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The Relation Between Economic and Political Instances in the Communist Mode of Production

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1. Introduction

ANYONE PROMOTING COMMUNISM in the current century must come to terms with the key historical event of the second half of the last, the demise of the Soviet system. Whether or not we describe ourselves as "communist," if our proposals involve the expropriation of the capitalist class and the institution of a form of social economy driven by the interests of the associated producers, they will be seen and judged as communist, and associated with the Soviet Communism of 1917–1990. We have to say how our proposals differ from the Soviet model, and provide a convincing account of how the system we advocate can succeed where the Soviets failed.

To advance this task it is important to clarify the status of communism as a mode of production, and the relationship between the economic and political levels of this mode of production. To date we have concentrated on proposals for economic planning (see especially Cockshott and Cottrell, 1993). We summarized, defended, and to some degree updated, our proposals in Cockshott and Cottrell, 1997. Rather than review those proposals, we thought it preferable to try to break new ground here.

2. *Mode of Production and Social Formation*

All historical social formations have been characterized by an articulated combination of modes of production, with one mode dominant at any given time and others subordinate. Contesting forms of economy are differentiated by two key points: the specific mode in which the social division of labor is organized, and the particular way in which a surplus product is extracted.[1] For a mode of production to rise to dominance it must reproduce its form of the division of labor and its form of surplus extraction on an expanded scale. Competing modes of production have, in the end, resolved their rivalry by force or the threat of force. The argument over competing expansions by slavery and capitalism onto new lands in the American West was settled by civil war. The competing expansions of the communist and capitalist modes of production in the 20th century were resolved by Star Wars and the threat of nuclear annihilation. (The United States succeeded, as many strategists explicitly intended, in "busting the Soviet economy" by raising the stakes in military expenditure with Star Wars.) But to win, the victor must have out-mobilized and out-produced the vanquished. It must have commanded more productive labor; it must have had a greater freely disposable surplus to squander on the demands of war.

It is a mistake to concentrate too much attention on shortages of consumer goods under socialism. Were living standards the key, the USA and not the USSR would have fallen. In 1989, real wages in the USA were lower than in 1973, while those in the USSR had risen even during the "period of stagnation" under Brezhnev, which saw stagnation only in comparison to the much more rapid growth of the Stalin and Khrushchev years (Schroeder, 1992). If failure to deliver rising living standards explained the fall of the Soviet system, the survival of the subsequent Yeltsin regime, during which real wages fell to an extent unprecedented in peacetime history, could only be miraculous. We see other causes of crisis arising from the form of appropriation of the surplus product and its scale and disposition; the specific forms of class antagonism engendered by the commu-

1 "The specific economic form, in which unpaid surplus-labor is pumped out of the direct producers, determines the relationship of rulers and ruled, as it grows directly out of production itself, and reacts upon it as a determining element" (Marx, 1971b, 791).

nist mode of production; and the constitutional forms of the socialist states.

We follow Marx in talking only of the capitalist and communist modes of production,[2] eschewing talk of a third "socialist" mode of production. The self-described socialist countries were social formations defined by an articulated combination of capitalist and communist modes of production. This articulation was both internal, in the relationship between economic forms by which reproduction occurred, and externally defined by the politico-military struggle with the capitalist bloc.

Our purpose here is to characterize the fundamental features of the communist mode of production. In discussing the economic level we examine communism's characteristic forms of division of labor and surplus extraction and how these can be improved by information technology. In discussing the political level we consider the weaknesses of hitherto existing socialist state constitutions and propose forms, based on historical precedent, that we hope would be more robust.

3. *Economic Level*

Division of labor. All societies must divide their labor among different concrete activities. Labor time is the fundamental productive resource, the "original currency" (Adam Smith) by which we purchase our wants from nature. Smith's analogy is apt: just as money is abstract purchasing power, able to buy any commodity, labor is abstract productive power. By altering how it spends its labor, society alters what it is able to consume.

In market economies this social labor cost is represented, more or less precisely, in an object's price. By an inversion of signs engendered by the possibility of sale, the cost of producing something comes to be seen as something positive, its value.[3] The adaptability of labor means that, considered in the abstract, it can be measured in hours: a scalar. We can associate with each product a scalar quantity, the

2 "We are dealing here with a communist society, not as it has developed on its own foundation, but on the contrary, just as it emerges from capitalist society" (Marx, 1974, 346). No distinct "socialist" society is mentioned.

