving around fruitfully between Vienna, Frankfurt, and Santa Fe. More seriously, the conditions under which a theoretical paradigm can qualify as a critical description (and hence claim to be scientific in a liberating economy) have to do with (a) Horkheimer’s idea that economists ought to be “emancipatory theorists” and offer citizens cognitive resources for active social criticism, (b) Hayek’s idea that no cognitive framework can claim to be an exhaustive empirical description of how the world works, so that no one ever acts on “true” knowledge, and (c) the idea held by many complexity economists (and shared by Hayek as their forerunner) that cognition itself is a socially constructed process and that social data emerge as an uncontrollable result of individual interactions. Paradigms which, in one way or another, take into account those three features may qualify as scientific in a liberating economy. This means that *the very operation of a liberating economy will be seen to be a process of bottom-up criticism of the economy itself*, implying that a liberating economy is essentially a “self-criticizing” system.

The idea behind post-orthodox pluralism is to provide a tool to submit any economic paradigm to criticism. Although my approach is not anti-orthodox by principle, I can nevertheless not avoid the fact that, put through the wringer of Critical Political Economy, the mainstream orthodoxy

that currently dominates the profession comes out in rather bad shape. Mainstream economics, as will be argued at some length here, is structured in such a way that it ends up portraying any economic system it models—whether it be a capitalist market economy or a socialist cooperative economy—as a non-self-criticizing system. This is due to the mainstream’s most basic assumptions, which themselves are rooted in an atomistic social ontology that must rely, even in the more sophisticated “complexity” versions of the mainstream, on a *homo economicus* devoid of critical rationality. Whether the mainstream could, as a result of taking into account the objections coming from Critical Political Economy, move in the direction of *homo criticus* as called for by a Frankfurt School approach will be one of the principal topics to be dealt with throughout the book.

As things stand at present, however, it will become clear that neoclassical economics and its mainstream followers cannot fit into a liberating economy, especially given that economics is a subject taught to citizens. One cannot use the worldview and conceptual tools of the mainstream of economics to model a liberating economy, so that when this worldview and these tools are being taught in our actual societies under the monistic heading of “economics,” they cannot encourage critically rational citizenship. Rather, as I will be arguing, mainstream economists—even those who purport to be doing “normative” economics—more or less unconsciously endorse a paternalistic, top-down view of what an economist is supposed to do in the economy. Of course, as the actual history of mainstream economics demonstrates, a paradigm peopled with uncritical, non-reflexive agents *can* be (and is being) taught. What this book argues, however, is that it *should not* be taught as if it were modeling a genuinely liberating, self-criticizing economic system. The only alternative, then, is to teach mainstream economics as a specific political program, subject to the counterfactual assumption that all agents in the models have reflected on the nature of rationality and the economy and have agreed unanimously to become the kinds of human agents in the kind of economy required for mainstream economics to be a *critically descriptive* body of theory.

The question that arises, then, is whether the features of human rationality and of the economy called for by the structure of mainstream economics are real possibilities for human beings. The answer given in this book is “no.” The reason is that arguably, no rational person would voluntarily adopt the mainstream economic paradigm as her critical tool for orienting her desires and aspirations toward a better economy. Ultimately, then, one may ask on what grounds mainstream economics is being taught to economics students. The book will explore some of the reasons and offer some alternative ways of fitting mainstream economics into a post-orthodox, pluralistic conception of the teaching of economics.

In this sense, what is being offered here is an attempt to ground, to offer foundations for, certain already circulating arguments in favor of methodological pluralism in economics—foundations that can be seen to flow from a

consistent application of the ontology of social complexity contained in today's cutting-edge mainstream economics. To repeat, the mainstream is bound to self-subvert if it asks itself how its own methods and tools can serve to model a genuinely liberating economy in which cognitive empowerment is a central aim of agents. The only real alternative is to view mainstream economics as a paradigm that *simply does not* promote a self-criticizing economic system—a paradigm that, instead, subscribes to a top-down, paternalistic or at least technocratic conception of social engineering. Although this recognition would go against the grain of what most mainstream economists believe they are teaching, at least it would have the merit of clarifying the “location” of mainstream economics within the overall, pluralistic landscape of economics in a liberating economy. The image would not be a very glorious one, of course, since it would put the mainstream and its assumptions of “rationality” and “optimality” in the same league as most other, possibly more heterodox, paradigms which also adopt a largely top-down, even anti-critical, attitude toward governance.

