

---

## Post-Walrasian Economics: A Marxist Critique

GIULIO PALERMO

*ABSTRACT:* Post-Walrasian economics is the result of a convergence between heterodox schools, such as new institutionalism, new Keynesian economics and radical political economics. The debate on power develops mainly within this methodological framework. Liberals and radicals have confronted each other harshly about the nature of power in capitalism, but their common method leads to the same mystified conception. Marx discussed the class nature of competition and explained how social coercion and individual freedom coexist in capitalism. Post-Walrasians represent competition as the highest expression of individual freedom and characterize power as its negation. Reality is thus turned upside-down, as in old vulgar economics: the power relation suffered by the worker is not caused by his/her social weakness, but by his/her individual strength. From the questions it raises to the answers it offers, post-Walrasian economics is only a product of bourgeois ideology and a tool to reinforce its myths.

**I**N WINTER 1993, THE EDITORS of the *Journal of Economic Perspectives* asked some authoritative economists representing mainstream and heterodox approaches to present these approaches and discuss the relationships among them. Exponents of the new Keynesian economics, the new institutional economics, and radical political economics have thus clarified their indebtedness to John Maynard Keynes, old institutionalism and Karl Marx, the specificity of their “new” approaches and their positions towards orthodox neoclassical economics. The picture that emerges is that, notwithstanding some theoretical differences, there exists a common methodological ground among these approaches, which makes them largely compatible with

each other and with mainstream neoclassical theory. This explains the friendly relationships that exist today among them.

The acceptance of methodological individualism is a first important aspect of this process of convergence. A second aspect regards the attempt to overcome some of the restrictive assumptions of the general equilibrium model, which implicitly or explicitly is the theoretical benchmark of all these theoretical developments. The logic is the following.

In the Walrasian world, characterized by complete markets, perfect information, full rationality and free contract enforcement, neoclassical economics has reached the following results:

1. The state and the market are equally capable of bringing about an efficient allocation of resources;
2. There is no economic room for the firm or for other institutions, since the market alone can allocate resources efficiently;
3. There exists no power relation in market interaction.

According to new Keynesians, new institutionalists and radicals, the economic role of the state, the nature of capitalist institutions and the existence of power relations must then be explained by modifying the assumptions of the Walrasian world. Methodologically, these new approaches can thus be seen as part of a common research program, aiming at extending and generalizing the Walrasian framework: the latter assumes that agents interact in what might be called a “perfect” decision-making context; post-Walrasians deal with “imperfect” decision-making contexts.

In a narrower sense, however, the term “post-Walrasian economics” (PWE) is used also as a synonym for the radical approach to power started by Samuel Bowles and Herbert Gintis, based on “contested exchange.”

In this paper, I develop a Marxist critique of PWE, by focusing mainly on this narrow definition. The reason is that Bowles and Gintis come from a Marxist tradition and maintain that their theoretical framework is able to demonstrate rigorously, and to specify analytically, some of the arguments originally developed by Marx, such as the power relation between capitalists and workers. This allows me to discuss the logic of these demonstrations, and to ascertain whether their support for Marx’s conception is real or only formal. To a large

extent, however, my critique applies to the overall post-Walrasian school, broadly defined. In fact, Bowles and Gintis' theory of power is strictly related to the debate on the nature of the firm — a central theme of the new institutionalism — and to the new Keynesian theory of efficiency wages. I will thus extend my critique to these approaches every time their contributions overlap significantly with the debate on power. This means, of course, that my critique will not touch upon those parts of heterodox economics that do not follow the post-Walrasian methodology.

My thesis is that PWE does not offer any response to the critique of bourgeois economics developed by Marx. On the contrary, its theoretical exercises develop the same mystified conception of the “free trader vulgaris,” to use Marx's expression, as its Walrasian counterpart. I begin by presenting PWE, its research program and the theoretical contribution of radical economists. I then criticize its methodology and the ontology that it presupposes. This allows me to discuss the main formal similarities between Marx and PWE and the opposite conceptions in which they are developed. The “scientific critique” ends at this point. My critical path, however, continues with discussion of the pre-scientific elements that lead PWE to define its scientific problem. In an academic conception of science, the choice of the scientific problem is not generally an object of criticism: researchers are supposed to choose freely their scientific problems and are not called to defend these choices. Within PWE, however, the acceptance of a common ideology and the definition of an identical scientific problem by all of its members — from ultra-liberals to radical thinkers — are part of the phenomenon to be explained, and must then be scrutinized carefully. In the last section, I recap my arguments and draw some conclusions.

## I. POST-WALRASIAN ECONOMICS

### *Power and the Post-Walrasian Research Program*

Although the notions of power, coercion and domination have been discussed since the beginning of political economy by authors such as Adam Smith, Marx and Friedrich Wieser, the modern academic debate rarely goes back to these authors. Rather, the role of power in economics has come to the forefront of the academic debate in

the 1970s, mainly as a by-product of the debate on the nature of the firm, with the contrasting contributions of Armen Alchian and Harold Demsetz (1972) on the one hand and Stephen Marglin (1974, 1975) on the other.<sup>1</sup>

The former contend that formal authority within the firm is only an appearance that hides a reality of perfect reciprocal freedom; the latter argues that power relations play a decisive role in the organization of the firm. Ronald Coase's 1937 paper is, however, in the background. In this paper, Coase explicitly sets the mechanisms of authority and command within the firm against the market price mechanism as alternative modes of coordination.

Coase's paper, let us remember, is not about the nature of capitalist power relations, but rather deals with "the nature of the firm" in capitalism. This problem may appear trivial, for the firm is an integral part of the capitalist system; therefore, one might argue, it is by analyzing the historical origin and development of capitalism that one can understand the nature of the firm and of the other institutions of capitalism.

The problem, however, is anything but trivial if placed within the context of neoclassical economics, a context in which economic institutions are seen as universal and everlasting, just as is the economic problem they solve: the allocation of scarce resources. Within neoclassical economics, the firm and the market are just two alternative allocative mechanisms. The theoretical problem is that, in the Walrasian model, coordination among isolated individuals takes place entirely within the market, which makes all other institutions economically redundant: the story told to describe the general equilibrium model sometimes makes reference to the firm and to other institutions (such as the family), but analytically they are superfluous add-ons. This leaves the internal relations of the firm undetermined. As Paul Samuelson put it, "in a perfectly competitive model, it really doesn't matter who hires whom; so let labor hire capital" (1957, 894).

1 I have discussed the debate on power elsewhere. In Palermo, 2000, I argue that new institutional economics fails both in its attempts to characterize theoretically the capitalist firm and to analyze the power relations of capitalism. In Ankarloo and Palermo, 2004, we focus the critique on Williamson's transactions-cost economics. In Palermo, 2007, I develop a Marxist ontology of power relations in capitalism. In Palermo, 2014, I criticize the debate on power from a Marxist angle and I discuss the false contrast between power and perfect competition that characterizes this debate.