3 This inversion is at the heart of the late Alec Nove's objection to the use of labor values in planning (Nove, 1983). He wanted value to be something positive, not a negative cost.

labor required to make it. This list of pairs — (product1/value1), (product2/value2) — has the same logical shape as a price list. Money prices or labor values can equally well serve as units of account; they both act as operators mapping elements of heterogeneous types onto a single measuring scale.

But the existence of money involves more than just price lists. It also implies the existence of a credit account list. This is of the form (subject1/credit1), (subject2/credit2), associating with each juridical subject a monetary credit or debit. The list may exist in the form of ledger entries in banks, database entries in Visa's computers, or more primitively, coins in purses. All of these are different historically evolved technologies for recording the same sort of information. Here money appears not just as a metric for commodities, but as what Smith called the power to command the labor of others. Credit accounts encode social hierarchy. Throughout history the index of membership of the upper classes has been the ability to command others to do things. The persistence of such accounts in socialist societies is an index of the survival of capitalist forms of domination.

Economic computation. Any economy must have some mechanism for regulating the allocation of labor between different branches of production and for controlling the proportionate division between surplus and necessary labor time. This control process involves three movements: a movement of people, a movement of products, and a movement of symbols.

A movement of symbols is what we associate with computation or calculation.[4] Such symbolic calculation takes place in ledgers, but also through the movement of physical symbols — coin or notes — between agents. But considered as a whole, the economic algorithm includes steps that move people and products. It is characteristic of market economies that their economic algorithm relies on the movement of people where communism could move symbols.

In a market economy the public symbolic moment of the economic algorithm is concerned solely with the abstract power of command, money. The manipulation of credit accounts ensures that for every movement of products from the ownership of subject X to that of Y there is a balancing adjustment of their powers of domination. Hidden behind this is a private symbolic manipulation, carried out

4 Derived from the movement of *calculi*, small tokens or coins on a reckoning table.

in the production planning divisions of corporations. Here the symbols stand not for social power but for things: turbine blades, impeller blades, fan ducting. The characteristic operation is not the account transaction but the parts explosion. This form of symbolic computation is the germ of communist planning.

The other moment of the economic algorithm involves the movement of things and people: products are assigned to uses, people to jobs. In a market economy these two movements, the symbolic and the physical, form an interlinked cycle. The rate at which ownership of products changes, and thus the rate of credits to the accounts of the producing firms, influences the price of the product, a purely symbolic change. It also influences the production plans of the firms, another symbolic change but now a private one. Finally it influences employment levels, actually altering the division of labor in society.

The computational capacity of a system is determined by its degree of parallelism and its cycle time. Advocates of the market eulogize its parallelism; they are silent about its cycles. The NASDAQ may cycle in seconds, but such symbolic markets are pure computations of lordship. Markets for products are different: their cycle times are of the order of 18 months for stock-building cycles or seven years for fixed investment. From the dislocation of cycle times stems the instabilities, recessions and booms to which market economies are subject.

Market-like allocation under communism. Marx envisaged communism as having two phases. The first phase retains the principle of bourgeois right: what people get back from society in the form of goods is proportional to the labor they perform. There is no property income, but the reciprocity that underlies commodity exchange persists. Workers are paid in labor tokens and are allocated products containing an equivalent amount of labor. Although this scheme does not involve a market proper — Marx was at pains to point out that labor tokens were not money (they were to be canceled on use like theater tickets) — it is market-like.

While overall balance between issue of labor tokens and production of consumer goods can be achieved relatively simply, there remains the problem of adjusting the composition of the consumer goods bundle. A communist economy can use market-like mechanisms here. As we show in Cockshott and Cottrell (1993), there will always exist a composition of the consumer goods bundle such that the "sale" of all products at their labor values will exactly balance

supply and demand. The planning authorities can use either of two indicators to steer the composition of the consumer goods bundle towards this mix. They can use the rate of change of inventories as an indicator of demand and adjust output accordingly, or they can adjust the selling price in labor tokens so that goods in short supply rise above their values. They would then increase the production of goods whose prices were above their values and reduce output for those below their values. Which of these mechanisms should be used is a pragmatic question.

Plan computation and computerized planning. The key difference between communist economies and market economies is that the former adjust the division of labor by means of calculations in kind, while the latter do it by means of calculations in money. Market calculation is the calculus of domination; planning is the unmediated calculation of products and labor: the famous system of *material balances*.[5] The plan is a symbolic representation of future production. In a planned economy, the moment of economic computation is purely symbolic, a manipulation of figures that precedes the issue of directives. Since at no moment in the computation do people and products have to move, the computation precedes the physical allocation of resources. This algorithmic structure frees communism from the cyclical crises of market economies.

