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**The political economy of workers' self-management: A market
process critique**

Prychitko, David Leonard, Ph.D.

George Mason University, 1989

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**The Political Economy of Workers' Self-Management:
A Market Process Critique**

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy at
George Mason University

By

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The Center for the Study of Market Processes is one of the only research programs in the country devoted to market process analysis. I was doubly fortunate to be invited by Jaroslav Vanek as a visiting Junior Fellow at the Program on Participation and Labor-Managed Systems in the department of economics at Cornell University, for Vanek's program at Cornell is the only one devoted to the economics of workers' cooperation and self-managed systems. The open, stimulating atmosphere at the Program put to test my interpretations of Marxism and planning, and my many warm discussions with Dr. Vanek about the contemporary cooperative movement has shaken free some old, unsupportable biases and lead me to further acknowledge the positive role of workers' cooperatives in a market economy. I am grateful for the opportunity to have been a part of the Program.

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For my father
and in the loving memory of
my mother

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ABSTRACT

THE POLITICAL ECONOMY OF WORKERS' SELF-MANAGEMENT: A
MARKET PROCESS CRITIQUE

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George Mason University, 1988

Dissertation Director: Don Lavoie

This dissertation analyzes the worker-managed enterprise from the perspective of comparative economic It begins with a reinterpretation of the thought of Karl Marx arguing that Marx was an advocate of both workers' self-management and comprehensive planning, and ultimately faced a tension between the humanistic ideal of self-management and the organizational requirements of comprehensive planning. This fundamental tension in Marx's thought is ignored by the one-sided interpretations of praxis philosophy and systems organization theory. The tension is a result of Marx's ignorance of the knowledge problem - the way knowledge is conveyed and used in order to generate rational economic coordination. Recent attempts to formally model workers' self-managed market socialism are often

thought to have solved the knowledge problem (and thus the tension), and the ensuing debate among economists has focused primarily on the problem of incentives. In light of the "interpretive turn" in the contemporary philosophy of science, it can be argued that the debate has been cast in an over-formalized theoretical framework, which leads it to misunderstand the knowledge-disseminating character of unhampered market prices and the dialogical basis of the market process. The knowledge necessary to sustain economically feasible workers' cooperatives in a technologically advanced economy can come about only through unhampered ownership of the means of production. A case study of the barrel making cooperatives in Minneapolis at the turn of the century is used to illustrate the conclusion that cooperatives which rely upon market price signals can compete with more traditional forms of business enterprise in a dynamic market system.

INTRODUCTION

ORIGINS OF COOPERATION AND SELF-MANAGEMENT:

The idea of workers managing their own workplaces - cooperation - has captured the minds of many people. Robert Owen, P.J.B. Buchez, and John Stuart Mill are but a few of the many activists and intellectuals who helped launch the cooperative ideal. History records the Rochdale Pioneers and Owen's New Harmony of the 19th century as among the first significant episodes in cooperative association. Experiments such as these were influenced by, and in turn had an influence upon, the thinkers, schemers, and dreamers of cooperative association - a give and take between theory and practice.

Though cooperation has a long history, it is not a relic of the past; cooperation may indeed belong to the future. Since the 1960s, some 5000 consumer and producer cooperatives have mushroomed in the United States, growing at a rate of about 1000 a year (Rothschild and Whitt 1986, intro). The Mondragon Cooperatives in Spain, in addition to the recent cooperative efforts in

Hungary, Poland, Finland, and China, are sustained attempts to implement at various levels and with various degrees of success the cooperative ideal of workers' associations. The experience of contemporary Yugoslavia, particularly since 1965, has drawn the attention of many economists to the economic feasibility of a workers' self-managed socialist system. In a turn away from Stalinist central planning, the Yugoslav economy favors a confederation of workers' councils with various degrees of market coordination. Though it has lately entered an economically unstable period, its relative success in the past probably had a good deal of influence on the current Soviet call for perestroika, or restructuring by way of market exchange and self-managed work organizations. Presently the Soviet Union has about 30,000 cooperatives which employ nearly half a million people. Given that cooperatives are appearing in both market and planned systems, the issue of the viability of workers cooperation and self-management should appeal to students of comparative economic systems.

THE MEANING OF COOPERATIVE PRODUCTION:

At its basic level, cooperative production seeks an alternative to the authoritarian structure of the capitalist enterprise by overcoming the division between labor and capital, worker and boss. In other words, it seeks to restructure the traditional, hierarchical form of business enterprise by substituting a despotic boss with a constitution that allows workers to democratically participate in the decision making and control of their own enterprise. As such, the cooperative workplace is essentially an alternative form of business organization; in itself it does not necessarily define the characteristics of the overall economic system, because it is but one component.

Consequently, the social implications of cooperative production during the nineteenth century were interpreted differently by different individuals and schools of thought, ranging from Charles Barnard's (1881, p. iv) statement that cooperation "simply means business" (a position which Richard Ely attacked), to Martin Buber's belief that the cooperative experiments of the 19th century provided "perfect examples of the inner battle for socialism" (Buber 1958, p. 70). Moti-

vations ranged from the more practical (protection of jobs, for example) to the more ambitious and ideological (such as creating utopian communities). Many experiments in producers' cooperation, such as the coöperage cooperatives of Minneapolis in the late 1800s, were established in the attempt to fight off deskilling and the unstable employment patterns of extremely competitive, technologically advancing markets. Others, such as the Jura watchmakers in Switzerland, or Robert Owen's Rochdale Pioneers, were much more ideologically oriented, and often subscribed to, and sometimes further developed, principles of communal ownership of property and various notions of anarchism.

Many of Marx's predecessors and contemporaries - the anarchists or utopian socialists, as he called them - spearheaded the European cooperative movement. The notion of a system of decentralized socialism characterized by workers' self-management has its roots in the intellectual and radical milieu of the nineteenth century, which includes such revolutionary thinkers such as P.J. Proudhon, Mikhail Bakunin, and the forerunners of the cooperative movement such as Fourier and Owen. These individuals not only influen-

ced Marx in the direction of self-management; they also prompted Marx to argue that their own ideal of worker-management and participation could be achieved only after the proletariat gained control of the state. Anything short of the revolutionary attempt to abolish the anarchy of the market through comprehensive economic planning would be, in Marx's view, merely utopian. Marx, of course, became the dominant theoretician and revolutionary on the major scientific issues of socialism. And still today his influence on contemporary systems of thought stretch far beyond that of any of the anarchists and utopian socialists.

My dissertation, accordingly, critically analyzes the contemporary models of workers' self-management in a planned, socialist system whose advocates find allegiance in Marx. It is worthwhile, however, to provide a brief sketch of the nonmarxist and anti-marxist visions of workers' cooperation and self-management in order to get an idea of the radical milieu which strongly influenced Marx's criticism of capitalism and his vision of socialism.

THE CALL FOR WORKER-COOPERATION AMONG THE ANARCHISTS

AND UTOPIAN SOCIALISTS:

Francois-Charles Fourier (1772-1837) was a major forerunner of the cooperative ideal. In his La theorie des quatres mouvements, published in 1808, Fourier envisioned a new system of society, a consciously constructed system of producers' and consumers' cooperatives. A student of Post-Enlightenment, positivist thinking (he was writing during the development of French Rationalism, generally linked with Henri de Saint Simon and Auguste Comte), Fourier called for rationally directing the progress of society through comprehensive social reconstruction. Though he did not go as far as Saint Simon and Comte in viewing society from the perspective of "social physics," Fourier was nevertheless influenced by such thinking. In his view the unplanned or "incoherent" order of capitalist markets was to be replaced with the planned or "combined" order of rational, human design within a cooperative community he called the Phalanstery.

Fourier's Phalanstery would replace the apparently haphazard coordination of the market by a deliberate design. This design, based upon expert scientific reason, would, somehow, minimize the risk and uncer-

tainty which characterize everyday life. Fourier believed that "a Phalanx en masse, directed by its Areopagus of experts, its patriarchs, its neighboring Cantons, and other skilled people, is not liable to imprudence like an individual, and where an industrial undertaking is in any degree adventurous, care is had to distribute the risk involved among a large number of Phalanxes, to deliberate a long time, to obtain insurance, etc." "As to any risk from knavery," he concluded, "there can be none in Harmony" (Fourier 1971, p. 188).¹ In this system the labor market would be replaced by a guaranteed right to work, freedom from economic dependence would be the rule, and what was work in capitalist society would become "play" in Fourier's ideal community.

The ideas behind French Rationalism also encouraged P.J.B. Buchez (1796-1865) to call for a system of producer cooperatives as a vehicle for constructive social change, seeking to form a "republic within the workshop." But, where Fourier sought to change the system to accord with an unchanging human nature, Buchez believed that people will have to change in order for cooperative association to be successful:

"Association in work is not possible if each one does not reject egoism, and does not forget himself to think of others." To be sure, Buchez stressed that, "Before joining together in association, men need a fundamental change of spirit." Moreover, "Such a change is not a matter of one day, nor even a generation."²

Buchez called for workers to voluntarily relinquish their personal savings, and raise loans if necessary, to invest in cooperative associations within their particular trade. After each worker receives an equal amount of income, the profits would be left in a common fund, "with the result that the co-operative workshop becomes a little industrial community." Because he failed to focus upon the overriding structural relationships between the economy and the state, however, Buchez naively remarked: "let all the workers do this and the social problem will be solved."³

In his 1840 classic L'organisation du travail, Louis Blanc (1811-1882), a follower of Buchez, called for nothing less than the elimination of market competition. The state would become responsible for sponsoring and financing workers' associations, coordinating economic activities, and distributing income on

the basis of his phrase "to each according to his needs, from each according to his abilities," a phrase which Marx adopted later.⁴

Pierre-Joseph Proudhon (1809-1865) sought not only to abolish the exploitation of man by man, but also the exploitation of man by the state, and was the first to introduce the term "anarchism" in a nonpejorative sense, meaning simply an orderly society without a coercive government. More specifically, his system was one of mutualism, whereby workers would emancipate themselves by developing cooperative organizations which would be linked together by equitable exchange relationships - reciprocal "exchange of equivalents" - and financed by a centralized, no-interest credit system. In fact, the credit system would be the only centralized institution in Proudhon's model; all others are radically decentralized. Though Proudhon had expressed his misgivings over the division of labor and market competition in the Systeme des contradictions econo-miques, ou Philosophie de la misere, he did not aim to categorically eliminate them, but rather to use the division of labor and rivalrous competition to their greatest advantage.⁵

Proudhon's model consists of spontaneous horizontal relations coupled with a non-hierarchical political organization. Here "The government is the public economy, the supreme administration of the labors and goods of the entire nation." According to Proudhon's avowal of federalism, this nation, then, "is like a huge corporation in which every citizen is a stockholder."⁶ The mutualist associations, based on the principle of one man, one vote, would attempt to satisfy the interests of the workers and encourage a just income distribution. Each association is free to enter into contracts with the others, but these contracts would not be enforced by a third party (such as the state). Instead, the costs and benefits of market competition would provide the appropriate incentives to enter into and maintain contractual agreements. Indeed, Proudhon believed that these spontaneously formed contractual relationships would describe not only the economic sphere traditionally understood, but all spheres of civil and political life.

Proudhon's ideas gained popularity among small peasant proprietors and skilled craftsmen such as the watchmakers of the Jura mountains in Switzerland. It

was Mikhail Bakunin (1814-1876), however, who had a particularly direct impact on the Jura Federation and became, in opposition to Marx, a leading figure in the First International. Bakunin, the son of an aristocratic Russian landowner, and member of the Young Hegelians, was the first to introduce anarchism as an international revolutionary movement.

In his early work, Revolutionary Catechism (1866), Bakunin saw cooperation as a revolutionary vehicle which may bring the world closer to international anarchism: "At this time," Bakunin wrote, "we can only speculate about, but not determine, the immense development that [cooperative workers' associations] will doubtlessly exhibit in the new political and social conditions of the future," and he believed that "they will someday transcend the limits of towns, provinces, and even states." Moreover, in the final analysis, "They may entirely reconstitute society, dividing it not into nations but into different industrial groups organized not according to the needs of politics but to those of production" (Bakunin, 1866, pp. 81-2).

Later in Statism and Anarchy (1873), however, he argued that, before labor can be completely emancipated

through various cooperative organizations, all land and capital must first become collective property. In other words, he came to believe that spontaneous experiments in cooperation alone were not enough to assure an emancipated society; for, having been influenced by Marx, he believed that the unabashedly competitive elements of the capitalist system, which move in the direction of concentration and monopolization of capital, would be too strong for the effective survival of independent producers' cooperatives. In this and many⁸ other respects Bakunin was a student of Marx. Rather than cooperatives themselves becoming the engines of revolution, as he had argued in the past, Bakunin became more convinced that existing cooperatives would merely provide workers with the experience of making democratic production decisions at the workplace level: "While cooperation cannot achieve the emancipation of the labouring masses under present socioeconomic conditions," Bakunin argued, "it nevertheless has this advantage, that cooperation can habituate the workers to conduct their own affairs (after the overthrow of the old society)" (Bakunin, 1873, p. 345).

Bakunin, however, radically differed from Marx on

the nature of revolution - of the overthrow of the old state - and in particular on the question of authority. Bakunin sought to abolish the state through a bottom-up revolution, while Marx and Engels had argued that the transition from capitalism to socialism required first that the bourgeois state be replaced by a proletariat state. Only afterwards would it wither away. Bakunin, opposing the Marx-Engels' view of political action, followed Proudhon in calling for a spontaneous uprising, in this case by the peasants and poor urban workers, in order to abolish the state and replace it with a federation of cooperative associations. He repeatedly warned that Marx's call for the dictatorship of the proletariat would not liberate the masses, but would instead merely create a new despotism of the revolutionary minority: "If their state would really be of the people, why eliminate it?", Bakunin insightfully asked. "And if the State is needed to emancipate the workers, then the workers are not yet free, so why call it a People's State?" Hence, in the final analysis, "every state, not excepting their People's State, is a yoke, on the one hand giving rise to despotism and on the other to slavery" (1873, p. 331). In regard,

therefore, to the appeal to the dictatorship of the proletariat, Bakunin concluded that "all dictatorship has no other objective than self-perpetuation, and slavery is all it can generate and instill in the people who suffer it. Freedom can be created only by freedom, by a total rebellion of the people, and by voluntary organization of the people from the bottom up" (1873, p. 332).

Consequently Marx and Engels derided Bakunin for advocating anti-authoritarian views (see esp. Engels' "On Authority," (in Marx and Engels, 1969, vol. II, pp. 376-79)). But Bakunin did not deny all authority. In fact, in God and the State Bakunin (1970. pp. 30-6) clearly distinguished between authority and authoritarianism. The former arises through persuasive, voluntary action; the latter arises through the force of coercion. Bakunin had rejected authoritarianism: "Does it follow that I reject all authority? Far from me such a thought. In the matter of boots, I refer to the authority of the bootmaker; concerning houses, canals, or railroads, I consult that of the architect or engineer. For such or such special knowledge I apply to such or such a savant. But I allow neither

the bootmaker nor the architect nor the savant to impose his authority on me." This is not merely a matter of semantics, as Engels argued. In fact, Bakunin's understanding that under mutual exchange "there is no fixed and constant authority, but a continual exchange of mutual, temporary, and above all, voluntary authority and subordination," is quite consistent with a contemporary, post-positivist philosophy of knowledge as expressed in the work of Hans-Georg Gadamer.⁹ At any rate, Bakunin's insistence on an anti-authoritarian anarchist revolution clearly distinguishes his view of the transition to comprehensive self-management from that of Marx.

A much less formidable figure than Bakunin, but nevertheless the earliest and most influential advocate of cooperative association outside the Continent was, without doubt, Robert Owen (1771-1858). Owen differed from the French Rationalists in the following way: Saint-Simon and Fourier sought to construct a new society in order to bring individuals into harmony with what they argued was an innate human nature; Owen sought to reform society in order to bring about a reform in man, as he believed human nature was largely

10

a product of man's environment. These ideas first appeared in his A New View of Society, or Essays on the Formation of the Human Character (1817). But it was his actual practice - managing the New Lanark textile mills in Scotland which improved workers' housing conditions, reduced the length of the workday, improved children's education and abolished child labor - that led to the popularity of his ideas. He did not, however, convince the British aristocracy of the value of his suggested reforms on a society-wide level. He thus embarked to the United States in 1824, where he established a cooperative community in New Harmony, Indiana.

The creation of New Harmony was considered the creation of a "New Moral World," one which was organized "to rationally educate and employ all, through a new organization of society which will give a new existence to man by surrounding him with superior circumstances only." ¹¹ Although the experiment was, in fact, not very successful, it did encourage the formation of several other experimental communities.

Owen later returned to Britain, after which his ideas sparked the formation of the relatively successful Rochdale Pioneers' Cooperative Society in 1844.

But, for the most part, Owen's vision of social reform simply stimulated working class radicals who had a greater interest in forming producer cooperatives as alternatives to boss shops, and less an interest in creating cooperative communities as such.¹²

MARX, PRODUCERS' COOPERATIVES, AND SCIENTIFIC SOCIALISM:

Marx was, without a doubt, influenced by the ideals of the utopian socialists.¹³ Occasionally Marx had acknowledged some value of cooperative labor under capitalism. For example, in establishing the First Congress of the International Working Men's Association in 1866, Marx had encouraged workers to embark upon cooperative production. Though intentionally avoiding any detail about a particular system of cooperation, Marx said in his "Instructions for the Delegates of the Provisional General Council: The Different Questions" that "We acknowledge the co-operative movement as one of the transforming forces of the present society based upon class antagonism. Its great merit is to practically show, that the present pauperising, and despotic system of the subordination of labour to capital can be superseded by the republican and beneficent system of

the association of free and equal producers." He was quick to point out, however, the possible dangers of producers' cooperatives degenerating into joint stock companies; but he merely concluded that all workers "ought to share alike" in order to reduce this risk (Marx and Engels, 1969, vol. 2, pp. 77-85).

Marx nevertheless maintained that cooperative production would never, in itself, "convert social production into one large and harmonious system of free and co-operative labour." Rather, he stressed that "general social changes are wanted, changes of the general conditions of society, never to be realized save by the transfer of the organised forces of society, viz., the state power, from the capitalists and landlords to the producers themselves" (1969, vol. 2, pp. 81-2). To believe otherwise would be merely utopian. Referring specifically to Owen, but intended to apply to all those who fell short of the call for comprehensive planning, Marx wrote in Capital that "directly associated labor [is] a form of production that is entirely inconsistent with the production of commodities" (1906 vol. 1, p. 106, fn. 1). The general social changes will arrive, Marx maintained, only after the workers

themselves usurp the powers of the state.

Owen, Proudhon, and the others were chided as utopian not because of their ideals, but rather, because they failed to provide a systematic account of the evils they observed under capitalism. They simply proposed various, intricately detailed blueprints of the ideal socialist society, blueprints which would be rationally constructed on the basis of scientific human reason. Though they recognized class antagonisms in society, they were utopians because they failed to see history as a class struggle, of its necessity in determining the conditions for social change, and, in particular, of the revolutionary role of the proletariat in accomplishing the transition from capitalism to socialism: "Historical action," wrote Marx and Engels, "is to yield to their personal inventive action, historically created conditions of emancipation to fantastic ones, and the gradual, spontaneous class-organization of the proletariat to an organization of society specially contrived by these inventors." From the viewpoint of the utopian socialists, "Future history resolves itself... into the propoganda and the practical carrying out of their plans" (Marx and

Engels, 1969, vol. I, p. 134).

Marx and Engels proposed, in turn, the "scientific" socialist approach which, by self-description, does not attempt to detail the future socialist society, but instead offers a general vision of fully evolved socialism through the radical critique of existing capitalism.¹⁶

Marx's stance on scientific socialism seemed to appeal to the positivistic notion of science rapidly developing during the mid to late nineteenth century, and won the favor of many "scientifically minded" socialists as well as those revolutionaries who wished to gain control of the bourgeois state. Marx's thought influenced Lenin and the Bolshevik Revolution as well as the Yugoslav alternative to Stalinism. In fact, it is probably safe to say that when one discusses twentieth century socialism one ultimately engages in a dialogue with Marx.

PURPOSE OF THE DISSERTATION:

My goal is to analyze workers' self-management from a comparative systems standpoint. Because Marx enormously influenced the socialist variant, I

will begin with an interpretation of Marx's view of socialism. Some interpret Marx's critique of capitalism as a vision of hierarchical, centrally planned socialism. This seems to be a traditional interpretation among economists, for example. Others, however, mainly philosophers of the Yugoslav praxis tradition, interpret Marx as an advocate of a radically humanistic, decentralized socialist system of workers' self-management. Clearly these two interpretations - Marx as a hierarchical planner and Marx as a humanistic decentralist - contradict each other. In Chapter One I propose a reinterpretation of Marx in which both of these elements are present in what I call an "essential tension" in Marx's own vision of socialism. I criticize the centralist interpretation of Marx from the standpoint of praxis philosophy. In Chapter Two I analyze the notions of workers' cooperation and socialist planning from the economic point of view. Informed by the critique of socialist calculation provided by the Austrian economists Ludwig von Mises and F.A. Hayek, I assess the notion of decentralized socialism.

Other economists, such as Branko Horvat and Jaroslav Vanek, have developed models of decentralized

socialism that are said to combine market and planning in order to render worker-managed enterprises not only feasible but economically efficient. Formal neoclassical modelling of the worker-managed system has led to what I call the incentives problem debate. In Chapter Three I discuss this debate and argue that due to its over-formalization it largely overlooks the knowledge problem. Because they believe they have answered the knowledge problem argument advanced by Mises and Hayek, the participants in the contemporary debate have focused predominantly on the problem of incentives within the self-managed enterprise as opposed to what I argue is a more fundamental problem of comparative systems - the transmission and utilization of knowledge between cooperative enterprises in a self-managed socialist system based on social property rights. In Chapter Four I therefore articulate the knowledge problem and analyze the model of workers' self-managed socialism from that perspective. I argue that the socialist plea for greater dialogue through planning misunderstands the broadly dialogical properties of the market process and the form of knowledge conveyed in price signals. Finally, in Chapter Five I discuss the potential for

workers' cooperatives in an unhampered market system. Focusing on a case study of the cooperative barrel making firms of Minneapolis during the turn of the century, I analyze the knowledge-enhancing properties of a system which allows workers to fully control the disposal of assets within the cooperative enterprise. I show that, contrary to the typical view among market economists, worker cooperatives can keep apace with technological change and compete with more traditional forms of business enterprise. I conclude that chapter by speculating over the future feasibility of worker cooperatives in a market economy.

NOTES TO INTRODUCTION

1. Cf. Saint-Simon: "The decisions must be the result of scientific demonstrations totally independent of human will, and they will be subject to discussion by all those sufficiently educated to understand them.... Just as every question of social importance will necessarily be solved as well as the existing state of knowledge permits, so will all social functions necessarily be entrusted in those men who are most capable of exercising them in conformity with the general aims of the community. Under such an order we shall then see the disappearance of the three main disadvantages of the present political system, that is, arbitrariness, incapacity, and intrigue." Quoted in Hayek (1979, p. 247).

2. Quoted in Reibel (1975, p. 41).

3. Quoted in Buber (1958, p. 66). Reibel points out that Buchez's notion of the workingman's association "demanded an extremely developed spirit of charity, especially on the part of its founders," because the fruits of their investment would be enjoyed primarily by future generations alone. Reibel argues that this feature is nevertheless "indispensible" because it "gives the 'revolutionary' value to the association by making it an instrument of liberation of wage-earners." See Reibel (1975, p. 42). As we will see in a later chapter, investment in the Yugoslav model faces this intergenerational problem as well.

4. Reibel mentions, however, that by this time Buchez himself abandoned the idea of eliminating market competition, for he began to realize that rivalry between cooperative associations was necessary for the success of the system. See Reibel (1975, pp. 43-4).

5. Hence Marx's unrelenting criticism of Proudhon's attempt to use Hegelian dialectics to inform his economics in his polemic The Poverty of Philosophy (Marx

1975, esp. Chapter 2).

6. Quoted in Comisso (1979, p. 27).

7. See Carter (1971, p. 2).

8. In his excellent book on Bakunin, Richard Saltman argues that Bakunin "always considered himself to be a disciple of Marxist economics." Saltman maintains that Bakunin had attempted to "render Marxian economic theory in a more popularly understandable form" (Saltman 1983, pp. 81-2).

9. "[A]uthority has nothing to do with obedience, but rather with knowledge" (Gadamer 1985, pp. 245-53). Unfortunately, many contemporary collectivist organizations still fail to make this distinction, and wish to abolish all authority relations. See, for instance, Rothschild and Whitt (1986, pp. 50-2).

10. For instance, Owen remarks: "every day will make it more and more evident that the character of man is, without a single exception, always formed for him; that it may be, and is chiefly, created by his predecessor; that they give him, or may give him, his ideas and habits, which are the powers that govern and direct his conduct. Man, therefore, never did, nor is it possible he ever can, form his own character" (Owen, 1817, pp. 91-2). Marx explicitly criticized Owen here, as he argues in his third thesis on Feuerbach that "it is men that change circumstances" through revolutionary praxis (Marx and Engels 1969, vol. 1, p. 13). I will discuss Marx's notion of human nature as praxis in Chapter One.

11. Quoted in Lockwood (1905, p. 59). Also see Carpenter (1972a, pp. 1-35).

12. Owen considered his model of a cooperative community, which he later called the "rational system of socialism," as being based upon an entirely practical scientific theory, a theory which "will be found to be productive of more practical good and permanent happiness to the human race, than all the physical sciences that have yet been discovered." Which is to say, he was no advocate of the idea of a strict theory-practice

split which positivist philosophy later demanded (see Owen 1841). For a good exposition of the British utopian socialist communities of this era, see Hardy (1979, pp. 20-64).

13. See esp. Engels's discussion (at the request of Marx) in his Anti-Duerhing (1978, pp. 309-22). Moreover, Marx was particularly impressed with the Paris Commune of 1871, as expressed in The Civil War in France (Marx and Engels, 1969, vol. II, pp. 202-44). Though it lasted only two months, the Commune had abolished conscription and the standing army, and attempted to establish producers' cooperatives within industry. Industries would in turn be organized into a federation of cooperatives. Universal suffrage would rule, with decision making resting among the workers, or their elected representatives (who were subject to recall). Public service was to be done at workmen's wages. (Cf. Edwards 1973). The majority of the Commune's members were followers of Louis-Auguste Blanqui (1805-1881), the socialist revolutionary admired by Marx and Engels; the minority were largely followers of Proudhon. Marx and Engels delighted in the fact that the Commune, they (perhaps strategically) claimed, seemed more a product of Marxist thinking than that of the Blanquists and Proudhonists. To be sure, they created a system much to Marx's satisfaction:

The Commune, they exclaim, intends to abolish property, the basis of all civilisation! Yes, gentlemen, the Commune intended to abolish that class-property which makes the labour of the many the wealth of the few. It aimed at the expropriation of the expropriators. It wanted to make individual property a truth by transforming the means of production, land and capital, now chiefly the means of enslaving and exploiting labour, into mere instruments of free and associated labour. - But this is Communism, "impossible" Communism! Why, those members of the ruling classes who are intelligent enough to perceive the impossibility of continuing the present system - and they are many - have become the obtrusive and full-mouthed apostles of co-operative production. If co-operative production is not to remain a sham and a snare; if it is to supersede the Capitalist sys-

tem; if united co-operative societies are to regulate national production upon a common plan, thus taking it under their own control, and putting an end to the constant anarchy and periodical convulsions which are the fatality of Capitalist production - what else, gentlemen, would it be but Communism, "possible" Communism? (1969, vol. II, pp. 223-4).

Thus Marx had acknowledged the Paris Commune, with its federation of cooperative organs, as authentic communism, a "glorious harbinger of a new society" (p. 241).

14. Trying to distance himself from the Lassalleans in his Critique of the Gotha Program (1875), Marx once again demonstrated the futility of attempting to totally transform society by the establishment of producers' cooperative societies, even if financed by the state. Marx saw value in the existing cooperative societies only to the extent that they were established independently by the workers themselves, free from the state or the bourgeoisie. As he said of Lasalle: "This is worthy of [his] imagination that one can build a new society by state loans just as well as a new railway." Instead, Marx insists that the transformation of society can come about only through revolution. See Marx and Engels, 1970, pp. 13-30.

15. Marx and Engels conclude: "They, therefore, endeavor, and that consistently, to deaden the class struggle and to reconcile the class antagonisms. They still dream of experimental realisation of their social Utopias, of founding isolated 'phalansteres,' of establishing 'Home Colonies,' of setting up a 'Little Icaria' - duodecimo editions of the New Jerusalem.... By degrees they sink into the category of the reactionary conservative Socialists..., differing from these only by more systematic pedantry, and by their fanatical and superstitious belief in the miraculous effects of their social science" (pp. 135-6).

16. See, for example, Marx and Engels's Manifesto of the Communist Party (Marx and Engels 1969, vol. 1, pp. 98-137) and Engels's Socialism: Utopian and Scientific (Marx and Engels 1970, vol 3, pp. 115-51).

CHAPTER ONE

The Essential Tension: Praxis, Cooperation, and Comprehensive Planning in Marxian Socialism

INTRODUCTION:

Marx was not only the major influence behind Lenin and the Bolsheviks' attempt to centrally plan the Soviet economy immediately following the revolution, he has also been as much an influence on the move toward relative decentralization in Yugoslavia over the past three decades. In this chapter and the next I challenge two widespread views that Marx can be considered an unambiguous advocate of either the highly centralized, Soviet-style "command planning" system, or the relatively decentralized Yugoslav-style "self-management" system of socialism. Both those (economists) who see planning in Marx and those (philosophers) who see a decentralized vision are right, and both are wrong. Marx is an advocate of unified economic organization that the planners emphasize and the radical democracy that the decentralists stress. He advocated the position - which is inherent-

tly self-contradictory - of decentralized yet unified planning. This is an essential tension in Marx's vision of socialism.

My interest in reinterpreting Marx is not merely academic, for differing interpretations of Marx continue to bring in their wake differing socioeconomic realities. I believe the following interpretation will help explain and perhaps, in the end, point toward a resolution of the struggles between the democratic ideal of workers' cooperation and the organizational implications of alternative systems of economic coordination (i.e. plan and market).

THE ESSENTIAL TENSION:

I will argue that Marx's focus on praxis implies a non-alienated socialist future. Based upon a notion of human nature which differs from those of the utopian socialists, he conceives a comprehensively planned economy with social ownership of the means of production as a system which would realize man's creative and communal potential. This implies that the system would not be planned from a commanding center or a bureaucratic hierarchy. Instead, socialism would be character-

rized as a decentralized, fully participatory, workers' self-managed system.

Yet Marx has a sophisticated analysis of capitalist economic organization. He understands that the elimination of capitalist markets through comprehensive planning will require some sort of central direction. The organizational logic which would unfold in the attempt to comprehensively plan a technologically advanced economy may well point towards complete centralization at the expense of the fully participatory, self-managed ideal.

Consequently, although Marx indeed imagines a socialist ideal in which man concretely realizes his praxis potential, there is an inherent tension between Marx the praxis philosopher and Marx the organization theorist. This is true even though his organization theory is motivated by his praxis critique. It takes the form of a struggle between the humanistic ideal of decentralization and cooperation on the one hand, and the organizational reality of rationalization and centralization on the other. As Mihailo Markovic, a contemporary Yugoslav praxis philosopher puts it, a question arises of just "how to provide for the rationality

of the whole process and at the same time the spontaneity of its individual parts" (1975b, p. 479).

He states more precisely that

it is naive, to put it mildly, to think that rational guidance of the overall social processes can be achieved by the spontaneous harmonization of individual local and regional plans, or by spontaneous vertical thinking. Not only must one planning organization avoid negating the freedom of decision of others, but all organizations together directly or indirectly, must set certain general frameworks to their freedom of planning, that is, establish certain general objectives that should be achieved in a given time interval. Hence, some democratically formed central institutions - in fact, central organs of self-government - are indispensable for the setting of such general objectives and the determination of the means and mechanisms of their fulfillment (p. 486).

This tension appears within Marx's own writings.

How are we to interpret, for instance, Marx's statement in The Poverty of Philosophy, where he maintains that "if one took as a model the division of labor in the modern workshop, in order to apply it to a whole society, the society best organized for the production of wealth would undoubtedly be that which had a single chief employer, distributing tasks to the different members of the community according to some previously fixed rule"? (1978, p. 125). Or, consider the follo-

wing statement in Capital, where he recognizes the need for basing organization upon "one commanding will":

On the one side, all labors, in which many individuals cooperate, necessarily require for the connection and unity of the process one commanding will, and this performs a function, which does not refer to fragmentary operations, but to the combined labor of the workshop, in the same way as does the director of an orchestra. This is a kind of productive labor, which must be performed in every mode of production requiring a combination of labors (1909, vol. 3, p. 451. Also cf. his statement in 1906, p. 363).

Elsewhere Marx claims that "it is very characteristic that the enthusiastic apologists of the factory system have nothing more damning to urge against general organization of the labor of society, than that it would turn all society into one immense factory" (1909, p. 391). How can these statements be reconciled with Marx's hope for meaningful workers' cooperation, for the "republican and beneficent system of the association of free and equal producers?"

Those who are inclined to emphasize organization theory over praxis philosophy interpret this as Marx's unequivocal call for a central planning board.

Radoslav Selucky, for example, claims that "it follows from Marx's statement [in The Poverty of Philosophy] that this arrangement would be only welcome" (1979, p.

13), and uses the "one immense factory" quote to strengthen his argument (also cf. Lavoie 1985c, pp. 39-¹47).

Lenin was influenced by these statements; he articulated his program quite clearly. But in Marx's case, we have a mind that tries to come to terms with a growing tension in his own work. It seems to me that, far from a confident call for central planning, these are expressions of a growing tension in Marx's thought.

The question arises, for instance, as to how a "single chief employer" or "one commanding will" could be reconciled with the realization of man's praxis and the securement of social ownership. If a unified plan within the workplace requires "one commanding will" like "that of a director of an orchestra," does this not imply that complete elimination of the market makes the necessity of the one commanding will organizing the overall system all the more urgent? And does the "single chief employer" have control over all of society's resources?

If the "one commanding will" is a substitute phrase for a central planning board, then de facto private ownership is retained and the system is not

socialist. On the other hand Marx hints that the one commanding will does not have full power of disposal over the resources in the system, as would a true central planning board. As Marx further considers the metaphor: "A director of an orchestra need not be the owner of the instruments of its members, nor is it a part of his function that he should have anything to do with the wages of the other musicians" (1909, vol. 3, p. 455).

Evidently each side in the ongoing debate over Marx as a central versus participatory planner can find quotes which appear clearly to support its case. But an exclusive focus on one side or the other has brought about a lack of dialogue on the issue and consequently holds back comparative systems research. Rather than continuing to talk past one another, our scholarly task must be to make these opposing interpretations of Marx intelligible, to come to grips with the tension as a whole. Indeed this dissertation will show that this tension is significant in the history of socialist thought.

Some may choose simply to ignore the tension and argue that, because the logic of the nonmarket system

necessitates central planning, Marx must be considered a central planner. This reasoning, however, makes the foundation of Marx's entire critique of capitalism - and thus his subsequent call for the abolition of commodity production - quite meaningless, because Marx's critique is ultimately conducted through the spectacles of praxis philosophy. On the other hand, Marx may not have fully understood the further organizational implications of his praxis philosophy. This is a problem with the contemporary praxis followers of Marx as well, who seem to believe that the attempt at centralized economic planning is nothing more than Marxism bastardized.

I believe, then, that Marx should not be simply interpreted as one who embraces centralized command planning. This view, because it is too economicistic, confines Marx to organization theory and virtually ignores the importance of Marx as a praxis philosopher. Nor should Marx be considered simply a wishful, non-hierarchical planner. This overly philosophistic view turns praxis into a purely utopian concept and ignores the systemic organizational implications of Marx's critique of capitalism. Either way, a one-sided inter-

pretation overlooks Marx's growing struggle between the realization of praxis through participation and self-management, and the centralizing demands placed upon the community once the market is abolished.

In this chapter I will emphasize the more philosophical implications of Marx's critique of capitalism to challenge the economics profession's traditional, one-sided interpretation of Marx. I will begin with a discussion of Marx's praxis philosophy and its implications for socialism. In the next chapter I will discuss the development of the economics profession's study of worker cooperatives and socialist economic organization in order to challenge the decentralist-socialist interpretation of Marx among the praxis philosophers.

MARX'S NOTION OF PRACTICE:

Marx had always found much lacking in classical political economy. He believed that the classical economists never sought to comprehend the capitalist institutions of private property and money, competition, capital, and so forth. Instead, they merely assumed the existence of social institutions. As Marx writes: "Poli-

tical economy starts with the fact of private property, but it does not explain it to us. It expresses in general, abstract formulas the material process through which private property actually passes, and these formulas it then takes for laws. It does not comprehend these laws, i.e., it does not demonstrate how they arise from the very nature of private property." In addition "political economy does not disclose the source of the division between labor and capital, and between capital and land.... it takes for granted what it is supposed to explain. Similarly, competition comes in everywhere. It is explained from external² circumstances."

These words come from Marx early in his critique of capitalism found in the Economic and Philosophic Manuscripts of 1844 (the Paris Manuscripts) (Marx 1964, p. 106). Marx's main concern is to comprehend the laws of capitalism and to offer an account of the nature of its institutions.