The general equilibrium model, like any theoretical model, is defined by a “decision making context” (DMC) and an “organizational structure.” The former defines the features of the world in which agents of the model live and interact; the latter defines the relations among them and the way in which they interact. The DMC of the Walrasian model is characterized by perfect information, full rationality, and zero transaction costs. In this paper, I will refer to it as the “perfect” DMC. The organizational structure is a completely decentralized one, based on market relations among isolated agents.

Starting from the fact that the firm is redundant within the Walrasian model, Coase raises his scientific questions: Why do hierarchies exist in the market system? Where do the principles of authority and command regulating intra-firm relationships come from? These questions can be approached in many ways. Coase’s method consisted in exploring the reasons why coordination by explicit direction can be economically superior to the invisible hand of the market in a DMC of positive transaction costs. Methodologically, Coase thus rejects the perfect DMC and investigates how organizational structures with some degree of centralization and formal authority might perform better than the Walrasian one. In one way or another, thus, Coase introduces a form of power into the neoclassical model, and uses it to analytically characterize the firm as an institution qualitatively distinct from the market.

Against this picture, some liberal authors have denied the existence of real authority relations within the firm by explaining them as particular forms of competition (Alchian and Demsetz, 1972; Jensen and Meckling, 1976; Cheung, 1983). Theoretically, this approach — often labelled the “contractual approach” — is characterized by an internal tension between two conflicting objectives: on the one hand, it introduces imperfections in the DMC as a way to point out the specificity of the firm with respect to the market; on the other hand, however, it claims that interpersonal relations within the firm involve no power, an assertion that holds true only within the perfect DMC. Alchian and Demsetz’s provocation is famous:

It is common to see the firm characterized by the power to settle issues by fiat, by authority, or by disciplinary action superior to that available in the conventional market. This is delusion. . . . [The employer] can fire or sue,

just as I can fire my grocer by stopping purchases from him or sue him for delivering faulty products. (Alchian and Demsetz, 1972, 777.)<sup>2</sup>

This provocation is implicitly based on a perfect DMC. However, with positive transaction costs, as the authors assume explicitly, even firing a grocer is generally costly on both sides of the relationship.

In a second line of development of Coase's intuitions, costs and benefits of competition and command have been analyzed systematically in the attempt to determine the virtues and vices of markets and hierarchies. Transaction costs economics and the property rights theory are the main outcomes (Coase, 1937; Williamson, 1975, 1985, 1996; Grossman and Hart, 1986; Hart and Moore 1988, 1990; Hart, 1995; Moore, 1992). With respect to the contractual approach, this line of research provides a more articulated picture in which real world imperfections guide the evolution of the organizational structure of the firm and, more generally, of all capitalist institutions. Here there is no attempt to deny the existence of power relations in capitalism. On the contrary, the goal is to explore different DMCs in the attempt to find the imperfections that explain the main forms of power existing in capitalist organizations. But the assumption is explicit: hierarchies or other forms of power may exist only where the conditions for perfect competition do not hold.

The most explicit attempt to deal with the issue of power within the institutions of capitalism, however, has been developed out of these branches of new institutional economics, by two economists belonging to the radical school, namely Bowles and Gintis (Bowles, 1985; Bowles and Gintis, 1988, 1993a, 1993b, 2000). Unlike the new institutionalists, they do not assume that eventual power relations should necessarily be sought within hierarchical organizations, such as the firm. They show instead that within imperfect DMCs even market relations generally involve power.

On a path that is largely independent of this debate on institutions and power, new Keynesians have followed the same method, based on the introduction of imperfections into a general equilibrium framework. In the words of Greenwald and Stiglitz (1993, 24), "modern Keynesians have identified these real world "imperfections"

2 Williamson (1994, p. 325) criticizes explicitly this position, by affirming: "Firms can and do exercise fiat that markets cannot do," and characterizes intra-firm relations precisely by the asymmetry between employers and employees.

as the source of the problem: leaving them out of the model is like leaving Hamlet out of the play.” It is thus not surprising that efficiency wage models (Akerlof and Yellen, 1986; Shapiro and Stiglitz, 1984; Greenwald and Stiglitz, 1988) overlap in many ways with the models developed by Bowles and Gintis to analyze power relations. The common idea is that a wage higher than the market-clearing one induces the worker to work harder than he/she wishes. The main difference between them is only that, in one case, imperfections are the explanatory causes of allocation inefficiencies and second-best solutions; in the other, they are the cause of power relations.

Although these post-Walrasian approaches have sometimes confronted each other with harsh polemical tones, their common neo-classical methodology engenders the same conception of reality, a conception in which imperfections are the ultimate cause of the forms of interpersonal relations.

### *The Radical Contribution*

Bowles and Gintis’ contested exchange framework is an attempt to show that power relations are not confined within the boundaries of the firm, but exist in competitive markets as well. The authors define competition as a situation characterized by free entry and large numbers of buyers and sellers, but not by market clearing. With this definition, they demonstrate that even in competitive equilibrium (with non-clearing markets), a market economy sustains a system of power relations among agents (a competitive equilibrium is a situation in which actors are incapable of improving their position by altering variables over which they have control).<sup>3</sup> This result is obtained by relaxing one of the assumptions of the Walrasian DMC that Bowles and Gintis consider the most implausible: the assumption that contract enforcement by a third party is costless and unproblematic.

Bowles and Gintis (1993a, 325) define power as “the capacity of some agents to influence the behavior of others to their advantage through the threat of imposing sanctions.” The absence of power

3 Bowles and Gintis distinguish between “perfect competition” and “perfect Walrasian competition”: the former does not imply market clearing, the latter does (and coincides with what in the literature is generally called “perfect competition”). Ultimately, this is why they can claim that power relations exist even in a regime of perfect competition (with non-clearing markets). In this paper, I will continue to adopt the definition of perfect competition as implying market clearing.

relations in the Walrasian model is a consequence of the condition that supply equals demand, which implies that each agent loses nothing by abandoning his optimal transaction in favor of his next best alternative: in equilibrium, the cost to agent *B* of foregoing an exchange with agent *A* is zero, so that *A* cannot affect *B*'s wellbeing by terminating the relation. Hence, Bowles and Gintis continue, *A* has no power over *B*. More generally, the fact that in Walrasian equilibria no agent can impose sanctions on other agents implies that the economy works without any underlying power relation among agents.

If contract enforcement is problematic, however, the picture changes radically. Bowles and Gintis (1993a, 332) "call an exchange *contested*, when *B*'s good or service possesses an attribute that is valuable to *A*, is costly for *B* to provide, yet is not fully specified in an enforceable contract." When exogenous contract enforcement cannot be guaranteed at zero cost by a third party (such as the judicial system), the transacting parties must enforce their agreement by themselves. In this case, the terms of the transaction are determined by the monitoring and sanctioning mechanisms instituted by *A* to induce *B* to provide the desired level of the contested attribute. One such enforcement mechanism is *contingent renewal*: "contingent renewal obtains when *A* elicits performance from *B* by promising to renew the contract in future periods if satisfied, and to terminate the contract if not" (1993a, 333).