The preparation of a complete, balanced and disaggregated plan is computable in principle, but not everything that is computable in principle is computable in practice. A five-year plan that takes 50 years to prepare is no good to anyone. Opponents of socialism have made much of the impossible complexity of the millions of equations that would have to be solved. Yet we now solve millions of equations daily. Weather forecasts involve evaluating the temperature, pressure and wind velocities for millions of discrete space–time positions, and they share with plans the criterion of promptness. It is no good having an algorithm to forecast tomorrow's weather if it takes two days to do the calculations. The key issues here are the complexity of the algorithms and the speed of the computers used. By complexity of an algorithm is meant the rate at which the running time grows with the size of the problem; for an algorithm to be tractable, the running

5 In systems of the Soviet type the implementation of material balances was only partial. The information processing techniques needed to fully implement material balances did not exist. They do now.

time must grow relatively slowly with the problem size. The millions of equations needed for short-range weather forecasts are tractable because they involve local interactions: each cubic kilometer of air interacts only with its nearest neighbors. This bounds the complexity of the problem.

We have outlined elsewhere plan balancing algorithms of low complexity, typically of order $N \log N$ (see Cockshott, 1990; Cockshott and Cottrell, 1993). Plans, like weather simulations, are characterized by (mostly) local interactions.[6] Suitably programmed, modern supercomputers could derive a balanced plan for a major industrial economy as expeditiously as they predict tomorrow's weather. With the ability to plan in detail, the notorious problems of aggregative planning, such as perverse incentives to produce a few heavy items when directives were in terms of weight of product delivered, do not arise.

It is difficult to gauge the economic impact of a more efficient planning system. An increase in efficiency boosts the potential surplus product, and if this were reinvested in new plant and equipment it could bring a long-term increase in growth rates; it is, however, hard to judge how decisive this might have been in the Soviet case. It is not as if their system of central planning was actually unviable. It may have been bureaucratic and behind the times in terms of information technology, but it maintained and regulated a complex division of labor supporting a quarter of a billion people, providing 40 years of continuous economic growth after 1945. Perhaps the decisive issue is not the efficiency of the plan, but other factors: the existence of money, the production and allocation of the surplus, the class structure of socialism.

4. *Surplus Product*

We define as surplus any output over and above that necessary to reproduce the current productive apparatus and current productive population. The production of a surplus product is typically tied up with exploitation: the surplus is appropriated by a class of non-producers and used for their benefit. But surplus production need not neces-

6 With a scale factor given by the average number of distinct inputs required to produce each product.

sarily be exploitative. Where the class of non-producers are those past working age, their consumption of part of the surplus is hardly exploitative. More generally, if the direct producers or their children benefit from the use of the surplus product, it is not exploitation.

Unproductive uses of the surplus, like defense, are problematic. The citizens of a communist state may have to devote labor-time to defense against external threat, but such expenditures cut into their living standards and can approach the condition of exploitation. The final criterion is whether the use of the surplus is agreed by the producers to be in their benefit. This entails some form of collective decision about how much surplus to produce and how the surplus is to be used. (The decision need only be voluntary at the collective level; it may appear coercive to the individual. I may have voted against an increase in pensions, but if the majority approve the impost I am forced to go along with it.)

The specifically communist way of producing a surplus is to plan for it. The plan specifies the physical composition of the whole product. If it calls for the production of 10,000 tanks, 2,000 warplanes, 15 new power stations, etc., it is thereby defining the surplus product: these products by their nature form no part of current consumption. This mode of surplus production is quite distinct from what happens in capitalist countries: either the appropriation of profit by private firms or the levying of taxes by the state. The difference arises from the fact that the means of production are in unitary public ownership. Capitalists appropriate surplus in the form of profit, but they are many, and profit appears as the accidental outcome of market turbulence. The capitalist state is unitary but does not own the means of production, so its appropriation of the surplus has to be indirect, by means of money taxes.

The magnitude and composition of the social surplus under communism are determined, targets being met, by the structure of the plan. However, money-like forms of allocation can persist for part of the necessary product, as when workers are paid labor tokens for their work and "buy" back from the state some of the goods they consume. Marx pointed out in *The Critique of the Gotha Program* that the need for production of a surplus precludes workers individually receiving the full product of their labor. There has to be some sort of deduction to support those unable to work, net investment, and so on. Failing this, more labor tokens will be handed out than are

canceled in exchange for consumer goods: the result is either inflation (devaluation of the labor token) or the development of chronic shortages as workers' purchasing power exceeds the planned allocation of consumer goods.