Marx develops a notion of what it means to be human, so that he could critically assess capitalist institutions from a humanistic benchmark. He begins by articulating the notion of man as a being of praxis, or

action. In the general sense of the term, which goes back to Aristotle, praxis refers to human action. But Marx restricts the concept to mean something along the lines of man as a being of free, creative activity, an activity which allows him to design his future and the world he lives in. It composes the element of man's species-being, and distinguishes man from animal, for only man is a being of praxis. Hence Marx could say later in Capital:

We presuppose labour in a form that stamps it as exclusively human. A spider conducts operations that resemble those of a weaver, and a bee puts to shame many an architect in the construction of her cells. But what distinguishes the worst architect from the best of bees is this, that the architect raises his structure in his imagination before he erects it in reality. At the end of every labour-process, we get a result that already existed in the imagination of the labourer at its commencement (Marx 1906, vol. 1, p. 198).

Yet, for Marx, man lacks authentic praxis under capitalistic markets, the overall integration of which is not purposefully designed in advance, but better described, as Marx so often does, as being "anarchic," or unplanned.

Praxis thus appears as an ontological notion. But it has a pragmatic use as well. In a sense, Marx uses

the praxis concept as a foil to analyze and evaluate human interaction primarily in capitalist markets. It is the praxis foil that allows Marx to criticize capitalism in terms of estrangement, or alienation.³

Man is estranged or alienated when he is blocked from realizing his praxis potential. In the Paris Manuscripts Marx points to several forms of economic estrangement. The first is the estrangement of the worker from the product of his labor. The worker confronts the product not as his own free creation, but as something outside of him, out of his control, as "something hostile and alien" (1964, p. 108). Ultimately the capitalist, not the worker, enjoys the fruits of the worker's labor power. This implies, secondly, that the act of production itself must also be alienating. The act of production no longer promises to be a fountainhead of creative activity for the worker. It is instead "an activity which is turned against him, independent of him and not belonging to him," because the worker is subject to the despotic control of the capitalist manager (1964, pp. 111-12). The worker does not creatively produce for the sake of producing. Instead he is forced to sell his labor power to the

capitalist for a subsistence money wage. His labor power itself becomes a commodity, an object of purchase and sale in the aptly called labor market. Consequently, the worker does not produce to satisfy the creative aspect of his being; rather, he labors merely to survive. Marx therefore insists that the workers' productive activity is "not voluntary, but coerced; it is forced labor."⁴ Moreover, the worker receives the means to sustain his life not from nature, but from the capitalist in the form of a money wage. Consequently nature, rather than being the means of life for the worker, also confronts him as something alien.

Man, then, is estranged from the object of his labor, the labor process itself, and from nature. But because man is a species-being, a being of praxis, a freely creative being, then he is also estranged from himself under capitalism. He is not free to enjoy the historical potential which awaits him. He does not realize his praxis. It follows that each man is estranged from other men, confronting one another instrumentally, as mere objects, not as autonomous, creative beings.⁵

Marx's underlying point is clear: man does not

freely submit to estrangement. It must be forced upon him from without. But what is the exact source of estrangement? Unfortunately, on this point Marx is ambiguous. Because he clearly states which aspects of capitalism are the consequences of estrangement rather than its causes, however, we at least know what to exclude.

One would probably expect private property to be the cause of estrangement. It certainly contributes to estrangement in Marx's view. He argues, however: "though private property appears to be the source, the cause of alienated labor, it is rather its consequence, just as the gods are originally not the cause but the effect of man's intellectual confusion. Later this relationship becomes reciprocal" (1964, p. 117; emphasis added). Moreover, Marx maintains that each institution which emerges spontaneously from private property - such as trade, competition, capital and money - is "only a definite and developed expression" of estranged, alienated labor (1964, 118).

Of course, not only is the laborer estranged. So, too, is the capitalist. Whereas estranged labor is an alienated activity, estrangement for the non-laborer is

an alienated state of affairs (1964, p. 119), which is perhaps best expressed in the social division of labor.⁶

MARX ON THE DIVISION OF LABOR:

Marx distinguishes between the division of labor in the firm and that in society as a whole.⁷ They differ in the following way. The division of labor within the firm is a detailed project of the capitalist's imagination. It is a structure which is rationally designed before production takes place, to assure the most efficient combination of labor and other scarce resources. It is enforced through the authoritarian, coercive control of the capitalist.

The division of labor within the firm reflects the capitalist's general production plan. The social division of labor, on the other hand, reflects no unified plan. Rather, it unfolds in a spontaneous, undesigned fashion, an outcome of rivalrous buying and selling within the market process.⁸ Its complexity attests to the inevitable clashing of millions of independent plans which results when capital is widely distributed.

Marx, therefore, argues that the two divisions of

labor differ in degree and kind. The division of labor within the capitalist firm is rationally determined in advance and externally imposed by the authority of the capitalist, while that within society is the unintended result of a battle among millions of individual plans, imposed externally by the market process. Marx rightly sees the "anarchy in the social division of labor and despotism in that of the workshop" as two very different phenomena from the standpoint of economic organization (1906, p. 391).

Both are equally destructive from the point of view of man's praxis. Though the worker faces an alienating force within the enterprise, the worker and nonworker alike confront the alien, uncontrollable force of the social division of labor. Referring to the social division of labor in The German Ideology, Marx argues that "division of labour and private property are, moreover, identical expressions: in the one the same thing is affirmed with reference to activity as is affirmed in the other with reference to the product of activity" (Marx and Engels 1969, vol. 1, p. 34). Hence,

the division of labor implies the contradiction between the interest of the separate individual or the individual family and the common interest of all individuals who have intercourse with one another. And indeed, this communal interest does not exist merely in the imagination, as the "general interest," but first of all in reality, as the mutual interdependence of the individuals among whom the labour is divided (1969, vol. 1, p. 34).

The social division of labor integrates individuals into their economic relationships with one another; it is something of a socioeconomic mosaic. Viewed from the praxis foil, however, it is a crude, violent procedure for economic integration, one which coercively severs individual and common interests. In a popular passage Marx compares the involuntary, uncontrollable nature of the spontaneously formed social division of labor to that which would be voluntarily planned:

And finally, the division of labour offers us the first example of how, as long as man remains in natural society, that is, as long as a cleavage exists between the particular and the common interest, as long, therefore, as activity is not voluntarily, but naturally, divided, man's own deed becomes an alien power opposed to him, which enslaves him instead of being controlled by him. For as soon as the distribution of labour comes into being, each man has a particular, exclusive sphere of activity, which is forced upon him and from which he cannot escape. He is a hunter, a fisherman, a shepherd, or a critical critic, and must remain so if he does not want to lose his means of livelihood; while in communist society, where nobody has one exclusive sphere of activity

but each can become accomplished in any branch he wishes, society regulates the general production and thus makes it possible for me to do one thing today and another tomorrow, to hunt in the morning, fish in the afternoon, rear cattle in the evening, criticize after dinner, just as I have in mind, without ever becoming hunter, fisherman, shepherd, or critic (1969, pp. 35-6).

Though this statement in The German Ideology sounds a bit utopian for Marx,⁹ I think it nevertheless underscores one of Marx's central concerns, which is the hope for a voluntarily controlled social division of labor, and the freedom from a despotically determined division of labor in the enterprise.

COMMODITY PRODUCTION:

Marx argues that the emergence of the commodity form changes the nature of the social division of labor from a simple, purposefully controlled institution to a coercive, spontaneous order. It is also responsible for the despotically controlled division of labor at the enterprise level.¹⁰

Marx's later discussion of commodity production in Capital, for example, is still informed by his image of man as a being of praxis.¹¹ Marx focuses on commodity production in his later work be-

cause he recognizes that it becomes universalized under capitalism. Yet he does not abandon the praxis foil. Rather, he draws our attention to what he believes is the most comprehensive expression of estranged labor to date - universalized, thoroughly anarchic commodity production. The study of commodity production becomes a central theme in Marx's later work because it is the most advanced expression of economic estrangement, and its danger lies largely in the fact that it is a very subtle form of exploitation. Equally important, it is capitalism's key organizing principle.¹²

In any economic system, the product of labor is a use value. But with the ever-expanding institution of exchange, which reaches its zenith under conditions of comprehensive monetary exchange, the product of labor becomes entirely expressed as a commodity with exchange value. In other words, production for exchange replaces production for use.

Exchange value, says Marx, converts the products of labor into a "social hieroglyphic". Monetary exchange "conceals, instead of disclosing, the social character of private labor, and the social relations between the individual producers" (1906, p. 87). That

is, though the division of labor within the enterprise becomes ever more rationalized (i.e., the result of an increasingly detailed, scientific plan), the relationships between enterprises become all the more haphazard and wasteful: "the behaviour of men in the social process of production," Marx observes, "is purely atomic." The economic relationships between enterprises "assume a material character independent of their control and conscious individual action" (1906, p. 105). Exposing the contradiction, Marx says: "While inside the modern workshop the division of labour is meticulously regulated by the authority of the employer, modern society has no other rule, no other authority for the distribution of labor than free competition" (1978, p. 125). Marx attempts to explain the anarchic organization of capitalism by pointing to its fundamental element - the production and circulation of commodities.

In a system organized by spontaneous market exchange, individuals enter the marketplace not as men and women, but as owners of commodities. What would otherwise be a mutual interdependence of individuals is now a mutual dependence through commodities (1906, p.

121). Marx presents this argument in terms of the schema $C - M - C$, in which C denotes the commodity form and M the money form. Exchange is a process of converting C into M and then into C . In a market situation, individuals confront one another as buyer and seller. Someone has a commodity he wishes to sell; another, holding money, wishes to purchase the commodity. They strike up a price and a sale is made.

From the commodity owner's perspective, he sells the commodity for a cash equivalent, which on average represents its value in exchange. Say, for example, he sells a pair of shoes for ten dollars. He exchanges the commodity form for the money form, which Marx represents as one side of the relationship $C - M$. C (one pair of shoes) transforms into M (ten dollars). From the buyer's perspective, she releases money and receives in return the commodity she desires. She converts money into a commodity, transforming M (ten dollars) into C (one pair of shoes). But we have not completed the formula $C - M - C$, for we are considering a process whereby an individual transforms a specific commodity into money, then uses that money to purchase a different commodity. Though the transaction begins

with the sale of the commodity, C - M, it does not end there. Rather, the sale leads to the purchase of
13
another commodity.

The metamorphosis is complete only after the individual who sold the pair of shoes for ten dollars now purchases, say, an umbrella for the same price. The metamorphosis is thus represented as C (shoes) - M (ten dollars) - C (umbrella). Now the circuit is complete.

But because every purchase is a sale, and vice versa, the purchase M - C implies yet another sale C - M, which is to say, continuing the example, the seller of the umbrella now attempts to purchase a different commodity (for instance, a book). "Hence the circuit made by one commodity," Marx explains, "is inextricably mixed up with the circuits of other commodities" (1906,
14
p. 126).

The uncontrollable outcomes of commodity exchange are apparent. Each purchase and sale sets into motion a chain of events, events which, in their totality, cannot be fully anticipated by the individual market participants. And to compound this, Marx considers yet another characteristic of the system - the circulation of capital. Here, money capital is transformed into

commodities, with the purpose of transforming the commodities back into money, a procedure which Marx denotes as M - C - M.¹⁵ Under commodity production the metamorphosis requires a three-stage process. The capitalist must purchase the labor power of the worker, M - C, which is used to produce a new commodity, C'. That new commodity, the property of the capitalist, is then sold in the market, providing M' in return to the capitalist. This Marx represents by M - C ... P ... C' - M' (1909 vol. 2, ch. 1). The capitalist retains his authoritarian, despotic control in the production process, P, which transforms C into C'. But the circulation of commodities (purchasing labor power, M - C, and selling the final product, C' - M') always confronts the capitalist as an alien will, "as an independent substance, endowed with a motion all its own, passing through a life-process of its own, in which money and commodities are mere forms which it assumes and casts off in turn" (1906, p. 172).

Marx therefore points to the commodity mode of production as the fundamental organizing principle in capitalist society. It is not that commodity production is necessarily always chaotic. After all, capita-

lism is not in a state of continuous economic crisis. Rather, Marx's focus on commodity production helps him explain the fundamental nature of capitalist crisis. Specifically, crisis results from the irrational, unplanned and uncontrollable workings of commodity production. Ultimately, for Marx, economic crises can be rationally overcome not by merely reforming the institution of commodity production, which is to say, repairing its undesirable effects; rather, he points to complete elimination of commodity production in an effort to rationally coordinate the modern economy.

SCIENTIFIC SOCIALISM AS SYSTEMS THINKING:

Marx viewed capitalism as the most comprehensively developed system of commodity production. The absolute power of the capitalist in the workshop, as well as the sweeping, uncontrollable laws of capitalist markets, led Marx to conclude that men and women are anything but freely creative beings. From the perspective of the praxis foil, the commodity mode of production, capitalism's fundamental organizational form, is the most powerful force blocking the fulfillment of human freedom.

On the surface, it may seem that Marx has little to say about the economics of socialism. No doubt socialism would reintegrate or "return man to himself" (1964, p. 135). But, in the name of scientific socialism, Marx offers no detailed blueprint of the future socialist community. Given the radical transformation that must take place, it is no more than fantasy, a guessing game for utopians, to adequately describe the details of the socialist future.

Instead, Marx proposes a scientific socialism which, by self description, offers a radical criticism of existing capitalism rather than a detailed proposal for socialism. It would be a mistake to conclude, however, that Marx is silent on socialist economic organization, for he does not discuss market alienation for the sake of description alone. His use of praxis and his critique of alienation are necessarily revolutionary, and imply a general idea of the socialist future. As Gajo Petrovic states:

Marx's conception of man can never remain only a conception. Only to conceive man would mean only to conceive what man already was. But man is not only what he has been; he is in the first place what he can and ought to be. Marx's turn to praxis follows from this in the sense that his conception of man cannot remain a mere conception, but it is also a criticism of alienated man who

does not realize his human possibilities and a humanistic program of struggle for humanness. Marx's conception of man can thus not be separated from his humanistic theory of alienation and de-alienation (1967, pp. 80-1; emphasis added).

16

This is not an isolated interpretation. One could tease out the implications Marx's critique of market alienation has upon socialist economic organization. As Don Lavoie points out, "Marx's scientific socialism was not merely an excuse for avoiding any examination of socialist society. It was a recommendation of a particular method for the conduct of such an examination - that is, that socialism be described through a systematic critique of capitalism" (1985c, p. 29).

Lavoie convincingly argues that Marx's critique of capitalism is informed from his vision of the socialist future: The socialist future must be that which emancipates man from the alienating aspects of capitalist economic organization. I would add, in particular, that for Marx the socialist future must be that which fulfills man's praxis. Socialism allows what would otherwise be an arbitrary construct, the praxis notion, to become an ontological reality.¹⁷

Because Marx offers a unified, consistent critique of capitalist economic organization, he also has quite

a bit to say about the general system of socialist economic organization. In this way, Marx can be considered a forerunner of comparative economic systems theory.¹⁸

THE PRAXIS OF PARTICIPATORY PLANNING:

Because Marx considers socialism as an economic system which allows man to return to himself, to fulfill his praxis-nature, then the alienating, anarchic, involuntary institutions characterizing capitalism must be abolished outright and replaced by a comprehensive, rational plan. In other words, Marx's view of socialism does carry a strong message in terms of organization of economic activity. Marx believes this to be an ever greater possibility as capitalism progresses, because that which generates an ever increasing social division of labor - widely distributed capital - becomes increasingly concentrated in the form of monopoly capitalism; and that which supports the division of labor in the firm - a concentration of capital - is eroded by joint stock companies, banking, and credit. These economic conditions allow for the revolutionary overthrow of capitalism, and ultimately, comprehensive

planning.

In fact, Marx occasionally hints at comprehensive planning throughout his work. In the first volume of Capital, for instance, Marx imagines "a community of free individuals, carrying on their work with the means of production in common," not spontaneously, but "in accordance with a definite social plan" (1906, p. 90). To be sure, Marx believes that "the life-process of society, which is based on the process of material production, does not strip off its mystical veil until it is treated as production by freely associated men, and is consciously regulated by them in accordance with a settled plan" (1906, p. 92; emphasis added). Only then will market alienation end, which allows man to become free. For Marx:

The freedom in this field cannot consist of anything else but of the fact that socialized man, the associated producers, regulate their interchange with nature rationally, bring it under their common control, instead of being ruled by it as by some blind power; that they accomplish their task with the least expenditure of energy and under conditions most adequate to their human nature and most worthy of it. But it always remains a realm of necessity. Beyond it begins that development of human power, which is its own end, the true realm of freedom, which, however, can flourish only upon the realm of necessity as its basis. The shortening of the working day is its fundamental premise (1909, vol. 3, ch. 48,

sec. 3, p. 954; emphasis added).

Consequently, Marx sees socialism as that which negates the uncontrollable institution of commodity production and exchange. It follows that production for the market will be fully replaced by production for direct use; exchange value will give way to use value; money will cease to function; the division between capital and labor will cease as production takes place through workers' cooperatives; the means of production will be brought under common economic control; and, just as the architect imagines a detailed plan before he commences construction, so, too, will the associated producers participate in creating the social mosaic of their choosing, by creating a unified plan.

Planning will be accomplished, Marx tells us, "under conditions most adequate to their human nature and most worthy of it." Human nature, for Marx, is man's praxis-nature.¹⁹ Hence, what is only an historical, albeit crucial, potential for free, creative activity under capitalism now becomes a concrete reality under socialism.

Only by using praxis as a philosophical concept can Marx interpret capitalism in terms of estrangement

and alienation (or abstract labor, commodity fetishism, etc.). These categories lose their critical force, indeed they become arbitrary, if Marx does not constantly rely upon the notion of a nonestranged, freely creative person. Moreover, Marx's own use of praxis is revolutionary in that it implies that man can, and should, fulfill his nature as a being of praxis: under socialism man "returns to himself," as it were.

Socialism as the fulfillment of man's praxis suggests that the contradiction between wage labor and capital will be abolished, and therefore points toward workers' self-management, whereby the production process within the workplace will come under the common control of the workers themselves. The largely subtle form of political exploitation between boss and worker would cease to exist. Second, because the commodity mode of production, whose prime mover is exchange value and monetary calculation, represents the most developed expression of estrangement, it only makes sense that this anarchic, spontaneously created market institution would also cease to exist under socialism. Hence, socialism would be further characterized as an economic system which replaces the the subtle economic

exploitation of unplanned, uncontrollable markets with a comprehensive, rational plan.

Marx's use of the praxis concept as a foil to critically analyze capitalism implies the following: he must have expected that the socialist future would be fully compatible with the concrete realization of man's praxis-nature because it would eventually eliminate political and economic alienation.

Paul Craig Roberts and Matthew A. Stephenson have argued, however, that Marx's wish to abolish the commodity mode of production points to socialism as a centrally planned system. They write:

Marx's interpretation of alienation is unique in that he sees the phenomenon as being a product of the developed market system. The method of economic organization enslaves both workers and capitalists. The unique character of Marxian alienation permits a unique solution. Organization of autonomous producers in a system of market relationships is replaced by uniting the whole of society into a single factory.

We are not positing the truth about alienation or claiming that central planning actually would eliminate alienation. We are merely saying that in the Marxian scheme, central planning eliminates Marxian alienation by eliminating the exchange relationships of commodity production, that is, we are merely offering an interpretation of Marx (1971, p.10).

I agree with Roberts' and Stephenson's argument

that socialism must abolish the commodity mode of production, money, exchange, and so on. I nevertheless believe their interpretation of Marx as a necessary advocate of central planning is incorrect. Marx was an advocate of participatory but (somehow) unified planning. It may turn out that the only way to achieve the unity of planning Marx wants is to resort to centralization and hierarchy, but Marx did not advocate this. ²⁰

Their interpretation of Marx's meaning of alienation seems too economic. ²¹ Though they have done a great service by presenting Marx as an organization theorist, their exclusive focus on economic organization leads them to neglect the other side of Marx - Marx the praxis philosopher.

Roberts and Stephenson rightly recognize that "in Marx's scheme, alienation is not overcome until capitalism is destroyed and planned production for direct use takes the place of production for the market." But, because they are concerned only with subtle, economic alienation, they neglect what lies behind that - Marx's more broad notion of praxis with its implications for economic and political alienation. Roberts and Stephenson simply conclude: "When exchange ceases, so

does alienation" (1973, p. 93). Although that may be a necessary condition, it is certainly not sufficient. The "alien will" of market exchange activity must not simply be abolished and substituted by another alien will, such as an inhuman, all-powerful central planning bureaucracy.

Marx's analysis of alienation goes well beyond that of economic estrangement, and his Critique of Hegel's 'Philosophy of Right', for example, is a powerful analysis of political alienation. By way of criticizing Hegel's political philosophy and defense of the Prussian monarchy, Marx focuses on the alienating opposition between the modern state and civil society. "The state becomes something alien to the nature of civil society; it becomes this nature's otherworldly realm of deputies which makes claims against society" says Marx (1970, p. 50). Thus, "the separation of civil society and the political state appears necessarily to be a separation of the political citizen, the citizen of the state, from civil society, i.e., from his own actual, empirical reality; for as a state-idealist he is a being who is completely other, distinct, different from and opposed to his own actuality"

(1970, p. 78).

Roberts and Stephenson write that because "many think that Marx's concept of communism is nonhierarchical," they "have failed to understand Marx's idea of freedom under communism" (1973, pp. 29-30). But perhaps the authors themselves overlook Marx's damning critique of hierarchy and bureaucracy, a critique which is worth quoting at length:

The aims of the state are transformed into aims of bureaus, or the aims of bureaus into aims of the state. The bureaucracy is a circle from which no one can escape. Its hierarchy is a hierarchy of knowledge. The highest point entrusts the understanding of particulars to the lower echelons, whereas these, on the other hand, credit the highest with an understanding in regard to the universal; and thus they deceive one another (1970, p. 47; emphasis added).

[T]he security of the state and its subjects against the misuse [den Missbrauch] of power by ministers and their officials lies partly in their hierarchical organization (as if the hierarchy itself were not the principle abuse [der Hauptmissbrauch], and the matching personal sins of the civil servants were not at all to be compared with their inevitable hierarchical sins; the hierarchy punishes the civil servant to the extent that he sins against the hierarchy or commits a sin in excess of the hierarchy; but it takes him under its protection when the hierarchy sins through him; moreover the hierarchy is only with great difficulty convinced of the sins of its members) and in the authority given to societies and Corporations, because in itself this is a barrier against the intrusion of subjective caprice into the power entrusted to a civil servant, and it

completes from below the state control (as if this control were not exercised without the outlook of the bureaucratic hierarchy) which does not reach down as far as the conduct of individuals (pp. 52-3; emphasis added).

Thus, if we ask Hegel what is civil society's protection against bureaucracy, he answers:

(1) The hierarchical organization of the bureaucracy. Control. This, that the adversary is himself bound hand and foot, and if he is like a hammer vis-a-vis those below he is like an anvil in relation to those above. Now, where is the protection against the hierarchy? The lesser evil will surely be abolished through the greater inasmuch as it vanishes in comparison with it.

(2) Conflict, the unresolved conflict between bureaucracy and Corporation. Struggle, the possibility of struggle, is the guarantee against being overcome. Later (para. 297) in addition to this Hegel adds as guarantee the 'institutions [of] the sovereign working... at the top', by which is to be understood, once again, the hierarchy (p. 53; emphasis added).

Marx is thus well aware of the contradictions inherent in modern bureaucracy, and the alien power it has over man. He therefore explicitly considers the extent to which individuals should participate in political matters of general concern, and calls for universal suffrage in order to abolish the estrangement which is the product of the opposing dualism between the private and public spheres of life.

The state, which, like religion, assumes an alien power, forces the citizen into an atomistic, limited

mode of being, and thereby deprives him or her the social activity to participate in issues of universal importance. "Man's content," says Marx, "is not taken to be his true actuality" (p. 82). Because "the question whether all as individuals should share in deliberating and deciding on matters of general concern is a question that arises from the separation of the political and civil society" (p. 118), Marx calls for nothing less than universal suffrage in the sense of radical democracy: "in true democracy the political state disappears" (p. 31). This abolishes the bifurcation of man's social life, brings together the public and private spheres, and allows man to achieve his species-will, or his drive for full participation in communal affairs.

Marx recognizes hierarchy as a deceiving hierarchy of knowledge. He exposes the schism whereby those at the top are supposed to know universals while those at the bottom are supposed to know particulars. A hierarchy of knowledge represents, for Marx, yet another cleavage between the particular and common interest. It does not seem that merely democratizing the hierarchy would solve the problem.

Roberts and Stephenson acknowledge that "there is evidence that Marx entertained the utopian concept of a planned hierarchy subject to democratic control, in which people's places in the hierarchy changed as often as four times a day" to which they cite Marx's passage in The German Ideology. But their attempt to reconcile radical democratic planning with what they believe must be highly centralized hierarchical planning may be forced. Indeed, the authors continue by saying "this would seem to be a planned and ordered society in which the hierarchical levels are of no social or political significance. They would merely be the organizational expression of the directly associated producers" (1973, p. 31; emphasis added), something that does not seem to accord very well with such an astute organizational theorist as Marx.

This, however, is exactly my point. They are not aware that this is an example of Marx's own struggle between workers' self-management and unified planning. They overlook that Marx's ideal of the praxis of planning is a somewhat utopian system of producers' and consumer's cooperatives linked through a general plan and social property. The producers and consumers as an

overall group must, in their attempt to avoid an alienating hierarchy of knowledge, decide upon a comprehensive plan which rationally coordinates their production and consumption activities. This is the meaning of social property as opposed to state property, and participatory planning as opposed to command planning.

SOCIAL PROPERTY AND THE IMAGINARY CONSTRUCTION OF GENUINE CENTRAL PLANNING:

For purposes of contrast, consider the common view of central planning as described in the theory of command planning; which is to say, a system without market prices, hierarchically organized such that the whole of society is structured like a single firm with central administration. Roberts (1971), following on the work of Michael Polanyi (1951), has done an excellent and very important job exposing the myth of central planning in the Soviet Union. He argues that material balances planning is more a product of Soviet propaganda than it is an economic reality. With the exception of some economists, such as Powell's (1977) interpretation, however, Polanyi and Roberts have not in-

fluenced the greater part of the economics profession: the traditional view still seems to consider the Soviet system as a centrally planned command economy (cf., for example, Grossman. 1963; Horvat 1982, chapter 2). The profession has accordingly articulated a model of command planning which is thought to describe the so-called material balances planning of the USSR.²⁴ I shall show in the next chapter that the notion of material balances planning as an empirical description of the Soviet economy is very misleading. Nevertheless, for my immediate purpose we can consider the model not as an empirical description, but as an imaginary construction of genuine central planning and assess it from the Marxian view developed thus far.

The theory of material balances planning posits a construct in which control over the economy's resources rests in a central planning bureau which oversees and directs all economic activity. It is said to operate as follows. Economic priorities, perhaps established by an exogenous agency, are given to the central planning bureau so that it can plan a set of control figures and the inputs necessary to rationally achieve these figures. After the control figures are esti-

mated, they are sent down the planning hierarchy to the individual administrative bodies. Each step along the way the control figures become increasingly disaggregated into specific output targets for each industry and the enterprises which it comprises. After each enterprise reviews its own output target, it makes a specific statement or request for the inputs necessary to achieve the target. This information is then sent up the planning hierarchy, and becomes increasingly aggregated within the intermediary levels as a way of coordinating the needed inputs between enterprises in any given industry, and then between the various industries themselves. Bargaining at various levels acts as a correction principle to help alleviate apparent shortages or surpluses.

The goal is to achieve a material balance, or an equality between supplies and demands of material inputs necessary to produce the targeted outputs. After an overall material balance has been achieved (we are now, once again, at the pinnacle of the planning hierarchy), the final targets and their material requirements then take the form of directives issued by the central planning board to the lower-order administra-

tive bodies and enterprises within the planning hierarchy. Production then commences according to the plan.

Though this is supposed to rationally organize economic life, the political alienation which would result from such a bureaucracy is clear. The model does not recognize Marx's call for abolishing political alienation because the dualism between private and public life continues. In fact, only those at the top of the hierarchy, seated within the central planning board, fully participate in universal issues; the citizen, as producer, merely carries out the particular directives imposed by the hierarchy. The hierarchy of knowledge and total rule of the factory boss is not destroyed, but universalized.

The pursuit of the Bolshevik ideal, and other efforts at centralizing power, do tend to "make the whole of society as one office and one factory" (Lenin 1943, p. 84), and so reduce anarchic elements and may even pave the road to socialism by making organization more unified. It aspires to eliminate the economic alienation stemming from anarchic market relations (as with Marx), but permits political alienation (contra Marx). Hence, achieving hierarchical central planning

is not really Marxian socialism, because it not only retains a power-politics alienation, it universalizes and intensifies it. What it leads to loses the other half of Marxism, and results in both political and economic alienation. Though man does not confront the market as an alien will, he surely confronts the central planning hierarchy as an alien power if Lenin is wrong about his democratic centralism. As Marx says, the hierarchy itself is the principle abuse. In similar vein, Radoslav Selucky keenly observes:

The producers do not work directly in order to produce use-values, but they work for entirely abstract and, in themselves, irrational plan targets. If Marx saw alienation of man from his work in the substitution of concrete labour by an abstract wage-earning activity, how would he view a situation in which the substitution of abstract activity for concrete labour persists and, on top of that, another intermediary has been interposed in the form of plan targets? In fact, nothing has changed for the better. The worker still works under the pressure of external necessity. He continues to be a detail worker. His labour continues to have meaning for him only as an abstract wage-earning activity. If, in the capitalist market system, his wage (exchange-value of his essential needs) was directly tied to the exchange-value of his product; now it is tied to it through plan targets. If, in the previous system, his work was alienated from him because he produced not directly for consumption but for the market, it is now alienated from him because he produces not directly for consumption but for the plan (1979, pp. 37-8).

This can be expressed from the perspective of social ownership as well. The theory of material balances planning, or, indeed, any model which posits a planning system in which full control rests within the central planning board, is not consistent with the meaning of social property.

Marx has a well developed understanding of property rights and ownership. He is always quick to expose the contradiction between formal, legal rights and substantive rights. He recognizes, for example, that "the bureaucracy has the being of the state, the spiritual being of society, in its possession; it is its private property" (1970, p. 47); and he distinguishes²⁵ between a legal claim and economic control:

a man may have a legal title to a thing without really having the thing. If, for instance, the income from a piece of land is lost owing to competition, then the proprietor has certainly the legal title to it along with the jus utendi et abutendi [right of using and consuming]. But he can do nothing with it: he owns nothing as a landed proprietor if in addition he has not enough capital to cultivate his ground (Marx and Engels 1969, vol. 1, p. 79).

Because Marx recognizes that ownership implies control, then his notion of social ownership of the means of production would seem to imply that the con-

trol of economic resources rests in the community as a whole. Social ownership signifies a complex relationship in which every relevant member of the community mutually participates in the control of the community's resources, for, if it is to be more than a formal right, the power of disposal must rest concretely within the entire group of individuals who comprise the socialist community. On the other hand, perhaps this is too utopian a notion for Marx to uphold. Indeed, just what does "control" in everyone's hands mean? Is it control at all? Nevertheless the ideal of social ownership would at least point toward participatory, democratic planning through a system of producers' and consumers' councils.

The imaginary construct of the centrally planned "command economy" by no means approaches the ideal of social property relations, nor even the latter, less utopian notion. In fact, if we consider ownership as the power of disposal, the command economy retains the institution of property. Although property may be legally defined as state property, or even social property, control over the factors of production, according to the model, stem from the individuals within the

planning center alone. Those beneath the central planning board merely carry out the directives determined by and issued from the board, just as the worker carries out the directives issued from the capitalist boss.

The imaginary construct of a centrally planned economy in which control ultimately resides at the top of the hierarchy may well eliminate market exchange. It does not eliminate property in the means of production. Property has not been abolished; instead, monopolized in a central planning board, it takes on its most concentrated, powerful form.

CONCLUSION:

Economists who interpret the implications of Marx's critique of capitalism have generally examined only the organizational side of Marx without paying close attention to the philosophical side. Informed by the praxis philosophical tradition, I have tried to show that the economic interpretation of Marx as a central planner seems misleading because central command planning clearly contradicts the radical humanistic goals of Marx's praxis program. Marx desired a radically decen-

tralized, yet unified comprehensive plan.

Rather than interpreting Marx as a central planner, I maintain that it may be more worthwhile to interpret central planning as part of a struggle in Marx's own thinking. Moreover, this struggle between humanistic decentralization and rationalistic centralization does not end with Marx. In fact, it is a tension which continues to haunt contemporary proposals for nonmarket as well as market socialism and workers' control.

In the next chapter I will have occasion to examine the other side of the tension. While I have concentrated largely upon the vision of socialism informed by praxis philosophy, in what follows I shall concentrate on the economics profession's point of view concerning worker-ownership and socialist economic organization. Informed especially by the arguments of Ludwig von Mises, F.A. Hayek, and Michael Polanyi, I shall proceed to critically examine the praxis philosophers' ideal of decentralized socialism from the perspective of rational economic organization.

NOTES TO CHAPTER ONE

1. But Marx is no admirer of the alienating division of labor in the workshop. As I shall discuss later, he considers it an alienating result of the commodity mode of production. And, in particular, in The Poverty of Philosophy he chides Proudhon for being wholly uncritical of the division of labor; for simply juxtaposing its pros and cons ("He should have shown us the drawbacks of the division of labor in general, of the division of labor as a category" (p. 122)); and for confusing the division of labor within the workshop with the social division of labor in general. According to Proudhon's analysis, one would expect to see a "single chief employer" despotically organizing the social division of labor under the commodity mode of production. "But this is by no means the case," argues Marx, for "modern society has no other rule, no other authority for the distribution of labour than free competition" (p. 125).

2. A century later, neoclassical economics still takes these institutions for granted. In a later chapter I shall focus upon the way knowledge is conveyed and utilized in a complex economy (a subject which I believe is either simply ignored or completely misunderstood by both the neoclassical proponents and critics of self-managed socialism).

3. Jurgen Habermas's adoption of the "ideal speech situation" can be considered a contemporary foil by which to judge existing systems. (See, for example, chapter 1 of Habermas 1979; cf. McCarthy 1978, pp. 305-10).

4. "As a result, therefore, man (the worker) only feels himself freely active in his animal functions - eating, drinking, procreating, or at most in his dwelling and in dressing-up, etc.; and in his human functions he no longer feels himself to be anything but an animal" (1964, p. 111).

5. Cf. Marx's statements which run throughout his later work, Capital: "The persons exist for one another merely as representatives of, and, therefore, as owners of commodities. In the course of our investigation we shall find, in general, that the characters who appear on the economic stage are but the personification of the economic relations that exist between them" (1906, p. 97; emphasis added); or, when speaking of the special case of commodity fetishism, Marx writes: "There it is a definite social relationship between men, that assumes, in their eyes, the fantastic form of a relation between things" (1906, p. 83).

6. Marx emphasizes that "the examination of division of labor and exchange is of extreme interest, because these are perceptibly alienated expressions of human activity and of essential human power as a species activity and power" (1964, p. 163).

7. See, for example, Marx (1906, ch. 14, sec. 4, pp. 385-94). An excellent account of Marx's view on the division of labor and its relationship to estrangement is provided by Isidor Wallimann (1981, esp. pp. 89-122).

8. The social division of labor is clearly not the product of market economies. Communities based predominantly upon tradition had a consciously planned and relatively simple social division of labor. In fact, Marx (1906, pp. 49, 100) points to the primitive Indian community, based on common property and barter, as being organized by a social division of labor prior to the introduction of exchange and commodity production. Conscious control over the social division of labor is lost with the development of the commodity form: "The exchange of commodities... first begins on the boundaries of such communities, at their points of contact with other similar communities, or with members of the latter. So soon, however, as products once become commodities in their external relations of a community, they also, by reaction, become so in its internal intercourse" (p. 100). Hence, "the exchange of commodities breaks through all local and personal bounds inseparable from direct barter, and develops the circulation of the products of social labor;... it develops

a whole network of social relations spontaneous in their growth and entirely beyond the control of the actors (p. 126). Consequently, the emergence of money and market exchange radically changes the character of the social division of labor, because it no longer is the product of man's imagination. Rather, it appears to man as an alien will, according to Marx.

9. Yet cf. Benedetto Croce's interesting essay "The Imaginary Passage from Utopia to Science" (Croce 1966, ch. 5). Croce maintains that "in the depth of his thought, [Marx] was and remained a Utopian" (for Croce, utopia means "outside history" and socialism, according to Marx, marks the end of history). Croce is correct in pointing out that Marx greatly admired those who he called the utopian socialists, particularly Saint-Simon, Fourier, and Owen. See, for instance, Engels's glowing discussion of the utopians in Anti-Duehring (1978, part 3, sec. 1), a discussion which, Croce notes, Marx urged Engels to write.

10. "While the division of labour in society at large, whether such division be brought about or not by exchange of commodities, is common to economic formulations of society the most diverse, division of labour in the workshop, as practised by manufacture, is a special creation of the capitalist mode of production alone" (1906, p. 394).

11. Many have divided Marx into an "early" philosophic Marx (the Paris Manuscripts) and a later, "mature" Marx (beginning with The German Ideology). The early Marx is said to be humanistic, concerned mainly with alienation; the mature Marx abandons humanism for materialism, philosophy for economics. This split, however, is suspect. Though Marx uses new terms such as self-activity instead of praxis, and abstract labor, reification, and commodity fetishism instead of estrangement, the theme of estranged, alienated man, and hence praxis, runs throughout the corpus of Marx's work. Marx may have changed his vocabulary, but he did not change the substance of his argument. I have already alluded to this by providing examples from the later Marx. For a classic account of the unity of Marx's work see Avineri (1968). For a more recent account, see Wallimann (1981).