The new aims of political economy

Mainstream voices may be heard to rise against this claim. Is there not a significant and rapidly developing strand of orthodox economics called the “new political economy”? There is, of course, but my criticism does not bear on intended or on actual changes within the mainstream paradigm. It bears on the question of whether mainstream economics—or, for that matter, any heterodox paradigm, too—can be argued to be *self-consistent*.

Thus, what I mean by the expression “political economy” here is something different. I do not mean, first of all, that we ought to return to old-style political economy—presuming it even had a unity other than that given it *ex post* by historians of economic thought. We are no longer in a mid- or end-of nineteenth-century society. Democracy has advanced, and so has the overall level of education in the population. Neither do I mean, second, that we should remain content with what the mainstream nowadays tries to sell as so-called “political economics.” This is essentially because, to my mind, *mainstream theory is itself only a particular strand* within what ought to be a much broader conception of our societies’ attempts to address and reflect on the question of how economic institutions should evolve if we are to become freer people. From the classical economists on to today, political economy has either been marginalized or, when occasionally resurrected by one group of scholars or another, has consistently been designed to address the problems internal to *capitalist indirect democracy*. You will find in mainstream theory no *self-consistent* approach to, say, non-capitalist direct democracy.

The expression “self-consistent” is very important here. As will be argued early in the book, a self-consistent theory would be one in which the agents’ internal—cognitive and reflexive—make-up allows them to subjectively

support the objective reality represented by the theory. Mainstream economics is constitutively unable to self-consistently model non-capitalist, differently democratic economies. This is not because it is an explicit, deliberate defense of capitalist democracy. Rather, it is because it is just as unable to model capitalist indirect democracies as it is unable to model non-capitalist and/or direct democracies: the agents in mainstream theory simply do not have the mental equipment to think about what social structure they aspire to. This includes the bureaucrats and politicians who, in “political economics” models, pursue single-minded instrumental interests (the desire for power and prestige, and so on) for the fulfillment of which political institutions happen to be a good vector. Thus, by assumption, the only agent who *might still have* the mental equipment to reflect on the good economy is the mainstream economist herself. But since she does not model herself as part of the economy she is modeling, she *de facto* spins a solitary narrative about social objectives, desirable optimality, and so on, which none of the agents in her model—and hence, in her perception, none of the agents in reality—is able to comprehend.

If any agent other than the economist were able to entertain vistas about the good or the better economy and about what to do to attain it, this agent should either be pulled out of the model composed of idiotic maximizers¹ or be included in the model—with the inevitable consequence that the economist must include herself in her own theory, for she has no reason to be the only agent capable of socially minded reflection who remains outside of the economic process she is modeling. But then,

- Either the social reality represented by this theory must contain other potentially non-mainstream economists. The implication is that a positive mainstream model containing potentially non-mainstream agents would be underspecified along crucial dimensions—namely, the dimension of *inter-agent reflection and debate* about whether the mainstream axioms and norms are acceptable.
- Or this theory has to postulate—counterfactually—that there are no “dissenting” economists and that all agents in the model espouse the economist’s representation of them. The implication is that the model is then not a positive description of anything (except possibly of an intellectually totalitarian society), but a *political program* that will make sense to, and motivate, only those who agree with its normative premises.

To my mind, political economy ought to be a style of economic theorizing that takes this dilemma seriously. Political economy is a way of looking at economic problems and issues—including the problem of which economic institutions we want, and which political institutions we want in order to support them—without naively presupposing that any single theoretical paradigm can be imposed as the *required medium of public debate*.