In the USSR deductions to cover the social surplus were hidden. Only a minor part of the state's revenue was met by income taxes; the primary source of state revenue was the profits of publicly owned enterprises.

Although it appeared that the state financed its surplus production through turnover taxes, this has it backwards. As the owner of the means of production the state had no need to "finance" its expenditure. The products that it used for investment or the armed forces belonged to it from the start, and did not have to be purchased. The real role of the turnover tax was to ensure that the issue of rubles balanced the issue of goods through state shops in return for these rubles. In practice, because of the inflexibility of prices upwards, and the tendency to raise wages faster than the growth of the planned consumer goods bundle, there was a persistent buildup of ruble balances in workers' accounts. This excess purchasing power in conjunction with fixed prices was the precondition for visible shortages.

The invisibility of state revenues, the fact that they appeared neither as an explicit deduction from wages nor as an explicit markup, may have been politically advantageous up to a point. But the long-term consequences were generalized shortages and a distrust in the currency. The shortcomings of the "hidden" tax base in the USSR were exposed dramatically when Gorbachev banned alcohol, thus forfeiting the vodka tax (Khanin, 1992), and followed the advice of market socialist reformers, allowing enterprises to retain most of their profits. The resulting deficit in state finances led to the drastic overvaluation of the ruble, shortages and suppressed inflation. These phenomena strengthened the hand of the advocates of shock treatment, the general freeing of prices and abandonment of planning controls — effectively the full reintroduction of capitalism.

A complicating factor was the fact that a large portion of the necessary product in the socialist economies (*e.g.*, education, housing and medical care) was distributed on the basis of need, either free or well below value, following Marx's conception that such distribution would be characteristic of the higher phase of communism.

As a result the wage paid to workers in state enterprises was below the value of labor power, the remaining costs of labor reproduction being met by the social wage. In conjunction with the form of taxation this had two unfortunate consequences. First, by raising the total share of the product that was not marketed, it made the system even more prone to suppressed inflation in the event of tax shortfalls. Second, it led to the systematic undervaluation of labor inputs at the enterprise level, encouraging deliberate over-staffing and the use of labor-intensive rather than machine-intensive production techniques. This in turn undermined the growth of labor productivity and reduced the level of the potential surplus product.

The long-term compression of the surplus product meant that the needs of defense and of investment came increasingly into conflict — hence the falling share of net investment in the plans of the 1970s and 80s. Starting from a deficiency in the financing of the surplus, the turnover tax system led to a deficiency in the actual production of a surplus.

Given the political will, the shortcomings of the Soviet tax system could have been remedied by the introduction of a proportional income tax accompanied by a break-even pricing policy. The suppressed demand for consumer goods could have been contained, eliminating generalized visible shortages; and the cost of employing labor at the enterprise level would no longer have been systematically underestimated. This would have discouraged labor hoarding and encouraged the use of labor-saving techniques.

We have advocated a fixed "poll tax" rather than a proportional income tax (Cockshott and Cottrell, 1993). This advocacy is a secondary issue but we see it as having certain advantages. A poll tax maintains a high incentive to work, since workers are paid the full value of their product at the margin; at the same time it emphasizes the general duty to perform work for the community before work for oneself. (In the absence of significant income differentials, the redistributionist argument for income taxes in a capitalist economy is lacking.) Whatever tax regime is used by a communist economy, it is essential that persistent shortfalls in tax collection do not occur; there must be some mechanism to bring tax collection and government expenditure into balance.

The levying of taxes does not create a surplus. As we argued above, in a planned economy the projected composition of the product is

laid down in the plan: to the extent that the plan is fulfilled, the division of the social product between surplus and necessary uses is thereby defined. This raises two questions: how is the plan to be decided, and how is it to be fulfilled? While these questions have important economic aspects — concerning the computing of plans and forms of economic calculation — they are in essence political.

5. *The Political Level*

Historical materialism conceives of a social formation as a structured totality of different levels or sub-systems. Within this structure the economic is determinant in that it determines which level will occupy the dominant place (Althusser and Balibar, 1968, part II, ch. 1; Marx, 1971a). In capitalist societies, the economic level itself occupies the dominant place as surplus production arises out of private economic relations among individuals. In communist societies the political/ideological level is dominant, since surplus production is determined by the politically determined structure of the plan, and the ideologically influenced fulfillment of the plan. This basic feature of the mode of production determines the importance of political power and the pervasiveness of "party" ideology.