12. Relatively few have interpreted Marx as a theorist of economic organization. Paul Craig Roberts and Matthew A. Stephenson were among the first to demonstrate that Marx was implicitly an organization theorist. See their Marx's Theory of Exchange, Alienation and Crisis (1973), and the first chapter of Roberts (1971). Don Lavoie has further demonstrated this in chapter 2 of his Rivalry and Central Planning (1985c).

13. "The first metamorphosis of one commodity, its transformation from a commodity into money, is therefore also invariably the second metamorphosis of some other commodity, the retransformation of the latter from money into a commodity" (1906, p. 123). As Lavoie put it: "The demand for money is in this sense different from that for other commodities, in that money is accepted in exchange only temporarily, only because it is expected to be thrown back onto circulation for some future and thus uncertain transaction." "Money is," Lavoie concludes, "at any moment, somebody's temporary hoard, awaiting to be dishoarded and added to somebody else's hoard" (1983, pp. 62-3).

14. Marx thus explains economic crises as the result of an overly long time interval between the purchase and sale of commodities, which leads to incorrect proportions between the supplies and demands of specific commodities (see, for instance, 1906, p. 128 and Marx 1978 pp. 65-6). For Marx's general theory of money, exchange, and crisis, see Lavoie (1983) and Roberts and Stephenson (1973, ch. 4). Contemporary Marxian crisis theory has expanded to include the rationalizing and legitimating aspects of the state, which is now an apparatus expected to ward off economic crises. See, for example, Habermas (1975) and Offe (1985).

15. To be more specific, the capitalist hopes (though there is absolutely no guarantee) that the amount of money he receives from the sale of the commodity exceeds that spent in its production. Hence, he plans on completing the following circuit: $M - C - M'$, where $M' = M + \Delta M$. If M' exceeds M the production of surplus value is clearly demonstrated, for Marx.

16. Cf. Mihailo Markovic (1974, p. 60): "Marx's key concepts invariably refer either to structures which are, but could be abolished, or to those which are not yet, but which could be created."

17. This may partly answer Golubovic's (1985) concern that praxis may not accord very well with empirical reality.

18. I am primarily concerned with Marx's implicit view of socialism in its most developed stage, after all the problems during the transition period have been eliminated. I do not intend to belittle the importance of the economics of the transition period. Interpreting Marx's view of the economic organization under the transition period becomes much more problematic, if only because this period is not considered to fully emancipate man, and is therefore not central to my purpose in this chapter.

19. There are some disagreements over the role of human nature in contemporary Marxism. The orthodox diamat philosophy jettisons the notion of human nature in favor of a strict determinism between base and superstructure; and the structuralists (such as Althusser) dismiss the idea of transepochal human nature because, in their view, social structures are wildly different and therefore human nature must be incommeasurable between structures. See Markovic's contribution on "Human Nature" in Bottomore et.al. (1983, pp. 214-17).

20. Moreover, in my view there is actually no way to get such unity in a modern, technologically advanced economy, so even centralization is unworkable. That is, though the logical demands of rational nonmarket coordination may lead toward ever increasing centralization, the epistemological limits of people's ability to fully plan a complex economy will fall short of that required for comprehensive planning. I shall discuss this knowledge problem in the second and fourth chapters.

21. It is also misleading to say that alienation is a unique product of the developed market system. The developed market institutions of money, capitalist

commodity production, and the spontaneously formed social division of labor are expressions of estranged labor. Estranged labor appears long before commodity production becomes universalized into capitalist commodity production: "The production of commodities," says Marx, "is first made general and then transformed by degrees into the capitalist mode of commodity production." Hence, only after "production by means of wage labor has become universal, the production of commodities must be the typical form of production" (1909 vol. 2, pp. 43-4). For Marx, "the wage is but a necessary consequence of labor's estrangement. After all, in the wage of labor, labor does not appear as an end in itself but as a servant of the wage" (1964, p. 117). Thus, Marx argues that wage labor exists before commodity production becomes universalized, and yet wages are already a consequence of economic estrangement. Therefore, estrangement is not unique to capitalist commodity production.

22. Though not recognized as a methodological individualist, Marx nevertheless exposes the state (in contrast to Hegel's view) as an institution composed of social individuals: "He [Hegel] forgets that particular individuality is a human individual, and that the activities and agencies of the state are human activities...., nothing but the modes of existence and operation of the social qualities of men" (1970, p. 22). Or elsewhere: "The state is an abstraction; the people alone is the concrete" (p. 28).

23. See Marx (1970, pp. 118-9) and Joseph O'Malley's introduction, p. xlii.

24. For a good introduction to the theory of material balances planning see Montias (1959) and Gregory and Stuart (1981, pp. 113-40).

25. A clear distinction between economic ownership and legal property rights was later advanced by Ludwig von Mises in his 1922 book Die Gemeinwirtschaft, in which he defines ownership as control over economic goods. Private property in the economic sense is "power of disposal" (Mises 1981, p. 45). Economically, Mises writes, "the natural having alone is relevant, and the economic significance of the legal should

have lies only in the support that it lends to the acquisition, the maintenance, and the regaining of the natural having" (1981, p. 27). Also see Aleksander Bajt's more recent discussion: "Who the owner is in the economic sense is a question of fact: it is he who acquires benefit from the thing or, to use Marx's expression, he who appropriates" (Bajt 1968b, pp. 152-3; cf. Bajt 1968a).

26. Though Mises mentions that the goal of socialism is "to make the means of production the property of the community" (1981, p. 40), he later links community ownership with state ownership (p. 45). Mises was well aware, however, of the difference between the community and the state, as he defines the nation as a "speech community" and the state in Weber's sense of a legitimate monopoly of coercion over a certain geographical region (cf. Mises 1983, ch. 1). It seems, then, that Mises was following the habit of his opponents. But we now need to recognize that, contrary to classical Marxism, social ownership does not need to mean state ownership.

CHAPTER TWO

Cooperation, Calculation, and Centralization: The Development of the Critique of Comprehensive Planning

INTRODUCTION:

I have discussed the tension in Marx's work between his vision of praxis and the emancipation of economic and political alienation through a decentralized system of worker-managed cooperatives on the one hand, and the centralizing organizational logic which springs forth with the elimination of commodity production and market exchange on the other. Thus far I have placed more emphasis on Marx the praxis philosopher, and traced the decentralist socialist implications embedded within that perspective in order to challenge the Roberts-Stephenson view of Marxian socialism. In this chapter I shall have the opportunity to challenge the praxis interpretation of Marxian socialism by emphasizing the organizational logic which arises in the attempt to eliminate market exchange. In order to do so, I will first focus on the development of the economics pro-

fession's analysis of producers' cooperatives and then continue on to one of the great debates in comparative economic systems, the problem of socialist calculation. Informed by the calculation argument, I will proceed to assess the praxis ideal of Marxian socialism.

COOPERATION THROUGH THE EYES OF THE ECONOMICS
PROFESSION:

In 1848, in the midst of the debates over "utopian" and "scientific" systems of socialism, in light of the various experiments in consumer and producer cooperatives and the attempts to establish integrated cooperative societies, the first edition of John Stuart Mill's Principles of Political Economy appeared. Published in seven editions during the author's lifetime, this treatise became a standard textbook for generations of economists.

In the first edition of Mill's text one gets the impression that socialism (particularly in the writings of the French socialists, writings which Mill primarily concentrated upon), is largely undesirable and impractical, stemming from the inability of a socialist community being able to allocate labor efficiently on a

basis other than rivalry. By the third edition (1852), Mill encouraged "an opportunity of trial" for the Saint-Simon and Fourier systems, but he nevertheless concluded that the task of the political economist is not to envision new models, new alternatives to capitalism. Instead, only real world experience will determine the value of each system. "In the meantime," Mill remarked:

we may, without attempting to limit the ultimate capabilities of human nature, affirm, that the political economist, for a considerable time to come, will be chiefly concerned with the conditions of existence and progress belonging to a society founded on private property and individual competition; and that the object to be principally aimed at, in the present stage of human improvement, is not the subversion of the system of individual property, but the improvement of it, and the full participation of every member of the community in its benefits (Mill, 1926, p. 217).

Following his own advice in that same edition, he focused on the development of the cooperative movement among the French working class. He proclaimed the French experience "shows that the time is ripe for a larger and more rapid extension of association among labourers."¹

Mill was quite impressed with the positive reforms brought about by the cooperative experiments. After

considering various forms of profit sharing and other capital-labor partnerships, he concluded:

The form of association,..., which if mankind continue to improve, must be expected in the end to predominate, is not that which can exist between a capitalist as chief, and workpeople without a voice in the management, but the association of the labourers themselves on terms of equality, collectively owning the capital with which they carry on their operations, and working under managers elected and removable by themselves (1926, pp. 772-3).

Mill believed cooperatives would prosper by directly competing with traditional capitalist firms. His reasoning was rather straightforward: Because "individuals are more likely to commence things previously untried" (p. 791), the private capitalist is more willing to innovate. The manager of the cooperative organization could keep abreast of changing market conditions by being alert to the judgements and innovations of the capitalist. In this way market imitation "will be very useful in keeping the managers of cooperative societies up to the due pitch of activity and vigilance" (p. 791).

Ultimately, Mill contended that competition between cooperatives and capitalist enterprises may evolve into a system of cooperative societies because i)

workers will no longer wish to work for wages; and ii) capitalists, rather than hiring the remaining "work-people of only the worst description," will instead loan their capital to the cooperative enterprises. To be sure, by the fifth edition (1862) Mill conclusively saw a "brilliant future reserved for the principle of co-operation" (1926, p. 782).

It was high time, then, that the economics profession began taking cooperation seriously. Indeed, by 1872 Henry Fawcett, a follower of Mill, echoed Mill's hope: "[cooperation's] general adaptation to industrial undertakings would probably mark the greatest advance ever yet made in human improvement. Labour and capital, instead of being hostile interests, will be united, and by this union an incalculable stimulus will be given to production" (Fawcett, 1872, p. 13).² In his presidential address to the Twenty-first Annual Cooperative Congress, the esteemed British economist Alfred Marshall (1889) glowed with optimism over the prospects of the cooperative movement, regarding it "as the typical and most representative product of the age"³ (1889, p. 227).

Meanwhile in the United States debates began to

rage over the prospects and possibilities of cooperation, largely instigated by F.A. Walker's critique. In The Wages Question (1876), Walker developed the notion of the entrepreneur, a notion which he rightly concluded was missing in the economic theory of distribution. The employer-entrepreneur, Walker reasoned, assumes the uncertainty of organizing labor of differing degrees of skill, combining labor with other scarce resources, and thereby producing a product with no guarantee of its sale within the marketplace.⁴ The employer-entrepreneur accordingly assumes the responsibilities of production and provides against contingencies while utilizing the faculties of technical skill, commercial knowledge, and the powers of administration⁵ (Walker, 1968, pp. 244-5).

Walker reacted against the notion that cooperation could get rid of the "mere distributors, who are not producers but auxiliaries of production" (Mill, 1926, p. 789), and thereby lead to ever greater efficiencies in production and distribution. Recognizing that entrepreneurial ability is a rare human faculty, Walker argued to the contrary: producers' cooperation, "considered as a question in the distribution of wealth, is

nothing more or less than getting rid of the employer, the entrepreneur, the middleman. It does not get rid of the capitalist." Walker maintained that the cooperative must combine "in the same person, not the labor function and capital function, but the labor function and the entrepreneur function" (Walker, 1968, p. 265).⁶ Owing to the scarcity of the entrepreneurial faculty, then, Walker concluded that there is little likelihood of successful producers' cooperation.⁷

Walker's argument, however, did not convince Richard T. Ely and his associates. Ely, whom Schumpeter describes as "that excellent German professor in American skin" (Schumpeter, 1954, p. 874, fn. 19), was devoted to historical analysis, but leaned perhaps toward outright historicism. In particular, he was enamored with the labor movement in the United States, and with the apparent success of producer cooperation within the cooperage industry in Minneapolis.⁸ It was during this period, the 1880s, that the cooperative movement had expanded very rapidly in the United States.⁹ The American economics profession, accordingly, studied the practice of cooperation most assiduously.¹⁰

Ely and his followers saw in the cooperative aspect of the American labor movement a move towards a new social order. He fought against the notion that cooperation "merely means business." "If that is all," says Ely, "let us turn our attention to some more profitable and interesting topic." For Ely there was much more to the cooperative movement than business alone. Indeed, he heralded the cooperative movement as "a complete, though peaceful, transformation of society" (Ely 1969, p. 169);¹¹ and, linking it to his Christian faith, Ely claimed that cooperation "alone is compatible with the ultimate complete triumph for Christianity" (Ely 1887, p. 151).¹² Although these economists wished to rid the social sciences of atomistic individualism, static theorizing, and a conservative rationalization of existing social institutions by placing more attention on history as opposed to theory - a promising methodological move - their account of the cooperative movement (especially Ely's) was unfortunately misleading. Perhaps because they were inclined to reject systematic theory altogether - a confused methodological move - they mistook their intellectual, progressive point of view for the point of

view of the subjects they were studying.¹³ To put it simply, the intellectual's idea of freedom did not mesh with that of the laborers they were studying.¹⁴

Other American economists argued that cooperation was, at best, a very limited form of industrial organization. J.B. Clark (1967, pp. 175-96), for example, had argued that cooperation should be given a chance to coexist in a competitive environment, but did not consider it as a universalizable form of business organization. Others, such as Edwin R. A. Seligman, furthered Walker's notion of a scarcity of entrepreneurial ability in the common workingmen; Arthur T. Hadley went so far as to say that the industries of his day "must have efficient leadership and unquestioned authority - one man power" (see Barns 1971, pp. 55, 63).

Moreover, the majority of cooperative ventures either went out of business or collapsed into joint stock companies. Most of the cooperatives established during the 1860s, 70s, and 80s had succumbed by the 1890s.¹⁵ But many of the cooperatives were developed in response to short run exigencies through changes in labor market conditions.¹⁶ Others failed as a result of either bad business skills or, more likely, because

they had been formed in order to protect skills which were rapidly being replaced by mechanization and the realization of economies of scale. Moreover, and perhaps more importantly, it seems that the growing consciousness of the Progressive Era, with its optimistic call for large-scale, organized labor unionism, trusts and industrial partnerships, eclipsed the perceived value of producers' cooperation.

Accordingly, Ely and his associates began to retreat from their defense of producers' cooperatives. By 1903 Ely (1971, vol. II, pp. 468-69) had outlined a "scientific alternative of socialism" which included private property, competition and its regulation by government, the necessity of public municipalities, and state welfare programs to ensure a more equitable distribution of wealth. Conspicuously absent is the call for producers' cooperatives.¹⁷ "The true ideal" for Ely now lay "midway between anarchy and socialism, and may be termed the principle of social solidarity." Replacing the cooperative principle with that of social solidarity, Ely maintained that "the great institutions of society must be conserved, but developed in the interests of liberty positively conceived. There must

be a carefully elaborated and widely executed regulation of economic relations" (Ely 1971, vol. II, pp. 421-22).

The notion of cooperation had changed its meaning, from the experiments in consumers' and producers' cooperatives to the organization of labor, business and government interests under the form of state regulation of competition, the promotion of trusts and partnerships, and public municipalities. The hope for industrial reform beyond that of producers' cooperation had been growing, of course, during the late 1800s. Henry C. Adams, for instance, argued that trusts and industrial partnerships were a better means of industrial reform than producers' cooperation, which, though "good enough in its own way," "as a practical solution to the labor problem... counts for little" (see Barns 1971, p. 63). Hope lay more in the form of state regulation and planning.¹⁸

Though by 1918 Adams, in his Description of Industry, had indeed called for the ideal of the cooperative system, he had understood cooperation to mean not the specific notion of consumers' and producers' cooperatives, but rather the whole panoply of industrial re-

forms which were proposed by the economics profession (cf. Dorfman 1969, vol. V, p. 401-2).

THE RISE OF CENTRAL PLANNING:

Other currents contributed to the economics profession's turn away from the traditional notion of producers' cooperation. Not only had the apparent failure of producers' cooperatives and the newly found hope in the cartelization of industry caused the shift of focus. A more subtle, philosophical undercurrent had been gaining momentum both within business and within the social sciences in general.

The notion of scientific management may be the clearest to perceive. ¹⁹ Scientific management surfaced with the publication of Henry R. Towne's "The Engineer as an Economist" (Towne 1886). Towne, an engineer, not an economist, had delivered this paper to the American Society of Mechanical Engineers. Though brief and simplistic, Towne's general message encouraged the link between workplace organization and engineering (particularly mechanical engineering), for "the matter of shop management is of equal importance with that of engineering" (1886, p. 48). But it was Towne's rival,

Frederick Winslow Taylor, whose 1895 lecture "A Piece Rate System, being a step toward a Partial Solution of the Labor Problem" (also delivered to the ASME) more fully developed the notion of scientific management, and had become known by the label "Taylorism."

The basic tenets of scientific management may be expressed as follows (Shafritz and Ott 1987, p. 21):

1. Organizations exist to accomplish production-related and economic goals.
2. There is one best way to organize for production, and that way can be found through systematic, scientific inquiry.
3. Production is maximized through specialization and division of labor.
4. People and organizations act in accordance with rational economic principles.

Once the best way to organize production is discovered, the role of the scientific manager is to impose the optimal procedure upon those working within his organization. There is little room for cooperation under such a system of workshop management.

Like other intellectuals of the time, Taylor was motivated by the need to "solve" the "labor problem," a problem which he recognized to be in the "soldiering" of the workforce - the unionization of working men and

the subsequent strike activities which followed. He sought a "complete re-division of the work" within the shop, "divided into two large sections, and one of those sections is handed over to the management" (Taylor 1916, p. 75). Although the label "cooperation" was attributed to this system ("It represents a democracy, co-operation, a genuine division of work which never existed before in this world" (1916, pp. 75-6)), it is clear that this pushed out the possibility of meaningful producers' cooperation (which, of course, did not concern Taylor at all). Scientific management meant "Taking the control of the machine shop out of the hands of the many workman, and placing it completely in the hands of the management, thus superseding the 'rule of thumb' by scientific control."

Under scientific management "the workman is told minutely just what he is to do and how he is to do it; and any improvement which he makes upon the orders given him is fatal to success" (quoted in Sohn-Rethel 1978, p. 152). In the scientifically managed workshop, "Every little trifle, - there is nothing too small, - becomes the subject of experiment. The experiments develop into a law" (1916, p. 75). The crux

of these experiments, to be sure - the crux of Taylorism - lay in the time-and-motion studies of business operation. Here, meaningful human labor is reduced to a series of mechanical operations, operations which are sought to increase output under the briefest period of time possible. Various speed bosses, inspectors, time-study men and the like gather data into various matrices of human physical motion, time, and output. The data is then formed into "rules, laws, and in many cases to mathematical formulae, which, with these new laws, are applied to the cooperation of the management to the work of the workmen" (Taylor 1916, p. 72). In this way, and this way alone, the organization of the workshop is rendered "scientific."

By 1908 the new Harvard Business School adopted Taylorism as the "foundation concept" of modern management; by 1910 scientific management was argued for by Louis D. Brandeis in his famous Eastern Rate Case testimony, where he maintained that the Santa Fe Railroad did not need the rate increase it was pleading for, because it could "save a million dollars a day" by using scientific management. By this time, scientific management was well under way in America (see Shafritz

and Ott 1987, p. 25; Montgomery 1979, pp. 26-7).

Outside the United States, scientific management gained widespread support. While Taylor restricted his analysis to small workshops, others, such as the French executive engineer Henri Fayol, sought to universally apply scientific management to all forms of organization in his 1916 classic General and Industrial Management (Fayol 1949). After all, if a capitalist factory could be rendered more efficient through a unified, central plan, the subservience of the workers to an authoritative boss, and various incentive schemes calculated to maximize output, why wouldn't this method hold for any organization? Scientific management had been adopted by the German state to mobilize forces for the first World War. It had been employed as a means to centrally plan and coordinate the economic activities of the German State. As Judith Merkle points out, "Successful militarism not only elevated cultural values of commandism, but required the development of thought about both systematic organization for planning, and for the arrangement of logistical support" (Merkle 1980, p. 175). Scientific management filled this role. In fact, scientific management evolved from

the notion of workshop organization to nothing short of a political philosophy, particularly as expressed by the philosopher-industrialist Walther Rathenau and the mechanical engineer Richard von Moellondorff.²¹

The German War economy became the exemplary model of economic efficiency. Not only the German rationalization, but war planning in general would become, in time, a model for peacetime management of economies as well (cf. Hayek 1975, pp. 29-32). As Wesley C. Mitchell said in May of 1918, "it seems impossible that the countries concerned will attempt to solve [the new problems peace would bring] without utilizing the same sort of centralized direction now employed to kill their enemies abroad for the new purpose of reconstructing their own life at home," for "The war has demonstrated the feasibility of considerable and rapid changes under the pressure of circumstances" (quoted in Dorfman 1969, vol. III, p. 490).²² Later John Maurice Clark, son of J.B. Clark, called for national economic planning on the basis of the experience during world war one, and in particular pointed to the values of scientific management: "In the past," Clark argued, "most observers felt that central control could not do

better than unplanned competition; and they focused their attention on the marvelous fact that free exchange without central planning does produce some sort of order. This may have been the proper attitude at the time, in view of the prevailing ignorance of the principles of large-scale organization, and of the nature of the problem of business depression. But it is not a proper attitude now."²³

Besides his reading of Marx, World War I and the German war economy in particular would also have a great influence on Lenin and the Bolshevik Revolution. Lenin revised his assessment of Taylorism after seeing it put into practice as a means of social organization, though he did not adopt it completely: "Now that the workers, and no longer the bourgeoisie, hold power, we cannot reject Taylorism wholesale. Instead, we must remove its bourgeois trappings with the help of scientific research and practical experience and examine it carefully for those elements which could facilitate the work process and offer some relief to the worker by transferring the hard physical labor to the machine. Only in this way can we reach the state where the worker only had to adjust the heavy machinery; conse-

quently, general productivity in the factory can be increased" (quoted in Traub (1978, p. 84).²⁴ By 1921 there were about twenty institutes addressing scientific management. The Central Institute of Labor in Moscow was the major organization of this kind. Created in 1920 and directed by Alexej Kapitonovich Gastev, its purpose was to promote scientific management in all walks of life, as the Central Institute of Labor called for nothing less than complete "social engineering." To be sure, Gastev went so far as to say that "Many find it repugnant that we want to deal with human beings as with a screw, a nut, a machine. But we must undertake this as fearlessly as we accept the growth of trees and the expansion of the railway network" (see Traub 1978, pp. 87-9).²⁵

In the midst of the Bolshevik Revolution Lenin, influenced by the organizational side of Marx, envisaged turning "the whole of society" into "one office and one factory." Though such an organization (according to Bukharin) would ideally consist of a system of "cooperative" organs, it would nevertheless be subject to a centrally unified economic plan developed by the authority of the proletariat state. Bukharin stressed

that "one of the fundamental tasks of the Soviet Power was and is that of uniting all the economic activities of the country in accordance with a general plan of direction by the State" (Bukharin 1966, p. 266). The Supreme Economic Council would be entrusted with the responsibility to coordinate "all economic activities of the country," by attempting to "draw up and to carry out a unified scheme for the State administration of economic life" (1966, p. 269). Abolishing the anarchy of capitalist production meant, in turn, erecting a "great united, organized, 'mechanized' system of social production" (1966, p. 277).²⁶ Such would be the goal of the Bolshevik Revolution.

Interest in traditional producers' cooperation declined, both in theory and practice. As Laidler put it: "The World War came. Revolution followed. Communism loomed up in the East, and the communist or bolshevik philosophy began to command the attention of the world as a new and potent phase of revolutionary thinking" (Laidler 1927, p. 681). Economists began to concentrate their attention upon comparative systems of economic organization. As opposed to cooperative production per se, the profession began to think more

systematically about the notions of centrally planned versus market allocated systems. The debate over the possibility of economic calculation under socialism was just on the horizon.

CENTRAL PLANNING AND THE SOCIALIST CALCULATION DEBATE:

The socialist calculation debate is one of the great debates within the economics profession. Ludwig von Mises's 1920 statement, "Economic Calculation in the Socialist Commonwealth," ignited a controversy that engaged the profession for nearly two decades; and in many ways the debate has not ended.²⁷

Mises was motivated by the events that had taken place both within Germany and the Soviet Union.²⁸ He condemned Proudhon and the other utopian socialists for not coming to terms with economic principles, for not reconciling their blueprints with the economic realities of the present-day world.²⁹ Moreover, he levelled similar charges against Marx's notion of scientific socialism, for it, too, had not attempted to systematically investigate the nature of economic calculation within the socialist system. I would add that Marx's ignorance of the complexity which one necessarily faces

in the attempt to consciously coordinate the economic activities of the entire system gives rise to the tension in his own conception of socialist planning.

Mises himself understood socialism to be an economic system which, having abolished the capitalist institutions of private property, money, and commodity production, would in turn coordinate economic activities under the authority of a central planning board. The main view of German Marxism at the time was to overthrow the market (an ex post coordinator of economic activities) for an ex ante coordinator of economic activities - a general plan scientifically designed and executed from a single controlling center. With this understanding in mind, Mises issued the following challenge: Upon what basis would the central planning board rationally calculate the various scarcities of economic goods?

Mises, the leading figure within the Austrian School of economics during the 1920s, had been influenced by Boehm-Bawerk's earlier critique of Marx's labor theory of value.³⁰ He accordingly did not consider the labor time analysis a solution to rational central planning.³¹ Instead, Mises focused his critique on the

knowledge utilized by market-generated prices.

Mises argued that freely established, market-generated prices act as "aids to the mind" under the anarchic organization of capitalist industry. Market prices allow individual enterprises to judge the economic efficiency of their activities by using profit and loss accounting. Though not perfect nor universally applicable to all valued goods,³² monetary calculation nevertheless allows for the coordination of a set of intricately connected, production processes. Though an isolated individual, a Robinson Crusoe as it were, need not engage in monetary calculation in order to rationally allocate limited economic resources, Mises maintained that an advanced economic system not only owes its complexity to monetary calculation; it could not, moreover, further its growth without continuing to depend upon profit-loss calculations reckoned according to spontaneously formed market prices.

Because socialism seeks to replace private ownership of the means of production with communal ownership, capital goods are no longer objects of exchange - the market for capital goods would be abolished. Without these markets, Mises maintained, there can be no

scarcity indicating prices for the means of production. And without these prices, he concluded, rational economic planning is impossible.

To put it another way, Mises claims that market exchange supplies knowledge to the social actors in the economy. Central planning, by seeking to destroy the "anarchy of production," i.e., by seeking to destroy spontaneous market exchange, cannot rationally allocate scarce economic resources because the central planning board simply does not have the requisite knowledge to do so. As Mises says, "No single man can ever master all the possibilities of production, innumerable as they are, as to be in a position to make straightway evident judgements of value without the aid of some system of computation" (Mises 1920, p. 102). For Mises, such a system requires market prices.³³

Mises's essay was translated into English in 1935, and his Die Gemeinwirtschaft was translated as Socialism in 1936. Later that year, Oskar Lange attempted to disprove Mises's argument that rational economic calculation under socialism is impossible (Lange 1936). Lange had borrowed some key ideas developed earlier by Enrico Barone and Fred M. Taylor, whose ideas I shall

briefly discuss.

In "The Ministry of Production in the Collectivist State," Barone (1908) had argued that both capitalism and socialism must solve a similar problem: each system must efficiently allocate scarce resources. Barone demonstrated the "theoretical" possibility of socialism by working with simultaneous equations within a general equilibrium framework. He argued that, in terms of neoclassical theory, either system can reach a determinate equilibrium solution by solving a system of simultaneous equations, as long as the number of independent equations equals the number of unknowns. Either system must solve the same set of equations. In principle the system is solved by the market under capitalism, and by central planning under socialism. But Barone also maintained that, though we may know what the structure of the equations looks like, the central planning board will not be able to solve the system because there are simply too many equations - millions of them, in fact. Barone concluded that although capitalism and socialism are formally similar (that is, they both face the same economic problem), capitalism offers a better chance of solving the equa-

tions, and therefore achieving equilibrium, than socialism.³⁴ In his presidential address to the American Economic Association, Fred M. Taylor (1929) added that the market indeed "solves" this system of equations, but it does so by "trial and error." Market prices equilibrate supplies and demands due to the guesswork on behalf of independent producers and consumers.

Combined with the general equilibrium system of Barone, this "trial and error" solution was adopted by Lange in his attempt to answer Mises. In Lange's model, the central planning board (CPB) must first determine the prices of consumer goods (which would then be used to impute value to higher order, capital goods). The CPB does so by establishing some initial set of prices. Chances are that the initial prices will not be equilibrium prices - as evidenced by shortages and surpluses. A price above equilibrium results in a rising inventory of consumer goods. This sends a signal to the CPB to lower the price; likewise, a price initially set below equilibrium results in a falling inventory, and thus alerts the CPB to raise the price. By this "trial and error" method Lange claims the CPB could effectively establish the equilibrium set of

prices. In fact, he believes the CPB could do so more quickly and with less error than the market does with millions of independent entrepreneurs: "Indeed, it seems that this trial and error procedure would, or at least could, work much better in a socialist economy than it does in a competitive market. For the Central Planning Board has a much wider knowledge of what is going on in the whole economic system than any private entrepreneur can ever have, and, consequently, may be able to reach the right equilibrium prices by a much shorter series of successive trials than a competitive market actually does" (Lange 1936, p 89).³⁵

Lange impressively answers the issue of computing the equations modelled by Barone. Indeed, he should convince any neoclassical economist of the possibility of rational calculation under socialism: if neoclassical economists explain market coordination by way of the tatonnement process of the Walrasian auctioneer, then it is not clear why a central planning board could not replace the auctioneer, at least in theory.³⁶

Lange did not, however, answer Mises's argument. True, Hayek (1935, p. 207) had said that "it must be admitted that this is not an impossibility in the sense

that it is logically contradictory" (referring to the mathematical solution proffered by Barone, Taylor, and Dickinson). Also Lionel Robbins responded that "we can conceive this problem to be solved by a series of mathematical calculations" but "in practice this solution is quite unworkable" because it would necessitate compiling and solving "millions of equations" (Robbins 1934, p. 151). But their statements did not constitute a "retreat" from the Misesian position (and hence imply that Mises was wrong), as Lange claims (p. 63).³⁷

Mises maintained from the beginning that the problem of economic calculation is not an issue in static economic theory. Rather, it is a practical problem of dynamic economics.³⁸

In his detailed study of the debate Don Lavoie has shown that the profession's general acceptance of the Lange position misdirected the debate. It began with the issue of economic calculation within the existing dynamics of socialism, but was "answered" by resorting to the statics of pure, institutionless economic theory (1985c, pp. 78-144). Mises's contention was not proven wrong; it was simply misunderstood.³⁹ Mises (and Hayek) considered the fundamental problem to be one of

formulating or determining the "equations" of the economic system, as it were, and not of computing a given set of equations. They had maintained that, in the endlessly changing, uncertain world of everyday life, the central planner would never have the requisite knowledge to determine the "coefficients" that make up the "equations," because this knowledge is spread across all the agents that compose the economic system, and cannot be aggregated or concentrated in any form useful for the central planning board. Although one may "theoretically" demonstrate that a solution can be found by computing a given set of simultaneous equations, the issue of real-world socialist calculation nevertheless remains one of formulating the "equations" themselves, to keep within the language of general equilibrium theory.

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Both sides, nevertheless, believe to have won the debate. Lange and his followers have shown that, in the neoclassical model of general equilibrium, socialist calculation is rational as long as a market for consumer goods is present, which accordingly allows for the imputation of values of higher order capital goods. Mises and the Austrians believe they have won, because

Lange and his adherents were forced to adopt at least a quasi-market for socialist allocation, and, moreover, because they still couldn't demonstrate how rational economic calculation would be possible in a complex, dynamic system.

Much of this confusion rests on the fact that the Austrians did not clearly distinguish themselves from the neoclassical mainstream. Their views of the nature of economic science, the use of equilibrium constructs, the meaning of competition and market-generated prices, etc. differ remarkably from the mainstream. As Karen Vaughn remarks, those in favor of socialism (with the exception of Maurice Dobb)

took their inspiration from Marshall, more from Walras, but all agreed that given some "just" initial wealth distribution, equilibrium in the perfectly competitive model represented the maximization of human welfare, and all their programs for socialism were designed to reproduce the conclusions of perfect competition in a centrally directed economy.

While the Austrians, who viewed competition as rivalry and not as an equilibrium end-state,

worked with a perception of economic activity that differed markedly from that [of] mainstream economists. Primarily, they questioned the relevance and applicability of static equilibrium models in which all information is given, and emphasized instead the process by which decentralized econo-

mic actors operating in a world of uncertainty and constant change [would] bring about the coordination of production and consumption plans (Vaughn 1980, pp. 536-7).

Unfortunately, these differences were not understood by the participants in the debate. The Austrians are partly to blame here, because in their interest to expose the shortcomings of the labor theory of value (particularly its Marxist variant), they mistakenly aligned themselves with the neoclassical exponents of marginal value theory. As Lavoie has said:

A more critical attitude toward the neoclassical approach early in the debate could have prevented much of the confusion that developed later on. The early Austrian theorists were too eager, in my view, to embrace neoclassical economists as marginalist allies against the threat of resurgent classical value theory in the form of Marxism. This kept them from realizing that on some issues they and the Marxists had more in common than either did with the sort of neoclassical economics that underlies the market socialist proposals (1985c, p. 3).

In other words, neither side realized the extent to which they were debating across incommensurable paradigms of thought. Not only was misunderstanding inevitable, but, as Vaughn states, the socialist calculation debate was ultimately "a contest of theoretical models in which a mutually satisfactory resolution was precluded from the outset" (Vaughn 1980, p. 537).

**TOTALITARIAN CENTRALIZATION AND THE LOGIC OF
COMPREHENSIVE PLANNING:**

The Bolsheviks' attempt to centrally plan the economy during the War Communism period in Soviet history (1918-1921) was taken by the Austrians as evidence of their argument. During War Communism enterprises were nationalized, market exchange and money were abolished. The ensuing economic calamity that had resulted demonstrated Mises's point that central planning must necessarily be irrational. Hence, the Bolsheviks were forced to submit to market-based allocation as legitimized under the New Economic Policy.⁴¹ Later, in the 1930s and 1940s under the Five Year Plans of Stalin, (which the standard historical literature wrongly cites as being the first true introduction of central planning in the Soviet Union), Lange and his followers offered the Five Year Plans as proof that central planning in fact works, and thus they thought this evidence disproved Mises's thesis.

During the post-war era that followed the socialist calculation debate, F.A. Hayek began to focus on the totalitarian nature of so-called centrally planned economies in his Road to Serfdom (Hayek 1944). His message was strong and uncompromising: "Planning leads

to dictatorship," Hayek argued, "because dictatorship is the most effective instrument of coercion and the enforcement of ideals and, as such, essential if central planning on a large scale is to be possible" (1944, p. 70). Hayek had not admitted that central planning was possible in practice. Rather, he traced the logical consequences which arise during the attempt to replace market organization with comprehensive planning.⁴²

Hayek advanced the thesis that political freedom cannot be had without economic freedom, regardless of the moral aspirations of the planning body.⁴³ In a world of scarcity, economic planning necessarily entails choosing between conflicting ends. To develop a unified economic plan means some individuals' ends must be sacrificed for the satisfaction of others; the discretion of choice cannot be left to the spontaneous actions of individual agents within the system, as occurs under capitalism, for this is precisely the "anarchic" feature of markets that Marx finds alienating in the economic sense. As opposed to the rivalry between a multitude of individuals, the central planning board must attempt to allocate systematically

scarce resources for the benefit of society as a whole. Otherwise only chaos would result. And it shall attempt to do so in a scientifically organized, detailed plan. Hayek maintains that if the economic goal of socialism is the elimination of the uncontrolled anarchy of the market process through the rationally planned organization of economic activity, then the following political consequences logically arise.

Because the central planning board attempts to control economic activity rationally, the board must bring under its control the means individuals use to satisfy their ends. This necessarily implies that the board must also determine which ends are worthy of social pursuit. "Economic control is not merely control of a sector of human life which can be separated from the rest," Hayek argues. Instead, "it is the control of the means for all our ends" (1944, p. 92). The discretion over which ends will be pursued and which will be foregone must rest squarely within a central planning board.

The maintenance and well-being of society depends upon the workings of a smoothly functioning, rational plan. But the planning board would face an immeasurab-

le degree of complexity when it tries to develop a feasible plan of action. Without market prices serving as a means to convey and utilize the knowledge necessary to coordinate the economic activities of the participants within the system, the planners will find that the fundamental task they face has much more to do epistemology than it does with moral justice. That is, though they may believe to possess objective guidelines of economic justice (to each according to his needs, from each according to his abilities, all the power to the soviets, and so forth, down to the most minute details), they will soon face an obstacle when it comes to fulfilling their goals of justice. They will not possess any useful criteria to guide them in acquiring and transmitting the detailed and relevant knowledge which will be necessary to comprehensively coordinate the system. The planning apparatus, in its sincere attempt to seek a unified plan, must make its task more manageable by restricting the role of voluntary agreement and democratic influence. Hayek writes:

An economic plan, to deserve the name, must have a unitary conception. Even if a parliament could, proceeding step by step, agree on some scheme, it would certainly in the end satisfy nobody. A complex whole in which all the parts must be most

carefully adjusted to each other cannot be achieved through a compromise between conflicting views. To draw up an economic plan in this fashion is even less possible than, for example, successfully to plan a military campaign by democratic procedure. As in strategy it would become inevitable to delegate the task to experts (1944, p. 64).