A typical example of contested exchange is the employer–worker relationship, in which "while the employer's promise to pay the wage is legally enforceable, the worker's promise to bestow an adequate level of effort . . . is not" (Bowles and Gintis, 1993a, 333). Other examples studied by Bowles and Gintis are the relationships between owner and manager, lender and borrower, and between parties in international exchanges (Gintis, 1989; Bowles, Gintis and Gustafsson, 1993; Bowles and Gintis, 1994). In all these cases, competitive equilibrium is characterized by non-clearing markets, and agents on the *short side* of the market have power over the agents on the *long side* with whom they transact (where excess supply exists, the demand side is the short one, and vice versa). The cause of this power relation is that the agents on the long side who are lucky enough to enter the relation with agents on the short side enjoy a "rent" (defined as the difference between the utility they obtain thanks to the transaction and the utility they would have if the transaction terminates), which is costly for them



to lose. The fact that within imperfect DMCs perfectly competitive markets do not necessarily clear produces thus an asymmetry between the two sides of the market, which, in turn, affects interpersonal relations between single buyers and sellers.

In the case of the work relation, employers are on the short side of the labor market and workers enjoy a so-called “employment rent.” This rent is the instrument by which the employer places the worker under constant threat (similarly, Bowles and Gintis show that creditors have power over debtors and owners of enterprises have power over managers). It is thus the fact that unemployment is harder than work that confers a power of retaliation to the employer over the worker, and that makes the latter provide an “adequate” level of effort at work.

With respect to the voluntaristic conception of Alchian and Demsetz, Bowles and Gintis make a step forward. Theoretically, Alchian and Demsetz’s position, according to which the worker can leave the capitalist without utility losses, holds true only within the perfect DMC. Outside of it, it is generally costly to leave an interpersonal relation and individuals may be willing to accept some form of power, even if just for personal convenience.

Bowles and Gintis’ theoretical exercise, however, is not methodologically different from that of their liberal rivals: in their post-Walrasian framework, power relations exist only because of imperfections in the DMC. Walras could not see this, because he had eliminated all the imperfections of the world from his model. Alchian and Demsetz cannot see it either, because of their contradictory assumption that perfect competition is at work even within imperfect DMCs. Radical post-Walrasians, by contrast, claim to have the proper theoretical framework for grasping the nature of power relations in capitalism: imperfections are the cause of power relations. A battery of models formalizing all different sorts of imperfections existing in the real world is the way to shed light on capitalistic power relations, according to this approach.

## 2. METHODOLOGY

As a development of Walrasian economics, the methodology of PWE incorporates the same general methodological assumptions as found in the Walrasian model. In order to answer its own scientific questions — which are derived from, but do not coincide with, those of Walras

— it adds, however, two new explanatory categories: imperfections and opportunism. These are the essential ingredients for a power relation to exist: opportunist behaviors within imperfect DMCs. Both these categories are defined ahistorically. The outcome is an ahistorical conception of power totally detached from the real forms of coercion that characterize capitalism. Let me begin my critique by considering these explanatory categories more carefully.

### *Imperfections*

Bounded rationality, imperfect information, historical time, etc. are not historically specific to capitalism; rather, they are features of all human relations in any historical context. Clearly, rationality principles and imperfections change in the history of human societies, but each society has its imperfections, degrees of uncertainty, asymmetric information, irreversible phenomena, and so forth. Therefore, according to the logic of PWE, power relations exist in all social systems, since their cause — imperfections — are ubiquitous.

It is not the time to discuss whether this statement is right or wrong. For instance, in the Marxist tradition, all societies based on a certain division of labor and a degree of specialization of their members are considered to be necessarily based on power relations. The methodological problem regards rather the attempt of post-Walrasians to explain historical processes by means of ahistorical categories.

Such a method implies that power relations have always existed, even before the historical development of market relations and economic competition. However, they were invisible and could not be detected by scientific investigation. They became visible only with the historical development of capitalism and the consequent possibility of conceiving of a model of complete markets and perfect competition (and, by symmetry, models with imperfections). Post-Walrasians must then consider themselves to be very lucky to live in the sole epoch in which everlasting power relations have finally become visible, as a contradictory development of the Walrasian model.

The historical truth, however, is different. Market interaction and economic competition are not at all everlasting forms of social coordination. Markets played only minor roles in pre-capitalist societies and economic competition has become the main form of social coordination only in relatively recent times. If pre-capitalist systems,

with less developed or completely absent markets, were not regulated by economic competition, it was not because of *market imperfections* — as PWE suggests — but because of *lack of markets*.

### *Opportunism*

Opportunism is the rationality principle of PWE. Methodologically, it is a generalization of Walrasian maximizing rationality in a DMC characterized by imperfections. The novelty is only that, in this new DMC in which contracts can be violated, optimal strategies might consist in promising one thing and doing another.

As a methodological by-product of Walrasian categories, opportunism is introduced without explanations. The rise of opportunistic behaviors is assumed to be a natural fact, a consequence of human nature. For some reasons (which I will discuss later), post-Walrasians are more attracted by workers' opportunism than by capitalists'. Even workers' opportunism, however, is mainly seen as an everlasting problem stemming from the very nature of the worker, not as a historical product of this mode of production.

In his discussion of the working day, Marx (1867, ch. 10) points out that establishment of a "normal working day" was the product of centuries of class struggle. During this process, it was not possible to conceive of workers' behavior as "cheating," since there was as yet no social standard of what a normal worker should do. It is only when institutional disciplinary apparatuses emerged (with all the consequences studied by Michel Foucault) that workers might be divided into "normal" and "deviant" and that those more reluctant to accept the discipline of the capitalist mode of production could appear as "cheaters," to use mainstream economics terminology, or, following Foucault (1977), might even be depicted as "mad." At the same time, Marx describes the growth of opportunism on the capitalists' side: for instance, after the promulgation of the factory acts of the 1840s in Britain, which fixed the length of the working day, a great deal of cheating was done by employers, who simply altered the factory clock in order to get extra labor-time.

Although PWE conceives of opportunism as a natural starting point and a universal explanatory cause, it is in fact a product of complex historical processes that have transformed labor into alienated labor and the owners of the means of production into capitalists. These

are the preconditions for a problem of monitoring and disciplining labor to emerge. And these are the reasons why a monitoring problem willy-nilly persists even in the concrete process towards another mode of production.<sup>4</sup> The ahistorical methodology of PWE, however, does not allow grasping the historical nature of the problem it tries to rationalize. Rather, it suggests that disciplining labor is a universal problem and that its explanatory causes must be ahistorical categories. Historically, however, both the problem and its causes are products of the capitalist mode of production.

### *Power and Competition*

A methodological apparatus based on ahistorical categories leads inevitably to other ahistorical categories. Power in this conception exists only as a violation of perfect competition. It coexists with competition because, in imperfect DMCs, it is more efficient to have two coordinating mechanisms rather than one. But both power and competition exist out of history, as abstract forms of interpersonal relationships.