Failings of the Leninist theory of the state. The outlines of Lenin's theory of the socialist state are well known. The state takes the form of Soviets or councils that combine legislative with executive functions. These councils are elected, either on a restricted proletarian franchise or by universal suffrage. The vanguard party dominates the councils. The greater part of the delegates are party members. Delegates are subject to recall by their electorate to maintain control by the base. Their social status is kept in conformity with that of the base by being paid only average workers' wages. It is also well known that over time the Leninist state invariably became corrupted by power, that far from sharing the standard of living of manual workers, local and national political leaders came to enjoy substantial material benefits. The right of recall, while formally present in the USSR, was ineffective as a restraint on corruption. Where one party dominated the state, who would organize an effective challenge to a corrupt representative?

In principle the party was supposed to ensure the purity and effectiveness of the state institutions. It was supposed to draw in the most

advanced and self-sacrificing members of the working class — to be an aristocracy of labor in the best sense. While this formulation was cogent in conditions of revolutionary struggle, when to be a communist was perilous, after the Communists came to power the situation was reversed. A ruling party attracts those who want to be rulers, with inevitable changes to its moral and social composition.

There is a Darwinian mechanism at work here. Communist domination of the spontaneously created Soviets of 1917 was a prerequisite of revolution. Had the soviets been dominated by social democrats, as in Hungary, they would have been crushed by the forces of reaction. The system of hierarchical delegation, whereby local soviets sent delegates to higher soviets, favored their domination by a single party. Where this party was communist, it acted ruthlessly in suppressing the political and military power of the propertied classes and the soviets survived. Thus we should expect any long surviving soviet state to be dominated by a party that is communist in substance if not in name. On the other hand the very principle that secured the initial existence of the soviet states determined their inner decay as aristocracy gave way to oligarchy. Against the corruption of the party state, the Leninist mechanisms of delegate recall and payment of workers' wages could make no headway.

The lie of liberalism. Liberal socialist critics of the USSR held that corruption arose because of one party's monopoly on power — fair enough — but then went on to advocate multi-party elections as the remedy. This remedy was tried at the end of the 1980s with the unvarying result that power passed, sometimes via liberal socialists, into the hands of true liberalizers. It is understandable that liberal politicians in the West should have advocated free and fair elections in the communist countries. For socialists to have done this too showed a total misunderstanding of the nature of politics and of elections, flowing from the naive conception that elections are an instrument of democracy.

Elections, said Aristotle (*Politics*, 1300b4–5) are *aristocratic*, not democratic: they introduce the element of deliberate choice, of selection of the "best" people, the *aristoi*, in place of government by all the people. A system of election always favors the upper strata of society, those who are best educated, have the greatest access to money and means of communication. An electoral republic is the optimal form of rule by the bourgeoisie. It leads, as Moses Finley has said, to

the dominance of professional politicians drawn almost exclusively from the middle and upper classes.[7]

As a *psephonomy* (a state based around elections), the USSR was aristocratic, but it was based on an aristocracy of labor. The CPSU, by imposing quotas on the social composition of delegates, preserved this character. Remove the element of deliberate selection from the lower classes and you get the modern Russian state.

Principles of democracy. Our argument seems to imply that socialism is a self-limiting disease on the body politic. The measures required to establish and perpetuate it provide the seeds of its corruption. The remedy for that corruption provides the guarantee of its demise. But that is to ignore the potential of democracy, in its original sense of rule by the poor.[8] We have become so used to the cooption of the word "democracy" to refer to plutocratic psephonomies like the USA that we forget what the basic institutions of democracy were. These are admirably described by Finley (1973, 1983), but we can summarize their key features here:

Council members are chosen by lot, rather than election, ensuring that the composition of the councils accurately represents that of the citizen body;

there are in consequence no professional politicians;

members of the councils serve a one-year term of office;

the courts take the form of juries sitting without judges ensuring that the legal system is in the control of the masses;

election exists but only in the one area from which it is rigorously excluded in aristocracies — the election of military officers.

Our contention is that if soviet states are to survive in the long term, they will have to rediscover lot, the *ur*-principle of democracy.[9]

7 "This new interest group, furthermore, is drawn from a narrow sector of the population; in the United States, so exclusively from lawyers and businessmen that we find it hard to grasp the fact that as late as the end of the 19th century, a proportion not only of white collar but of blue-collar workers participated actively in party leadership and public office, at least on a municipal level. In Britain the same situation prevails, with a somewhat larger element of inherited wealth and commercial agriculture on one side, and of teachers, journalists and union officials (a few of them manual workers in their youth) on the other" (Finley, 1973, 35).