Consequently, even if the ideal is a fully participatory form of comprehensive planning, as opposed to a purely centralized regime, the planning board, Hayek argues, will not submit to democratic means, for it will soon find that it cannot place these socially important technical issues into the hands of society as a whole. Rather it will find it necessary, if rationalized production and consumption activities are to ever commence, to pursue those social ends that it deems technically possible and economically and socially worthwhile, rather than submit to the will of an incompetent majority of citizens. "That the complex system of interrelated activities, if it is to be consciously directed at all, must be directed by a staff of experts, and that ultimate responsibility and power must rest in the hands of a commander-in-chief whose actions must not be fettered by democratic procedure, is too obvious a consequence of underlying ideas of central planning not to command fairly general as-

sent" (1944, p. 88).

The organizational logic of planning presents the major problem. The planning board must assume a monopoly of control over production. It alone must enjoy the power to override the desires of those it claims to represent. By overthrowing the fetters of democratic decisionmaking,

it would have complete power to decide what we are to be given and on what terms. It would not only decide what commodities and services were to be available and in what quantities; it would be able to direct their distribution between districts and groups and could, if it wished, discriminate between persons to any degree it liked. If we remember why planning is advocated by most people, can there be much doubt that this power would be used for the ends of which the authority approves and to prevent the pursuits of ends which it disapproves? (1944, p. 93).

Society will therefore be divided into those who do the planning, and those whose life activities are planned from the outside, and economic and political alienation appears once again. Though one may hope the planners are morally enlightened and humane people, Hayek maintains that there is good reason to believe that only "the worst get on top," because, in its attempt to concentrate power in order to execute a unified plan, the central planning board must also

demand unquestioned allegiance by the masses. It must ensure that the planners' goals are thought to be those of society as a whole. As such, the centrally planned society becomes politicized in the sense of politics as the embodiment of coercive power and force. The notion of politics as a rational dialogue between social individuals concerning their rights and responsibilities (or the potential for such a dialogue) must necessarily cease to exist; for, in its quest for truth, genuine political dialogue implies the freedom to challenge, to be critical, and to dissent. The central planning board cannot help but exploit its monopoly over the production process by putting an end to social criticism; for criticism, and the unintended consequences it must yield, necessarily acts as a fetter upon the conscious organization of society. In the end, propo-⁴⁴ganda must replace genuine political dialogue.

Hayek has followed the organizational logic of the attempt to eliminate the market while assuming that the planners sincerely wish to organize society rationally for the betterment of its citizens. Others have argued that existing Soviet style systems, in their failure to completely abolish the anarchy of market relationships

with a comprehensive plan, have instead erected a myth of the plan. In this case, an individual such as Stalin never cared to realize the ideal democratic program spelled out by Lenin, but instead wanted simply to rise to power. The subsequent Five Year Plans are nothing more than an ideological facade constructed to legitimize the all-powerful Soviet state.

To be sure, the system is not planned from a single center, but is in fact "polycentrically" planned, as Michael Polanyi, the Hungarian scientist and philosopher, called it. In contrast to the notion of material balances planning I discussed in the first chapter, Polanyi argues that the Soviet system offers only the illusion of being integrally and rationally planned from the center. Of course, this is an ideal model that even the Soviets would not claim operates perfectly. But Polanyi nevertheless maintains that actual Soviet practice has at best only the appearance of such a plan.

In practice the system's complexity necessarily overwhelms those who appear to be directing the economy, as Hayek has suggested. Rather than an unambiguous directive issued from the higher levels of the planning

hierarchy, the individual enterprise managers receive a plethora of often contradictory directives. In order to "fulfil the plan," then, each manager relies primarily upon his own judgement and chooses that "directive" which he considers most rational for achieving the ends of the enterprise he represents (these ends may be economic or political).

The problem here is clear: if one chooses a directive, then it is really not a directive at all. As Polanyi (1951, pp. 111-37, 154-200) and Paul Craig Roberts (1971, pp. 70-88) have shown, coordination takes place largely at the disaggregated level of these individual enterprises which make use of profit and loss accounting and the various black markets which sustain the allocation of scarce capital resources. The economic system is thus best described as polycentrically coordinated as opposed to centrally planned, which does not differ in kind from the commodity production-relations of capitalism. Though the quantity and quality of outputs chosen and produced at each individual enterprise level become aggregated into a so-called central plan; and indeed will later be published as a unified, centrally issued plan established

by the directives of the Soviet state, in fact the coordination of economic activities takes place at the enterprise level, at the bottom of the hierarchy. Though they possess a great degree of political power, those at the top of the hierarchy do not possess any meaningful degree of rational economic control over the coordination process, nor can they understand it in any degree of detail (also cf. Tullock 1987, pp. 123-5, 151-6).

Polanyi remarks: "in reality such an alleged plan is but a meaningless summary of an aggregate of plans, dressed up as a single plan"⁴⁵ (1951, p. 134). More recently in his The Myth of the Plan, Peter Rutland (1985) argues a similar point: planning in the Soviet system "is a very real political phenomenon, even if politics is about the erection and maintainance of public facades"⁴⁶ (p. 260). Rather than true control of the economy in the attempt to eliminate the anarchy of production which defines market systems, the so-called central planners in the Soviet system wield a great degree of coercive power; an alienating, dehumanizing power stronger than that of any capitalist system.

Hayek's original argument in The Road to Serfdom seems to go a long way toward explaining the totalitarian, centralizing tendencies which arise during the course of comprehensive economic planning, and consequently casts into doubt the realizability of the one-sided position which supports Marxian planning as a completely decentralized and fully participatory option. Unfortunately, the praxis philosophers who hold this position apparently believe that the totalitarian problem is a separate issue of the transition period, not an unintended outcome of abolishing the market.

THE TOTALITARIAN PROBLEM AMONG THE PRAXIS PHILOSOPHERS:

In discussing the transition from a capitalist to socialist economy, "the critical question is," says Mihailo Markovic, "will this elite... find within itself the moral strength and consistency to pass voluntarily to the basic element of the socialist revolution? (i.e., to the realization of self-government, and consequently the gradual setting aside of itself as a powerful elite.).... Or will several decades of intense concentration of power in its hands so change its nature that this elite will identify itself with socia-

lism and will want to cling permanently to its political and material privileges, and will want to remain permanently not only the mind but the iron hand of progress?" (Markovic 1982, p. 25).

How will the revolution bring about the political freedoms envisioned by Marx? Markovic notes that the political sphere in contemporary capitalist systems has moved away from what I have called above the dialogical approach (indeed, have we ever enjoyed the possibility of a generalized, uncoerced dialogue?) and hence has "missed the real possibilities of an authentic, rich life." Moreover, the so-called centrally planned economies have, as Hayek suggests in principle, intensified the problem, for there is "an even greater tendency... to concentrate the majority of decisions concerning all key social questions in the hands of a limited group of rulers" (see Markovic 1982, pp. 25-6). In such a world, Markovic and the other Yugoslav praxis philosophers maintain that the state's attempt to centrally plan an economy is itself a major vehicle of alienation. Thus Pedrag Vranicki writes "The only difference in this instance is that capitalist monopoly has been supplanted by the universal monopoly of the

state" (1965, p. 306).

Vranicki and the Praxis group in general seem to believe the myth that central planning is actually achieved under the Soviet state. Zagorka Golubovic, one of the leading praxis philosophers, comes closest, however, to piercing the veil of socialist central planning. For example, she writes:

When socialist goals were converted into national objectives, the criteria for evaluating progress became more discernable: national prosperity was measured against the visible material progress of capitalist countries. The language of figures came into usage in order to prove the great advantage of a "socialist way" of development over the capitalist. Naturally, within this framework it was not possible to employ as "facts" either the development of revolutionary power, the transformation of inter-personal relations, or a greater degree of freedom to serve as the "unit for measuring progress." Per capita production of steel, electrical energy, and so forth, served instead as the appropriate unit of measure. This approach to development upheld the "necessity for strengthening the state in socialism" (1981, p. 133; emphasis added).

Polanyi, Roberts, Rutland and others who hold to the myth of the plan thesis essentially argue that the "language of figures" is indeed all that there is to the "plan." These various "facts" of economic "development" are strung together in order to legitimate and further strengthen state power.

The Soviets, according to Golubovic, have created another myth: the myth of the "leading role of the working class" (1981, p. 133). Abolishing the bourgeois state only to replace it with an equally if not more oppressive socialist state does not solve the problem of freedom in Marx's sense. In a point which echoes the ideas Hayek said over forty years ago, Golubovic argues that in such a system "Only the ruling class possesses all means necessary for establishing class identity and for leading class struggles, including means of repression. All other classes cannot express themselves as a class or defend their interests since they have neither their own organizations nor are allowed to develop their own ideology" (1981, p. 133).

Markovic (1982, pp. 29-31) has summed up the contemporary Marxian critique of alienation under bureaucracy (alienation which develops under capitalism and is intensified under statism) with the following points:

First, alienation arises through the professionalization of politics. Politics and political ideas become commodified. That is, politics becomes a source of income and power, a career rather than an arena of

open dialogue in our search for ethical truths. Moreover, as the Frankfurt School philosopher Jurgen Habermas stresses, politics has become infused with instrumental reason - a "scientization of politics" arises under the influence of philosophical positivism.⁴⁷ In politics, as in positivism in general, the ends of social life become increasingly outside the sphere of rational discourse. Not subject to critical reflection, value systems instead become regulated primarily with regard to society's technical possibilities and the optimal means by which to achieve them. Politics consequently becomes the technical means by which to achieve a given (generally unquestioned) set of goals. Voting, at best, takes the place of rational discourse, and, at least from the level of the individual, contributes little to actual social change.⁴⁸

This leads to Markovic's second point. The state increasingly treats the majority of its constituents as objects - things - in order to achieve its ends. "This is the highest and most subtle form of reification," Markovic claims, because "never have so many people been so successfully manipulated, thanks, among other things, to the extraordinary technical perfection of

all forms of propoganda" (1982, p. 30). In addition to reification, the state also embodies a similar element - exploitation. As the state grows, and increases its power over issues of distribution, from a Marxist standpoint it tends to extract more of the social surplus value of productive activities for its own ends (that is, for the personal ends of individual bureaucrats within the state) (1982, p. 31).⁴⁹

Under statist forms of socialism, the worker becomes oppressed by state institutions which are essentially inaccessible to him and largely outside the sphere of critique. He lives in a brave new world of domination and subordination. He becomes dehumanized under an unyielding stream of unlimited political authority. Consequently, Markovic stresses:

to humanize radically the contemporary world means to create conditions in which each individual can participate in the control of the enormous social and technical forces which man has at his disposal. An essential condition of such fundamental human liberation is the abolition of any concentration of political and economic power in the hands of any particular social group.

The abolition (Aufhebung) of private ownership of the means of production and the abolition of capitalists as a class is the first decisive step in this direction. The abolition of politics as a profession which enables a social group permanently to control social operations, and the abolition

of bureaucracy as privileged elite is the second decisive step. Each is a necessary condition of a radical humanization, but only both taken together constitute its sufficient condition (1974, p. 81).

But, as Hayek has shown, the attempt to overthrow the market must place power in the hands of a few planners. If not, complete and utter chaos would result. Consequently, both conditions - abolishing economic power and abolishing political power - cannot be had simultaneously as the praxis ideal claims. Interfering with or outright destroying market exchange will only increase political power.

Consider, for instance, the enormous political power wielded in the name of the "dictatorship of the proletariat," a notion which Bakunin, recall, had repeatedly warned about. To be sure, Marx's notion of the dictatorship of the proletariat had become, partly under Lenin, and absolutely under Stalin, the dictatorship of the party in the name of the proletariat, whose primary goal was to consolidate and maintain power. But this is only one example of a political elite rising to power with the destruction of spontaneous market relations. The Praxis group maintains, however, that statism is not the necessary outcome of abolishing (at least to some degree) spontaneous market

relations per se. Rather, they seem to consider totalitarian centralization to be an undesirable consequence of Marx's strategy articulated in the notion of the dictatorship of the proletariat.

For example, Svetozar Stojanovic claims that the idea of the dictatorship of the proletariat is not only naive and utopian, but that Marx was utterly irresponsible in promoting it because it could be used to support a spectrum of ideological missions. In short, Marx never got beyond the ambivalence of meaning in the dictatorship of the proletariat - he advocated workers' self-management such as it arose under the Paris Commune, and yet considered only the communists to be the vanguard of the socialist revolution.

Stojanovic argues that Marx should have focused primarily on the actual possibilities (intended and unintended) of the dictatorship of the proletariat, if he claimed his vision of socialism was scientific. Instead, however, he treated the idea as would any other utopian: the state would wither away some time after the dictatorship of the proletariat had replaced that of the bourgeoisie. I would add it is not simply (as some are inclined to argue) that Marx could never

have possibly imagined the extreme degree of statism and plunder that arose under Stalin in the name of Marxism. Rather, because of his excessive anti-utopianism, Marx never bothered to systematically and realistically study the issue.

"Certainly," Stojanovic writes, "a theory which deliberately takes upon itself the responsibility for changing the world, must not in principle avoid the (co-)responsibility for its own fate in the world" (1987, p. 451). Stojanovic persuasively argues that the critic of ideology and alienation has a certain responsibility to ensure that his own ideas do not become another source of alienation and mere ideology. In a unique turn on Marx's Eleventh Thesis on Feuerbach - "Philosophers have only interpreted the world, in various ways; the point, however, is to change it - Stojanovic radicalizes it to read: "In order to reduce the danger of the world being changed in an undesired direction, in the name of philosophy, and of philosophy itself being abused as an ideological justification for such change, the way of philosophizing on the world must be changed by focusing on the question of the realizability of that philosophy" (1987, pp. 459-60).

DECENTRALIZED PLANNING UNDER SELF-MANAGEMENT?:

The Praxis philosophers consequently call for what they consider a radical - and realizable - alternative to the statist model, namely, a decentralized socialist system of workers' self-management, a system which they maintain represents the system closest to the spirit of Marx's overall life-work. Although they point to workers' self-management as a possible solution to both market and state alienation, they have not developed an economic theory of such a system. What are the economic characteristics of this system? How do planning and coordination occur? Though it is supposed to solve problems of political and economic alienation, how does it solve the economic problem of rationally utilizing scarce resources for the betterment of the human community? Unfortunately, the praxis philosophers have little, if anything, to say. Because they have a one-sided emphasis on praxis, the Yugoslav philosophers are relatively silent on the economic issues of planning and coordination. They should follow Stojanovic's plea for paying greater attention to the realization of their vision. That is, they should begin to tackle the

more difficult issues concerning the organizational side of their ideal socialist system. Without coming to terms with the problem of conveying and using scarce knowledge in a complex economic system, their limited (though important) emphasis on the realization of the praxis side of Marxian socialism fails to systematically take into account the economic coordination problem, a problem which ever grows behind the back of praxis philosophy.

We must look elsewhere for an economic model of workers' self-management under nonmarket socialism. Perhaps the best description which approaches this form was provided by the Guild socialist G.D.H. Cole in his 1935 book, Economic Planning (Cole 1971, esp. pp. 313-52). In his attempt to develop an organizational economic model of the self-managed socialist system, Cole unintentionally offers a good example of the tension between the ideal of decentralization and the necessity of centralization. For example, though he recognizes the political danger of a central planning organ, he nevertheless acknowledges its necessity (in principle) to assist in coordinating the economic activities of largely self-managed work units. At one point he even

calls for a National Planning Authority which would "embrace within its functions the allocation of resources to the production of producers' goods, including capital goods, as well as consumers' goods. It will have the power to decide... what proportion of the available productive resources is to be set aside for the production of future wealth, and how these resources are to be distributed among the different industries and services" (1971, p. 327). On the other hand, he offers little more than a hope for some degree of decentralization in order to ward off the danger of a concentration of state power:

Regional decentralization has the advantage not only of preventing congestion at the center and the growth of top-heavy units of organization too large and cumbersome to be effectively controlled, but also of spreading responsibility over a wider field.... The more decentralized the system is, within the limits set by the need for unified organization, the more safeguards are there that it will be democratically administered in fact as well as in theory. It is, however, essential to stress the point that at any rate in a relatively small country, and I think in all countries in the earlier stages of planning...the residual powers and ultimate controlling authority must remain unified in the hands of a central body, and must not be broken up among a number of separate regions. This is indispensable if the system is to work out aright (p. 335).

Though "it will be essential, in the stage of the

transition, to create from above the controlling authorities which are to carry through the change and organize the socialized industries as sections of the new planned economy" (p. 347), he tries to assure the reader that "the long run aspiration of a planned economy must be to make each industry to the fullest possible extent a democratic self-governing Guild, responsible in matters of public policy to society as a whole, but left free, in the execution of the policy prescribed to it by society, to manage its internal affairs mainly in its own way" (p. 350). And though "the last word in revising plans must come from the centre," Cole maintains that "the centre need be no more than a co-ordinating and revising authority, working on the basis of spontaneous proposals coming up to it from every possible source" (p. 344). That is enough, however, to assure the breakdown in the autonomy of the self-managed enterprises.

Cole realizes that the logic of a planned, marketless economy requires centralization, and that centralization endangers the ideal of workers' self-management. Thus his model provides yet another example of the essential tension. He does not provide, however, a

persuasive means to overcome the tension between decentralization and centralization. A more recent attempt to model a marketless yet participatory, decentralized socialist system (Albert and Hahnel 1978) does so on the basis of an iterative checking procedure that takes place from the "bottom up" rather than the "top down." The authors recognize that because "there is not reason to suppose that the initial proposals will provide an immediate mesh or economic plan," one can only conceive "the planning procedure as a potentially continuous process" (1978, p. 270, 271). But the procedure of proposal/denial/counterproposal requires a hierarchy of (presumably democratic) bodies. That is, a vertical structure must be developed to smooth over the conflicts created by horizontal decisionmaking. And thus the devolution towards centralization: "Federations would be necessary. Every 'industry' would have regional councils with representatives from all the workplace councils, and national councils made up of representatives from all the regions" (1978, p. 271).

Decisionmaking can be bumped up the hierarchy of councils only so long. If production and consumption are ever to start, someone (or some supreme council)

must make a decision which binds all relevant parties. The supreme council must decide upon the best course of social action if chaos is not to be the rule. It must judge the merits of one plan over another. It must force inferior councils to accept a feasible plan. It will thus become, de facto a central planning board. ⁵¹ What will guarantee that it will not become a vehicle of alienation?

The few economic models that have proposed participatory, decentralized socialism without market exchange do not seem to provide a satisfactory answer to the totalitarian problem which arises when the market is replaced by a unified plan. They do not address, formulate, or realize the existence of, let alone answer, the problem of rational economic calculation, not even from the point of view of the alleged Lange "solution." Instead, these models continue to struggle with the tension that began with Marx. They have yet to offer a viable solution.

SELF-MANAGED MARKET SOCIALISM: AN ANSWER TO THE TENSION?:

"Here lies the main problem of the Marxist approach: the abolition of the market is, at the same time, the

abolition of the economic base for equality and freedom," says the Czech Marxist Radoslav Selucky (1979, p. 21). Selucky argues, in ways very similar to Hayek and Friedman, that (without first overthrowing scarcity) "centralism [and thus inequality and tyranny] is an inevitable price which must be paid for the abolition of the market" (1979, p. 34).⁵²

Familiar with contemporary economics, Selucky argues that the market is a knowledge-enhancing institution. Ironically, but nevertheless understandable from the perspective of the essential tension, Selucky the socialist also sees the market as the only hope for the economic and political liberation of man. Alienation, then, cannot be extinguished, but it can be minimized.⁵³

Meaningful self-management requires the market, because the market allows for true autonomy between enterprises and works as a knowledge-disseminating institution. This decentralized and voluntarily coordinated economic base is necessary for a decentralized and voluntarily coordinated political superstructure. The economic system of decentralized socialism characterized by workers' self-management, market exchange,

and social property relations has been developed in theoretical detail primarily by the Yugoslav economists, such as Branko Horvat. The theoretical model advanced by Horvat and others is thought to provide a contemporary answer to the Mises-Hayek critique of calculation under socialism. ⁵⁴ In fact, Horvat considers a goal of his magnum opus, The Political Economy of Socialism (1982), to challenge the Austrian position on planning:

Hayek framed his [1945] argument so as to prove the superiority of the free market over central planning. In the context of this book, it may be of some historical interest to note the following claim made by Hayek in 1945: "nobody has yet succeeded in designing an alternative system in which certain features of the existing one can be preserved which are dear even to those who most violently assail it - such as particularly the extent to which the individual can choose his pursuits and consequently freely use his own knowledge and skills".... I shall not leave this challenge unanswered (p. 577, fn. 56).

To be sure, Horvat believes he answers Hayek:

a labor-managed economy is likely to operate much closer to the textbook model of the competitive market. Social ownership implies planning, but does not eliminate the market. Consequently, the labor-managed economy achieves exactly what Hayek considered to be impossible: an alternative form of organization in which genuine autonomy on the part of the firm is rendered compatible with ex ante coordination of economic activities and full use is made of the existing knowledge while losses due to market failures are avoided (p. 208).

Socialist economy implies a market and autonomous, self-managing productive units. Consequently, a socialist firm can do anything a capitalist firm can do productively. The socialist economy, based on social property, also implies social planning. It can thus achieve all the productive effects that a centrally planned economy can. Since it is at least as efficient as each of the alternatives, and capable of achieving something else besides, it is more efficient (p. 209; also cf. Novakovich 1959).

Consequently, we have moved full circle in this chapter. When the late classical economists (Mill, Ely, etc.) studied workers' cooperation, they did not intend to abolish the market. Instead, they saw co-operatives and state intervention as means by which to improve the market system. Selucky, Horvat, and other economists who advocate workers' self-managed socialism differ from their philosopher colleagues as a result of being influenced by the socialist calculation debate of the 1920s and 30s. They now argue that the market is a means to improve the worker-managed socialist system because it generates scarce information for rational economic calculation and acts as a middle-of-the-road institution which provides a way out of the struggle between decentralization on the one side and centralization on the other.

Because the knowledge problem is now considered a problem of the past, the contemporary debate has shifted to the more narrow problem of realizing efficient incentives under workers' self-managed socialism. In the following chapter I will therefore critically assess the development and outcome of the incentives problem debate.

NOTES TO CHAPTER TWO

1. Preface to the third edition. But Mill wanted to make it clear that he disagreed with the movement, which in the name of socialism, condemned market competition: "While I agree and sympathize with Socialists in this practical portion of their aims," remarked Mill, "I utterly dissent from the conspicuous and vehement part of their teaching, their declamations against competition." "Competition may not be the best conceivable stimulus," he maintained, "but it is at present a necessary one, and no one can foresee the time when it will not be indispensable to progress" (1926, pp. 792-3).

2. In his Manual of Political Economy, being a simpler presentation of Mill's Principles, and itself running through six editions during his lifetime, Fawcett maintains that "we may look with more confidence to cooperation than to any other economic agency to improve the industrial conditions of the country" (Fawcett, 1888, p. 280).

3. Marshall added a caveat, however. He fought against the idea of centralizing the cooperative movement, for it would, in the end, crush the more spontaneous elements he thought were necessary for cooperation to prosper.

4. In this respect Walker anticipated Frank Knight's theory of the firm. Cf. Knight (1971, esp. pp. 264-312).

5. Walker also mentions that the skills of an entrepreneur are largely tacit: "A kind of subtle instinct often directs the movements of the ablest merchants, bankers, and manufacturers. They know that the market is about to experience a convulsion, because they know it; just as the cattle know a storm is brewing. They not only could not give reasons intelligible to others for the course they take; they do not even analyze

their intellectual processes for their own satisfaction" (1968, pp. 251-2). This anticipated the notion of inarticulate knowledge being a significant form of knowledge utilized in the market process. I shall further explore this in the fourth chapter.

6. Also see Walker (1892), pp. 213-4.

7. He did, however, see much to be gained through profit sharing and consumers' cooperation. See Walker (1968), pp. 282-8.

8. On the Minneapolis cooperages cooperatives see Catlin (1926, p. 572), Commons and Associates (1918, vol. II, p. 76), Ely (1887, p. 150; 1969, p. 188), Fetter (1922, p. 334), Hadley (1896, p. 380), Jelley (1969, p. 272), Knapp (1969, p. 42), Myrick (1895, pp. 138-42), Patterson (1929, p. 462), Perlman (1937, p. 56), Shaw (1886), Stephen (1984a, p. 159), the two detailed studies by Virtue (1905), (1932), and Watkins (1922, p. 547). I will discuss this group of cooperatives in Chapter Five.

9. See the several studies by Derek Jones (1979; 1980; 1982).

10. Cf. Perlman (1949, p. 179): "The eighties... saw the beginning of a continuous contact between intellectuals and the labor movement, when Professor Richard T. Ely of Johns Hopkins University and his students applied themselves to a study of the labor movement." Elsewhere Perlman notes that Ely, interested in the Knights of Labor, the labor union which proclaimed to take an active role in establishing producer cooperatives, had encouraged his students to join the Knights in order to better understand the labor movement. See Perlman (1937, p. 72, fn. 1).

11. Cf. Ely (1886, p. 7; 1887, p. 151).

12. Richard Hofstadter observed that "the social gospel was linked to academic economists who were beginning to criticize individualism" (see Hofstadter 1945, p. 88). Hofstadter notes that a close connection was formed between church administrators and the economics profession through the efforts of Ely, Commons,

and others who established the American Economics Association.

13. In his Theory of the Labor Movement Selig Perlman (1949, p. 281) puts it in the following way: "He [the intellectual] is generally careful to connect every move of labor towards the 'new social order' which he prognosticates, with definite changes in labor conditions, with a growing wastefulness of competition, or with an equally comprehensive urge within the workingman to a greater freedom in the shop, due to an awakened self-consciousness. Yet, at bottom, the intellectual's conviction that labor must espouse the 'new social order' rests neither on statistically demonstrable trends in conditions nor on labor's stirrings for the sort of liberty expressed through the control of the job, which anyone who knows workingmen will recognize and appreciate, but on a deeply rooted faith that labor is somehow the 'chosen vessel' of whatever may be the power which shapes the destiny of society."

14. See Perlman (1949, pp. 289-90). Indeed, such a noteworthy advocate of the cooperative principle, G.D.H. Cole, later admitted that his social vision did not accord with that of the real world individuals who he had thought would bring it about. As he says: "Self-government - the conscious and continuous exercise of the art of citizenship - seemed to me not merely good in itself - which it is - but the good - which it is not. Accordingly, I constructed, along with other politically-minded persons a politically-minded person's Utopia of which, if it could ever exist, the ordinary man would certainly make hay by refusing to behave in the manner expected of him" (quoted in Horvat 1982, p. 560, fn. 24).

15. See, in addition to the statistical work of Jones already cited, Beard (1969, p. 126), Catlin (1926, p. 572), Commons (1911, p. 136), Commons and Associates (1918, vol. II, pp. 430-38), Fetter (1922, p. 334), Millis and Montgomery (1945, vol. III, pp. 336-7), Perlman (1937, pp. 128-29), and Virtue (1932).

16. For example, several cooperatives were formed during the nineteenth century in response to boss shop

lockouts during labor disputes, with the goal to strengthen workers' bargaining power with the boss shops. Their dissolution need not reflect failure as such. In fact, dissolution of these types of cooperatives may in fact represent the achievement of the workers' goals. As Rothschild and Whitt put it, such a cooperative undertaking "was conceived as a temporary solution to a problem, and its disappearance meant, in effect, that the workers had been successful in their efforts" (1986, p. 78).

17. In fact, Ely argued that, though still desirable, "Both profit sharing and cooperation have quite narrow limits at the present time" (Ely 1971, p. 482).

18. State regulation and planning, encouraged largely by corporate interests, became the hallmark of the Progressive Era in the United States (roughly 1900 to 1918). See Kolko (1963) and Weinstein (1968).

19. For the general development of the notion of scientific management see Merkle (1980).

20. But, contrary to Taylor's goal, it did not subvert unionism. In fact, as Commons points out, labor unions were not really hostile to scientific management because they were more interested in issues of distribution rather than production (Commons 1911). Unions were also willing to accept scientific management in return for closed shop recognition (see Zerzan 1984).

21. See Merkle (1980, pp. 172-207) for a detailed analysis of the rationalization movement in Germany.

22. Mitchell had concluded by suggesting that the scientific notions of central planning developed during the war would now be put to use "for a long time to come, perhaps always" (p. 490).

23. See Clark's 1932 article "Long Range Planning for the Regulation of Industry" in Clark (1967, p. 240).

24. Also see Lenin (1914).

25. As Berdyaev would later say:

A metamorphosis has taken place, i.e., an Americanization of the Russian people, the production of a new type of practical man with whom day-dreaming and castle-building passed into action and constructiveness, of a technician, a bureaucrat of a new type. But here also the special characteristics of the Russian spirit had their say. The faith of the people was given a new direction, the Russian peasants now reverence the machine as a totem. Technical undertakings are not the ordinary matter-of-fact customary affair that they are to Western people; they have been given a mystic character and linked on with plans for an almost cosmic revolution (Berdyaev 1948, p. 142).

In addition to the Traub piece, see Remington (1984, pp. 113-45) for a detailed discussion of scientific rationalism in Bolshevik Russia, and in particular pp. 137-45 for an analysis of its adoption of Taylorism.

26. Bukharin pointed to the United States and Germany as successful examples of combining positivistic science with methods of industrial production, and wished to exploit the same methods for the overall good of the socialist society (see Bukharin 1966, p. 292). In his study of Bukharin's theory of the transition period, Haynes (1985, pp. 63-4) remarks that, because the Bolsheviks began to focus on the methods of Taylorism for the production process, (which would later become adopted with "positive approval" under Stalin), they had focused on an aspect of production which is in striking contrast to the humanistic side of Marx, or what I take to be his praxis philosophy.

27. The literature concerning the possibility of rational economic calculation under socialism is enormous. But see Hayek (1945; 1975), Hoff (1949), Lange (1936), Lavoie (1981; 1985c; 1986a), Lerner (1934), (1944), Mises (1920; 1966, pp. 698-715; 1981b), Schumpeter (1976, pp. 172-99), Taylor (1929), Vaughn (1980b). Lavoie's (1985c) represents a major scholarly restatement and has greatly influenced my interpretation of the debate.

28. He writes: "In an age in which we are approaching nearer and nearer to socialism, and even, in a certain sense are dominated by it, research into the problems of the socialist state acquires an added significance for the explanation of what is going on around us. Previous analyses of the exchange economy no longer suffice for a proper understanding of social phenomena in Germany and its eastern neighbors to-day. Our task in this connection is to embrace within a fairly wide range the elements of socialistic society" (Mises 1920, p. 89; emphasis added).

29. In this way the utopian socialists represented a naive form of institutionalism.

30. For the Boehm-Bawerk - Hilferding exchange see the essays in Sweezy (1975).

31. See Mises (1920, pp. 112-16), Lavoie (1985c, pp. 67-74).

32. Such as the beauty of a sunset, love, etc.

33. Mises further developed his argument in his 1922 treatise, Die Gemeinwirtschaft. See Mises (1981b, esp. pp. 95-194). I should also point out that both Max Weber (1978) and Boris Brutzkus (1935) had each independently arrived at conclusions similar to Mises. Also see Hayek (1975, pp. 32-35).

34. In 1914 the Austrian Friedrich von Wieser came to a similar conclusion, though he did not invoke the general equilibrium model. Wieser argued that coordination in a complex economy "will be executed far more effectively by thousands and millions of eyes, exerting as many wills; they will be balanced, one against the other, far more accurately than if all these actions, like some complex mechanism, had to be guided and directed by some superior control. A central prompter of this sort could never be informed of countless possibilities, to be met with in every individual case, as regards the utmost utility to be derived from given circumstances, or the best steps to be taken for future advancement and progress" (Wieser 1967, pp. 396-7). Also see Lavoie (1985c, pp. 79-85).

35. Of course, this is true merely by assumption, for Lange assumes that consumer preferences, prices (in a "parametric," or perfectly competitive sense), and the amount of resources available are fully known to the CPB. In addition, he assumes given production functions. See Lange (1936, pp. 60-61).

36. Cf. Lavoie: "If there is a satisfactory refutation of Lange, it must be one that is as critical of this "auctioneer" equilibrating mechanism as it is of the central planning board, and for essentially the same reason. Neither auctioneer nor planning board could have the requisite knowledge" (1985c, p. 122).

37. And Lange did not seem aware of the fact that Barone himself expressed a profound reservation about the practical attempt to solve his theoretical model: "Many of the writers who have criticized collectivism have hesitated to use as evidence the practical difficulties in establishing on paper the various equivalents; but it seems they have not perceived what really are the difficulties - or more frankly, the impossibility - of solving such equations a priori." Moreover, Barone concluded: "From what we have seen and demonstrated hitherto, it is obvious how fantastic those doctrines are which imagine that production in the collectivist regime would be ordered in a manner substantially different from that of 'anarchist' production" (Barone 1908, pp. 287, 289).

38. "The static state can dispense with economic calculation. For here the events in economic life are ever recurring; and if we assume that the first disposition of the static socialist economy follows on the basis of the final state of the competitive economy, we might at all events conceive of a socialist production system which is rationally controlled from an economic point of view. But this is only conceptually possible" (Mises 1920, p. 109). Also see his 1927 work, Liberalism (translated as Liberalism), esp. his section devoted to "The Impracticability of Socialism" (Mises 1962, pp. 70-75).

39. In fact, Lange denounced Mises as an institutionalist. Lange maintained that, if Mises was correct -

that without private ownership of the means of production rational economic calculation would be impossible - then "economics as the theory of allocation of resources is applicable only to a society with private ownership of the means of production. The implications of the denial of the possibility of rational choice in a socialist economy are plainly institutionalist" (Lange 1936, p. 62, fn. 6). But Mises did not consider economics to be a science which merely studies the allocation of scarce resources among given ends, in a world devoid of institutions in any meaningful sense. Educated within the Mengerian tradition in Austria, Mises's overall scholarly project was to develop economics as a science of human action in general, one that would help render the institutions of any society intelligible. Consequently, his effort is to link, rather than separate, theory with practice. In this respect the Austrian theory differs considerably from the general and partial equilibrium frameworks developed by Leon Walras in France and William Stanley Jevons in England. See, for instance, Jaffe (1975).

40. I have already mentioned that the Austrians were not within the neoclassical tradition as developed by Walras and Jevons. The Austrians see economics as a science of human action, and therefore consider equilibrium models as unrealistic devices which describe a world without uncertainty and change. The value of equilibrium models rests at the level of "thought experiments" - of attempting to imagine a completely static world in order to understand why certain institutions (such as money) exist in a complex, ceaselessly changing world. See, for example, Mises (1966, pp. 244-50, 710-15), and Cowen and Fink (1985).

41. Cf. the standard account of War Communism and the subsequent move into the New Economic Policy as found in Nove (1969, chaps. 3-4), Dobb (1948, chaps. 4-9) and Carr (1980). These authors argue that War Communism was implemented by Lenin as an "emergency measure" in response to the outbreak of civil war that had emerged with the Bolshevik Revolution. However, a growing body of literature, including Brutzkus (1935), Roberts (1971, ch. 2), Szamuely (1974), Lavoie (1986-87), and Boettke (1988), argues that the attempt to centrally plan the economy under War Communism was

originally conceived by Lenin as an attempt to implement Marxist-Leninist ideology, and that the New Economic Policy was, in fact, a retreat from the Marxist-Leninist ideology of comprehensive planning. Also see Malle (1985) and Remington (1984).

42. Though I do not believe Hayek conceded, I do believe that both Hayek and Mises made a scholarly mistake by referring to the Soviet system as one of socialism, for, as I shall discuss momentarily, the Soviet system is not comprehensively planned, but rather, relies largely upon "polycentric" decision-making structures and market exchange. Mises and Hayek had, during the calculation debate, reserved the term "socialism" solely for the comprehensively planned organizational form. Undoubtedly, this aggravated the confusion over just what they had meant during the calculation debate. Moreover, they seemed to make a strategical error in their post-war anti-socialist rhetoric by condemning the existing "socialist" systems at the time. As Polanyi (1957, p. 36) stated:

Of all the intellectual triumphs of the Communist regime - and they are vast - it seems to me the greatest is to have made these eminent and influential writers so completely lose their heads. Could anything please that regime better than to hear itself proclaimed by its leading opponents as an omnipotent, omniscient, omnipresent socialist planner? That is precisely the picture of itself which the regime was so desperately struggling to keep up. Such accusations supply the Soviet government with an incontestable "testimony" of having achieved the impossible aspirations of socialism, when in fact it has simply set up a system of state capitalism - a goal which leaves the regime next door to where it started (1957, p. 36).

43. This was the implicit message of Mises (1962). Also cf. Friedman (1962).

44. Hayek certainly recognizes that propoganda plays a role in any socio-economic system. The problem of the centrally planned system is precisely, however, the monopolization of production by an elite who must legi-

timize their positions of power:

neither propoganda in itself nor the techniques employed are peculiar to totalitarianism and that what so completely changes its nature and effect in a totalitarian state is that all propoganda serves the same goal - that all the instruments of propoganda are co-ordinated to influence the individuals in the same direction and to produce the characteristic Gleichschaltung of all minds. As a result, the effect of propoganda in totalitarian countries is different not only in magnitude but in kind from that of the propoganda made for different ends independent and competing agencies. If all the sources of current information are effectively under one single control, it is no longer a question of merely persuading the people of this or that. The skilful propogandist then has the power to mold their minds in any direction he chooses, and even the most intelligent and independent people cannot entirely escape that influence if they are long isolated from all other sources of information (1944, pp. 153-54).