PWE does not even try to explain the real processes through which authority and coercive mechanisms have developed in capitalism and have transformed competition into a coercive force. On the contrary, it defines power in such a way that it is incompatible with competition. Competition is thus emptied of its coercive nature, and the forms of coercion existing in capitalism are removed from it. The power-free nature of competition is not a result of the analysis, but a definition. If Walras provided an apparent scientific support to the myth of competition as a natural and socially beneficial mechanism, post-Walrasians willy-nilly support a new myth: the idea that competition is the reign of freedom, in which there is no room for power and coercion.

4 During the socialist calculation debate, Austrian liberals raised two arguments against socialist planning: the impossibility to process huge fluxes of information and the lack of incentive schemes for workers. After the development of linear programming and the advent of the computer, the first argument lost ground (Austrians tried to keep it alive by insisting on the tacit nature of knowledge). As concerns the second argument, neoclassical market socialists replied to anti-socialists by developing the same principalagent framework used to monitor workers in capitalism. Although academically effective, this reply shows that market socialists take alienation for granted even in their ideal models. In Palermo, 1998, I criticize both the Austrian and the market socialist positions in the debate from a Marxist perspective.

Here, however, we have another ideological intrusion hidden behind apparently purely methodological choices. Methodologically, the problem of this conception of power and competition as abstract, mutually incompatible, categories implies that this framework cannot explain both of them. It must assume one in order to characterize the other as its violation. Competition and power are therefore perfectly symmetrical in this methodology. Let us thus try to understand why post-Walrasians treat them asymmetrically.

Without exceptions, post-Walrasians take power as the phenomenon to be explained, and competition as a natural and everlasting category, deserving no scientific explanation. "In the beginning there were markets" is Williamson's explicit starting point. Not of course real markets, but neoclassical markets, with atomistic agents and perfect competition. By contrast, power is seen as an unnatural phenomenon, simply because it does not exist in Walras' world. This is the origin of the problem.

The idea that competition is a natural mode of interaction between isolated individuals has been severely criticized by Marx. He points out that human interests, with a highly developed division of labor, are necessarily social interests. Competition, therefore, is not merely a mechanism whereby isolated individuals pursue their goals, according to their innate preferences, but a mode of coordination of social individuals, with convergent and divergent social interests, influenced largely by class relations. Its historical development is a consequence of the development of property relations, another process that bourgeois economists assume rather than explain. In Frederick Engels' words (Engels, 1844):

We have seen that in the end everything comes down to competition, so long as private property exists . . . because private property isolates everyone in his own crude solitariness, and because, nevertheless, everyone has the same interest as his neighbour, one landowner stands antagonistically confronted by another, one capitalist by another, one worker by another. In this discord of identical interests resulting precisely from this identity is consummated the immorality of mankind's condition hitherto; and this consummation is competition.

Before explaining power as a violation of perfect competition, post-Walrasians should explain why they choose precisely competition as their starting point. If they do not even raise the question, it is only

because the starting point is itself a product of bourgeois ideology: in capitalism, competition appears as natural and Walras' model only formalizes this appearance.

### 3. ONTOLOGY

Before capitalism, in this conception, there was not feudalism, or other modes of production, but Léon Walras. The nature of power relations is not studied as a transformation of the power relations that regulated the modes of production that preceded capitalism. Rather, power is explained as a deviation of real capitalism from the abstract Walrasian model.

Walrasian methodology presupposes a particular ontology. From a Marxist viewpoint, this ontology is problematic, for it is insufficient to characterize the capitalist mode of production. The problem is twofold: first, it assumes that capitalism coincides with free contracting; second, it conflates the spheres of production and circulation. Although PWE does not develop any explicit ontological reasoning, its specific methodology based on imperfections imposes new conditions on the Walrasian ontology. Let me discuss how the twofold problem that I mentioned presents itself in this more sophisticated ontology.

#### *Free Contracting, Interpersonal Power and Social Coercion*

According to Walras and PWE, a world of perfect information and free contracting is, by definition, a world free from power relations or, to use Marx's provocative expression, "the Eden of the innate rights of man." This is why, theoretically, PWE needs imperfections to deal with power-related phenomena. The fact that contracting agents might face completely different material constraints when they "freely" sign the contract is not seen as a potential cause of their power relation. Their different role in production as members of opposing social classes plays no role in the explanation of their power relationship. On the contrary, the implicit assumption is that contracts are signed in a vacuum in which only subjective choice matters.

As Marx has shown, free contracting is only one of the historical conditions of the emergence of proper capitalistic relations. But, for a capitalist-worker relation to emerge, the laborer must be free in a double sense: "That as a free man, he can dispose of his labor-power

as his own commodity, and that on the other hand he has no other commodity for sale, is short of everything necessary for the realization of his labor-power" (Marx, 1867, ch. 6).

Free contracting and the lack of the means of production are the two ingredients of capitalistic exploitation. There is no abuse, no asymmetric information or bounded rationality, in the power relation of the capitalist over the worker. The fact that the latter obeys the former is not even the essence of the problem in Marx's ontology. Their interpersonal power relation depends on the relation of exploitation existing between their social classes. Therefore, the coercive nature of capitalism is not sought in the single interpersonal relation between a capitalist and a worker in isolation, but in the social mechanisms that separate the population into social classes and that reproduce this social structure.

In this ontology — built explicitly on the conditions of reproduction of the capitalist mode of production — the worker is not obliged to exchange his/her labor-power with the wage of a *particular* capitalist, but is obliged to exchange his/her labor-power with the wage of *a* (any) capitalist. Alchian and Demsetz are then right when they affirm that the worker is a free individual, who can leave the capitalist whenever he/she wants. But this is only one side of the coin. Capitalism would not reproduce itself just by means of exchanges between grocers and customers. Only in the abstract reign of free contracts, is this relation formally equivalent to that between capitalist and worker. In real capitalism, the coin has a second side. The worker is still free to interrupt the relation with the capitalist, but his/her freedom of choice is very peculiar: he/she *must* obey a capitalist or *choose* another capitalist to obey (or more realistically, hope *to be chosen* by a capitalist). And the worst thing that can happen to a worker, in a society based on capital, is not to enter into a relation with any capitalist wishing to command and exploit him/her.

It is not a problem of uncertainty, bounded rationality or asymmetric information: the worker may know or ignore the fact that, within capitalistic firms, he/she must obey the capitalist and give him part of the value he/she produces; but, these are the rules of the game and if he/she does not accept them, he/she will not get the means of subsistence. This is not to say that imperfections are useless categories. On the contrary, if one introduces them explicitly in this more accurate ontology, it is evident that asymmetric information, bounded

rationality and other “imperfections” modify the existing power relations, but do not create them: if a worker is not well-informed or is rationally bounded, he/she might accept worse conditions than his/her colleagues. Yet, even the most rational and well-informed worker will never get a job if he/she is not ready to obey and to be exploited.