8 "The real difference between democracy and oligarchy is poverty and wealth. Wherever men rule by reason of their wealth, whether they be few or many, that is an oligarchy, and where the poor rule, that is a democracy" (Aristotle, *Politics*, 1279b34–80a4).

9 See Cockshott and Cottrell (1993, chapter 13) for a more sustained argument on this.

6. *Conclusion*

Proposals for the planning or coordination of a communist economy (such as we and others have offered previously) are well and good, but it is necessary to conceive of communism as a mode of production, and one in which the political level is dominant. This refers us to the difficult issues of the production of a sufficient surplus, and the appropriate forms of the state and taxation. A future communism will have to develop a third way, in relation to the historical alternatives of bourgeois "democracy" (plutocratic psephonomy) and the Leninist system of soviets. Not a third way in the sense of a happy medium, but a radical departure from both.

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COMMENT

Cockshott and Cottrell start from the widely agreed proposition that whereas in the capitalist mode of production the economic level is dominant, in a communist mode of production the political level would be dominant. They suggest that the failure of the Soviet Union was not primarily due to the economic system and any associated shortage of consumer goods, but rather to its undemocratic political system. The authors have argued elsewhere that it is now technically possible to plan an economy in detail, as it was probably not during the Soviet Union's existence, and in the present paper they focus on the political/ideological level, on the principles of democracy.

In this comment I shall concentrate on two related problems that I think run through their work and are key issues for discussion in the further development of the project of this symposium. These are, first, their assertion that detailed direct economic planning is now possible and, second, their attack on liberalism and representative democracy.

As a preliminary, however, two other issues are worth commenting on. First, in their discussion of what they call "the Leninist theory of the state," the authors make the interesting observation that a soviet/single party system is necessary for successful revolution but contains from the beginning the seeds of subsequent inner decay. While this may be a convincing argument in the conditions of pre-revolutionary Russia, it seems largely irrelevant in relation to the prospects for advanced capitalist countries with liberal democratic political systems.

Second, in their discussion of surplus product in a communist mode of production, the authors state that decisions in relation to the surplus must be "agreed *by the producers* to be in their benefit" (emphasis added) if exploitation is to be avoided. However, in a classless, self-governing society it is not at all evident why current producers should be the only group allowed to participate in such decision making.

Detailed, non-aggregated, economy-wide direct planning. Cockshott and Cottrell have set out their proposals for economic planning elsewhere and briefly rehearse their arguments in this paper. They have effectively demonstrated that the computation involved in calculating a balanced central plan for a complex modern economy is perfectly possible, *on the assumption that the knowledge needed for this calculation can be centralized.* However, they do not discuss the problems that arise from the fact that in reality much of the knowledge that is relevant for economic decision making cannot be centralized, however advanced the information technology, however powerful the computers.

This is not primarily because economic activity depends crucially on decentralized local knowledge of time and space. Rather, it is because the tacit nature of much of this knowledge prevents it from being codified and transmitted to the center. Tacit knowledge arises from experience. It is practical knowledge of how to do things. It is what we draw on in conditions of uncertainty when forming judgments about what might be possible and what is probably not possible. It is the knowledge of people on the ground and cannot be separated from them.

Such knowledge can only be drawn upon, made use of, by those who have acquired and possess it — individuals or groups working together. Economic activity must therefore be based on the active participation of the direct producers in decisions on what and how to produce. Similarly, if production is to contribute to human welfare, such decisions must also involve those who will use what is produced and any other groups that will be affected by the process of production and consumption, again drawing on their tacit knowledge. Cockshott and Cottrell's model of direct central planning, involving the transmission of all relevant information to the center and the subsequent transmission of detailed instructions to enterprises by the center, seems *prima facie* unable to deal with the issues raised by tacit knowledge, by "grass roots" knowledge.

Liberalism and democracy. The objectives underlying Cockshott and Cocktrell's attack on liberalism and representative democracy are admirable and widely shared by socialists: the abolition of a ruling class, group or social stratum. However, their analytic framework and institutional proposals are fundamentally misconceived and positively dangerous. In place of rule by the upper strata of society — "those who are best educated, have the greatest access to money and means of communication" — they advocate "rule by the poor" and "control [by] the masses," implemented through what they call "the *ur*-principle of democracy" or selection by lot.

There are two problems with this analysis and vision. First, it presupposes the continuation of what I have called the social division of labor, rather than envisaging its abolition. While this may be a reasonable assumption in the lower phase of communism, Cockshott and Cottrell's institutional proposals contain no transformatory dynamic towards a classless, or strataless, society based on participatory self-government. This is because, although they state that in the communist mode of production the political level is dominant, in their model politics is strangely absent.