Propoganda not only attempts to shape public opinion, but truth itself. Science thus becomes a major object of state control, it becomes "planned" by the state (consider, for example, Lysenkoism). For more on the specific activities of the state in science, see Polanyi (1940, pp. 1-26; 1945a; 1945b).

45. He continues by using the analogy of a game of chess:

It is as if the manager of a team of chess-players were to find out from each individual player what his next move was going to be and would then sum up the result by saying: "The plan of my team is to advance 45 pawns by one place, move 20 bishops by an average of three places, 15 castles by an average of four places, etc." He could pretend to have a plan for his team, but actually he would be only announcing a nonsensical summary of an aggregate of plans" (see pp. 134-35).

46. But Rutland fails to clearly distinguish between political power and economic control, and therefore misses Polanyi's point that, while power is firmly entrenched in the top of the planning structure, economic control rests at the bottom portion of the structure. See Lavoie (1986-87). Polanyi's argument that the Soviet system is composed of many, often conflicting planning centers once again questions the belief that the system is socialist from Marx's standpoint of comprehensive planning and social property. Hence, while I have argued in the first chapter that the theory of material balances planning may not be fully consistent with Marx's view of social property, Polanyi shows in addition that material balances planning is far from comprehensive in practice.

47. See Habermas (1970, pp. 62-80)

48. Such is my interpretation of the effects of voting in representative democracies as analyzed in Buchanan and Tullock (1962).

49. Cf. Claus Offe (1985, pp. 170-220, esp. pp. 191-94). Offe argues that the state in a capitalist society receives its revenue from the productive activities taking place within the market process. Because this relationship is parasitic, there is a limit on the amount of revenue it can extract from enterprises: extracting too much (in the form of taxes) may damage the market to such an extent that the parasite kills its host. Businessmen, accordingly, maintain a large degree of economic control and also enjoy some degree of political power. This view (though I do not know if Offe would agree) also supports the notion that the Soviet economy is predominantly polycentric rather than a centrally planned economy, because it suggests that the Soviet state also confronts a limit on the extent to which it can intervene in market processes. In other words, the parasitic socialist state must continue to live off the productive activities of those it presumes to dominate, and it can only do so by allowing a critical degree of economic control at the level of individual enterprises.

50. Twenty years after the Paris Commune had fell, Engels maintained: "Do you want to know what this dictatorship looks like? Look at the Paris Commune. That was the dictatorship of the Proletariat" (Engel's 1891 introduction to The Civil War in France, in Marx and Engels (1969, vol. 2, pp. 178-89).

51. In Albert and Hahnel's words, "forcing mechanisms" will be necessary to guarantee convergence.

52. Selucky has been directly influenced by Friedman's discussion of the relationship between economic and political freedoms in his Capitalism and Freedom (Friedman 1962). See Selucky (1979, pp. 135-41).

53. The "definitive resolution" of alienation is "unrealistic in political and utopian in economic terms" (Selucky 1979, pp. 148-49). I should point out that the Praxis group's call for de-alienation does not necessarily imply, for some of them, that they believe self-managed socialism will put an absolute end to alienation. For example, Petrovic writes:

Absolute de-alienation would be possible only if mankind were something given once and for all and unchangeable. Against advocates of absolute de-alienation, we may therefore maintain that only a relative de-alienation is possible. It is not possible to wipe out alienation because human "essence" or "nature" is not something given and unchangeable that could be fulfilled once and for all. But it is possible to create a basically non-alienated society that would stimulate the development of non-alienated, really human individuals (1967, p. 151)

Consequently, as far as I see it, this must bring a high degree of historicity into the notion of Marxism as revolutionary critique. If the praxis notion is relativized, it loses its ontological foundation, and must therefore be argued more in a pragmatic-persuasive fashion than on the grounds of an inevitable, absolutely certain future realization. It also opens the possibility for bringing the market back in, which has enormous consequences for revising Marx's system.

54. Not only theory, but history is thought to discredit the Austrian position on planning: "The classic idea (of Hayek for example) that the burden of assembling managers' intimate technical information at one center is a major obstacle to any sort of central planning seems to lose weight in the Yugoslav context" (Marschak 1968, p. 569).

CHAPTER THREE

The Worker-Managed Economy and the Incentives Problem Debate

CHARACTERISTICS OF THE WORKER-MANAGED ECONOMY:

Between the anarchy of market systems and the totalitarianism of centrally planned systems is said to lay the workers' self-managed socialist system. It is considered a feasible alternative to a pure market system and a centrally planned command economy in that it gives individuals the opportunity to participate in the workplace and in general social organization, while at the same time it allows the market to transmit scarce information in order to assist planning for an optimal allocation of resources. Accordingly, the tension between decentralization and centralization is considered solved (at the cost, however, of foresaking much of the Marxist ideal). There is apparently little danger that the planning organs will devolve toward an increasingly hierarchical and centralized structure because the market is thought to adequately handle coordination and calculation problems by supplying all

the necessary economic knowledge to allow for overall efficient decision making.

Jaroslav Vanek outlines the general characteristics of the self-managed system in his classic treatise The General Theory of Labor-Managed Market Economies¹ (1970):

First, the system is comprised of firms which are managed and controlled by the workers who compose each firm, on the democratic basis of one person, one vote. Workers are expected to participate directly in matters of general concern, and indirectly (through elected representatives) in other issues. Legal owners of assets invested in the firm do not have power of disposal of the firm's assets. Instead, economic control rests in the hands of those who actively participate in the management of the organization.

Second, all active participants share the "income" of the organization, defined as the difference between total revenue and total cost.² The distribution of income is egalitarian under a homogeneous labor force, and would equitably take into account various labor characteristics in the event of heterogenous labor. Also, a collectively agreed upon portion of this income

could be used for reserves, various collective goods (such as housing and education), and investment in the firm itself.

Third, as a whole the workers' rights to the assets of the firm are usufruct rights, as opposed to the right of full economic ownership. In other words, the enterprise may rent real assets from the state, but cannot appropriate the full return from the loan or sale of these assets to other enterprises, nor destroy the value of its real assets. This is essentially a right whereby only those who actively participate in the enterprise may enjoy an income based on production itself, and not the purchase, sale, or destruction of real capital assets. The usufruct right is entirely based on each worker's active involvement in the enterprise, and is forfeited once the worker leaves the firm.

Fourth, the system is characterized by freedom of employment. Each individual worker is free to choose, refuse, or quit a job. Likewise, each enterprise reserves the right to hire or fire.

Finally, all buyers and sellers, whether households or enterprises, are assumed to exchange freely

under perfectly competitive market prices. Only under cases of imperfect markets (brought about by externalities, public goods, or the presence of monopoly) is the state assumed to intervene in order to render the system more competitive.

Vanek points out that although these identifying characteristics have much in common with the only over-all self-managed system to date - Yugoslavia - the model should not be thought of as a perfect description of the Yugoslav economy, but a blueprint inspired by the attempt to implement self-management in Yugosla-
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via.

SELF-MANAGEMENT AND SOCIAL PLANNING:

Branko Horvat, in his magnum opus, The Political Economy of Socialism (1982), has articulated many of the institutional details of the blueprint in order for it to accord more to the strictly socialist aims of decen-
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tralization and workers' self-management. For Horvat, social ownership has two direct implications: workers' self-management and social planning.

Social ownership of the means of production allows for an equal access to the means of production. Rather

than state management of capital goods, social ownership implies workers' self-management. Horvat writes:

Socialism conceived as a self-governed society implies that there exists no particular class of owners of the means of production, either individual or collective. Everyone is equally an owner, which means that no one in particular is an owner. The specific feature of the Roman-bourgeois concept of property - the exclusion of others - is not applicable. If no one is excluded, then everyone has equal access to the means of production owned by society. As a consequence, property confers no special privileges (1982, p. 236; cf. Vanek 1970, p. 315).

Social property, Horvat maintains, is the only property form consistent with Marxian exploitation theory in that it negates the appropriation of income from property; hence, each productive member of society derives economic benefits solely from the act of work alone, and none from a claim to property. It therefore follows that social property implies the absence of command over others' labor power (1982, pp. 237-39).

Horvat presumes that the overriding organizational goal within the self-managed firm is to both maximize democracy in decision making and to implement the decisions as efficiently as possible. Horvat argues that such an organizational goal is not contradictory. Rather, it is complementary when the following criteria

are met.

First, work groups within the organization must be able to engage in face to face communication. This means that work groups should be composed of relatively homogeneous members and must be small enough to achieve this objective. Horvat calls such a group a work unit, the basic economic unit in the self-managed system. The work unit is limited to a clearly defined and identified function which is not performed by other organizational groups within the enterprise. Work units are federated into a work community, the enterprise.

Second, decision making within each work unit cannot be treated separately, in isolation. In many cases the decision of one work unit will substantially affect the concerns of other work units. This necessitates a second-level decision making unit - the workers' council - which enjoys the right of decision making in order to coordinate the activities of the individual work units it oversees. The workers' council is, in design, a central legislative body delegated by the lower-order work units.

To ensure correct and efficient decision making,

Horvat recommends that corresponding to the right of democratic decision making is the responsibility for these decisions. Moreover, Horvat maintains, though the decision making process should be as democratic as possible, implementing decisions "is a matter of professional competence, not of democracy" (1982, p. 241). Consequently, Horvat's blueprint separates what he terms the "interest sphere" (value judgements and policy decisions) from the "professional sphere" (the technical implementation of the decisions arrived at in the interest sphere): "Policy decisions," Horvat writes, "are legitimized by political authority; executive and administrative work, by professional authority." Consequently, "in the interest sphere, the rule of one man, one vote applies; in the professional sphere, vote is weighed by professional competence" (p. 241).

Now Horvat acknowledges the simplicity of this blueprint. He realizes, for instance, that work units will never be perfectly homogeneous nor sufficiently small; nor can the two spheres - the interest sphere and the professional sphere - be clearly separated. Hence control and conflict solving institutions must be adopted in order to ensure that individuals or groups

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of individuals will not abuse power.

The principle behind the self-managed enterprise is designed to overcome the split between capital and labor, and to break down the instrumental, hierarchical organizational form such as that advanced by the scientific management movement I discussed in Chapter 2. It also attempts to overcome the hierarchy imposed in the name of socialist democratic centralism, which, following Lenin, implies that administrators are appointed by the planning hierarchy, not delegated by the workers themselves, and are solely accountable to their higher-level superiors, rather than those whom they manage below (Horvat 1982, p. 188).

In addition to self-management, social ownership also implies "social," not command, planning. But, contrary to Marx and contemporary advocates of nonmarket self-managed socialism, Horvat does not want to abolish all market relations - he has been influenced by the socialist calculation debate earlier this century. Thus Horvat acknowledges that "the market is a mechanism for communicating information," much of which would undoubtedly not be utilized if aggregated for central planning purposes: "Centralization," Horvat

emphasizes, "implies substantial loss and distortion of information, which must be filtered through various layers of the hierarchy; in other words, it implies a tremendous waste of the knowledge available to society" (1982, p. 200). Radoslav Selucky fully articulates the necessity for the market in the self-managed socialist system, an explanation which, like Horvat's, is also influenced by the calculation debate. He writes:

Although it would be foolish not to agree with Marx's suggestion that the market, as an exclusive regulator of economic processes, fails to maintain equilibrium and stimulate steady economic growth, it has been shown that, if the market is wholly eliminated and replaced in all its functions by the central plan, there is scarcely a practical possibility of rational economic calculation. Consequently, the mere abolition of the market is not a sufficient precondition for a more efficient functioning of socialist economic systems as compared with capitalist ones. That is why the traditional Marxian concept of direct allocation and distribution as the exclusive and obligatory socialist alternative to the market cannot be accepted. The plan may and should be used as a political tool for promoting preferential social values, for interfering with the objectiveless, spontaneous and impersonal market mechanism, for controlling, regulating, and taming it, for shaping the market according to societal priorities and for eliminating it from non-economic sectors, but never for replacing the market as the economic self-regulator. While the plan could and should be powerful and superior to the market, it should not become omnipotent; while it should serve as the means to an end, it should not become an end in itself (1979, p. 48).

Thus Vanek, Horvat, Selucky, and others informed of the problem of rational economic calculation under centrally planned socialism, have proceeded to march away from the Marxian goal of the abolition of all market exchange because they realize that, at least for the time being, market institutions play a critical role in disseminating information.⁶ Moreover, only market exchange allows for consumer sovereignty as well as producers' autonomy.

It is nevertheless a well-tempered rather than anarchic market, as Horvat insists in the following passage:

We wish to preserve essential consumer sovereignty because socialism is based on the preferences of the individuals who constitute the society. We also wish to preserve the autonomy of producers, since this is the precondition for self-management. When these are taken together, we need a market. But not a laissez-faire market. We need a market that will perform these two functions just stated, neither more nor less. In other words, we need the market as a planning device in a strictly defined sphere of priorities. In order to make it work properly, the... imperfections of the market should be corrected by planning interventions. This, in turn, means that we need planning as a precondition for an efficient market (1982, p. 332).

Information regarding consumer preferences will be generated by the market, and will be used to inform the

plan; the plan will in turn rationalize production and consumption activities by designing conditions under which they appear perfectly competitive. Thus market and plan are considered complements. For Horvat,

Planning means the perfection of market choices in order to increase the economic welfare of the community. Far from being incompatible or contradictory, market and planning appear complementary, as two sides of the same coin. Neither is a goal in itself. Both are means for the appropriate organization of a socialist economy (1982, p. 332).

THE MODERN DEBATE OVER INCENTIVES IN THE WORKER-MANAGED ECONOMY:

The economic model of the workers' self-managed socialist economy is said to combine social property with planning and market exchange. This not only represents a turn from the orthodox Marxist vision of socialism; it also moves away from the contemporary praxis vision.⁷

One would think this model would be subject to critical debate from a comparative systems perspective. But, on the contrary, there has been remarkably little quarrel among economists that the economic organization of the worker-managed system is indeed socialist.⁸ Svetozar Pejovich, one of the most persistent critics

of the self-managed system, writes that the Yugoslav-style economic system is "unique" in the way it "contains characteristics of both a centrally planned and a free-market economy," and concludes that "its emergence therefore represents a major innovation in the economics of socialism" (1966, pp. ix-x).

Rather than a debate over markets, planning, and comparative economic organization, the main debate in the economics of workers' self-management has instead focused on the issue of incentives within the firm.⁹ Three decades ago in his article "The Firm in Illyria: Market Syndicalism," Benjamin Ward (1958) raised the question of whether a system characterized by workers' self-management of enterprises provides the appropriate economic incentives to assure an efficient allocation of scarce resources.

Ward points to a sensitive issue among economists, which is evident when one considers the extensive debate his question has created. Unfortunately, the incentives debate seems to have produced little agreement so far. Convinced they have won, each side of the debate has largely given up the discussion. In the remainder of this chapter I shall explore the major

players of the debate in order to explain its present stalemated condition and to show the necessity for a change of focus, for a radical methodological revolution instead of mere parametric reform.

THE FIRST SPARK OF THE DEBATE: WARD'S ILLYRIAN FIRM:

In his 1958 paper Benjamin Ward wished to pick up where the great socialist calculation debate of the 1930s and 40s ended. Ward observed the reforms taking place in Eastern Europe at the time, especially in Yugoslavia, where the use of the market was becoming evident.

"Market socialism" had become "something more than a theoretical counterexample." It was put in practice. "But as a serious proposal for reform," Ward maintained, "it leaves some important questions unanswered" (1958, p. 566). What are the important questions, and how does one go about answering them?

For Ward, the questions invariably center around the issue of equilibrium. Put simply, how does the output of the Illyrian firm ¹⁰ in perfectly competitive conditions compare to that of its capitalist counterpart?

Ward adopts the traditional neoclassical tools

used to formally model the capitalist firm. He assumes the objective function of the self-managed firm maximizes the net income per worker. In the self-managed firm, this dividend represents the difference between total revenue and the cost of capital and materials.¹¹ The Wardian single output, single variable input model may be defined as follows:

$$y = \frac{pq - R}{L}, \quad \text{where}$$

p is the perfectly competitive price of the output,

q is the output associated with the short run production function such that $q = f(L, K)$ and K is fixed,

R is the fixed cost of capital,

L is the number of workers in the firm.

The short run equilibrium condition is obtained by differentiating the objective function with respect to L . Hence, the first order condition is derived as:

$$\begin{aligned} y' &= pq'(1/L) - pq(1/L)^2 + R(1/L)^2 = 0 \\ \Rightarrow pq' &= pq(1/L) - R(1/L) \\ \Rightarrow pq' &= y. \end{aligned}$$

Consequently, the economic behavior of the self-managed firm in the short run is similar to that of the traditional capitalist firm; namely, the self-managed firm will produce to the point where net income per laborer ¹² equals the marginal value product of labor.

Consequently, using the standard tools for the economics of the self-managed firms brings forth some "nice" results. But Ward, however, demonstrates a strong counter-intuitive conclusion. Ward rearranges the first order condition in the following manner:

$$\begin{aligned} \text{since} \quad & pq'(1/L) - pq(1/L)^2 + R(1/L)^2 = 0, \\ \text{then} \quad & q(1/L) - q' = R(1/pL). \end{aligned}$$

In other words, he expresses the left side of the equation in terms of the average product of labor and the marginal product of labor.

What happens, asks Ward, to a change in the price of the product? An increase in p implies, under equilibrium, that the left side of the equation must decrease. Obviously, the difference between $q(1/L)$, the average product of labor, and q' , the marginal product of labor, must become smaller, which, under diminishing marginal returns to labor, necessarily implies that the

number of workers employed, and hence output, will decrease. Likewise, a decrease in p corresponds to an increase in the difference between the average product and marginal product of labor, which implies an increase in labor and output.¹³

Consequently Ward makes the following alarming conclusion of the single output, single variable self-managed firm: In the short run, output responds inversely to changes in the product's price. Hence, the short run supply curve of the self-managed firm must be backward-bending, and therefore the threat of market instability is immanent. The danger of instability is compounded, of course, in an economy which consists only of self-managed enterprises.

Ward's analysis is considered the first "modern" attempt to study the economics of workers' self-management (cf. Bonin and Putterman 1987, pp. 3-4; Domar 1966, pp. 734-5). The "modern" treatment differs from that of John Stuart Mill, F.A. Walker, and the others I discussed in chapter 2, in that the modern analysis is thought to be more than a series of "comments"; rather, it is discussed in the language of a formal, equilibrium framework. Because the idea of being modern -

and thus relevant - is directly linked with the ability to formally model economic phenomena, the analysis of the classical economists on the subject of the self-managed firm is relegated to the history of economic thought and is not part of the current discussion.

By casting his analysis in the metaphor of perfectly competitive system, Ward provides the foundation for the contemporary debate: it is argued primarily, if not exclusively, in formal, neoclassical language. The contemporary conversation reflects the questions Ward raised concerning the equilibrium conditions of the self-managed enterprise. These questions, in turn, are constrained by the method Ward chose to adopt.

DOMAR'S CHARGE OF UNREALISM:

Evsey Domar criticizes Ward's model in his study of the Soviet kolkhoz (1966). Referring to it as the "Pure Model" - clearly a term used to connote over-abstractness - Domar writes: Ward's "'Pure Model,' for all its interesting and amusing (I hope) paradox, has one slight defect: it is unreal" (1966, p. 742). Domar, moreover, does not care for the policy implications of Ward's model, which he expresses in the following way:

Now a difficult (for an economic theorist) choice must be made between being original, if unrealistic, and being conventional and practical. For what could be more original and striking than recommendations derived from the "Pure Model," namely that rent should be increased (or imposed) and terms of trade turned against the peasants in order to make them work longer and harder for the kolkhoz? This would vindicate Stalin's agricultural policies, even though he had arrived at them without building models (1966, pp. 748-9).

Now the criticism of being unrealistic is nothing new to economists. But when one economist, especially of the authority as Domar, chides another colleague with unrealism, it is well worth asking which aspects of his analysis he considers so misguided.

We do not have to search long for an answer. Domar is dissatisfied with some of Ward's assumptions. Specifically, Ward assumes labor input can be varied at will - hiring in the case of a fall in the price of the output or an increase in rent, and firing in the opposite case. The allowance of a rather nonchalant procedure of hiring and firing members of the enterprise goes against the basic nature or goal of a cooperative enterprise, which, Domar claims, is constant membership. By replacing Ward's assumption that every worker is also a member of the enterprise with one that allows constant membership and the hiring of additional wage

laborers, then output is more likely to respond positively with increases in price and negatively with increases in rent.

Hired labor, however, does not seem to accord well with self-managed socialism. Consequently, Domar constructs an abstract equilibrium model (though he does not call his own a "pure model") of a self-managed enterprise with two products and two variable factors. With these new assumptions Domar demonstrates that an increase in the price of one output will likely lead to increased production of that output, and a decreased production of the other output (whose relative price decreases) - a basic substitution effect. Given that the self-managed enterprise maximizes net income per worker as opposed to profit, Domar demonstrates that the substitution effect will be offset somewhat by an income effect, and thereby concludes that the supply curve of the output is likely to be positively sloped, though it will nevertheless be less elastic than the capitalist counterpart. Through an alteration of the model Domar apparently puts to rest the Wardian conclusion of market instability due to a backward bending supply curve.

LATER CRITICISMS OF WARD'S MODEL:

Not entirely satisfied with Domar's criticism of Ward, the issue was further pursued by Horvat (1967; 1975b). Once again the charge of unrealism resounds, as Horvat attempts to construct a "more realistic" objective function.¹⁴ He asks if the "firm run by a workers' council really behave[s] in the assumed way" suggested by Ward (1975b, p. 231). Appealing to Occam's razor, Horvat argues that one should not base the objective function on the income-per-worker assumption and then riddle it with numerous special assumptions, even if, like Domar's, they are empirically more realistic. Instead, Horvat simply postulates what he believes to be a much more realistic objective function itself - one which maximizes total profit rather than net income per worker. He defines profit as total revenue minus the cost of capital in addition to a level of personal income the workers aspire to achieve over the course of the accounting year (the aspired income performs the same role as the wage rate). Horvat then demonstrates that the equilibrium conditions for the self-managed firm will be identical to the capitalist counterpart,

and, again, the Wardian implications disappear.

Numerous other parametric variations on the Ward model have since appeared. Miyazaki and Neary (1983) analyze the effect the change in the price of the product has upon the demand for labor in terms of the Slutsky-style income and substitution effects. Meade (1972), Conte (1979; 1980), and Ben-Ner (1984) demonstrate the various conclusions that may be drawn by simple changes in labor market assumptions. Bonin (1977), Ireland and Law (1978; 1981), Steinherr and Thisse (1979a), Brewer and Browning (1982) and others far too many to list, continue to question Ward's initial conclusions. Nor do Ward's conclusions seem to hold in the long run. For example, James Meade (1979) has considered the long run equilibrium conditions of the basic model, and concludes that, as long as free entry and exit are allowed, in most cases the self-managed enterprise will perform like its capitalist counterpart, and the fear of market instability disappears. The importance of long run entry is also stressed by Vanek (1970), Sacks (1973), and Ichiishi (1977).

However, one cannot fail to see that the equilibrium outcomes are determined by the specification of

the objective function and the assumptions embedded within. In short, the outcomes of the model reflect the assumptions of the model itself. This holds for the case of investment as well, to which I shall now turn.

FURUBOTN AND PEJOVICH: ATTENUATED PROPERTY RIGHTS AND THE INCENTIVE TO INVEST:

The efficiency of the self-managed firm has also been questioned from the property rights approach of Svetozar Pejovich and Eirik Furubotn. Both authors believe that they explicate an implicit property approach rights in the models of Ward and Domar (Furubotn and Pejovich 1972, p. 1156, fn. 17; 1974b, p. 170, fn. 1). Yet, contrary to the others, their adjustment to the basic model comes by way of introducing what they consider to be the "more relevant goal" of wealth into the objective function, as opposed to wages (Furubotn and Pejovich 1970, p. 434). Wealth maximization implies that workers attempt to maximize the present value of their expected future earnings, and thus allows for a multi-period model of the self-managed firm.

Furubotn and Pejovich assume that the workers face

two investment possibilities: They may invest in the enterprise itself, ploughing current wealth back in the form of capital goods, with the hope that the increased capital stock will fetch enhanced future wealth; or they may choose to invest current wealth outside the enterprise, in financial assets such as savings accounts, durable consumer goods, human capital, and so forth. Time preference among workers and each worker's expected tenure with the enterprise will thereby influence the choice between present and future consumption.

But that is not all. Given these assumptions, Furubotn and Pejovich add that the property rights assignments of the assets within the firm will necessarily determine the rate of investment within the firm.

If workers enjoy full property rights to the assets in the enterprise, each worker would adjust investment optimally to fit his or her time preference.¹⁵ But the self-managed system is characterized by attenuated property rights. More specifically, workers enjoy only a usufruct right to the assets in the enterprise, such that any individual worker enjoys an income based on his current participation in the

enterprise. The worker has no claim to a portion of the future wealth of the enterprise upon his leaving - he or she only owns a portion of the current residual. A priori, Furubotn and Pejovich conclude that "this quasi-ownership must clearly be a shortened time horizon of the collective (which depends on the average length of employment expected by the majority of employees) and a high time preference rate relative to that which would prevail if the workers were granted the right of ownership over the assets acquired by the firm during the period of their employment" (1970, p. 443; cf. Pejovich 1973, pp. 294-95).

Because workers enjoy full ownership of personal assets such as savings accounts, durable consumer goods, and so forth, the authors argue that workers as rational economic agents will opt to invest the residual outside of the enterprise: the rate of return on owned assets will likely be much greater than the rate of return from investment in the non-owned capital stock of the self-managed enterprise.

Because the worker has no ownership claim to physical capital, and because one enjoys a share of the residual only by actively participating in the enter-

prise, the worker has a strong incentive to use his portion of the residual for saving and consumption rather than reinvesting it into the enterprise to encourage economic growth. Workers would reinvest the residual only if the expected rate of return on the business asset is very high or if their time preference is very low. To put it differently, financing the self-managed enterprise makes for a bad investment from the workers' point of view. They would rather save through an outside institution - one which offers a contracted rate of return plus recoverable principal.¹⁶

VANEK'S ASSUMPTION OF PERFECT CAPITAL MARKETS AND PLANNED INVESTMENT:

Jaroslav Vanek agrees with the property rights economists that a rather high rate of return is necessary before workers will choose to internally finance the self-managed enterprise. But this may not be as damning a criticism as the property rights economists believe, for Vanek maintains that the self-managed enterprises need not rely on self-financing, especially in the later stages of economic development.¹⁷ Again the claim of greater realism appears. As Vanek writes: "If the assumption of no borrowing for the firm is

replaced by a less stringent and more realistic one, permitting of partial external financing of projects - coupled possibly with future repayment from current income - the rate of return need no longer be far in excess of the market rate of interest (on private savings) to induce ploughing back of current income" (1970, p. 305).

In fact, Vanek goes one step further (though by no means in the direction of greater realism) by assuming the existence of perfect capital markets, an assumption common to neoclassical economists in general and property rights economists in particular.¹⁸ Under perfect capital markets, self-managed enterprises could borrow at a given rate of interest. Vanek postulates a supporting structure - the National Labor Management Agency - which performs the role of full external financing of self-managed firms (1970, ch. 15, esp. pp. 315-20; also cf. Vanek 1971a). The National Labor Management Agency also has the corresponding duty to ensure that all other markets are perfectly competitive, so that it could "steer the economy to an optimal solution - that is, a solution with marginal rates of transformation and substitution equal" (1970, p. 374).

In short, the National Labor Management Agency must replace the conventional Walrasian auctioneer in order to bring about a Pareto-optimal general equilibrium. Assuming that it can do so (or at least do a better job than the capitalist economy, which in reality lacks a Walrasian-type coordinator), Vanek concludes:

Of key importance is the question whether the investment criteria of the labor-managed system produce an optimal allocation of capital resources in the economy. The answer is that provided that other markets operate perfectly, a perfect capital market will lead to a social optimum. If the condition of perfect competition in other markets - in particular the labor market (or quasi labor market) - is not fulfilled, then social optimum cannot be attained; but neither can it be obtained by a freely operating capitalist economy (1970, p. 396).

Consequently, Vanek attempts to beat the property rights criticism on its own terms by assuming the existence of perfect capital markets to externally finance investment and encourage long term economic growth.

FAREWELL TO THE ILLYRIAN FIRM?:

"We are in possession," wrote Benjamin Ward, "of a correct analysis of the price system, ... and an open-

minded willingness to adapt our models to the burgeoning flow of empirical results" (1967, p. 509). Over two decades later one wonders to what extent the debate he inspired helps us really understand the nature of existing self-managed socialist systems, which was, recall, his original goal.

I dare say that our understanding of self management from a comparative systems standpoint has increased little compared to the proliferation of models on the subject. To be sure, in addition to those already mentioned, numerous other reforms to the model have appeared by way of incorporating risk into the objective function;¹⁹ respecifying the utility functions of the workers within the enterprise;²⁰ developing an implicit contracts approach;²¹ applying game theory and studying the effects of coalitions;²² analyzing the effects of less than perfectly competitive market structures on the self-managed system;²³ and so forth.²⁴ Without a doubt, Horvat's remark that Ward's original article "established a new discipline" should be taken literally (1986, p. 23). But the debate has focused primarily on the formal model - it takes place through the model itself - and is steered

in various directions with a change in the model's assumptions.

The theoretical framework as a whole is left unchallenged. It remains a common ground - a shared perspective - for the participants of the debate. Yet, perhaps ironically, along with the increasing number of variations and added complexities to the theory, each side of the debate continues to talk past one another, refusing to recognize the value of the other's parametric alterations to the basic model.

This antagonism is clear even for those who have been developing the model for the past twenty years. For example, Svetozar Pejovich has recently argued that the predictions of the property rights approach (inflation, low savings, high unemployment, and serious liquidity crises) have been observed in Yugoslavia: "Each and every one of these predictions," he writes, "has turned out to be correct" (1984, p. 431). On the other hand, in his bid "Farewell to the Illyrian Firm," Branko Horvat concludes that the predictions of Ward as well as Furubotn and Pejovich are just plain wrong. He argues, for example: "In Yugoslavia there is a chronic tendency to overinvestment - not underinvestment - and

that is explained by reduced risk and the availability of investment finance" (1986, p. 25). Considering the predictions in general leads Horvat to conclude: "It appears that the standard neoclassical theory of the [worker-managed firm] explains nothing - because it is fallacious - and predicts nothing - because its predictions are wrong. How do worker-managers really behave? The answer to this question is not a matter of desk room theorizing but of empirical observations" (1986, p. 28). Obviously, however, each side interprets empirical reality through the lenses of their slightly altered theories.

Some, accordingly, are beginning to question the fruitfulness of this debate, which is well into its third decade. For example, after his excellent, sympathetic, and exhaustive review of the literature of producers' cooperatives and self-managed firms, Frederic L. Pryor candidly concludes:

If most existing models generate few testable propositions and if, further, there is little certainty that their assumptions apply to production cooperatives, what good are they? Have we not reached the point of diminishing returns with a proliferation of models with slightly different theoretical fillips and slightly different assumptions? In short, is most of the theoretical literature anything more than an academic game where the authors appear to have little knowledge

of how such organizations actually work and, instead, wish to demonstrate their mathematical virtuosity?

In short, theoretical analyses have given us too many conflicting theories of behavior of production cooperatives. If we are to be able to say anything definite about such organizations, it is imperative to leave our armchairs and empirically to investigate how these cooperatives actually work (1983, pp. 163, 164).

Pryor's call for greater empirical work as opposed to pure theory is a welcomed sign in the literature. However, as Pejovich and Horvat clearly demonstrate, empirical observation is guided by theory; and the various assumptions behind the basic theory will definitely influence one's interpretation of reality.

To offset the misplaced emphasis of much of the literature on the economics of workers' self-management, and in the hope to improve our understanding of the self-managed system, as well as to improve the current conversation among economists, Jaroslav Vanek has recently proposed that we critically assess the formal model in its totality. As he puts it:

The first important word is simplicity, and the first point I would like to make bears on the simplicity of theoretical analysis. With the increasing army of unemployed and underemployed establishment economists in the west, the notion of scientific progress has been entirely deformed and bastardized into the notion of increasing

complexity with no regard to relevance. To begin with, the neo-classical tools of perfect markets, utility functions and production functions are sterile and incorrect. And if one starts building from these shaky building blocks high edifices, the results are even worse. These tools must be abandoned, and we must meticulously keep verifying the correctness and realism of our tools while keeping them simple so that the majority can use and understand them....

What holds for economic theory also holds for empirical investigation (1988, pp. 2-3).

Until now only the "realism" of the assumptions have been subject to criticism, a criticism which yields increasingly abstract analyses whose relevance to the key questions of comparative economic systems is slipping. Vanek's plea for the overturning of the strictly neoclassical model is thus long overdue. I intend to take his aspiration seriously, but I shall probably take a direction which he does not anticipate.

To be specific, the debate leaves much to be desired from the viewpoint of rational economic calculation under socialism. It has been restricted to an analysis of the nature of the self-managed firm - which is to say, it has largely been a debate in industrial organization instead of comparative political economy. Little, if any, attention has been given to workers' self-management as an economic system. Has the criti-

cism of Mises and Hayek been answered by the advocates of self-managed socialism? The formalized language of the neoclassical model, from Ward's basic model to the most contemporary variants, unfortunately has not allowed a discussion of inarticulate knowledge and unending processes of endogenous change, notions at the core of the Austrian criticism. The one-sided emphasis on incentives and equilibrium conditions, though perhaps useful for some questions, has completely displaced the question of how the socialist economy will generate knowledge in a form which allows for a rational allocation of scarce economic goods. Pointing to an exogenously given equilibrium price or perfect capital markets begs many fundamental questions.

Informed by recent developments in epistemology and the philosophy of science, I will critically assess in the next chapter the idea of formal model building, and further develop the knowledge problem argument of the contemporary Austrian School, a problem which has been completely overshadowed by the incentives debate over the past three decades. Thus, though I take the cue from Vanek, I shall at the same time attempt to challenge his and his colleagues' view of the self-

managed system.

NOTES TO CHAPTER THREE

1. These characteristics are also expanded upon in Vanek (1971b, ch. 2; reprinted in Bornstein (ed.) 1985). Undoubtedly various blueprints of the worker-managed system abound in the economics of self-managed socialism. The key characteristics that Vanek mentions are, however, generally accepted throughout the literature, and therefore for my purpose there is no compelling reason to compare the intricacies between Vanek and the others. I shall, however, further describe the institutional characteristics of self-managed socialism as provided by Horvat's (1982) comprehensive account.

2. This is labelled "income" rather than "profit" because profit is usually understood to include labor expense as a component of total cost; in the self-managed firm there is no objective cost of labor.

3. In fact, Vanek alludes to the universality of his model when he writes:

The labor-managed system need not even be socialist: the productive assets whose usufruct the workers enjoy might be procured or leased by banks or savings associations. Of course, there will be a great advantage if such functions are assumed by the society as a whole, represented by democratic government. Similarly, the labor-managed system need not even involve economic planning. The fact that it will function even if left entirely alone is one of its greatest strengths - although, . . . , forecasting and some kind of indicative planning is highly desirable because it enhances considerably the efficiency of the system. Actually, the gains attributable to planning are far more significant in a labor-managed economy than in a capitalist economy; but the fact remains that planning should not be introduced as one of the definitions in the system (1970, p. 7).

4. Horvat establishes what he explicitly considers a Marxist social theory as opposed to a general theory such as Vanek's, and hence emphasizes the importance of planning as a necessary aspect of worker-managed socialism.

5. Informed by an empirical study by Veljko Rus et. al. (1977), Horvat points out that the greater the dispersion of power, the greater the conflicts which arise between individual groups: "Generally, the more equal the distribution of power, the greater is the uncertainty and the more conflict-ridden is the organization. The uncertainty caused by democratization may have integrative or disintegrative effects. In the former case, more numerous conflicts contribute to greater flexibility, greater responsiveness, and quicker crystallization of conflicts, which leads to improved efficiency. In the latter case, both interpersonal relations and efficiency may be disastrously affected. The self-management organization is thus very conflict sensitive. Consequently, an appropriate organization design and methods for conflict resolution appear extremely important for efficient decision making" (1982, p. 259). Unfortunately, Horvat does not provide a detailed model of conflict resolution. Therefore, until one is provided, the danger of overwhelming conflicts of interest may cast into doubt the feasibility of Horvat's blueprint for the worker-managed firm. Moreover, Horvat's call for a split between the interest sphere and the professional sphere may bifurcate people's lives into civil and technical domains, and thus seems to move farther from the call of Marx.

6. I shall argue in the next chapter, however, that they still have not fully appreciated the knowledge problem argument of Mises and Hayek.

7. The question of the transition period may arise here. Though the praxis philosophers seem to allow for markets during the transition period, at least Mihailo Markovic clearly advocates the abolition of the market and commodity production for the fully evolved socialist system. Markovic stresses that "under conditions of commodity production, self-management does not yet have universal human character.... To be sure, under

the conditions of abundance, production for human needs will gradually tend to replace production for profit" (1974, p. 237; also see Markovic 1964, p. 436; 1975a, p. 332; cf. Vranicki 1965). Horvat, on the contrary, considers the transition period toward socialism to be that which leads to the blueprint I have just described (see Horvat 1980; 1982, pp. 415-94), and thus gives one the impression that his blueprint is a post-transition model of socialism. Moreover, he explicitly defends the notion of socialist commodity production (1982, pp. 500-504).