By contrast, PWE introduces imperfections in a contradictory ontology, in which capitalism is reduced to free contracting. In Walras’ model, this assumption is coupled with the perfect DMC. The result is a conception in which, by assumption, the only coordinating mechanism is competition. In the ontology of PWE, free contracting is analyzed instead within an imperfect DMC. The result is a conception in which power relations exist, beside competition, but, by construction, only as a consequence of imperfections. This suggests a picture of a society in which contracts are the highest expression of individual freedom and power relations emerge only when their enforcement is problematic — the best way to dismiss Marx’s critique, without even considering it: in the search of the forms of coercion of this mode of production, Marx’s theoretical concern is not that contracts are sometimes violated, but that they are generally respected.

### *Production, Circulation and the Free Trader Vulgaris*

In Marx’s characterization of capitalism as a system of commodity production, there is a clear-cut separation between the spheres of production and circulation of commodities. This separation allows him to discuss how capital may appear to be productive (in circulation), notwithstanding its unproductive nature (in production) and to criticize economic conceptions based solely on circulation.

In the sphere of circulation, capitalists and workers do not appear in the first instance as social entities, but simply as individuals, who exchange commodities. But before being exchanged, commodities must be produced. Before discussing the forms of power originating directly in the sphere of circulation, Marx explains the forms of coercion emanating from production:<sup>5</sup>

5 Within modern Marxism, Fourie (1989) has criticized transaction costs economics, by arguing that its explanations of hierarchy in production rests on a theoretical confusion between production and exchange. Before him, Engels (1878, Part II, chapter 1) had noticed: “Production may occur without exchange, but exchange — by the very fact that it is only an exchange of products — cannot occur without production.”



On leaving this sphere of simple circulation or of exchange of commodities, which furnishes the "Free-trader Vulgaris" with his views and ideas, and with the standard by which he judges a society based on capital and wages, we think we can perceive a change in the physiognomy of our dramatis personae. He, who before was the money-owner, now strides in front as capitalist; the possessor of labour-power follows as his labourer. The one with an air of importance, smirking, intent on business; the other, timid and holding back, like one who is bringing his own hide to market and has nothing to expect but — a hiding. (Marx, 1867, ch. 6.)

Historically, the need to supervise production is a consequence of the problematic process of extracting living labor from workers' labor-power. Marx discusses this process in different parts of *Capital* and explains how the internal organization of the firm and the way workers are disciplined in the workplace evolve according to the needs of capital accumulation. He points out for instance that the development of stock companies and cooperative factories are very different processes, but are also responses to the same problem: in one case, the extraction of living labor from workers' labor-power is delegated to a manager, in the other to workers themselves (Marx, 1894, ch. 27).

Modern Marxists, such as Harry Braverman (1974), Stephen Marglin (1974, 1975), and Richard Edwards (1979) have developed this conception by discussing the evolution of class relationships and the development of different forms of power, authority and hierarchy within capitalist firms in the 20th century. Social exploitation and interpersonal power relations, in the work of these authors, are dialectically linked: on the one hand, exploitative class relations in society are the cause of the interpersonal power relation in the workplace; on the other hand, the evolution of the forms of power prevailing within capitalist firms transforms class relations and modifies the rate of exploitation.

In this ontology, the forms of power that prevail in the sphere of production are linked to the exchanges that must occur in circulation in order for the system to reproduce itself. Capitalist production starts with the sale of workers' labor-power. By buying this commodity, the capitalist acquires the right to dispose of it. It is not a question of price. The worker might sell it dear or cheap, but the very act of selling his/her labor-power gives the capitalist an interpersonal power over him/her during the production process.

PWE, however, does not start from the real development of capitalism and its reproducing mechanisms, but from an abstract model, based on a flat ontology in which production is, *de facto*, a subset of circulation, an exchange between input owners. The result is a more sophisticated ontology, still based on pure circulation, in which however circulation incorporates imperfections. Even the central relation that characterizes production — the capitalist–worker relationship — is considered as a form of exchange, an exchange that occurs in a complex DMC, but still a phenomenon of circulation.

In this ontology, the price that the capitalist pays to have power over the worker is not simply the wage, as Marx argued, but a part of it. In PWE, by definition, competitive wages involve no power relations. The latter arise only when the capitalist pays additional money to induce worker's self-discipline. Power is thus a sort of commodity, which the capitalist buys from the worker — besides his/her labor power — in order to increase his/her productivity, exactly as he buys machines, work instruments and innovative technologies. Like all commodities, power has its equilibrium price, defined as the amount of money that compensates the worker for not using his/her informative advantages opportunistically.

As Marx has explained, in the eyes of the capitalist, the value of production is produced by the total capital he has invested, independent of the real origin of value. By formally including power in the reign of commodities, PWE preserves this appearance. If the capitalist buys a machine or a power relation, it is only because the increase in expected revenues is greater than the cost of the investment. For him, power relations are production factors, no less than any other work instrument he buys in order to increase workers' productivity. Therefore, the increase in the value of production following the purchase of a power relation over the worker appears to him as an effect of the capital spent in this investment, not as a consequence of the increase in the worker's effort (which, in Marxist terms, corresponds to an increase in the amount of living labor extracted from his/her labor-power).

Without any ontological separation between production and circulation, the appearances that capital is productive and that individuals are equal becomes in PWE the true essence of capitalism. In this mystified conception, the asymmetry responsible for eventual power

relations must be introduced directly in circulation, even when dealing with capitalists and workers. Formal equality in the market becomes synonymous with “freedom,” and power relations are detected only when they manifest themselves formally in asymmetric market relations. All other forms of coercion within capitalism become invisible.

#### 4. FORMAL SIMILARITIES WITHIN OPPOSITE CONCEPTIONS

We have now the elements to discuss how PWE can substantiate the Marxist claim that the capitalist has power over the worker.

##### *Marx's Demystification of the Coercive Nature of Competition*

The main theoretical problem faced by Marx in his attempt to explain the forms of coercion within capitalism is that capitalism is a mystified system. As he shows, one of the specificities of this mode of production is that its exploitative nature is hidden behind the appearance of free market exchange. His critique of political economy, therefore, is not a mere attempt to downsize the role of his theoretical and political rivals. It is rather a way to demystify the appearances of capitalist reality — which bourgeois economists rationalize — and to explain scientifically what at first glance cannot be seen. The complexity of Marx's analysis stems from this twofold scientific goal: discovering the coercive mechanisms of capitalist accumulation, and explaining how social coercion and exploitation might appear as expressions of individual freedom and equality. Both these problems lead him to deepen the role of competition.<sup>6</sup>

Marx's discussion of competition starts with its historical origins, before the rise of the capitalist mode of production, as a consequence of two institutions: private property and the market. Capitalism, however, is characterized also by the commodification of labor-power, *i.e.*, by the extension of private property and the market to labor-power as well. This is why, in this mode of production, competition also takes on a class dimension. With the development of capitalism, capital tends to subsume all human activities and put living labor under its command. In this process, competition imposes its logic over an

6 I have discussed Marx's view on competition in Palermo, 2015.

expanding sphere of social relations and tends to become the coordinating principle of the whole society, the “external coercive law” of this mode of production, in Marx’s terms.