There is no room for pluralism, for different views of the good life. There are no institutions through which deliberative democratic processes enable people and groups to engage with one another, to become aware of one another's interests, to transform their consciousness. Thus, the social interest is defined by those chosen by lot, acting on behalf of those they

"represent" but not interacting with them, rather than being defined by those whose social interest it is. As with their model of central planning, Cockshott and Cottrell's model of the "political" level is in fact technocratic and managerial rather than political.

Second, a self-governing, communist, society must be a society in which both the economy and the polity are controlled by civil society, by self-organizing associations made up of people with common interests and equal access to the external and internal resources needed for effective participation in decision making. In any complex society this must involve a combination of direct and representative democracy, which may have a place for selection by lot, but cannot be replaced by it. The historical record demonstrates the dangers of abolishing choice through elections no less than those of relying solely on representative democracy.

Pat Devine

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COMMENT

In my own opening contribution to this symposium, I urge us all to avoid excessive "product differentiation"; to look for common ground rather than difference among the various "models" of socialism. Following my own advice, I begin here by seconding Paul Cockshott's and Alan Cottrell's eloquent challenge to the impossibility claims of the market ideologists. In their paper, as well as in earlier work (esp. *Towards a New Socialism*, Spokesman, 1993), they offer a solidly grounded rebuttal of the "millions of equations" shibboleths that have dominated the discussion of non-market coordination of economic activity. In arguing that the coordination problem is solvable partly to the extent that it involves, like weather forecasting, a high proportion of "local interactions," C&C also bring their conception closer to Pat Devine's emphasis on the importance of local knowledge, as well as to my own conception of multilevel iterative coordination.[1]

1 To be sure, C&C may occasionally project an over-optimistic view of the possibilities. Their claim that "suitably programmed, modern supercomputers could derive a balanced plan for a major industrial economy as expeditiously as they predict tomorrow's weather" reminds me of the old saw about how we would be no worse off if we let the meteorologists predict the economy and the economists predict the weather!

C&C's critique of the spontaneous market — that "planning," in contrast to the "market," involves movement of symbols *before* movement of people and things — is on target. It tends, however, to associate the instabilities of *capitalism* with the dislocation of cycle times characteristic of "market economies" as such. This conflation of capitalism with market economies in general is quite common, and (I think) quite wrong. Paraphrasing Lenin, we might say that the market is always concrete: market relations reflect and embody historically specific underlying social relations — labor, property, power. Their content in early stages of socialist evolution, and perhaps in later stages as well, must be seen in this light.[2] "Market socialism" and "anti-market socialism" in this perspective both succumb to overly reified conceptions of "the market." A *non-utopian* response to market-worshipping ideologies must envision progressive transformation in the character of markets — from vestiges of pre-capitalist relations surviving within socialist societies; to means of confirmation of the value of labor activities, in situations where unified public ownership is not yet fully established in consciousness; to forms of horizontal search and contact, within the wider framework of democratic coordination.

It is, then, not a matter of abolishing markets, but rather of growing beyond them, through them, by progressively transforming the social realities underlying them. What remains of markets in maturing socialism may well be the instance of local initiative, local specificity, novelty, and capacity to respond to unforeseen and unforeseeable occurrences and possibilities. Comprehensive, ongoing multilevel coordination establishes the visibility, stability and intentionality of the economy: the core socialist qualities. Surely it is not necessary to require that we preconfigure every detail of economic activity for a future period in a single consistent plan in order to achieve this — even if we have the computational capacity to do so.

Visualizing socialism requires that we avoid *both* utopian recipe-writing *and* nihilistic loss of vision. In rejecting the latter attitude, according to which Marxism's task is to organize working-class struggle against capitalism without projecting even the most general outlines of an alternative future, it is

2 I am afraid I can't follow C&C in their interpretation of the widespread use of the term "socialism" as intending a third socialist *mode of production*, distinct from both capitalism and communism. "Socialism" has come to mean what Marx originally referred to as the "lower stage of communism," and resort to this common usage should not lead to confusion. Describing the "socialist countries" as an "articulated combination" of capitalism and socialism may be misleading, however, if it mixes together the (more or less protracted) lower stage of communism (in Marx's terminology) and a relatively brief, unstable transition phase following revolutionary transfer of power, when the "class question" is not yet decided. This in turn leads to a collapsing of stages in thinking about communism overall.

all the more necessary to address the opposite danger: creating imaginary institutions for socialism without regard to history and context.