8. There are exceptions, however. See, for example, Sweezy (1964). Certainly Marx considered the elimination of the commodity mode of production and exchange to be a necessary condition for system to be socialist.

9. As Horvat notes, the major international debate over workers' self-management has focused primarily on the theoretical issue of the worker-managed firm (Horvat 1982, p. 339). In the next chapter I hope to broaden the debate by challenging the economy-wide organizational assumptions which uphold the neoclassical model.

10. Ward uses the label "Illyrian" rather than Yugoslavian to denote a theoretical idealization of the Yugoslav firm.

11. Ward includes a fixed wage as a cost of production (so that each worker receives a wage payment in addition to his share of the net income). Because it does not affect the short run conclusion which Ward draws in his model, for the sake of simplicity I shall not include the fixed wage as an argument in the objective function.

12. Similarly, in the event of fixed labor and variable capital, maximizing net income per worker becomes the same as maximizing profit, where:

$$y = \frac{pq - cK}{L} \quad \text{and } c = \text{price of capital.}$$

Differentiating with respect to K,

$$y' = pq' - c = 0$$

$$\Rightarrow pq' = c.$$

Hence, the marginal value product of capital is equal to the price of capital.

13. Similarly, Ward shows that the self-managed firm will respond positively to a change in rent, or R (the cost of capital).

14. For an excellent account of Horvat's 1967 argument, see Milenkovitch (1971, pp. 204-10).

15. Furubotn says that the attenuated property rights arrangement in the self-managed economy "warp[s]" what would otherwise be an optimal scheme of investment incentives: "Obviously, if workers were permitted to own capital, each individual would be free to adjust investment optimally to his pattern of time preference" (1971, p. 197, fn. 32). Hans Nutzinger, in his critique of the property rights approach in general, has referred to such thinking as "Doctor Pangloss reasoning" (1982, p. 92).

16. Because the original group of workers in a self-managed enterprise have financed the capital of the enterprise, Furubotn argues that, under diminishing returns to scale, the original workers will have an incentive to limit employment in order not to dampen the average residual (the new workers, though making no financial sacrifice, nevertheless enjoy the same claim to the residual as the incumbent workers) (1971, pp. 194-95). For a response see Bonin's (1984) discussion of a balanced budget fiscal policy which, following a Ward-type model, is designed to increase membership of the self-managed enterprise through a judicious imposition of a lump-sum tax.

17. Jan Vanek, his brother, has argued that, on average, workers' time preferences in Yugoslav firms may be very low, thus providing the incentive to self-finance anyway. See Jan Vanek (1972, p. 197, fn. 13). In addition, see Neuberger and James (1973, p. 270).

18. See, for example, Manne (1965), Fama (1970), Jensen and Meckling (1979), and Jensen and Ruback (1983).

19. See, for example, Taub (1974), Dreze (1976), Bonin (1977; 1980), Muzondo (1979; 1980), Steinherr and Thisse (1979b), Inselbaq and Sertel (1979), and Hay and Suckling (1980).

20. See, for example, Sen (1966), Bonin (1977), Ben-Ner and Neuberger (1979), Israelsen (1980), Putterman (1980), and Ireland and Law (1981).

21. See Miyazaki and Neary (1983), Bonin (1984). Along with Bradley and Gelb (1981) and Putterman (1984), this recent literature is largely a response to the monitoring or principal-agent problems developed in the work of Alchian and Demsetz (1972), Mirrlees (1976), Shavell (1979), Holmstrom (1979; 1982) and Malcomson (1984).

22. As provided by Ichiishi (1977), Staatz (1983), and Sexton (1986).

23. See Vanek (1970; 1971a), Meade (1974), Maurice and Ferguson (1976), Gal-Or, Landsberger, and Subotnik (1980), Landsberger and Subotnik (1980), Ireland and Law (1982), Hill and Waterson (1983), Neary (1984), and Estrin (1985).

24. Two exhaustive surveys of this general literature are provided by Pryor (1983) and Bonin and Putterman (1987).

CHAPTER FOUR

Beyond the Present Debate: Self-management, Dialogue, and the Problem of Knowledge

INTRODUCTION:

I have shown in the last chapter that the proponents of self-managed socialism defend that system from the standpoint of neoclassical economics. At first this may seem odd. The tools of neoclassical economics - indifference analysis, marginal value, the assumptions of perfect competition, and so forth - barely seem compatible with humanist socialist thought in general and (self-described) Marxian thought in particular. This combination, which goes back to Oskar Lange, appears contradictory to the history and spirit of socialist thought. Yet it is also worth noting that the peculiarity does not rest with the neoclassical proponents of socialism alone. G.B. Richardson (1959) has observed that the "capitalist" system depicted by the neoclassical model is ultimately not that of a laissez faire, anarchic market, where prices emerge

spontaneously through the rivalrous and cooperative efforts of buyers and sellers. Rather, the neoclassical framework models prices as given parameters which cannot be influenced by buyers or sellers. A single will coordinates all economic activities - the so-called Walrasian auctioneer. The standard competitive model is one in which the auctioneer fully determines the equilibrium prices and quantities for the entire array of commodities prior to the realization of exchange among competing economic agents. Thus the basic neoclassical model, used by some to explain capitalist economic processes, may more accurately depict a centrally planned barter economy, as opposed to an anarchically organized monetary economy.

Thus an irony appears: the advocates of decentralized socialism have embraced the standard neoclassical model, a model considered by some to illustrate the capitalist economy; yet, if Richardson is correct, the standard model may be an equally if not more appropriate model for a complete, centrally planned system.

Now this irony, or what appears to be an irony, may be partly explained in terms of strategical pursuit. If one aims to convince other economists of the

efficiency of a socialist regime, for example, then perhaps the best way to succeed is to adopt as much of the standard language as necessary - to play on the same turf - in order to be accepted. This strategy may appear fruitful during the initial stages of a debate between supporters of very different economic visions. All too often, however, adopting the opponents language, though it is thought to allow meaningful conversation, unintentionally obstructs conversation. This occurred during the course of the socialist calculation debate and it continues in the contemporary incentives debate.

This irony may also be partly explained by the meaning of the model itself. Standard theorists have become more aware of the fact that the model may not adequately explain real world market phenomena. That is, a shift of emphasis concerning the use of equilibrium has taken place since the 1950s and 1960s (see High (forthcoming, ch. 1)). Prior to that, Walras, Lange and others such as Don Patinkin argued that the market really solves the system of excess demand equations of general equilibrium theory (to varying degrees of efficiency of course). On this, see

Patinkin (1965, pp. 38-9), for example.

While they believed equilibrium theory described the operation of markets, others, such as Kenneth Arrow and F. A. Hahn (1971) have come to argue that the model is only about equilibrium as such, and not about the actual operation of real world markets. From this viewpoint, which is becoming increasingly accepted today, it is a mistake to believe the model describes markets or planning. It intends to do neither: it focuses only upon equilibrium states of affairs.

Early in the incentives problem debate the participants seemed to believe that the equilibrium model describes capitalist markets and socialist self-management. After Arrow and Hahn, however, we have found that it cannot do this adequately. More recently in the debate the model has become increasingly used to discuss only the equilibrium properties of workers' self-management. This accords well with Arrow and Hahn. However, it does not (because it is not intended to) address a fundamental issue in comparative economic systems - the use of knowledge under alternative institutional settings. While the incentives problem debate has more clearly developed the equilibrium

properties of workers' self-management, it has done so at the cost of overlooking some important questions in comparative systems.

Though the participants in the debate may differ on the efficiency of capitalist organization to self-managed organization, the participants as a whole have been guided by a common ground that goes deeper than the model itself. That common ground is the formalized notion of scientific truth. Both sides share a strong philosophical bias for a strictly formal model of economic explanation. Hence, what may appear as an instrumental debate, a debate in which each side merely chooses the assumptions that generate conclusions it seems motivated to defend, is really a manifestation of the problem of formalism as such. Constrained by the language of neoclassical equilibrium theory, the debate over the efficiency of economic incentives under workers' self-management was, at the beginning, a debate over the realism and relevance of assumptions. Now it is a debate about equilibrium. It questions a parameter at a time. The implicit rules of the debate have not allowed the formal language as a whole to be challenged, for the formal model does not allow for criti-

cal self-reflection.

THE LIMITS OF FORMALISM AND THE LIMITS OF THE DEBATE:

Broadly speaking, the purpose of formalism is to remove personal judgement from the scientific realm (cf. Polanyi 1959, p. 119). In its call for greater exactitude and the elimination of ambiguity, formalist epistemology searches for an objective, that is, nonhuman, foundation from which to ground scientific knowledge. Without this foundation, the formalist argues, the question of just what constitutes valid knowledge and scientific truth cannot be answered. Hence, this thinking implies that either we have an objective foundation - a proven method, a set of rules, etc. - to secure knowledge, or our explanations of reality will be riddled with an all too human subjectivism, a subjectivism not open to rational examination.² Once the method is discovered - such as the procedure of equilibrium model building - explanation is largely reduced to questioning the model's various assumptions and predictions. The methodology - the commitment to formal modeling itself - is rarely, if ever, the subject of critical scrutiny.

Formalism appears as the bias for building abstract, linearly-deductive, universalizable models. The formalist approach tends to substitute mathematics for natural language, as in physics.³ The economist's desire to imitate physicists by developing a mathematical engine of analysis has been expressed by many, but perhaps was best expressed in Walras' Elements - a text that undoubtedly had a great influence in developing contemporary mainstream neoclassical economics: "mathematical economics will rank with the mathematical sciences of astronomy and mechanics," says Walras, "and on that day justice will be done to our work" (1977, p. 48).

The attempt to cast away the human dimension of intersubjectivity and social action for a mechanical model of society, a model which borrows the language of physics, reflects an overtly scientific attitude that developed in the nineteenth century and continued through the mid-twentieth century.⁴ The relative success of physics and other natural sciences encouraged, indirectly if not directly, economists to adopt the same formal attitude to study the human realm. The growth during the twentieth century of the

positivist philosophy of science helped consolidate the economics profession's move toward formal modeling and hypothesis testing.⁵

Presently, of course, standard economists do not worry about the extent to which they practice science. Owing to the formal equilibrium framework developed over the past several decades, the profession is now quite confident that it has achieved scientific status.

The formal mode of explanation, however, does not allow for an explicit and committed attempt on behalf of the economist to understand the truly dialogical nature of economic relations. The past century of standard theory, largely through the development of indifference analysis and the notion of perfect competition, has been largely a reductionist march away from the social individual in economics. Indeed that individual has become so isolated in standard theory that the notion of an individual actor itself is rapidly becoming obsolete. Beginning with Pareto's claim that "the individual can disappear, provided he leaves us this photograph of his tastes" (cited in Hodgson 1986, p. 214) and later reinforced by the idea that "economic relationships can never be perfectly

competitive if they involve any personal relationships between economic units" (Stigler 1946, p. 24), the notion of an individual - social or otherwise - has been squeezed out of the formal model. As F. H. Hahn had occasion to say: "Traditional equilibrium theory does best when the individual is of no importance - he is of measure zero. My theory also does best when all the given theoretical problems arising from the individual's mattering do not have to be taken into account" (1973, p. 33) Such is the approach of the severely restrictive methodological individualism which pervades formal modeling.

I am not arguing that all the participants in the debate over incentives in self-managed socialism are as abstract as Hahn. Some seem to allow for interpretation at the edges of their studies. None are committed, however, to meaningful interpretation at the core of their theory. Moreover, the present direction which the research is taking is clearly toward increased formalization and abstraction - so much so that the earlier participants, such as Vanek, have lately expressed their reservations.

The standard economists self-confidence in formal,

positivist theory is, I maintain, a mistaken self-confidence. Mainstream economists in general have ignored later developments in epistemology and the philosophy of science, developments which at least since the late 1950s, have proceeded to tear away bit by bit the presuppositions and assumptions that support the formalist mentality. Michael Polanyi (1958) has argued, for example, that there is no division, as the formalists presuppose between fact and value, objectivity and subjectivity. Facts do not speak for themselves - there is never a simple "appeal" to the facts. Rather, as the recent statements by Pejovich and Horvat demonstrate, facts must be interpreted through the theory itself. That is, the theory acts as a means to organize and make sense of the facts; it is the set of "spectacles" through which a scientist sees the world.

Moreover, there is no external, objective formula from which a scientist may judge the truth claims of theory. As Thomas Kuhn has argued:

If two men disagree, for example, about the relative fruitfulness of their theories, or if they agree about that but disagree about the relative importance of fruitfulness and, say, scope in reaching a choice, neither can be convicted of a mistake. There is no neutral algorithm for theory choice, no systematic decision procedure which, properly applied, must lead each individual in the

group to the same decision (1970, pp. 199-200).

The issue regarding, for instance, the most appropriate specification of the objective function of the self-managed enterprise cannot be determined objectively, as it were. Instead, each participant in the debate must attempt to persuade the others of the value of his or her approach. That is, neoclassical economists cannot strictly follow the methodological criteria of their own research program, but instead progress (albeit in a restricted way) along rhetorical-interpretive lines.

This is true not only for neoclassical economics, but for all scientific endeavors. Polanyi has stressed that "science is a system of beliefs to which we are committed" (1958, p. 171), and the objectivity of science stems not from some ahistorical, Archimedian perspective. Rather objectivity, or truth, rests within the tradition of the practising scientist - it unfolds ever so slowly as part of the indeterminate and ongoing conversation of the scientific community.

TOWARD AN INTERPRETIVE TURN IN THE CONTEMPORARY DEBATE:

The positivist philosophy of science which the neoclassical paradigm is so deeply indebted to has conse-

quently fallen into disfavor in the contemporary philo-
sophical discussion.⁹ Having abandoned the search for
timeless, impersonal formulas to acquire scientific
knowledge, contemporary philosophy of science has taken
an "interpretive turn," to use Rabinow and Sullivan's
phrase. In the contemporary, and more humble, attempt
to address the issue of what constitutes the object of
knowledge for the human sciences,

The interpretive turn refocuses attention on
the concrete varieties of cultural meaning, in
their particularity and complex texture, but with-
out falling into traps of historicism or cultural
relativism in their classical forms. For the
human sciences both the object of investigation -
the web of language, symbol, and institutions that
constitutes signification - and the tools by which
investigation is carried out share inescapably the
same pervasive context that is the human world....
[T]he interpretive approach denies and overcomes
the almost de rigueur opposition of subjectivity
and objectivity.... [I]nterpretation begins from
the postulate that the web of meaning constitutes
human existence to such an extent that it cannot
ever be meaningfully reduced to constitutionally
prior speech acts, dyadic relations, or predefined
elements. Intentionality and empathy are rather
seen as dependent on the prior existence of the
shared world of meaning within which the subjects
of human discourse constitute themselves. It is
in this literal sense that interpretive social
science can be called a return to the objective
world, seeing the world as in the first instance
the circle of meaning within which we find
ourselves and which we can never fully surpass
(1979, pp. 4-5).

The current understanding of the philosophy of science

moves well beyond the prescriptions of formalism and positivism. Science is now seen as a spontaneously organized institution, an arena in which truth claims compete with one another, rather than a method or a set of criteria purported to advance truth (cf. Lavoie 1985b, pp. 247-65). As Donald Polkinghorne rightly observes, contemporary philosophy of science differs from the past in that it "is not a school of thought"; rather "it is an attitude about knowledge" (1983, p. 10 279).

The economic study of workers' self-management needs to acquire this new attitude. Rather than divorcing itself from the meaningful interactions of the people within the system, it must come to terms with the human purposes and plans that are at the center of the social stage. If one wishes to steer the study of workers' self-management onto a more realistic track, rather than applying parametric changes to the formal equilibrium model, then it seems promising to follow the interpretive turn which emphasizes the study of the more general notion of praxis, or human 11 action.

Moreover, I believe that the major reason why the

calculation argument advanced by Mises and Hayek in the 1920s and 30s had been theoretically misinterpreted by Lange, Lerner and the others as largely a motivation problem - finding ways to ensure that individuals would respond optimally to a set of given prices - is because the model of mainstream neoclassical economics was already formalized to such an extent that it could not adequately deal with complex social interaction. For instance, they failed to see that market signals are rooted in the intersubjectively shared meanings of the members of an economic community. Not only did Lange and his followers confuse the nature of the Mises-Hayek argument, as Don Lavoie has so clearly shown (1985c), but I also believe that the participants in the contemporary debate over efficient incentives under self-managed socialism have fundamentally misunderstood the Austrian position as well. Though Horvat and the other advocates of self-managed socialism nod to Mises and Hayek by allowing for some market exchange in order to ensure consumer sovereignty and producer autonomy, they nevertheless misunderstand the epistemological basis of the Austrian critique.

THE TENSION IN THE NEOCLASSICAL MODEL OF SELF-MANAGED SOCIALISM:

Consequently, advocates of self-managed market socialism are also caught in a tension, in this case between market and plan. The source of the tension in the model lies in the meaning of social property. Recall (from the last chapter) Horvat claims that social property implies both workers' self-management and social planning. Much of the debate, however, has focused only on the incentives of the worker-managed enterprise, and little, if any, on the knowledge problem of social planning. Because the knowledge problem is thought to be answered, the tension in the model goes relatively unnoticed.¹²

Like Lange, Horvat understands that the essence of economic planning is to achieve rational, ex ante coordination:

In order to make rational use of social productive capital and in order to reduce uncertainty enough so that self-management decisions produce the expected consequences, the activities of productive units must be coordinated on an ex ante basis, which is the essence of planning (1982, p. 230).

And he yet he sincerely wishes to go beyond Lange by keeping the system decentralized - to leave "each individual firm full autonomy - and responsibility - for

decisionmaking" (1982, p. 230). Horvat argues that, far from being contradictory, social planning allows worker collectives a degree of autonomy that they could never achieve in the spontaneity of the market process. "By the very nature of the matter," Horvat maintains, "it is the functioning of the system as a whole that should be regulated" (p. 336).¹³

But how can the whole be meaningfully coordinated in advance without controlling its constituent parts? How can a general plan, worthy of its name, be rationally advanced in a system with innumerable planning centers? Too great a reliance upon the spontaneous institution of the market would place control firmly in the hands of the worker-managed enterprise, and participation by other members in society would be drastically curtailed. It would shift the self-managed enterprise into a much more capitalistic context and thereby render the notion of social ownership a mere legal fiction. Though I had pointed out in the first chapter that the idea of social ownership as social control seems unworkable and utopian, a growing autonomy of the enterprise would further reduce the likelihood that citizens could participate, even in

relatively less ambitious attempts at participatory planning such as having a voice in the allocation of a portion of the income of a self-managed enterprise.¹⁴

Remincent of Cole's struggle between decentralization and centralization, between genuine workers' self-management and hierarchical planning, Horvat argues at once that "the system as a whole behaves as a polycentric system," and yet "The task of the federation is to integrate the functioning of all subsystems and thus ensure the overall functioning of the entire system." But he cannot, in fact, have both and maintain that the economy is rationally planned in an ex ante fashion:

In carrying out this task, the federation performs... three functions [equalizing the conditions of economic activity, ensuring market equilibrium, promoting economic development]. All three functions require that uniform decisions be made for the entire economic territory of the country. But the uniformity of decisions does not predetermine the way in which they are made. The mode of decisionmaking can be autocratic, oligarchic, or democratic and participatory. In particular, the federation is not identical with the federal government, nor are centralized decisions necessarily characterized by official arbitrariness (1982, p. 356).

Indeed, when he speaks of planning, Horvat maintains that economic coordination can be achieved "only by

centralized decision making for the country as a whole" (p. 362), and, at another point, buried in a footnote, he admits that "all planning is at least partly or in the final analysis central" (p. 586, fn. 51).

Horvat clearly faces a struggle between market and plan. He would like to see a degree of democratic enterprise autonomy and thus calls for a degree of market exchange. But he cannot allow the means of production to be exchanged spontaneously - allocated by the nonending push and pull of the market process, for otherwise his model would reflect a market economy with cooperative enterprises, something that Horvat himself disparages.¹⁵ Real markets for the means of production contradicts one of the implications of social property - the need for planned, ex ante coordination. The market can only oppose the plan, for market activities as a whole are coordinated ex post through a ceaseless flux in relative price signals. Like Marx, Cole, and others, the current call for decentralized workers' self-management conflicts with the appeal for an ex ante coordination of economic activities. The model of self-managed market socialism cannot allow for true enterprise autonomy, for the means of production are

socially owned and must be coordinated in a rational, planned manner, which ultimately requires centralization.

Consider, for example, Yugoslavia in the 1970s. In its attempt to remain faithful to the notion of social property, Yugoslavia reduced the degree of legitimate market relations in its economy and called for greater social planning in Articles 69-74 of the 1974 Constitution. Vanek has rightly referred to the intent of this reform as moving toward a "more unified system of self-management of both enterprises and of the relationships between enterprises and other economic units." Moreover, he adds, "this is precisely what the theory of optimal participation would call for: not only dialogical self-management within factory walls but also - today with the social contracts and social compacts - outside the factory doors between groups of interest" (1980, p. 461).

The planning system was radically decentralized down to the level of the basic organization of associated labor (BOAL), the fundamental constituent division of an enterprise. Together with trade unions, working communities, and other collective planning

units, the number exceeded more than 95,000 (Babic 1980, p. 466). Information was to be exchanged and plans linked through self-managing agreements between individual BOALs, enterprises, and economic chambers, and through social compacts among socio-political communities. But what unexpectedly arose was disorder at the enterprise level. Rather than rationalizing the planning process, this reform atomized social units to such a great extent that, without market prices to guide them, enterprise councils were largely incapable of systematically coordinating their activities. The communist party in Yugoslavia, the LCY, then tried to act as a centralized institution to resolve conflicts of interest and coordinate economic plans as best it could. Thus, rather than a move in the "right" direction, it seems more like a move in two rather conflicting directions.

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Nevertheless, the struggle between the two opposing notions of decentralization and centralization in general, or market and plan in particular, is considered a more or less settled theoretical question by allowing a market for lower-order goods and ex ante planning of the capital structure. In fact, in the

formal model the use of the market to transmit information seems to be limited to data regarding consumer tastes and preferences (see, for example Bislev 1985, p. 393; Horvat 1982, p. 349). With this in mind, the theoretical argument that the market can be used to inform the plan becomes more understandable, for the data supplied by the consumer goods market can be used to rationally plan the capital structure, imputing the equilibrium values of lower-order goods to higher-order goods and the socially owned means of production.

This is a fair interpretation of the model from the perspective of neoclassical theory. It appears to relieve the tension between market and plan and does not force the advocate of self-managed socialism into one of two equally unappealing options from his point of view - capitalist commodity production or centralized command planning. The model, however, rests on a formal notion of the type of knowledge conveyed by markets and the meaning of market prices, which may relieve one of the struggle between market and plan, but does so only because it misunderstands the nature of the knowledge problem posed by the Austrians during the calculation debate.

In the remainder of the chapter I will argue that the knowledge problem argument advanced by Mises and Hayek cannot be adequately understood without recognizing their unique interpretive approach. I shall therefore return to the knowledge problem argument I mentioned in Chapter 2 when I discussed the socialist calculation debate; but I will now emphasize the interpretive aspects of market participation and the effect of dialogue on knowledge conveyance and utilization. I believe that the core of the problem of conveying and using the necessary knowledge to rationally coordinate a complex economy - a problem which underlies the essential tension between decentralization and centralization in socialist systems - cannot be fully appreciated without systematically focusing upon the social, and thus dialogical, activities of the people who compose the economic community.

KNOWLEDGE AND THE SOCIAL ACTOR:

An interpretive approach focuses on the social activities of people within an economic community. It attempts to uncover the meaning of human actions, their purposes and, equally important, their unintended

consequences. More specifically, an interpretive approach must attempt to render intelligible the social order in which individuals orient themselves, an order which is an ever-evolving, unanticipated outcome of the pursuit of concrete individual plans. Following Menger (1981 [1871]; 1985 [1883]), the Austrian school has explicitly devoted itself to the interpretive study of society in this way, as an unintended product of human actions; and it was from this perspective that Mises and Hayek articulated their knowledge problem critique of socialist economic calculation.¹⁷ When one studies any society, capitalist or socialist, the Austrian tradition maintains, one must be aware of the division of knowledge which makes society possible. In a criticism of the market socialists of his day, Hayek wrote:

Clearly there is here a problem of the division of knowledge which is quite analogous to, and at least as important as, the problem of the division of labor. But, while the latter has been one of the main subjects of investigation ever since the beginning of our science, the former has been as completely neglected, although it seems to me to be the really central problem of economics as a social science. The problem we pretend to solve is how the spontaneous interaction of a number of people, each possessing only bits of knowledge, brings about a state of affairs in which prices correspond to costs, etc., and which

could be brought about by deliberate action only by somebody who possessed the combined knowledge of all of those individuals. Experience shows us that something of this sort does happen, since the empirical observation that prices do tend to correspond to costs was the beginning of our science. But in our analysis, instead of showing what bits of information the different persons must possess in order to bring about that result, we fall back on the assumption that everybody knows everything and so evade any real solution of the problem (1937, pp. 50-1).

Not only those within the Austrian economics tradition have focused upon the way social institutions solve the knowledge problem. Georg Simmel, the German sociologist, for example, had attempted to explicate a theory which centers around the fundamental question: How is society possible? Simmel clearly understood that "positions within society are not planned by a constructive will but can be grasped only through an analysis of the creativity and experience of the component individuals" (1908, p. 19). Alfred Schutz, the phenomenologist influenced by Simmel as well as
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Mises, argued that an analysis of socially dispersed knowledge is central to research in the human realm:

With the exception of some economists [cites Hayek's 1937 article] the problem of the social distribution of knowledge has not attracted the attention of the social scientists it merits. It opens up a new field for theoretical and empirical research which would truly deserve the name of sociology of knowledge, now reserved for an ill-

defined discipline which just takes for granted the social distribution of knowledge upon which it is founded. It may be hoped that the systematic investigation of this field will yield significant contributions to many problems of the social sciences such as those of social role, of social stratification, of institutional and organizational behavior, of the sociology of occupations and professions, of prestige and status, etc. (1953, p. 15, fn. 29a).

But where to begin if one wishes to come to terms with the knowledge problem? Simmel points in the right direction. Clearly the analysis must focus upon the individual actor, but not in the static, atomistic way characterized by a naive methodological individualism. The "unit" of analysis must be the social individual, the individual who is part of a human language community. More specifically, one must "start from the face-to-face relation as a basic structure of the world of daily life" (Schutz 1945, p. 221).¹⁹

The social individual does not enjoy full and complete knowledge of the present, past, or future. As G. L. S. Shackle put it, "So far as men are concerned, being consists in endless fresh knowing. How can this be reconciled with the ideal of even relevantly complete information as the basis of action?" (1972, p. 156). Instead, one's knowledge is limited by his or her own horizon of experience.²⁰ An individual's

knowledge of others, for example, is limited (and enabled) by his or her necessarily partial standpoint. It is not that the standpoint gets in the way of learning about others. Rather, it is the basis upon which one comes to know of the other. In other words, one interprets the activities of others by that which is familiar to him.²¹ Moreover, the interpretive turn emphasizes that one's personal standpoint is not purely subjective; rather, it is intersubjective, meaning that it is shared to some extent with other members of the community.²² One adopts the language of the community and with it a generally shared interpretive perspective. Thus Polanyi writes: "The human mind exists only within an articulate framework provided for it by society; society both fosters thought and is in its turn largely controlled by thought" (1959, pp. 67-8). Though only individual human minds think, the basis of human thinking stems from discursive social relations.

Much of what we know about ourselves and others cannot, however, be fully articulated. Consider, for example, a child's recognition that her father has become upset. His face changed from its

characteristically friendly disposition to that mean look she observed from time to time in the past. Now although the child truly knows that her father has become upset, she will not be able to fully articulate the details from which she inferred the change in her father's disposition. She simply knows he's angry. This is not, of course, restricted to an immature mind. The fact that one cannot articulate such details holds for the wife as well.

Polanyi (1958, pp. 49-51) provides examples of other, skilled behaviors such as the swimmer's ability to keep afloat, the cyclist's balance and the touch of the pianist to point out that the basic feature of skills, abilities, and judgements is their tacit dimension. The swimmer, cyclist, and pianist surely know what they are doing, even though they may only be able to articulate the general rules of their behavior and not the details as such. Gilbert Ryle (1945) has termed this "knowing how" as opposed to "knowing that": One may know how to do an activity such as working a machine, purchasing a head of lettuce, or cooking a meal, even though one lacks the ability to explicitly formulate or comprehensively communicate exactly what

one does. At bottom, argue these philosophers, we always know more than we can say, and it is consequently a mistake to believe that true knowledge resides only in the articulate domain. Formal systems of thought cannot replace tacit knowledge but can only enhance it: "Our whole articulate equipment turns out to be merely a tool-box, a supremely effective instrument for deploying our inarticulate faculties," Polanyi maintains. "And we need not hesitate then to conclude that the tacit personal co-efficient of knowledge predominates also in the domain of explicit knowledge and represents therefore at all levels man's ultimate faculty for acquiring and holding knowledge" (1959, p. 25).

The Austrian school's notion of knowledge accords with Polanyi's and the knowledge problem they advanced is a problem of utilizing the dispersed, predominantly inarticulate knowledge of individuals in a complex society.²³ Thus, if one wishes to answer the Austrian argument, as Horvat explicitly does, he must either attempt to refute the idea that human knowledge is predominantly inarticulate, or show how inarticulate knowledge can be conveyed and utilized within a planned

economy. In the next section I will offer an account of the way knowledge is utilized through the dialogue of market exchange and compare that to the way knowledge is modelled in the economic theory of self-managed socialism.

DIALOGICAL ASPECTS OF THE MARKET PROCESS AND THE CONVEYANCE OF KNOWLEDGE:

Consider a face-to-face situation. Say a consumer intends to purchase a computer. First he will attempt to learn about the various brands and models available. He may begin by word of mouth - asking his friends and colleagues who own computers about their particular models, their likes and dislikes, the overall performance of the system, the availability of software, and so forth. In short, he will engage in conversation in order to learn about the nature of the commodity under consideration. He may also go beyond his circle of acquaintances and consult the bookstore, searching for written texts such as manuals, guides, and popular computing publications. In a sense, he now searches for the informed opinions of authorities, which is to say, people who apparently know more about computers

than he or his acquaintances do. Nevertheless he is bound to get various, if not conflicting, opinions, reports, and reviews which he must interpret in his own context. For example, one reviewer of a particular brand and model may disparage the overall system largely because he considers it too bulky and heavy for jet travel, another because its speed is not up to par with a top of the line model. Though the reviewer may conclude that the computer system is inefficient or not up to standard, the individual consumer may interpret the text differently: his primary use may simply be for word processing at home, where bulk or speed are not major concerns. The meaning that the reviewer wished to convey may not have been that which the consumer interprets, and, yet, the consumer is not necessarily making some kind of error when he interprets a statement differently than the way it was intended. Conversations in the market, whether face-to-face, or through pieces of text, require interpretation.

Paul Ricoeur writes that, like a written text in general, "the meaning of human action is also something which is addressed to an indefinite range of possible 'readers'" (1971, p. 86), which implies that it is not

only written words, but purposive human actions in general which may escape the intended meaning of the actor:

like a text, human action is an open work, the meaning of which is "in suspense." It is because it "opens up" new references and receives fresh relevance from them, that human deeds are also waiting for fresh interpretations which decide their meaning. All significant events and deeds are, in this way, opened to this kind of practical interpretation through present praxis. Human action, too, is opened to anybody who can read. In the same way that the meaning of an event is the sense of its forthcoming interpretations, the interpretation by the contemporaries has no particular privilege in this process (1971, p. 86).

Following Ricoeur, we find in all intelligible social actions that economic meaning transcends the intentions of the actors in an immediate situation. Menger's (1892) well-known discussion of the evolution of money is exemplary in this respect: some individuals find that they can increase their purchasing power by indirect exchange - trading a good they own for a relatively more marketable one, in order to exchange that for a good they desire. Though each individual trades on the basis of his or her limited knowledge and limited scope of economic control, a general medium of exchange - money - evolves as a highly complex, unintended social institution, an in-

stitution which was not designed nor could not be designed in advance of the individuals acting on the basis of their own knowledge.

The meaning of human actions escapes or overcomes each participant's limited economic horizon. As with the evolution of money, "human deeds become 'institutions,' in the sense that their meaning no longer coincides with the logical intentions of the actors" (Ricoeur 1971, p. 85). Face-to face, dialogical interactions - haggling over a price, exchanging money, purchasing a computer - are social not only in the trivial sense that it takes at least two people to interact. That would be trivial. Market interactions are fundamentally social because the meaning of each exchange transcends its initial situation and contributes to a discernable pattern of events. Each "trace" of an action - using a new combination of resources to produce a commodity, or setting a price, for example - leaves its "mark" (to use Ricoeur's terms) which can be read by other actors in the economic system.

Mikhail Bakhtin writes that "there can be an unlimited number of participants in the dialogue being understood.... Any utterance always has an addressee

(of various sorts, with varying degrees of proximity, concreteness, awareness, and so forth), whose responsive understanding the author of the speech work seeks and surpasses" (1976, p. 126). The dialogical interactions of individual market participants indeed extend to the community as a whole and allow for a socially distant and more general dialogue to take place.

Surely differences exist between conventional, face to face conversation and the more general dialogical aspects of the market process. Perhaps at its most basic level the difference between the two is one of intentionality. Face to face dialogue is a purposive product of two or more individuals trying to reach agreement or understanding. Market dialogue, though composed of innumerable face to face conversations, is an undesigned outcome of the former. Each has some advantages over the other. For example, face to face conversation provides clues over facial expressions, a speaker's moral character, and so forth; this is knowledge which may be largely lost in the more general dialogue of the market. Market dialogue, on the other hand, acts as a more complex "telecommunications system," as Hayek put it, which

adds to our knowledge in unforeseen ways. Just as the biological innovation of eyesight allowed an organism to go well beyond smell and touch to take distant phenomena into account, so unhampered markets inform one well beyond the level of face to face conversation because of its distant communications character. Market communications provide a way to coordinate the activities of social individuals when we have no other means to do so in a technologically advanced society. The two types of dialogue are not identical - they are indeed different - but we can draw much insight discussing their similarities if we keep these differences in mind.

Like conventional dialogue, the general dialogue of the market must be interpreted by those who wish to understand it. A price of a good, for example, is a trace, a "document" of human action, something that almost appears objective. It must, however, be interpreted within one's own economic context.²⁵ The setting of a price, in fact, is based upon a reading of economic events.²⁶ A salesperson must judge current and future market conditions. The manager of a computer store, for instance, listens to the demands of

her customers, makes herself aware of her rivals' products and services, reads trade journals, and so on. The computer producer must inform retailers as well as potential consumers of the product line and service as well as customers. Discursive skills run the gamut from phone calls, conferences, and trade shows to various methods of consumer advertisements.

These pockets of explicit speech are integrated with other speech events through market prices. Though a buyer and seller may be acting in what each believes is his or her own economic interests, when they agree upon a price and exchange money for goods, they inevitably send a signal to the community at large. That is, a price is not only an intended result of a face to face dialogue between buyer and seller, it invariably communicates to other buyers and sellers, actual and potential. It allows other sellers to learn, for example, of the strengths of consumer demands and informs consumers of the relative scarcity of the product.

A market price is not a barrier to dialogue and information as the praxis Marxists argue.²⁷ It is a semiotic expression of predominantly face to face

dialogue. The power of the unrestrained dialogue in a market system is precisely that relevant knowledge is channeled through market prices in a remarkably large number of directions to economic actors located throughout the system. Prices enable a much more complex, integrated system of communication between members of an economic community that would be possible under more conventional forms of dialogue. But prices are not (nor can they be) perfect in the sense of achieving an optimal equilibrium allocation of scarce resources, nor do they contain objective data in the form of an equality between the marginal rates of substitution in consumption and productive transformation as the equilibrium models of Vanek, Horvat, and the neoclassical economists in general suggest.

It seems that, while the praxis Marxists grant too little (in fact, they grant nothing) to the role of market prices in conveying useable knowledge, the neoclassical models supporting self-managed market socialism almost seem to grant too much to the power of market prices because the nature of the knowledge being transmitted is misunderstood.

In the neoclassical theory of self-managed

socialism the role of spontaneously formed market prices seems limited to the allocation of consumer goods alone. Spontaneous pricing of capital goods is replaced by the Social Plan: "the task of the Planning Bureau is to accomplish ex ante coordination of economic activities on the basis of the relevant set of preferences" (Horvat 1982, p. 349; also recall his statements in the last chapter). Apparently the information supplied by the market is restricted to that of consumers' preferences. Claus Bislev argues, for example, that "the market would still play an important role in expressing the consumption preferences of individual consumers, resulting in a broad scale of preferences, and serving as the basis for central planners as well as enterprises" (1985, p. 393). This is similar to Schumpeter's (1976, p. 175) belief that equilibrium prices in the consumer goods market can be used to technically impute the values of corresponding higher-order capital goods. In fact, Horvat claims that

Though autonomous to a great extent, the kolektiv clearly cannot be completely autonomous. In matters of valuations which affect significantly the interests of some other kolektivs there must be a superior representative body to make deci-

sions.... In matters with which we are primarily concerned the upwards dependence of kolektivs will be largely technical in nature. It would be ideal to separate "regulative" functions from "operative" functions and leave the former to the representative bodies while the latter should be displayed by the working kolektivs and their associations. In this way supreme co-ordination, including the Social Plan together with the financial instruments necessary to ensure its execution, would be vested in Parliament. It should be stressed, however, that a certain amount of co-ordination will have to be done by the specialized state apparatus on the spot, in which case regulative functions shade into operative ones. This interference of the state apparatus may be very pronounced in the early days of the new system. But as the process of normalization and institutionalization develops it can be gradually relaxed and reduced to routine activities. Banks play a special role in overall co-ordination in that they combine customary business criteria with the intentions of the Social Plan. Finally, the Planning Authority supplies enterprises with relevant data which provide elements for their economic policies. The enterprises report their own important decisions which enables the Planning Authority to prepare a new set of data for the use of all concerned. The Social Plan, the banks and the availability of information represent an efficient co-ordinating mechanism which enables smooth functioning of the economy without centralized management. The upshot of all of this is that risks and uncertainties are minimized and the entrepreneurial function presents itself in a completely new light (1964, pp. 299-300).