At an interpersonal level, its coercive nature depends on the pressure it puts on market participants. No worker is obliged to sell his labor-power at the lowest price, and no capitalist is obliged to seek the most profitable productions and the least expensive techniques. But if they do not do it, the former does not get the means of subsistence and the latter is put out of the market. It is only at a social level, however, that the coercive nature of competition can be fully grasped, as the main economic mechanism that regulates the reproduction of class relations. Marx’s study of a world regulated by competition, therefore, is not an attempt to see how interpersonal relations would be in a system without power and coercion, but a methodological choice intended to isolate the role of this coercive mechanism in the working and reproduction of capitalism.

In the process of commodification, competition tends to impose its logic at a subjective level as well: as the spectrum of social relations governed by competition develops, competition tends to appear as a natural force, a form of interaction that has always existed, a consequence of human nature. Only at this stage, does it become possible to conceive of a world entirely regulated by market relations and competition. Historically, however, the appearance of a competitive “human nature” — which the bourgeois economist takes as the theoretical starting point of his explanations — is in fact a product of capitalist development.

### *Post-Walrasian Mystification of Power and Competition*

Marx’s radical successors within PWE do not develop this conception and do not even consider Marx’s critique of bourgeois economics. Rather, without understanding that the latter applies largely to them as well, they uncritically adopt a neoclassical methodology and then try to obtain conclusions with a Marxist sound.

The idea is that Marx’s method is weak and fuzzy, and that only a strict neoclassical method can overcome its internal limitations. The historical rise of neoclassical economics — an academic reaction against Marxism and its revolutionary implications — is taken as the birth of the universal economic method, to which even Marx should be converted. As a scientist, Marx is worthless. Only some of

his non-scientific intuitions might perhaps be saved (for reasons that Marx himself did not understand). This is the way in which PWE views the founder of scientific socialism. This is the logic of this new “heterodox” academic fashion, which includes Rational Choice Marxism and market socialism as well: either Marxism becomes a small chapter of neoclassical economics or it remains scientific bullshit (“non-bullshit Marxism” is the self-assigned label of Analytical Marxists).

Unfortunately, neoclassical economics cannot be bought *à la carte*. When you buy its method, you buy its implicit ontology and its ideological premises as well. The result is that the same statement — that the capitalist has power over the worker — takes here a completely different meaning with respect to Marx’s conception of this relation and of its role in class struggle.

Methodologically, the starting point is the Walrasian model, in which all economic relations are compressed within the sphere of circulation and analyzed according to methodological individualism. With these premises, the only way to demonstrate that economic relations might involve power is to play with assumptions. “Imperfections” and “individuals with heterogeneous innate qualities” are the methodological tools of the game chosen by PWE, within an implicit ontology based on free contracting and pure circulation.

In playing this game, Bowles, Gintis and their neoclassical colleagues have not found anything better than assuming an asymmetry in favor of the individual worker against the individual capitalist, before the exchange, in order to explain why, after the exchange, the latter has power over the former. Their story begins with the advantage of the individual worker and finishes with the capitalist having power over him/her. But only because, in the middle, there is the monetization of the worker’s advantage. The power relation suffered by the worker is thus caused by his/her supposedly favorable position with respect to the capitalist, not the other way round. Reality is thus turned upside-down, as in the old mystified conception of bourgeois economics. Although neoclassical economics does not like the notion of exploitation, in PWE, the exploited one might eventually be the capitalist, who pays the rent, but surely not the worker who collects it.

But to fully grasp this mystified conception, we must follow the worker on the day in which he/she finally gets rid of his/her power relation with the capitalist, the day in which the latter introduces a new machine, which regulates workers’ effort, their pace of work and their mode of

coordination with each other. This same day, the worker loses the information advantage, the rent and perhaps the job. For PWE, however, this is the day of his/her liberation from the capitalist's power. Now, finally, the worker can leave the capitalist without losing anything (having already lost everything, except his/her labor-power). This is freedom in PWE.

To show that the capitalist has power over the worker, PWE assumes that the individual worker is not a member of the class of persons who have nothing to sell except their labor-power, but, on the contrary, that he/she is a privileged person within this class, having also something else to sell (his/her information advantages). Workers at the perfectly competitive (subsistence) wage suffer no power relations in this conception. In a complete overturning of Marx's idea, here the interpersonal power relation suffered by the individual worker is not caused by his/her membership in an exploited class, but by his/her privileged position within this class. In a nutshell, in PWE, the worker suffers a power relation not because of his/her social weakness, but because of his/her individual strength.

Some post-Walrasians might be satisfied with the formal similarities between their results and Marx's theory. Their conception of science and their role in society, however, resemble closely those of "the vulgar economist [who] does practically no more than translate the singular concepts of the capitalists . . . into a seemingly more theoretical and generalized language, and attempt to substantiate the justice of those conceptions" (Marx, 1894, ch. 13).

## 5. THE SCIENTIFIC PROBLEM

Before moving to conclusions, let me discuss the ideological nature of the scientific problem of PWE. As we have seen, PWE assumes self-interested individuals. Self-interested behavior, however, is described as "profit maximization" with regard to the capitalist and as "opportunism," "shirking" or "cheating" with regard to the worker. The problem is not only terminological. It reflects rather a precise, although implicit, ideological position.

### *Bourgeois Ideology and Scientific Questions*

Contemporary capitalism offers a wide range of examples of contracts that are not enforced correctly: workers that are not paid for

months by their employers, banks that do not pay back depositors' money, states that do not honor their international commitments, women who are molested in the workplace. These are not distortions of capitalism, but normal effects of self-interested behaviors in a society characterized by asymmetrical power relations.

With asymmetric power relations, it is clear that the powerful, not the powerless, can more easily behave opportunistically. For some reason, however, when the capitalist-worker relationship is at stake, post-Walrasians are preoccupied mainly by the possibility that the worker takes a break, slows down the pace of work or does not maximize effort during the working day — problems that perhaps should concern more the capitalist than the economist. This is the origin of the literature on monitoring, shirking, incentive schemes, principal-agent problems and the rest.

As we have seen, the post-Walrasian framework has been applied to very different situations in which contract enforcement is problematic. Curiously, however, no post-Walrasian focuses on the millions of workers that suffer daily abuse by their boss but have no means to bring him to the tribunal (and perhaps no interest in doing so). Nor do they focus on those who just accept the contract because they have no alternative, no matter the terms of the contract. By assumption, as Bowles and Gintis say explicitly, the employer's promises are legally enforceable and the problem is only on the worker's side.

Formally, there is no asymmetry between capitalists and workers in this theoretical framework. As self-interested individuals, they will contravene their commitments every time this increases their expected utility. In concrete model building, however, PWE treats these two figures asymmetrically: one is the supervisor, the other the supervised, one is the principal, the other the agent; and the "scientific problem" is to find effective supervising methods and to push the agent to serve at best the interests of the principal. Implicitly or explicitly, capitalists' interests are transformed into social goals.