A case in point is the C&C proposal to replace electoral government with what they call the *ur*-principle, lot. They see elections as creating aristocracy — rule by a meritocratic elite — and propose choosing "council members" by lottery instead. This, in their view, would ensure "that the composition of the councils accurately represents that of the citizen body," and rules out professional politicians and associated abuse of power.

As with abolition of markets, however, I must wonder whether this proposal contends adequately with real, historical processes. In countries with deeply entrenched electoral traditions, working-class movements have had to build electoral challenges to capitalist parties (*e.g.*, the social-democratic parties in Europe, which have many accomplishments to their credit). In countries such as Russia where electoral institutions were historically weak, revolutionary movements even so necessarily took on electoral forms, including the Soviet system of representation, hierarchical delegation, recall. The question arises: in maturing socialism, with an increasingly well-educated and homogeneous citizenry, why must we assume that election would necessarily result in rule by a class-like elite? Lot, in turn, would mean, almost by definition, leadership by those unprepared for leadership. It instantiates a sense of powerlessness over government, of caprice; far from preventing the slide from aristocracy to oligarchy, it might well ensure it, by transferring real power to a permanent bureaucracy, a "shadow government" lying behind the lottery-winning elected representatives.

To be sure, socialist electoral processes will have to evolve away from the limitations of capitalist formal democracy in many ways, including (among others): continuous referendum, unparalleled access and accountability, participatory structures involving ever-increasing numbers of people, and a strong climate of visibility and debate. But if an aura of political domination is to be replaced by one of principled and cooperative service, and if the sense of distance between leaders and rank-and-file is to be progressively attenuated, this will require a mix of formal systems — possibly including lottery at some levels, but most likely drawing heavily on the electoral systems that have deep roots in our countries' history and traditions.

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REPLY

We wish to respond on two main points made by our critics, one relating to economic information in the context of planning and the other to the use of the principle of lot in democracy.

1. On tacit information. Pat Devine argues that our model of planning ignores the role of "tacit information," and that "much of the knowledge that is relevant for economic decision making cannot be centralized, however advanced the information technology, however powerful the computers."

We accept that economies currently depend extensively on tacit information but we wish to qualify this in two ways. First, the tendency is towards the capture of tacit information in forms susceptible to formal manipulation. This is evident within capitalist economies both with the growth of e-commerce (and hence the growth of management information databases), and the use of computer aided design systems. Amazon.com, for instance, captures on an internet server the formerly tacit expertise of the best bookshop managers.

To a large extent in modern industry the tacit information is no longer in the heads of experts, but exists in the software tools they use. To design a commonly used class of computer chip (a Gate Array) one uses CAD packages that have the tacit knowledge of how to lay components out on a chip, how to synthesize logic circuits out of transistors, the resource requirements of circuits in terms of silicon, and so on. The same could be said of packages for architectural and mechanical design. The emphasis on the irreducibly human nature of tacit knowledge strikes us as deriving from a philosophical humanism which we do not share. Rather, the process of production of action plans has to be analyzed as a material process like any other. (This is a reprise of Louis Althusser's critique of philosophical anthropology in a new context.)

Second, for tacit information to be used in any way, it has to be converted into a plan for action, at least at the enterprise level. At this stage it is formally capturable in terms of inventories required for the course of action. It is only in terms of such clearly specified input inventories/orders that a given unit of production can interact with others. At this point the knowledge is no longer tacit but explicit and can be handled by electronic data processing.

2. On lot and democracy. Pat Devine is wrong to say there is no room for pluralism in a system of lot. There would be debates in a council drawn

by lot just as there are in the jury chamber. The beauty of lot is that it means the only way a political movement can hope to influence the state power is by convincing a majority of the population of its case. What it rules out is the system of lobbying and political contacts that characterizes electoral polities, and which bypasses the masses. Devine is naturally anxious about the real examples of the abolition of elections in the history of socialism — but these cases involved the establishment of socialist monarchies, which is not what we are advocating.

David Laibman says that "Lot . . . would mean, almost by definition, leadership by those unprepared for leadership." This echoes Socrates' objection to the idea that any Tom, Dick or Harry in the assembly had the right to speak and be listened to on political questions. We would go along with Protagoras and say that all people are equally capable of political judgement or justice. To pose the question in terms of "leadership" rather than "deliberation" is to subscribe from the outset to the Platonist/Leninist problematic which we criticize.

Laibman also points out that electoral systems "have deep roots in our countries' history and traditions" (and on that account are not to be discarded). Yet if we are to draw on systems that have deep roots in tradition, why stop at elections? Monarchs have deep roots in the British tradition: should we on that account be socialist monarchists?

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