Rather than spontaneous market exchange, coordination between managers of the factors of production will be the responsibility of the planning board, and is modeled in a technical, routine manner, much like Lange

and Schumpeter argued decades earlier.

The choice of the methods of production is not, however, a predominantly technical activity. In fact, it depends upon the tacit skill of interpretation. It may be possible that value could be imputed to higher order goods from equilibrium prices of consumer goods only if each factor of production is perfectly substitutable or if each and every factor is absolutely specific. Then indeed, the problem to be solved would be fit for engineers. But in the dynamic, everyday world, capital resources are inescapably heterogeneous.²⁸

A tangible capital good can have many uses; perhaps, with advanced technology, even an infinite number of conflicting uses. Nevertheless, when a hierarchical or cooperative enterprise embarks upon production it must use capital in a certain way to form a unique plan. Without spontaneous market prices of capital goods to assist in calculating their economic value, even the relatively straightforward problem of which methods to choose and resources to use in the production of a single higher-order good will become an infinitely complex one.

In a society with advanced technology, a particular resource can be used to produce a multitude of goods. Consider all the different uses to which wood, plastic, and steel, for example, are currently used under the market system. How will a council or system of councils evaluate the many, inevitably conflicting uses of a single resource? Upon what basis will it be decided that, for example, a railroad line will be constructed of steel as opposed to some other metal; or that the engine should be run on coal as opposed to electricity; or that a railroad would be more economically efficient than a highway between two locations, or, indeed, that any developed transportation system is economically worthwhile between two given locations? It would be epistemologically impossible to rationally determine the economic uses toward which scarce resources should be put without the knowledge disseminating character of spontaneously-generated market prices to guide the enterprise's production plan. The problem it faces is one of deciding which use must be pursued and which others sacrificed; indeed it is an eminently economic, not technological, problem.

The neoclassical model of self-managed market socialism may theoretically rely on consumer goods prices to impute value upwards through the capital structure, but this grants too much to the power of prices in expressing value and allocating scarce resources, because it misidentifies the nature of the information which prices convey. In the standard model prices are thought to not only assist one in overcoming what would otherwise be an infinite number of production alternatives, but in fact to reduce the production process to a single, objectively determined point.

The standard model goes much too far in terms of knowledge transmission because it assumes that an enterprise (hierarchical or cooperative) produces according to a given production function and given prices of the factors of production and output, which changes the economic problem into a merely technical one. In the dynamic world outside the theoretical fiction of general equilibrium, however, prices fail to render values, preferences, and costs unambiguous and objective.³⁰ The assumption of complete knowledge of the relevant factors, production functions, and

equilibrium prices does not solve the knowledge
problem, but in fact obscures it.³¹ The real issue is
precisely how an enterprise comes to learn to produce
one good over another, which combinations of resources
to use, how to produce at lowest cost, and so on.³²

Horvat and the others do not show the process by
which information is conveyed. Moreover, Horvat seems
to limit information to the explicit dimension of
economic data. As he puts it: "The development of
economic statistics, economic analysis, and the
technology of gathering, processing, and distributing
information enabled economic decision makers to obtain
incomparably more relevant information than previously.
Insofar as the market represented an information
system, this technological progress meant the
perfection of the market"³³ (1982, p. 337).

Hayek, on the other hand, had always been clear
that the fundamental problem is not the transmission of
objective economic data:

In the traditional treatment of equilibrium
analysis [one assumes] that the data, in the form
of demand schedules representing individual tastes
and technical facts, are equally given to all
individuals and that their acting on the same
premises will somehow lead to their plans becoming
adapted to each other. That this does not really
overcome the difficulty created by the fact that

one person's actions are the other person's data, and that it involves to some degree circular reasoning, has often been pointed out. What, however, seems so far to have escaped notice is that this whole procedure involves a confusion of a much more general character, of which the point just mentioned is merely a special instance, and which is due to an equivocation of the term "datum." The data which here are supposed to be objective facts and the same for all people are evidently no longer the same thing as the data which formed the starting-point for the tautological transformations of the Pure Logic of Choice. There "data" meant those facts, and only those facts, which were present in the mind of the acting person, and only this subjective interpretation of the term "datum" made those propositions necessary truths. "Datum" meant given, known, to the person under consideration. But in the transition from the analysis of the action of an individual to the analysis of the situation in a society the concept has undergone an insidious change of meaning (1937, pp. 38-39; emphasis added).

The market transmits much more than statistical data; if that is all there is to the market process, then indeed it could be foreseeably replaced in the future with a suitably developed computer, and perhaps even the fully participatory, nonmarket ideal would be possible. But the market is not a technological process. It is essentially a spontaneously evolving social "procedure for the discovery and conveyance of inarticulate knowledge," to use Lavoie's phrase (1986c).

The crux of the problem of conveying and using

knowledge rests within the capital structure itself, and is therefore inextricably tied to the ownership of the material factors of production and not simply to the values of consumer goods.³⁴

In a system characterized by private ownership of the means of production, relatively unrestrained market dialogue occurs. Far from enjoying perfect or probabilistically given information, each enterprise within the capital structure works on the basis of the particular facts of its concrete financial horizon and receives subsidiary clues of the expected economic value of a production plan through the signals of the marketplace. Each enterprise enters into conversations with owners of complementary factors of production in order to originate, plan, and execute production decisions. Conferences will be arranged, trade journals referred to, forecasts judged, and so on. But, unlike the relatively simple case of the seller's decision to sell a lower-order good such as a computer (to keep the earlier example) and the consumer's decision to purchase a computer for the home, the enterprise in the higher stages of production must ensure that its purchases and sales fit within the

multi-stage, complex structure of production as a whole.

Here the significance of a production plan points far beyond the narrow context which is within the control of the enterprise, and the informational role of prices to supplement more conventional forms of dialogue and text becomes crucial. A market price acts as a common signpost to use Lachmann's term (1971, p. 49), to orient the separate plans of owners of capital. In particular, this semiotic character of price allows those within an enterprise, using their limited and tacit knowledge of their particular horizon, to integrate their production plans in the complex structure of the community of producers as a whole. The economic feasibility of their separate plans are tested through the higgling and haggling of the marketplace, where each producer's wealth is at stake. Inevitably some plans will clash, forcing enterprises to adjust their respective plans (substituting one resource for another, revising their expectations concerning demands and supplies of inputs and outputs, and so forth) until a generally undesigned and remarkably integrated pattern emerges.

The market order is coordinated ex post. What the would-be planners fail to understand is that the attempt to duplicate, let alone surpass, the complexity of the market order through ex ante planning requires that the necessary knowledge which is distributed throughout millions of individual minds cannot be effectively concentrated in the offices of a planning bureau. Private property in the means of production, and the market prices which emerge from the unhampered exchanges of the means of production, effectively utilize the bits and pieces of knowledge scattered in the form of skills and know-how among individuals throughout society. It allows, for example, one enterprise to produce steel, another refrigerators, and still others groceries to fill the refrigerators, without the members of any given enterprise having to plan or even comprehend the entire process, from the extracting of the iron ore to the farming of the produce. In other words, market prices allow each individual producer to both utilize his own knowledge and overcome the limitations of his immediate context by guiding him through what would otherwise be a bewildering throng of possibilities. In this way

individual producers offer a greater opportunity for discovering unknown or more efficient combinations of resources than would be possible by a group of planners.

The dialogues of past and present producers and consumers inform a potential enterprise of the economic rationality of its production plan through market price signals. "In abbreviated form, by a kind of symbol," Hayek writes, "only the most essential information is passed on and passed on only to those concerned." The dispersed knowledge of producers and consumers from all sectors of the economy impart usable knowledge to a producer in the form of a price signal, a signal which allows him to judge the likelihood, for instance, that using one resource over another would be more profitable and thus more economically efficient. An enterprise that contemplates mass-producing refrigerators, for example, will not even consider using a gold or silver construction, even though they may be more durable than sheet metal, because the relative prices of those resources discourage their consideration as relevant inputs in that particular context. Market prices supplement one's knowledge in a

concrete context by communicating to him in a wholly practical form the differential knowledge of others in their respective contexts.

Moreover, as Hayek argues in The Road to Serfdom, the logical implications of socially owned means of production point toward centralized planning and, consequently, a privileged interpretation of economic values. Members of a planning bureau will try to assume the role of a final arbitrator of value. Private ownership of the means of production allows, on the other hand, spontaneously formed prices for those means of production, and thus competing interpretations as to the values of scarce resources. The exchange of money represents not only one's commitment to a definite plan of action, but an interpretation of the profitability or economic efficiency of that production plan. "When a rival outbids me for a factor of production (say pushing its price so high that I can no longer afford to use this factor in my own project), he is not only hurting me by frustrating my purpose," Lavoie argues. "He is also informing me. He is telling me that this factor has more highly valued uses than the ones to which I would

have put it." Because, the market process allows for an overwhelmingly large number of competing interpretations over the value of economic goods, it ultimately leads to a high level of anonymity concerning those values. By intergrating innumerable economic frontiers in previously unforseen ways, the dialogical aspect reaches a more advanced and fruitful level:

When the bidding of thousands instead of just two is involved, the informing process is still going on, but it is now the scattered bits of knowledge from all the participants that combine to produce a price that is informative, in turn, to each of them. It is only by being informed in this way - by the contrary tugging of one's rivals - that any one producer can be said to know what he is doing (Lavoie 1985a, p. 75).

PLANNING AS A HINDERANCE TO DIALOGUE:

The argument that the market acts as a social discovery process for the transmission and utilization of knowledge does not mean that market prices supply objective pieces of information and lead to optimal production techniques, as the standard model of perfect competition suggests. Rather through dialogue, the interpretation of price signals, and profit and loss accounting, unhampered market institutions provide

multi-faceted clues to the economic feasibility of production projects. The competitive bidding over scarce capital resources that characterizes the core of the market process continuously informs its individual participants. The unplanned pattern which emerges in the market as a whole is the result of innumerable concrete, face-to-face interactions of social individuals across the economic landscape, a complex product of individuals using the knowledge they have acquired in their specific contexts. In turn the market order supplies participants with a general guide to this ever-changing landscape. As Lavoie puts it, "it continuously redraws the boundaries of what is economically feasible" (1986c, p. 13).

Advocates of self-managed socialism, in both the comprehensively planned and market-planned models, have not show how ex ante planning of socially owned means of production utilizes the knowledge necessary to achieve a rationally integrated economy. Assuming perfect capital markets or objective economic data assumes away the nature of the problem. If anything, planning seems to restrict rather than enhance the communication of knowledge required to sustain a

complex, technologically advanced economy.

The demand for planning emphasizes the necessity of dialogue. Yet it ultimately denies the spontaneous, unintended outcomes of voluntary dialogue and misunderstands the epistemological relevance of unrestrained dialogue in a complex social setting. It may, indeed, even misunderstand the unplanned, spontaneous nature of conventional dialogue itself.

What Hans-Georg Gadamer says of face-to-face dialogue can be applied to its farther reaches achieved in an unhampered market process: "We say that we 'conduct' a conversation, but the more fundamental a conversation is, the less its conduct lies within the will of either partner. Thus a fundamental conversation is never one we want to conduct. Rather it is generally more correct to say that we fall into a conversation, or even that we become involved in it." An unplanned order emerges during the course of free dialogue: "The way in which one word follows another, with conversation taking its own turnings and reaching its own conclusion, may well be conducted in some way, but the people conversing are far less the leaders of it than the led." Like the spontaneous market process

in general, "No one knows what will 'come out' in a conversation. Understanding or its failure is like a process which happens to us" (1985, p. 345).

CONCLUSION:

Clearly rationality and the growth of knowledge are not synonymous with planning and control. The development of a neoclassical economics of workers' self-management over the past three decades has been bound to a notion of knowledge (scientific and economic) which is now suspect. The debate has focused primarily on incentives rather than the way a system can use dispersed and predominantly inarticulate knowledge. As a result, advocates of self-managed socialism have contributed about as much to answering the problem of rational economic calculation as Lange did (which, I believe, was not very much).

I have therefore offered a challenge to advocates of workers' self-management in this chapter. I believe that their models in general, from the comprehensively planned ideals of the praxis philosophers to the so-called market-planned models of the economists, have not adequately taken into account the way in which

knowledge is conveyed in the dialogue fo the market process.

The praxis types uphold dialogue as an ideal but have not even attempted to come to terms with the knowledge problem. I hope to have shown that the dialogue they wish to achieve is restrained because it does not consider the institution of market exchange as a forum of a much more complex, expanded, indirect economic dialogue. The neoclassical supporters of workers' self-management, though they may believe to be a step ahead of their philosopher colleagues, also misunderstand the nature of this knowledge, the fact that it is dispersed among millions of people in a complex economy, and is conveyed through the often conflicting pushes and tugs of market participants as they bid up and down the prices of the means of production. I have tried to show that, in a fundamental way, the economists have yet to come to terms with the knowledge problem argument of the Austrians.

That the advocates of workers' self-management have inadequately addressed the knowledge problem from a comparative systems standpoint does not necessarily

imply, however, that the worker-managed enterprise is unsupportable. In fact, if the knowledge enhancing character of the unhampered market system is indeed true, then there is no a priori reason to believe that the worker-managed enterprise is bound to fail. Mises, Hayek, and the Austrian school in general, however, have traditionally advocated a market system with hierarchical forms of business organization. In the final chapter of the dissertation I will therefore consider the viability of workers' cooperation in a market setting in order to challenge the traditional Austrian stance.

NOTES TO CHAPTER FOUR

1. Money, and by this term I mean a general medium of exchange, expresses the spontaneous, or as Marx says, anarchic, character of market exchange. For Marx, money "reduces everything to its abstract form," (1964, p. 147); Hence Marx could say:

If money is the bond binding me to human life, binding society to me, binding me and nature and man, is not money the bond of all bonds? Can it not dissolve and bond all ties? Is it not, therefore, the universal agent of separation? It is the true binding agent - the [universal] galvano-chemical power of society (p. 167).

Now, whether or not one agrees with Marx's damning criticism of money, it is clear that he sees money as the result of unplanned (i.e. "alienating") market forces. On the other hand, in the state of affairs characterized by general equilibrium - the complete and optimal coordination of the mental and strategic activities of all economic agents in a system (thanks to the auctioneer) - money as a general medium of exchange ceases to exist. Hence, F. H. Hahn could say: "The Walrasian economy that we have been considering, although one where the auctioneer regulates the terms at which goods shall exchange, is essentially one of barter" (quoted in Davidson 1978, p. 141).

2. Richard Bernstein calls this megalomaniacal obsession with discovering an objective, ahistorical foundation in order to subvert an unbounded relativism, the "Cartesian Anxiety," as its modern expression appeared in Descartes' Meditations. See Bernstein (1983, pp. 16-20).

3. The propensity toward modeling and the substitution of natural language for a more restrictive, formal language has roots in the verbal mathematics of David Ricardo and the later period of classical economics. See Lachmann's discussion of "late classical formalism" (1976, pp. 25-41).

4. The economists and methodologists who explicitly tried to push economics in the direction of physics, as well as those who apologized for economics's shortcomings in this regard are far too numerous to list. But see Machlup's (1961) comparison of economics to physics on the basis of seven explicit criteria: the invariability of observations, objectivity of observations and explanations, verifiability of hypotheses, exactness of findings, measureability of phenomena, constancy of numerical relationships, and predictability of future events. Machlup concludes that even though economics (and the social sciences in general) are "inferior" to the natural sciences on the basis of the first, third, and sixth standards, there is little difference regarding the remaining four.

5. See Popper (1957), Hempel (1959), and Brodbeck (1968) for a representative sample of positivist philosophy of science in general. For economics in particular, see the works of Hutchison (1938) and Friedman (1953), which are considered the classic statements of positivist methodology in contemporary economics. It should be noted that Hutchison and Friedman disagree on the extent to which the assumptions of theory should be realistic. Hutchison argues that the assumptions of theory should be tested as critically as the conclusions, while Friedman maintains that the only test of theory is the accuracy of its predictions, and unrealistic assumptions may actually improve scientific predictability. Given the concern over the realism of assumptions in the incentive problem debate, it appears that Hutchison's position is held in higher regard.

6. Also cf. Hodgson (1986) and Gramm (1975). I must add that more recent developments in neoclassical theory, such as problems of asymmetric information and game theory, are attempting to bring the individual back into the model. But they seem to concentrate more on strategy as opposed to interpretation. An interpretive approach does not forsake the social individual for either an empty vacuum nor for a vague social holism. G. B. Madison has reevaluated the role for a sophisticated methodological individualism in interpretive economics: "The whole point of

methodological individualism, it could be said, is not to reduce the whole to the sum of its parts but to remind us that these irreducible 'wholes' are nevertheless not things - to be explained causally - but are, rather, interpreted objects and are understandable apart from the categories of human understanding and agency (and it goes without saying that only individuals understand and act) (1987, p. 18, fn. 34). Also cf. Madison (1986 p. 17, fn. 20).

7. Though the official neoclassical rhetoric is one of formal derivation and hypothesis testing, what actually takes place is passionate argumentation and persuasion, as Donald McCloskey (1983) and Arjo Klamer (1984) have insightfully shown.

8. Or in Polanyi's words:

One may say, indeed, quite generally, that a theory which we acclaim as rational in itself is thereby accredited with prophetic powers. We accept it in the hope of making contact with reality; so that, being really true, our theory may yet show forth its truth through future centuries in ways undreamed of by its authors. Some of the greatest scientific discoveries of our age have been highly described as the amazing confirmations of accepted scientific theories. In this wholly indeterminate scope of its true implications lies the deepest sense in which objectivity is attributed to a scientific theory (1958, p. 5).

The objectivity that Polanyi refers to is therefore not an ahistorical, external reference point which is somehow outside the intersubjective or human realm. Hans-Georg Gadamer further reinforces Polanyi's argument:

Research in the human sciences cannot regard itself as in an absolute antithesis to the attitude we take as historical beings to the past. In our continually manifested attitude to the past, the main feature is not, at any rate, a distancing and a freeing of ourselves from what has been transmitted. Rather, we stand always

within tradition, and this is no objectifying process, i.e. we do not conceive of what tradition says as something other, something alien. It is always a part of us, a model or exemplar, a recognition of ourselves which our later historical judgement would hardly see as a kind of knowledge, but as the simplest preservation of tradition (1985, p. 250).

9. As early as 1959 Polanyi concluded that "the ideal of a knowledge emodied in strictly impersonal statements now appears self-contradictory, meaningless, a fit subject for ridicule" (1959, p. 27).

10. It would go beyond the scope of this chapter to develop a detailed exposition of interpretive philosophy in general. Rather, I shall bring some of the ideas developed in the interpretive turn to bear in my critique of the current models of self-managed socialism. A very useful and growing body of literature concerning the interpretive philosophy of science which helped influence my approach is provided by Bernstein (1976; 1983), Gadamer (1981; 1985), Geertz (1973), Habermas (1971), Hekman (1986), Kuhn (1970), Madison (forthcoming), Palmer (1969), Polanyi (1958; 1959), Polkinghorne (1983), Ricoeur (1976; 1981), and Woo (1986). The anthologies of Dallmayr and McCarthy (1977), Haan *et. al.* (1983), Hollinger (1985), Lavoie (forthcoming), Mueller-Vollmer (1985), Natanson (1973), Rabinow and Sullivan (1979), Skinner (1985), Truzzi (1974), Wachterhauser (1986), as well as the studies by Poteat (1985), Rickman (1976), Todorov (1984), and Weinsheimer (1985), are quite useful.

11. Not to be confused with the more restricted notion developed by Marx, but rather praxis in the classical sense of purposive human action. It is interesting that writers from different schools of thought, such as Mises (1966, pp. 1-3), Habermas (1974, p. 6) and Markovic (1978, p. 26) have called for the development of a science of "praxeology" to study the human condition. Mises's notion of praxeology is, I believe, the best developed. Its scope - a general theory of human action which attempts to make intelligible the social interactions of human beings in contemporary society - is more empirically based than the Marxian

variant. That is, rather than considering praxis as a potential to be realized in a radically altered future state of affairs, as Marx and the praxis philosophers seem inclined to do (with the possible exception of Korac 1965, pp. 4-5), the Austrian tradition stresses that "praxeology and economics do not deal with human meaning and action as they should be or would be if all men were inspired by an absolutely valid philosophy and equipped with a perfect knowledge of technology. For such notions as absolute validity and omniscience there is no room in the frame of a science whose subject matter is erring man" (Mises 1966, pp. 92-93). One can scientifically, and critically, study the present human condition by coming to terms with the historical, meaningful actions of social individuals without resorting to what may amount to an arbitrarily narrowed notion of human action (cf. Lavoie 1986b).

12. It is less clear that Vanek's model faces a tension, if only because it is intended to be a general theory of the self-managed system and not a model of socialist planning as such. For the greater part of his study Vanek develops the formal theory of a self-managed market system, which largely replaces the traditional neoclassical firm with a labor-managed firm. Vanek attempts to show that the labor-managed firm could perform just as well (if not better) than the capitalist twin without having to rely upon economic planning. The supportive structures for cooperatives in the market economy can be voluntarily organized institutions such as the Federation of Southern Cooperatives in the U. S. or the Caja Laboral Popular in the Mondragon group. In the socialist variant Vanek's model (which is relatively briefly discussed) the supportive structure becomes much more comprehensive and may be responsible for full external financing and investment planning for enterprises using state-owned means of production (see Vanek 1970, ch. 15).

13. This was a planning goal in Yugoslavia from roughly 1954 to 1974. It had moved from a self-described centrally planned system (1946-50) towards a greater allowance and legitimation of market exchange. The call for central planning was replaced by a call for self-management, and enhanced enterprise autonomy.

Reforms in 1961 opened the Yugoslav economy to world markets and the international division of labor, partly decentralized the financial system, and gave workers a greater degree of control over wage determination. Whereas investment decisions had been done completely on the basis of a plan, by 1965 the federal General Investment Fund was abandoned. The scope of state involvement in investment decisions was reduced, as workers within self-managed enterprises were allowed the autonomy to make investment decisions with their respective residuals. This phase of market socialism would thus seem to accord with Horvat's concern for the use of the market and enterprise autonomy. It does not, however, fit with his notion of ex ante coordination.

14. And, in fact, this complaint was voiced in Yugoslavia. As Schrenk et. al. say of the Yugoslav trade sector during the 1960s: "This growing concentration of control - over what in theory were socially owned financial resources in the trade sector - was regarded to be a violation of the principle of self-management. Workers at other stages of production were being deprived of part of their contribution to the total value of output - to the 'surplus value' in Marxian terminology - and their right to participate in its allocation" (1979, p. 29).

15. Indeed, Horvat argues that "self-management is behaviorally incompatible with private or collective ownership. It requires social ownership." See Horvat's discussion (1982, pp. 454-7).

16. In her brilliant study of this period, Laura Tyson writes:

The role accorded to the party in fostering enterprise decisions reflects a general characteristic of the reforms of the 1970s. Overall, these reforms decentralized decision-making power: within the government they decentralized policymaking authority from the federal to the republican and provincial levels, and within enterprises they decentralized authority from central management institutions to BOALs. An important centralizing force was

operating simultaneously with these decentralizing trends, however - namely, the consolidation of the LCY and the broadening of its direct policy role in many areas of economic activity. In the new institutional system, the LCY was restored as the final authority over all other decision-makers. This authority would be exercised through its direct participation in all the institutions of the state and of self-management down to the BOALs, the lowest level of enterprise organization. Further indicative of the party's new formal authority, the 1974 Constitution broke all precedents by providing for the LCY's direct representation in government bodies - the collective State Presidency and the communal republican, and federal assemblies (1980, p. 8).

Also cf. Baumgartner, Burns and Sekulic (1979), Comisso (1979), and Sirc (1979). Currently, Yugoslavia is on the verge of yet another series of reforms, this time placing greater reliance on the market.

17. See, for instance, Hayek (1940; 1945; 1967a; 1968; 1975), Hoff (1949), Kirzner (1984), Lavoie (1981; 1985c; 1986a; 1986c), Mises (1966 [1949], 1981b [1932]), O'Driscoll (1977), Vaughn (1980b). The following are noteworthy writings in the contemporary Austrian tradition: Addleson (1984; 1986), Armentano (1982), Boettke (1989), Buchanan (1982), Cowen (1982), Ebeling (1986; 1987), Fehl (1986), Garrison (1984; 1985), Gray (1984), Hayek (1937; 1948; 1967; 1978; 1979), High (1983-84; 1986; forthcoming), Kirzner (1966; 1973; 1976; 1978; 1979; 1985; 1986a), Lachmann (1977; 1978; 1986), Lavoie (1985a; 1985b; 1986b), Mises (1969; 1981 [1933]; 1983a [1944], 1983b [1919]), Mittermaier (1986), O'Driscoll and Rizzo (1985), Shackle (1972), Selgin (1988), Vaughn (1980a), White (1984; 1986). For a general introduction to this contemporary literature, see the edited collections of Dolan (1976), Kirzner (1982; 1986b), Langlois (1986), Rizzo (1979), and Spadaro (1976).

18. Simmel's influence on Schutz is well known. For Mises's influence on Schutz see Prendergast's excellent article (1986).

19. Schutz recognizes the face-to-face relationship as a "paramount social relationship" (1945, p. 225, fn. 14).

20. "A divine intelligence would see instaneously all the infinite lines of convergence towards a given result, and it would, moreover see impartially," writes William James. "The human mind, however, is constituted on an entirely different plan.... The human mind is essentially partial. It can be efficient at all only by picking out what to attend to, and ignoring everything else, - by narrowing its point of view. Otherwise, what little strength it has is dispersed, and loses its way altogether" (James 1880, p. 219).

21. Hayek writes: "We assume that the idea of a purpose or tool, a weapon or food, is common to them with us, just as we assume that they can see the difference between colors or shapes as well as we. We thus always supplement what we actually see of another person's action by projecting into that person a system of classification of objects with we know, not from observing other people, but because it is in terms of these classes that we think ourselves" (1943, p. 63). Cf. Simmel (1923, p. 308): "One can never know another person absolutely, which would involve knowledge of every single thought and mood. Nevertheless, one forms some personal unity out of his fragments in which he alone is accessible to us. This unity, therefore, depends upon the portion of him which our standpoint permits us to see." Hence, "We see the other person generalized, in some measure. This is so, perhaps, because we cannot fully represent to ourselves an individuality which deviates from our own. Any re-creation of a person is determined by one's similarity to him" (Simmel 1908, p. 9).

22. "This implies on the one hand that this world is not my own private one but common to all of us; on the other hand that within this world there exist fellow-men with whom I am connected by manifold relationships" (Schutz 1945, p. 218). Thus "It is intersubjective because we live in it as men among other men, bound to them through common influence and work, understanding others and being understood by them" (Schutz 1953, p.

10; also cf. Boulding 1961).

23. Hayek writes, for instance:

If it should turn out that it is basically impossible to state or communicate all the rules which govern our actions, including our communications and explicit statements, this would imply an inherent limitation of our possible explicit knowledge and, in particular, the impossibility of ever fully explaining a mind of the complexity of our own. Yet, though I am not able to supply a strict proof, this seems to me to indeed follow from the preceding considerations.

[I]n one sense we always know not only more than we can deliberately state but also more than we can be aware of or deliberately test; and that much that we successfully do depends on presuppositions which are outside the range of what we can either state or reflect upon (1962, pp. 60, 61).

24. Here I mean the notion of authority as observed by Bakunin and Gadamer - as the voluntary recognition of expertise as opposed to obedience. See again my discussion of authority in the introduction.

25. Richard Ebeling writes:

A seller finds himself with unsold inventory of a product in excess of desired levels at a particular price. But what exactly is the market telling him at that price? That he needs to relocate his store? That he has failed to advertise the existence or availability of the product sufficiently? That the price is "right" but the quality or characteristics of the product is "wrong"? Or that the quality and characteristics are "right" but the price is "wrong"? What the price has conveyed is information that something is wrong, that the seller's plans and expectations are inconsistent with those of others. It has not unambiguously told him in which direction the error lies. The price's information, in other words, needs

interpretation as to its meaning concerning the preferences and plans of others (1986, p. 45; cf. Lachmann 1978, p. 67).

26. This holds for profit and loss accounting as well. Lavoie (1987) argues that although there is indeed a calculative aspect to accounting - "The books either balance or they don't" - it is nevertheless an interpretive-communicative procedure. The accountant is not gathering objective facts as much as he is interpreting the results of the competitive market process, itself composed of a multitude of often times conflicting economic interpretations. The prices that the accountant must work with are pieces of text, or interpretations of the value of scarce goods, rather than objective attributes of goods. The role of the accountant, therefore, is to interpret (render intelligible) the meaning of these price signals and communicate that meaning to the economic community at large.

27. Hence, according to socialists of the praxis perspective, markets are thought to disguise information:

The only information the market provides about the relations between auto workers, steel workers, coal miners, etc. is a price that accompanies the physical commodities that are exchanged. Even if these prices accurately represent the total human costs and benefits that have occurred in the various processes that have utilized [a] commodity as input or output...this information is totally insufficient to allow the auto workers to understand and evaluate their relations with the steel workers and miners. The price leaves us in ignorance concerning what went into the commodity's production, what needs were met or left unsatisfied, and what human characteristics were simultaneously produced. Prices someone will pay for goods we are producing don't let us know what concrete pleasures and character development they will promote. Market institutions hide all this information about the concrete relations that are necessary for morale and empathy, and they thereby preclude the development of solidarity

based on each unit's concern with the well-being of all the others.

Markets make it almost impossible to think relationally and historically about one's involvements with other productive processes...The so-called cybernetic miracle of markets is actually a suppression of all these information flows...The very absence of information about concrete effects of one's own activities on others leaves little choice but to consult one's own situation exclusively (Albert and Hahnel 1978, p. 142).

28. Ludwig Lachmann writes, for example, that

The heterogeneity which matters is here, of course, not physical heterogeneity, but heterogeneity in use. Even if, at some future date, some miraculous substance were invented, a very light metal perhaps, which it was found profitable to substitute for all steel, wood, copper, etc., so that all capital equipment were to be made from it, this would in no way affect our problem. The real economic significance of the heterogeneity of capital lies in the fact that each capital good can only be used for a limited number of purposes. We shall speak of the multiple specificity of capital goods (1978, p. 2).

29. "Technology tells how a given end could be attained by the employment of various means which can be used together in various combinations, or how various available means could be employed for certain purposes," writes Mises. "But it is at a loss to tell man which procedures he should choose out of the infinite variety of imaginable and possible modes of production" (1966, p. 207; also cf. Hayek 1945, p. 90 and Lavoie 1985a, pp. 53-4).

30. "Costs may be taken to have some objective measureability at the margin in full market equilibrium when all economic actors are permitted to adjust their consumptions and resource supplies to take account of market prices," observes Karen Vaughn, "but the minute

we move out of equilibrium or away from freely adjusting markets, choice-influencing costs take on a more subjective content, and there is less uniformity in individual evaluations of foregone opportunities" (1980a, p. 711). Also cf. Buchanan (1969, ch. 3).

31. "One does not 'solve' the problem of dispersed knowledge by postulating prices that will smoothly generate dovetailing decisions," writes Israel Kirzner. "Dispersed knowledge," he stresses, "is precisely the reason for the very realistic possibility that market prices at a given date are unable to clear markets and to ensure the absence of wasted resources. The truth is that the market does possess weapons to combat (if not wholly conquer) the problem of dispersed knowledge. These weapons are embodied in the workings of the price system, but not in the workings of a hypothetical systems of equilibrium prices" (1984, p. 415).

32. I am not arguing that the perfectly competitive model which assumes given information (either completely or probabilistically) is useless. To me its value lies in its use as a foil or construct such that the economist can imagine a society in which uncertainty and nonobjective knowledge are absent in order to then glean the significance of these phenomena in the dynamic setting of the everyday world (cf. Mises 1966, pp. 244-50; Knight 1971, p. 264). Unfortunately, the profession in general seems to be content with a thoroughgoing, almost exclusive conversation over the equilibrium foil itself.

33. Horvat continues:

There were two aspects to this improvement: (a) up-to-date and comprehensive economic statistics offered economic decision makers complete information about the economic situation, without delay (whereas the old market gave partial information belatedly); and (b) modern forecasting methods permitted a reduction of uncertainty about future wants, and thus former ex post decisions were elevated to ex ante decisions. Together, they meant that economic decision makers obtained a rather complete collection of the parameters important in making correct decisions; that is,

those that would lead to the production of precisely those commodities that could be sold. We can call such improvement of the operation of the market by organized information diffusion among economic decision makers an improvement in the "invisible hand." The enormously increased speed and precision of information gathering and processing, made possible by electronic computers, has also substantially improved the "visible hand" (pp. 337-8).

34. Cf. Lavoie: "It is primarily the rivalrous competition among separate owners of factors of production, trying in their diverse and often mutually incompatible ways to employ them in what they believe to be the most profitable avenues for investment, which generates information-laden prices. Factor prices in the real world cannot be derived from consumer goods prices since, unlike in the textbooks, the set of specific production methods from which choices are to be made are not given but are exactly what is at issue" (Lavoie 1985a, p. 75).

35. "The 'man on the spot' cannot decide solely on the basis of his limited but intimate knowledge of the facts of his immediate surroundings. There still remains the problem of communicating to him such further information as he needs to fit his decisions into the whole pattern of changes of the larger economic system" (Hayek 1945, p. 84).

CHAPTER FIVE

Worker Cooperatives Within a Market System: Lessons From the Cooperages Cooperatives of Minneapolis, 1864-1929

INTRODUCTION:

The growing interest in participatory and self-managed work organizations has inspired some studies of producer cooperatives in American history. Recently the work of Shirom (1972) and especially Jones (1977; 1979; 1982) have made valuable contributions toward our understanding of the extent and nature of producer cooperation in the United States. Understandably, the question of the viability of these cooperatives within a capitalistic economy becomes a significant issue, not least because of its relevance to the debate over the feasibility of self-managed socialism and the problem of knowledge.

Throughout the dissertation I have considered workers' cooperation largely within a socialist setting, in which the means of production are socially owned, and activities coordinated by a comprehensive

plan or a combination of plan and limited market exchange. I have been critical of the economic rationality of the socialist models of workers' cooperation because they do not seem to adequately answer the knowledge problem. From a comparative systems perspective, the viability of worker cooperatives may be greater in a market system based upon private (or joint) ownership of the means of production as opposed to state or social ownership. Pockets of worker cooperatives may be reconciled with an unrestrained market - the spontaneous exchange of the means of production - if indeed the market process imparts much more useable knowledge to a cooperative enterprise than would a planning office or statistical bureau.

But can cooperatives keep pace with the innovations and technological swings of the market? Supporters of traditional forms of business organization argue that cooperatives will generally try to resist technological change, preserve the privileges of workers at the expense of market coordination, or simply fail to compete with boss shops or corporate hierarchies.

Scholars as ideologically diverse as Branko Horvat

and Murray Rothbard claim that history demonstrates the infeasibility of workers' cooperatives in a market system. Horvat (1982, p. 457) argues that "the history of British and American cooperatives has been quite unimpressive. And nowhere else have producer cooperatives attained more than negligible importance." "Producers' cooperatives, in a capitalist environment," he concludes, "turned out to be a failure" (Horvat 1982, p. 128; 1975a, p. 21). Rothbard maintains: "Empirically, it has been demonstrated time and again that cooperatives cannot compete successfully against stock-owned companies, especially when both are equal before the law" (1970, p. 123).

But these beliefs are unfounded. Derek Jones (1977) has recently identified 421 worker cooperatives established between 1791-1939 in the United States alone, and thus argues that the experience of producers' cooperation in a market system is not as meager as earlier studies suggest. Peter Jay (1980, pp. 39-40) sums up the experience as follows:

in very broad terms it leaves an impression that producer co-operatives have tended to be small, to be short-lived and to have difficulty surviving in the prevailing environment, although there are some important exceptions.

But this evidence has to be interpreted with great care, if morals are to be drawn about the viability of market socialism. The American evidence and literature have been usefully examined by Derek C. Jones.... He throws considerable doubt on the conventional view that American producer co-operatives failed through inherent weaknesses.

Jones' (1977) statistical overview has shown that, contrary to the general understanding of the American experience, many cooperatives survived for more than two decades.

By taking an "interpretive turn" in order to "get behind the data" of history that Jones and others have carefully, and fruitfully, presented, I will use the case study method in this chapter to illustrate the comparative economic systems issues of worker cooperatives within a market context.² I will try to show in what particular respects an historically significant group of worker cooperatives succeeded and in what respects they failed. Specifically, I shall examine the group of coopeage cooperatives formed in Minneapolis near the turn of the century. These cooperatives are quite relevant to the issue at hand, for they faced extremely competitive market conditions, and, though some eventually went out of business, others adapted to

the changing demands of the market and survived for a number of years.