Starting from a symmetrical conflict, post-Walrasians introduce an asymmetry and put themselves at the service of one of the conflicting parties. There is no theoretical reason why the economist should take the viewpoint of the capitalist, rather than that of the worker. But once this theoretical choice has been taken, implicitly or explicitly, all issues of "cheating," "shirking" and "laziness" follow naturally. This is why, in this literature, the lazy one is the worker, who works seven

hours and 55 minutes (having “shirked” 5 minutes in the toilets), not the capitalist who does not work at all.

### *Neoliberal Cultural Hegemony*

Theoretically, there is no obstacle that prevents neoclassical economists from developing also the social consequences of capitalists’ opportunistic strategies against their employees. If this occurs rarely it is because the scientific community has its own internal logic. As Antonio Gramsci pointed out in his study of cultural hegemony and the role of intellectuals, dominant ideology tends to impose the viewpoint of the ruling class as a cultural norm (Gramsci, 2007).

PWE is both a cause and an effect in this process. On the one hand, its scientific problem is a product of capitalist ideology: the problem is to monitor and discipline labor. On the other hand, by transforming the capitalist’s problem (the worker’s opportunism) into a social problem, it reinforces the ideas that workers’ discipline is a universal goal, and that all studies developing explicitly the standpoint and interests of the worker are politically biased and hence, according to the dominant conception, not really scientific.

Before Marxists converted to neoclassical methodology (and neoliberal ideology) took this route, the scientific defense of capitalists’ interests in the workplace was not hidden behind questions of Pareto efficiency and second-best solutions. Both Marxists and bourgeois economists agreed that a greater effort at work was in the interest of capitalists and went against those of the working class.

When in 1911 Frederick Taylor wrote *The Principles of Scientific Management* — in which he studied how to increase workers productivity and extract as much labor as possible from their labor-power — its impact in the political and scientific debate was unambiguous: his work was appreciated not only by capitalists — which is quite obvious — but also by mainstream economists. Rapidly, scientific management affirmed itself as a new research program, with new university teachings and specialized academic journals. In the Marxist camp, this managerial approach was openly criticized, both theoretically and politically, with the development of the so-called *labor process debate*.

Taylor of course was not a Marxist and was perfectly aware that his fortune was due to his ability to put science at the service of the



capitalist class. Less evident, by contrast, are the real intentions of radicals, who accept neoclassical economics as a matter of pure methodology, without discussing the relations between ideology and methodology. The concrete effect of their theories, however, is straightforward: in a historical context, in which the labor movement was trying to unite and organize in the workplace and in the overall society, post-Walrasians have contributed to rationalize the everlasting problem of the capitalist class — to discipline labor and organize it according to capitalists' needs — and to reinforce a conception in which power is only an interpersonal affair.

## 6. CONCLUSIONS

In his contribution for the *Journal of Economic Perspectives*, referred to at the beginning of this paper, Joseph Stiglitz (1993) discusses explicitly the relations between the radical approach of Bowles and Gintis and the mainstream development of Walrasian economics, based on imperfect information and costly contract enforcement. He argues that there are striking parallels between the two approaches, that they use the same method and set of assumptions and that they deal basically with the same problem. The difference, in his view, is only about terminology:

Mainstream economists have not only found concepts like exploitation and power to be useless in explaining economic phenomena, but they worry about introducing such emotionally charged words into the analysis. But that is presumably precisely why the radical economists choose to use such words: they want the analysis to motivate action. (Stiglitz, 1993, 112.)

It is not very surprising that the winner of the Nobel Prize considers exploitation and power as emotionally charged words, rather than scientific concepts, and that, by contrast, he considers efficiency — the key word of the neoliberal political program — as a value-free notion.<sup>7</sup> But this is only a confirmation that value judgments are easily detectable only when they break the beliefs that form the cultural hegemony of a given time. Otherwise they may appear as neutral,

7 Rigorously speaking, Stiglitz's efficiency wages theory has more to do with exploitation than with efficiency, for total output is not increased by holding inputs constant, but by increasing one of them: the amount of labor extracted from workers' labor-power.

even though the very possibility of pure objectivity in social research is a highly controversial issue.<sup>8</sup>

Apart from this consideration, I share fully Stiglitz's conclusion about the internal compatibility of this research program. This is, however, only half of the story. The second half regards the relation with Marx. In this paper, I have thus explicitly espoused a Marxist perspective and I have submitted to critique the methodology, ontology and ideology of PWE.

Let me recap my conclusions by starting from the pre-scientific choices of PWE. In the analysis of the capitalist-worker relationship, post-Walrasians — from ultra-liberals to radicals — have unanimously focused on the capitalist's standpoint and have thus helped to rationalize and solve his economic problem. In this way — perhaps, in some cases, involuntarily — they have transformed a problem of a part of society into a problem of the entire society. This choice involves a stronger role for ideology than is the case for Walrasian economics. The latter is only an attempt to formalize the virtues of market interactions among atomized individuals. PWE goes further. Within the same individualist framework, which assigns no role to class relations, it introduces social classes surreptitiously by defining “the economic problem” as “the problem of the capitalist.” This ideological degeneration of radical thinking — I suggest — is the outcome of two interdependent processes: 1) the tendency to uncritically accept neoclassical methodology in the scientific community; 2) the consolidation of the neoliberal hegemony in culture and society.

Post-Walrasian methodology is based on two main ingredients: imperfections and opportunism. These ingredients are defined ahistorically. The resulting conception of power is ahistorical as well. The different forms that power takes in the history of capitalism are not objects of scientific inquiry. The goal is rather to show that there is a valid alternative to competition, under certain conditions. The result is a theory of power in which, by construction, competition is power-free. In PWE, the coercive law of capitalism is not competition, as Marx thought, but the lack of it.

8 The role of value judgments in the use of Pareto efficiency is critically discussed by Hausman and McPherson, 1996. For a broader discussion of the ideological content of economics and of the problem of objectivity in social science, Dobb, 1973 and Myrdal, 1969 remain two classical references.

This methodology imposes new conditions on the implicit ontology of Walras' model. In PWE, capitalists and workers are not social entities, but individuals with innate qualities. Their eventual power relation depends only on these qualities and on their fit with an imperfect DMC. The fact that one is a capitalist and the other a worker is irrelevant. They might also be a bank and a firm, two states, or a customer and a grocer. As long as the parameters of the models coincide, the nature of the power relation is the same. And as power arises in circulation, where only exchanges of equivalents occur, the interpersonal asymmetry before the exchange must be assumed to be favorable to the worker if one wants to prove that, after the exchange — when individual advantages have been monetized — power is in the hands of the capitalist.

When we move from the formal claim that “PWE has demonstrated that the capitalist has power over the worker” to a discussion of the causes and the mechanisms of this power relation, the result is not so Marxist. Rather, it is a logical development of the mystified conception formalized by Walras. The proof is that, in these models, power is a form of capital and, as such, is treated as productive. But this also confirms that PWE is only a sophisticated version of the old bourgeois conception criticized by Marx, in which all forms of capital are conceptualized as productive. My conclusion is that, overall, PWE is a coherent extension of perfect exchange to contested exchange. The obvious consequence, however, is the addition of new contradictions to an already contradictory conception.

*Economics and Management Department*  
*University of Brescia*  
*via S. Faustino 74*  
*25122 — Brescia — Italy*  
*giulio.palermo@unibs.it*

#### REFERENCES

- Akerlof, George, and Janet Yellen. 1986. *Efficiency Wage Models of the Labor Market*. Cambridge, England: Cambridge University Press.
- Alchian, Armen, and Harold Demsetz. 1972. “Production, Information Costs and Economic Organization.” *American Economic Review*, 62:1, 777–95.
- Ankarloo, Daniel, and Giulio Palermo. 2004. “Anti-Williamson: A Marxian Critique of New Institutional Economics.” *Cambridge Journal of Economics*, 28:3, 413–29.

- Bowles, Samuel. 1985. "The Production Process in a Competitive Economy: Walrasian, Marxian and Neo-Hobbesian models." *American Economic Review*, 75, 16–36.
- Bowles, Samuel, and Herbert Gintis. 1988. "Contested Exchange: Political Economy and Modern Economic Theory." *American Economic Review*, 78, 145–50.
- . 1993a. "Power and Wealth in a Competitive Capitalist Economy." *Philosophy and Public Affairs*, 21:4, 324–53.
- . 1993b. "The Revenge of Homo Economicus: Contested Exchange and the Revival of Political Economy." *Journal of Economic Perspectives*, 7:1, 83–102.
- . 1994. "Credit Market Imperfections and the Incidence of Worker-Owned Firms." *Metroeconomica*, 45:3, 209–23.
- . 2000. "Walrasian Economics in Retrospect." *Quarterly Journal of Economics*, 115:4, 1411–39.
- Bowles, Samuel, Herbert Gintis, and Bo Gustafsson. 1993. *Markets and Democracy: Participation, Accountability and Efficiency*. Cambridge, England: Cambridge University Press.
- Braverman, Harry. 1974. *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press.
- Cheung, Stephen. 1983. "The Contractual Nature of the Firm." *Journal of Law and Economics*, 26:1, 1–21.
- Dobb, Maurice. 1973. *Theories of Value and Distribution since Adam Smith: Ideology and Economic Theory*. Cambridge, England: Cambridge University Press.
- Edwards, Richard. 1979. *Contested Terrain: The Transformation of the Workplace in the Twentieth Century*. New York: Basic Books.
- Engels, Frederick. 1844. *Outlines of a Critique of Political Economy*. <http://www.marxists.org>
- . 1878. *Anti-Dühring. Herr Eugen Dühring's Revolution in Science*. <http://www.marxists.org>
- Foucault, Michel. 1977. *Discipline and Punish: The Birth of the Prison*. London: Allen Lane.
- Fourie, Frederick. 1989. "The Nature of Firms and Markets: Do Transaction Cost Theories Help?" *The South African Journal of Economics*, 57:2, 142–60.
- Gintis, Herbert. 1989. "Financial Markets and the Political Structure of the Enterprise." *Journal of Economic Behavior and Organization*, 11, 311–22.
- Gramsci, Antonio. 2007. *Prison Notebooks*. New York: Columbia University Press.
- Greenwald, Bruce, and Joseph Stiglitz. 1988. "Pareto Inefficiency of Market Economies: Search and Efficiency Wage Models." *American Economic Review*, 78:2, 351–55.
- Grossman, Stanford, and Oliver Hart. 1986. "The Costs and Benefits of Ownership: A Theory of Vertical and Lateral Integration." *Journal of Political Economy*, 94:4, 691–719.
- Hart, Oliver. 1995. *Firms, Contracts and Financial Structure*. Oxford, England: Clarendon Press.
- Hart, Oliver, and John Moore. 1988. "Incomplete Contracts and Renegotiation." *Econometrica*, 56, 755–85.
- . 1990. "Property Rights and the Nature of the Firm." *Journal of Political Economy*, 98:6, 1119–58.

- Hausman, Daniel, and Michael McPherson. 1996. *Economic Analysis and Moral Philosophy*. Cambridge, England: Cambridge University Press.
- Jensen, Michael, and William Meckling. 1976. "Theory of the Firm: Managerial Behaviour, Agency Costs and Ownership Structure." *Journal of Financial Economics*, 3, 305–60.
- Marglin, Stephen. 1974. "What Do Bosses Do? The Origins and Functions of Hierarchy in Capitalist Production." Part 1. *Review of Radical Political Economics*, 6:2, 60–112.
- . 1975. "What Do Bosses Do? The Origins and Functions of Hierarchy in Capitalist Production." Part 2. *Review of Radical Political Economics*, 7:1, 20–37.
- Marx, Karl. 1867. *Capital: Critique of Political Economy*. Vol. 1: *The Process of Capitalist Production*. <http://www.marxists.org>
- . 1885. *Capital: Critique of Political Economy*. Vol. 2: *The Process of Circulation of Capital*. <http://www.marxists.org>
- . 1894. *Capital: Critique of Political Economy*. Vol. 3: *The Process of Capitalist Production as a Whole*. <http://www.marxists.org>
- Moore, John. 1992. "The Firm as a Collection of Assets." *European Economic Review*, 36:2–3, 493–507.
- Myrdal, Gunnar. 1969. *Objectivity in Social Research*. New York: Pantheon Books.
- Palermo, Giulio. 1998. "The Socialist Planning Debate: A Historical and Analytical Reconsideration." *History of Economic Ideas*, 6:3, 115–50.
- . 2000. "Economic Power and the Firm: Two Conflicting Problems." *Journal of Economic Issues*, 34:3, 573–601.
- . 2007. "The Ontology of Power in Capitalism: Mainstream Economics and Marx." *Cambridge Journal of Economics*, 31:4, 539–61.
- . 2014. "Power, Competition and the Free Trader Vulgaris." *Cambridge Journal of Economics*. <http://cje.oxfordjournals.org/content/early/2014/11/06/cje.beu048>
- . 2015. "Competition: A Marxist View." *Historical Materialism*, forthcoming.
- Samuelson, Paul. 1957. "Wages and Interest: A Modern Dissection of Marxian Economic Models." *American Economic Review*, 47, 884–912.
- Shapiro, Carl, and Joseph Stiglitz. 1984. "Equilibrium Unemployment as a Worker Discipline Device." *American Economic Review*, 74:3, 433–44.
- Stiglitz, Joseph. 1993. "Post Walrasian and Post Marxian Economics." *Journal of Economic Perspectives*, 7:1 (Winter), 109–114.
- Taylor, Frederick. 1911. *The Principles of Scientific Management*. New York: Harper & Brothers.
- Williamson, Oliver. 1975. *Markets and Hierarchies: Analysis and Antitrust Implications*. New York: Free Press.
- . 1985. *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. New York: Free Press.
- . 1994. "Visible and Invisible Governance." *American Economic Review, Papers and Proceedings*, 84:2, 323–6.
- . 1996. *The Mechanisms of Governance*. New York: Oxford University Press.