WHAT CONSTITUTES SUCCESS?:

In his statistical overview Jones recognizes that interpreting the success of a cooperative venture is no simple matter:

Is five years really a sufficiently long period to appropriately assess an organization's economic viability? Is this assessment done properly by looking at the ability of the firm to generate a surplus during the period? Perhaps a longer time period is needed and one that employs diverse measures of economic performance, rather than relying solely on profitability. It may also be that the evaluation of workplace democracy must include more than an examination of the opportunities available to members. The proportion of the workforce that assume membership status must also be considered. Furthermore, perhaps it should be explicitly stated that the opportunities available to members be on an equal basis (Jones, 1979, p. 356).

The coöperage cooperatives of Minneapolis are a case in point. These enterprises are often cited as among the most successful experiments in workers' cooperation within a market system. Of the scores of producer cooperatives launched in the latter half of the 1800s, one of the most long-lived groups emerged among the journeymen coopers of Minneapolis. One of the coopera-

tives, the North Star Barrel Company, was organized in 1877 and lasted until 1929, almost 53 years.

Several writers, accordingly, note the significance of this group of cooperatives. The American economist Arthur T. Hadley said that "of American attempts in productive cooperation the most conspicuous instance has been furnished by the coopers of Minneapolis" (1896, p. 380). Richard T. Ely, among the most respected American economists of the time, argued that "The most remarkable success of co-operative production is found among the coopers of Minneapolis" (1969, p. 188). Elsewhere he stated that the cooperatives have "as much significance as the Rochdale pioneers" (quoted in Knapp 1969, p. 42). As late as 1929 S. Howard Patterson recalled of the American experience that though the record is mixed, "there are such notable exceptions as the Cooperative Barrel Manufacturing Company of Minneapolis"³ (1929, p. 461).

53 years is indeed exceptional. But, keeping in mind Jones' perceptive question of just what constitutes success, clearly the fact that the North Star Barrel Company remained in business for that length of time does not necessarily demonstrate its success as a

cooperative entity. To show success it may prove helpful to look more closely at the details of this case, keeping in mind the theoretical issues raised in the previous chapters.

In order to assess the degree of success of this market experiment in productive cooperation, the context within which the historical actors orient themselves needs to be considered in detail. In the case of the cooperages cooperatives, these contextual factors would include the purposes, goals, and expectations of the journeymen coopers. Contemporary economic research on the cooperages cooperatives (and most other historical cases) has not taken this into account. For example, concerning the issue of what constitutes success, contemporary researchers have not considered the following questions: how did the coopers interpret the competitive environment in Minneapolis? What motivated them to leave the boss shops and take on the delicate task of establishing cooperatives? How did they view the use of machinery and unskilled labor? In short, what did they believe cooperation could do for them that could not be achieved in the boss shops? Did cooperation meet their expectations? If we wish to

understand such an episode in terms of success or failure, we must refer, in part, to the cooperators' intentions.

When we keep in mind the goals of the coopers, we must admit that in some ways the cooperage cooperatives are a worst-case example, for over time many of the cooperative ideals were abandoned, and the cooperages increasingly resembled joint stock companies as opposed to truly cooperative organizations. Why, then, discuss this particular group of cooperatives? After all, excellent studies already exist that demonstrate that cooperatives can effectively compete with market rivals, such as the plywood cooperatives of the Northwest (see Gunn 1984), the San Francisco scavenger cooperatives (see Perry 1978), and the Mondragon network of industrial cooperatives in Spain (see Thomas and Logan 1982). The cooperage cooperatives warrant our consideration precisely because they emerged with many strikes against them: the late 1800s initiated the heyday of Taylorism; the skills of the cooper were becoming obsolete through ever-increasing mechanization; the barrel industry as a whole was becoming displaced by more efficient packages such as sacks.

And yet the cooperage cooperatives were still partially successful. Given different institutional circumstances there is reason to be optimistic over the future of worker ownership, despite some of the features of the story of the coopers, to which we now turn.

THE CASE OF THE COOPERS:

The coopers' cooperatives were part of the great boom in cooperative associations formed during the period from the 1860s to the 1880s. Jones (1979) identifies 28 producers' cooperatives established during the 1860s, 51 during the 1870s, and 275 during the 1880s across the country and across industries. They ranged from the foundry cooperatives in New York to the shingle-weaving cooperatives in Washington.

As opposed to the earlier attempts at utopian cooperatives, such as Owen's New Harmony, the producers' cooperatives of the 1860s-1880s emerged not so much from ideological considerations as from the sporadic employment and unsuccessful strikes that characterized the period. And they generally received quite an excited welcome from the intellectual community. Many intellectuals gave the impression that the cooperative

undertakings were spurred largely by ideological concerns. Richard Ely, for instance, proclaimed "There is a determination on the part of the masses to extend triumphant democracy into the business world" (1887, p. 150).

The first state cooperative laws were enacted in Michigan (1865), Massachusetts (1866), Pennsylvania (1868), and Minnesota (1870) (see Shaw 1888). As early as 1882 profit-sharing emerged as a way of "partial cooperation" among which the Pillsbury Mills provided a prime example.⁴ Cooperation was generally spreading across the country and in the literature.

The Knights of Labor, initially organized in 1869 as a secret order and outgrowth of the unsuccessful Garment Cutters Association of Philadelphia, took advantage of the prevailing tendencies toward cooperation and set out on a massive propoganda campaign to encourage cooperative reforms. Jones (1979, p. 343) counts 200 such cooperatives organized in the 1880s. The Local Assembly of the Knights of Labor intended to "assist members to better their condition, morally, socially, and financially." Cooperation was to replace strikes, for "strikes, at best, only afford temporary

relief; and members should be educated to depend upon thorough organization, co-operation, and political action, and, through these, the abolishment of the wage system" (quoted in Wright 1887, p. 160).⁵

By 1880 the Knights' cooperative fund was derived from monthly fees of a dime per male, a nickel per female member to fund cooperative undertakings, and was to be administered through the General Cooperative Board; the demands placed on the Board were extraordinary, as cooperative concerns sprouted across the country and struggled for their existence.⁶

The first cooperative shop was formed in the spring of 1868, by four journeymen - Chauncey W. Curtis, William H. Reeves, George W. Sargent, and Joseph Combs. Their primary goal was stable wages and employment.⁷ In addition, each had the skills of an expert cooper, which he also wished to maintain.⁸ As Shaw described it, the coopers "began simply and informally. No organization was necessary. Each owned his kit of tools, and there were no large initial outlays to be made. They rented a small shop that was standing idle, purchased barrel stock in small quantities, and went to work" (1886, p. 11). As cooperators the four

agreed to receive piece-price wages equal to what the other journeymen around town were receiving, dividing any residuals on the proportion of the work contributed by each. At the time the mills in Minneapolis were producing a little over 100,000 barrels annually, and the market had its ups and downs. Though Shaw says that the venture was "in every aspect a success", the shop lasted only a few months under these conditions, finally going under as many of the mills either cut back output or shut down completely. The members accordingly sold their concern and once again worked as journeymen in a local "boss" shop.⁹

Afterwards, milling activity in Minneapolis began to grow rapidly. Close to 200,000 barrels of flour were produced in 1870; by 1873 the number had trebled. The demand for coopers increased accordingly. Wages were relatively stable, even rising at times, and employment was easy to find, at least early in the period. But the inflowing supply of coopers eventually outpaced the growth in demand. The resulting fall in wages and sporadic employment opportunities for journeymen encouraged an "active hostility" between them and the owners of the boss shops (Shaw 1886, pp. 13-

14). Several strikes broke out. The coopers of the Doud and Son boss shop struck in response to a three cent reduction in the price of barrels, which forced the shop to secure coopers from Milwaukee.¹⁰

Unionization efforts succeeded in 1874 with the establishment of a coopers' union.¹¹ But some 60 coopers were thrown out of employment by George H. Christian and Company when it de-unionized two out of its three boss shops. The St. Paul Dispatch said the shops were "bound to be loosened from the thralldom of the union, and will here after have nothing to do with guilds, trades, union, etc" (August 26, 1874). C.W. Curtis, along with other union men, tried to renew their contract with Christian and Co. but to no avail.

As a result, Curtis and four others founded the Cooperative Barrel Manufacturing Company in the fall of 1874, and were able to establish a contract with one of the Pillsbury mills in town. They were to supply Pillsbury with 300 to 350 barrels per day.¹² Producing this many barrels for Pillsbury meant that the new cooperative could support a large membership, guided by a rigorous set of by-laws.¹³

The formal organization was thoroughly coopera-

tive: Members were equal shareholders who apportioned "ordinary" profits or losses on the basis of the amount (and presumably the quality) of the barrels completed, while profits or losses stemming from changes in the capital value of the cooperative (such as through fire or changing real estate values), in addition to that directly related to hired help, was apportioned equally among all members. Firing an existing member took a two-thirds vote of all the members, and share transfer was allowed only with the consent of the managerial board. All voting took place on the basis of one man, one vote, as provided by the 1870 Minnesota law that allowed for the formation of cooperative associations.¹⁴ The Board of Managers, consisting of the president, treasurer, and three directors conducted and managed the affairs of the cooperative, and was chosen annually by the shareholders as stipulated in Section 5 of the 1870 state law.

In its first few years of operation the Cooperative Barrel Company had less than 25 members, but by 1885 this number had swelled to 120. The cooperative's fully paid capital, "being constantly augmented by weekly assessments and issuance of new shares of stock

from time to time," amounted to roughly \$50,000 (Shaw 1886, pp. 22-23). Capital gains occurred, largely the result of an increase in the value of real estate owned by the cooperative rather than any cost advantages in barrel making (see Shaw 1886, p. 25; Virtue 1905, p. 529).

The members of the Cooper's Union went on strike again in 1877 as a result of wage reductions; by November work was "suspended in almost every shop in the city."¹⁵ In October, 1877, Curtis, Bachelder, Kenney, and a couple others had left the Cooperative Barrel Company to form the North Star Barrel Company, probably in order to compete more successfully with the highly productive boss shops.¹⁶

The North Star began with \$1800 in capital, contributed from eighteen original members each investing in two fully paid shares of stock. The cooperative thrived and membership increased dramatically during the early 1880s. By 1882 it reached 100, its highest figure, as the North Star bought out a competitor, the Liberty Cooperative Barrel Company and absorbed its twenty-six shareholders. At this time the North Star began to occasionally hire eight journeymen coopers.

They were paid the same wages as the shareholders of
the North Star, but were not recognized as members. ¹⁷

Other rival cooperatives were formed during this period, many due to the strikes in the boss shops, the introduction of machinery, and an oversupplied market for skilled labor. These included the Liberty Barrel Company, which, as mentioned above, arose in June of 1879. Though it predicted its operation would continue "for twenty years" (St. Paul Daily Globe, June 3, 1879), it was absorbed by North Star in 1882. Hennepin County Barrel Company originated in March, 1880, with twenty four members contributing \$25 each. By February 1881 its membership doubled to 50. The Excelsior Co-operative Barrel Company was formed in 1880 with twenty five members, and later absorbed by the Cooperative Barrel Company in 1881. The Phoenix Barrel Company was formed in March, 1881 by journeymen in the Ames Shop (a local boss shop) who lost their jobs when the Ames shop sold some of its assets to the newly formed Hennepin County Barrel Company. Here, thirty charter members each contributed a downpayment of \$15 for one \$50 share of stock. Later, in December of that year, the Northwestern Barrel Company was established as a result of a

strike among forty journeymen in the Hall and Dann's boss shop. Each of the forty members invested \$15 a share.

Success in the market breeds imitation. It appears that all these cooperative shops borrowed the same set of by-laws and formal organization from the successful Cooperative Barrel Company. Indeed, some, such as the Hennepin shop, borrowed them in toto (Shaw 1886, p. 28), as a way to economize on knowledge.

Capital accumulation generally took the form of two or more dollars a week deducted from the piece-¹⁸ price wages of the members. Moreover, the cooperative shops were in no particular disadvantage when it came to generating financial capital. In 1886 the net assets of all the cooperatives amounted to \$150,000, of which \$118,00 belonged to the Cooperative Barrel Company, the North Star, and the Hennepin County cooperative, and by 1905 the three firms had assets over \$160,000 (Virtue 1905, p. 536). Again much of this was due to the members' entrepreneurial foresight in real estate speculation, as they took advantage of the dramatic increase in the value of real estate they acquired while Minneapolis grew from a village of 2,500

residents in 1860 to 47,000 in 1880, and broke 200,000 in 1900.

Although it is not certain, it appears that a market existed for the transfer of membership, given the appropriate consent of a cooperative's board of directors (see Shaw, 1886, pp. 24, 42). The fact that workers could recuperate the value of their investments upon exiting the cooperative, in addition to this option to sell, allowed the cooperatives' members to get around the difficulties of social property identified by Furubotn and Pejovich.

For example, during the early 1880s increased milling activity brought in its wake not only more cooperative shops, but also a more widespread use of machinery in the cooper shops. By 1880 the Hall and Dann shop completed the "largest barrel factory in the world," according to the St. Paul Daily Globe (December 3, 1880), with a capacity of 6,000 barrels a day; compare this to the Cooperative and North Star shops producing a total of 1,200 and 1,500 barrels a day as late as 1885 (Daily Minneapolis Tribune, August 24, 1885). Barrels produced partly by machine were two to three cents cheaper than those made by hand. Even at

such a small margin many of the cooperative shops found it necessary to introduce machines to compete with their more efficient rivals.

While the widespread use of machinery first began in 1874, machinery found its way into a cooperative shop, namely the Hennepin County shop, some eight years later. The Cooperative Barrel Company and the North Star followed later in 1885, at the cost of relatively large reductions in membership. Although this conflicted with the original hopes of achieving stable employment and preserving obsolete skills, it permitted these cooperatives to respond to rapidly changing technology and to continue to compete with the boss shops.

The introduction of machinery greatly increased the number of barrels produced, and actually increased their quality. This would naturally undermine the traditionalist mentality promoted by the old style hand¹⁹ cooper. Coopering was a skill, a hand-craft learned through apprenticeships and a tradition that spanned several generations. With the enormous growth in milling activities in the city, the cooperage enterprise had to increase the efficiency of its methods or be

replaced by other forms of storage.

The term "cooper shop" came to be replaced by the term "barrel factory", as the Hall and Dann's shop was described above. ²⁰ During the 1880s technology improved to the point where machines were also capable of completing the barrel. As Coyne mentioned, "When these machines were added to those previously installed, the barrel was completed entirely with the aid of machinery, even to boring the bung hole, and the oldtime cooper as well as the later hooper, or hooper-cooper, became only a memory" (1941, p. 24).

For a time Luddite thinking prevailed among many of the coopers. A letter to the editor of the first issue of the National Coopers' Journal (May, 1885, p. 2) states, for instance, that there were

clouds cast by the cooperage machinery that is surely finding a place in this city to the great disgust of the rank and file coopers.... It is no longer a secret that the North Star Barrel Co. have ordered full sets of machinery.... The Co-operative Co. have voted machinery. Part of the machinery for the Northwestern Barrel Co. has arrived and is being placed in position, others may follow.

A war between the hand coopers and the machine men seems inevitable. As a cooper and affiliating with coopers your correspondent hopes the hand men may come out on top.

It is interesting that the author of the letter called himself a "cooper" as opposed to the "machine men" of the cooperative shops. In fact, however, the coopers in Minneapolis were not the old-style hand coopers who never relied upon machinery, though some often promoted this image. Nevertheless, many found the scale of machinery being introduced to be a significant threat to their skilled livelihoods, which undoubtedly went against one of the aims of cooperation - securing the current skills of the cooper.

21

Despite the traditionalist mentality and the initial aspiration to fight against a technologically advancing market, the cooperatives nevertheless succeeded in adopting the new technology, partly because the flexibility of the property rights arrangement allowed for a relatively smooth exit of workers when machinery was inevitably introduced. Shaw observes, for example:

When the introduction of machinery rendered the membership of the Cooperative Company too large by one-fourth, it was perfectly easy to make adjustment upon a voluntary basis. Some men preferred to transfer their ownership to other shops where business happened to be better. Others were glad to take advantage of the company's offer of full cash payment of capital to set up as merchants in a small way or as farmers on government or rail-

road land. In most cases, naturally, men who withdrew were recent rather than old members, bachelors rather than married men, and renters rather than owners of homes in the vicinity of the shop. The easy self-adjustment of membership to the conditions of business in these cooperative shops is a matter sufficiently noteworthy to justify the illustration (1886, p. 24).

Competition was stiff between all the cooperage shops in the city, cooperative and boss shop alike. And the cooperatives that introduced the technology were surviving. Machines were necessary to increase the productivity of the coopers, thereby allowing an incumbent shop to maintain a competitive advantage in the market, as it was now over three times more expensive to produce barrels by hand rather than machine, and it took well over twice as long.²² Those shops that would not, or could not, introduce machines were assured of being weeded out by the market's competitive²³ process. As the St. Paul Daily Globe described it: "Everybody has got to rustle for business, for the fellows that are left will have to close up shop or retire on their capital" (September 27, 1885).

Considering the goals of cooperation suggests that a conflict of interests existed within the cooperative shops: In order for a cooperative shop to remain in operation, machines were necessary. But machines

eventually replaced the skilled labor of the coopers with the unskilled labor of boys; this turned former members into journeymen once again, facing the journeyman's contingencies of sporadic employment, unstable wages, and a loss of brotherly solidarity. They were left complaining about the "machine men" in the city. The original, unattainable hope to preserve cooperage skills and the stability of employment under such dynamic, evolving markets was abandoned. The cooperatives had the flexibility to respond to market signals through merger and the introduction of machinery. When the Cooperative Barrel Company introduced machines in 1885, its membership tumbled from 120 to 90 within a year. The North Star's membership fell from 80 in 1884 to 65 in 1886, the year following its initial use of machines. Though I have not been able to find how the membership voted on these issues (in order to determine the possibility of factions existing among the members), Virtue argues that machines may have been used as a weapon by the successful cooperative shops to get rid of the new members that came about through merger activities: "Whenever it has become necessary to increase the membership, as in the process of getting rid

of a competitor, the problem soon presented itself of getting rid of that increase" (1905, p. 538). This is certainly an issue for further research of the type I have suggested. On the basis of these preliminary findings, however, I am inclined to say that machines seem to have been the solution. For example The Hennepin County shop's merger with the Northwestern Barrel Company in 1896 increased Hennepin's membership from 60 to 96; but it fell to 66 two years later with further reliance on machine technology. In this way the incumbent member's share of the residual was not dampened, and may have been increased with increased efficiencies in production, while there was also the added benefit of one less market competitor to worry about.

There is little doubt that in this case the cooperatives survived market competition but became less and less cooperative as time went on. Unskilled laborers working for a straight wage, not having any voting rights, replaced many of the skilled coopers, for only coopers were admitted to membership. Virtue remarked in 1905 that "Nearly half the men in the Hennepin shop are non-members: about one-third of the wages paid by the Co-operative Company goes to out-

siders.... [while] In the North Star 30 non-members are regularly employed, only 3 or 4 of them coopers; and in busy seasons the company employs 25 or 30 journeymen additional" (1905, pp. 538-539).

Not only did the pressure of an extremely competitive barrel industry test the entrepreneurial ability of the cooperative coopers. To make matters more challenging, the industry as a whole was being effectively displaced by a much more efficient package: the sack. This caused the flour barrel industry to change rapidly near the turn of the century. In 1885 there were 11 cooperage shops in Minneapolis, 7 of which were cooperative, employing some 600 coopers. By 1904 the number fell to five shops, 2 boss shops and 3 cooperatives, employing less than 250 coopers. In an article in the National Coopers' Journal, Fred J. Clark (1904) lamented that "boldly standing out in relation to the barrel trade is the fact that sacks are gradually superseding barrels as flour packages. This is particularly emphasized in the case of Minneapolis".²⁴ In 1889 the Minneapolis coopers sold 2,617,990 barrels, which accounted for 40.3 percent of the total Minneapolis flour output. By 1903 3,129,360 barrels were sold,

but this accounted for only 20 percent of the Minneapolis output. Much of the competition stemmed from the Eastern U.S., which campaigned for the sack as a better package compared to the barrel: "The Eastern trade is no doubt being 'educated' to buy flour in sacks," said Clark, "and the use of barrels is unquestioningly gradually decreasing."²⁵

Worse yet, the market for second-hand barrels began to strongly compete with the new barrel market, as the former enjoyed favorable freight rates. An article by George E. Walsh in a 1905 issue of Scientific American, entitled "The Life of a Barrel," argued that the virtue of the barrel is that it has "as many lives as a cat". The problem was that this reduced the demand for new barrels. The January 1899 issue of Barrel and Box complained that the coopers' unions "are continually fighting machine barrels that sell for the highest market price, but take no notice of the second-hand package that is causing more real detriment to the trade than all the machines in the country.... the cost of this class of packages is so cheap that they have wrested the trade from the coopers, to such an extent many of them have been compelled to abandon their

trade.... Viewed from any stand-point taken, this class of traffic is detrimental to the best interests of those engaging in making new work" (p. 34).

That the cooerage cooperatives were able to withstand this competition through the early 1900s is remarkable, especially when one considers that the production of flour in Minneapolis fell from 16.1 million barrels in 1914 to 10.4 million by 1929 (Virtue 1932, p. 543). The North Star merged with the Cooperative Company in 1918, adding 26 members to the North Star for a total of about 60. Through the 1920s the membership of the North Star declined to 26, mainly due to death and withdrawal of its elderly members. The Hennepin went under before the North Star, in 1928, with 35 members, only one under the age of 65. When the North Star finally ceased operations in 1929, it had \$106,000 to divide among its 26 members, each receiving roughly \$4,000.

Thus, there is little doubt that these three cooperative shops were economically successful business entities. Moreover, they exhibited precisely the kind of flexibility required for market coordination. That the cooperatives introduced machinery allowed them to

survive through the 1920s; after that, instead of augmenting their machinery to adapt to the changing technology in barrel manufacturing, they essentially switched industries. The Cooperative and North Star enterprises, for example, turned to the production of butter tubs, mainly utilizing the hired labor of young men rather than the skill of the cooper. Admittedly, under these adverse conditions these shops gradually lost their cooperative character. However, some of the cooperatives, such as the Cooperative Barrel Manufacturing Company, survived at least a decade in the cooperative format, which is a substantial success in its own right.

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Plant and equipment of an increasingly greater scale was necessary for the efficient production of barrels. The cooperatives accordingly introduced machinery to remain in operation, which necessarily replaced the skilled labor of the member cooper with the unskilled labor of hired hands. The hope that the cooperative form of business organization would preserve the skills of the cooper and offer a stable means of employment, was proven unrealistic within a dynamic market setting and consequently abandoned by the mem-

bers themselves.

RECONSIDERING THE COOPERAGE COOPERATIVES:

Jones (1979) raised a fundamental question regarding the criteria we ought to use in historically judging success. One should take into account many factors to evaluate a workers' cooperative: the financial soundness of the cooperative, the opportunities available to workers, the proportion of those enjoying membership status, and so on. One should also consider the less quantifiable aspects of cooperation, such as the reasons why workers would wish to embark upon such an effort in the first place. I have argued that a meaningful notion of success must recognize the motivations and intentions of those who choose to form a cooperative over other productive organizations. In the case of the Minneapolis cooperage cooperatives, my narrative suggests a partial failure in this particular case to achieve and preserve cooperating skills and achieve stable employment, apparently one of the original intentions of the cooperators. But they also intended to run profitable firms themselves, to enjoy capital gains and survive the stiff competition from

boss shops. Though after a decade or two they increasingly resembled joint-stock companies, they were still economically successful when judged by the market. Indeed, what is remarkable is the fact that the property rights arrangement within the cooperatives allowed for such a degree of flexibility that they could adjust to market conditions which were anything but favorable. Contrary to the typical opinions of the critics, at least this group of cooperatives had no problem securing investment from its members; they introduced new technology; and they were able to compete with the boss shops. Indeed, they out competed them in several cases.

No single case study can be used to generalize the whole historical record. That, certainly, is not my intent. I believe the cooperatives are significant because they were economically successful in a worst-case scenario. They faced adverse, extremely competitive markets. Mechanization was rendering their skills obsolete. Then the barrel making industry eventually got weeded out by sacks. That the original ideals of the founding members were not fully achieved is not cause for alarm. It was inevitable.

WORKERS' COOPERATIVES AND MARKET SYSTEMS: THOUGHTS
ABOUT THE FUTURE:

My narrative suggests that there is nothing inherently wrong with the worker-owned firm in a dynamic, market system. In the case of the coopers, the flexibility of the private property rights arrangement allowed individuals to adjust the organizational characteristics of these firms. Worker-owners were free to reorganize the firms' assets as they gained new knowledge supplied by the market. Now it turns out in this particular case that they chose to, after a decade or two, reorganize more along the lines of a joint-stock company. But that is not an inevitable result of market competition. Numerous cases of contemporary workers' cooperatives, such as the plywood cooperatives in the Northwest U.S., or, even more dramatically, the Mondragon group in Spain's Basque region, demonstrate that cooperatives can continue to keep up with technological change and compete against corporate rivals without reorganizing their assets significantly away from the cooperative format.

Viewed from a comparative systems perspective,

market signals allow private property owners to adjust to relative scarcities. This is why I am skeptical of reorganizing the system as a whole toward workers' self-management and social planning. Social property rights, or what Pejovich calls "attenuated" rights, are really attenuated opportunities to experiment, to bring new interpretations to bear in the general market dialogue, and to learn. While social property rights restrict enterprise organization to a specific form, private property allows individuals or groups of individuals to experiment with the organizational structures of business, be it corporate or cooperative. The virtue of the general principles of private property and unhampered market exchange is that it allows individuals to decide upon the specific organizational forms or uses of that property. It allows both corporate managers and worker-owners to use their entrepreneurial faculties to adjust to the changing demands of consumers.

The virtue of the workers' cooperative in particular rests partly, I believe, in its emphasis on dialogue. Now I have argued that the advocates of a workers' self-managed socialist system have misunderstood

the nature of dialogue. Society cannot rely upon dialogue "alone," that is, dialogue without unhampered markets to achieve a rationally coordinated system. And the Austrians have realized this for quite some time now. But while the Austrians understand that the system as a whole cannot be scientifically manipulated in a rational manner, they have perhaps (through their relative silence) misunderstood the degree to which a business enterprise can. Certainly a business organization is the product of human design and based upon an ex ante plan. But the idea that humans can be manipulated like machines has become largely discredited over the past few decades. The scientific management movement, for example, which attempted to rationally control shop floor workers by using time and motion studies has proven futile. Indeed, as we move toward the twenty-first century one hears more about "chaos" in management circles than he does "scientific control." Perhaps here a greater emphasis will be placed on conventional dialogue between workers and their superiors. After all, the plant manager and shop floor worker do not communicate their day to day production activities to one another through market

price signals. A worker may be able to articulate quite a bit of contextual knowledge through genuine dialogue with others in the firm and perhaps this could increase a firm's overall efficiency or profitability. Here face-to-face dialogue as opposed to technical, scientific control alone may prove useful, and, consequently, the dialogical basis of the cooperative form may be seen in a new light. Neither the face to face dialogue of the firm nor the distant dialogue of the market should be dispensed with.

The cooperative organizational form has other advantages in addition to its emphasis on face to face dialogue as opposed to the boss-command structure of the firm. Its democratic organization provides workers with a greater voice in the firm's overall production plan (this in addition to the "exit" option of the traditional firm). Hence, workers not only can express their preferences indirectly through labor markets, but directly in the workshop as well. The ability to choose between "voice" and "exit," instead of being forced to submit to one or the other, should be an improvement from the worker's point of view. The right to participate also helps break down the impersonal

nature of standard business hierarchies. It provides a better opportunity for those who wish to foster a sense of community in the workplace rather than what may feel like blind obedience to bureaucratic authority.

When workers are free to establish their own cooperative organizations and plan production processes according to their own judgement, work may become more meaningful in itself. Indeed, workers may become more aware of the truly social nature of producing as a team of co-owners, as they join together to create, structure, and carry out a common goal, instead of simply working for a wage to satisfy ends predominantly outside the workplace.

The advantages of face to face dialogue, democracy, and a greater sense of community offset to some degree the disadvantages of monitoring and principal-agent problems in the cooperative firm. ²⁷

Will the cooperative form become dominant? Probably not. But there are reasons to believe that it will continue to grow as we turn from the rationalist spirit of modernity toward a more humanistic, "postmodern" world. Because the existing market system does not, contrary to the claims of some of its supporters,

represent the best of all possible worlds, it is quite probable that current forms of business organization will evolve over time. One should expect that to happen in a truly unhampered market system, for our knowledge of business organization must inevitably change. And so must the knowledge of workers. As we move toward what some have called a "post-industrial" society, we find more and more that workers embody an inalienable intellectual component. Today Taylorism is on the run. Workers are now learning details of skilled behavior, which make it all the more difficult for a boss to dispose a worker without losing the greater part of his investment.

Consider, for example, the recent wave of "break away" firms in the computer industry. Old firms act as embryos for new firms. If a worker or group of workers is not satisfied with the existing firm, each has a skill which he or she controls, and can leave the firm with those skills and establish a new one. In the information age it is becoming more evident that a boss cannot control the workers as one did in the days when the assembly line was dominant. People cannot be treated as workhorses any longer, for the value of the

production process is becoming increasingly embodied in the intellectual skills of the worker. This poses a new threat to the traditional firm if it denies participatory organization.

The appearance of break away computer firms leads one to question the extent to which our existing system of property rights in ideas and information actually protect bosses in other industries against the countervailing power of workers. Perhaps our current system of patents, copyrights, and other intellectual property rights not only impedes competition and fosters monopoly, as some Austrians argue. Intellectual property rights may also reduce the likelihood of break away firms in general, and discourage the shift to more participatory, cooperative formats.

The question of the future viability of workers' cooperatives is at once a question of meaningful theory and relevant practice. Market advocates should reconsider the extent to which existing property rights improve as well as hold back technological and organizational progress. Given the issues raised in this dissertation, I am inclined to believe that a

freeing up of the market system will further encourage the development of workers' cooperatives. While I do not expect a single study to convince others, I do hope that my study encourages both advocates and opponents of workers' self-management to reconsider this organizational form from a comparative systems perspective and to help push the current debate in a new direction.

NOTES TO CHAPTER FIVE

1. In their indefatigable defense of the traditional, hierarchical form of business organization, many Austrian economists imply the inferiority of the workers' cooperative. Though Mises, for example, did not, to my knowledge, specifically address the economics of workers' cooperatives in an unhampered market, he tended to link the notions of cooperation, profit sharing, and the like to what he called "pseudo-socialist" systems such as solidarism and syndicalism. See, for example, Mises (1981 [1936], ch. 16; 1966, ch. 33). Murray Rothbard, on the other hand, has explicitly voiced his opinion against the cooperative enterprise: "There is a strong a priori reason for believing that corporations will be superior to co-operatives in any given situation. For if each owner receives only one vote regardless of how much money he has invested in the project (and earnings are divided in the same way), there is no incentive to invest more than the next man; and, in fact, every incentive is the other way. This hampering of investment militates strongly against the co-operative form" (1970, p. 213, fn. 88).

2. The interpretive turn in contemporary philosophy of science maintains that our knowledge of the past is not restricted to quantifiable data. Hence, historical research may benefit by connecting the measurable data of history to the underlying human actions that give rise to this data. The historian (economic or otherwise) must attempt to penetrate the data by tying it to the meaningful actions of the historical agents. As the philosopher-historian R.G. Collingwood writes: "the events of history are never mere phenomena, never mere spectacles for contemplation, but things which the historian looks, not at, but through, to discern the thought within them" (1956, p. 274). Collingwood's point is now shared by much of the contemporary literature in the philosophy of history. See, for instance, Polkinghorne (1983), Ricoeur (1971), Taylor (1971), and

White (1973). Besides these general sources, the exchange between Fogel and Elton (1983), cliometric and interpretive economic historians respectively, is a very readable introduction to this issue.

3. Also see Catlin (1926, p. 572), Commons and Associates (1918 (II), p. 76), Ely (1887, p. 150; 1969 p. 188), Fetter (1922, p. 334), Gunn (1984 p. 30), Jelley (1969, p. 272), Knapp (1969, p. 42), Myrick (1895, p. 138-42), Patterson (1929, p. 462), Perlman (1937, p. 56), Stephen (1984, p. 159), Virtue (1905, p. 527; 1932, p. 541, 544), and Watkins (1922, p. 547). Albert Shaw (1886) provides the first systematic study of the coopers. In a letter to Richard Ely (quoted in Ely 1969, pp. 188-89), Shaw writes

I have found a remarkable instance of producer co-operation. I have already begun to collect the data for an economic essay.... So far as I am aware, these cooper-shops form the most successful examples of productive cooperation in the world; and yet, if anybody has ever alluded to them in a scientific way, I have never found it out.

Yet, in Joseph G. Knapp and Associates' 607 page book, Great American Cooperators: Biographical Sketches of 101 Major Pioneers in Cooperative Development (1967), not one of the men behind the cooperages cooperatives in Minnesota is mentioned. Since Knapp was aware of the cooperages (Knapp 1969, p. 42), this may reflect the scarcity of any remaining primary documents of the cooperage enterprises.

4. See Shaw (1886, pp. 65-69). Also see Monroe (1896) for a rather comprehensive study of 33 firms which engaged in profit sharing near the turn of the century.

5. The local Minneapolis assemblies # 805 and 3363 consisted entirely of coopers, but the memberships were quite unstable. For instance, #805, while having 128 members at year-end 1879, fell to 24 in 1880, 21 in 1881, increased to 64 in 1882, 86 in 1884, and 132 in 1885 (Garlock 1982, pp. 230, 598, 599). Engberg (1941, p. 373) notes that "Both journeymen and co-operative

coopers belonged to the coopers' assembly of the Knights of Labor, but that did not prevent friction from developing between rival groups." Jones' analysis of the cooperage cooperatives may be misleading because he groups the cooperage cooperatives in a cluster independent of what he recognizes to be the Knights of Labor cooperatives. On the other hand, I have found no evidence that any of the cooperage PCs in Minneapolis were formed under the auspices of the Knights.

6. See the quote by the Secretary of the Board of the Knights of Labor cited in Commons et al. (1926, vol. 2, p. 436) which suggests that most of the cooperative undertakings at this time, especially under the auspices of the Knights of Labor, were quite marginal and doomed to failure. It actually seems that the Co-operative Board, collecting fees in the name of encouraging cooperation, was largely a front to finance the numerous strike activities the Knights had been engaging in at the time, some of which were successful. See Ware's classic study of the Knights, (1959, pp. 322-323).

7. According to Shaw, Curtis "believed that if the 'bosses' were dispensed with and the associated mechanics could deal directly with the mills, they would gain both in wages and in the certainty of employment. In the spring of 1868 he persuaded [the others] to join him in a cooperative experiment" (Shaw 1886, p. 11).

8. More recent historical studies by Herbert G. Gutman (1976) and David Montgomery (1979) provide a strong case that cooperative efforts among skilled laborers arose in the attempt to preserve the "functional autonomy" of the craftsmen. Gutman (1976, pp. 36-37) relates this point to the cooperage craftsmen in late 19th century America. I shall demonstrate later that this also held in part for the coopers of Minneapolis.

9. Two years later, in the spring of 1870, hearing news that the journeymen's wages would be cut from 15 to 12.5 cents per barrel, Curtis arranged with three others to start another cooperative, which once again failed, this time for a different reason. It so happened that the treasurer, Lawrence Stoker, ended the

shop by pulling a coup d'etat on the others, as he personally managed to secure a lucrative contract with one of the mills and started a boss shop of his own (Shaw 1886, p. 13). He later relied upon prison labor during the cooper strikes of 1879 (Minneapolis Tribune, July 18, 1879).

10. Minneapolis Daily Tribune, November 27, 30, 1872. Relying upon coopers brought in from Milwaukee seems to have been commonplace during periods of strikes, and dates as least as far back as 1866, when barrel makers were asking 25 cents a barrel in light of a firm offer of 20 cents per barrel (St. Paul Daily Press, August 28, 1866).

11. See the Minneapolis Tribune, August 26, 27, 1874. It was not until 1878 that the first local assembly of the Knights of Labor was organized in Minneapolis (Engberg, 1941, p. 368).

12. St. Paul Daily Dispatch, December 3, 4, 1874; Minneapolis Tribune, December 3, 1874. An interesting question for future research is how a newly formed cooperative was able to establish such a lucrative contract.

13. The by-laws are cited in full by Shaw (1886, pp. 18-20) and Myrick (1895, pp. 139-42).

14. Section 2 of the law which deals with the distribution of profits states:

no distribution shall be declared and paid until a sum equal, at least, to ten per cent. of the net profits shall be appropriated for a contingent or sinking fund, until there shall have accumulated a sum equal to thirty per cent. in excess of such capital stock.

This was later dropped entirely in an 1881 amendment, largely due to the response of the cooperative coopers. See Shaw (1888, p. 311).

15. (Minneapolis Tribune, November 20, 1877). Unfortunately the article does not say whether or not it was the cooperatives that remained in business.

16. For instance, the Anson cooper shops had men who could produce up to thirty barrels a day (Minneapolis Tribune, December 25, 1875), while Barttell and Company, relying heavily on machinery, had the capacity to produce between 2,500 and 3,000 barrels per day (Minneapolis Tribune, May 29, 1876). Also see Shaw (1886, p. 23).

17. Further archival research may allow us to determine the extent to which any problems may have arisen between the journeymen who did not enjoy membership status and those coopers who had full membership rights.

18. Although the cooperatives and the journeymen constituted the Cooper's Assembly of the Knights of Labor, I have found no evidence that the Knights had much to do with the funding and encouragement of capital formation among the cooperatives. Capital was, however, loaned by the various banks of the city.

19. G.O. Virtue argues that "the displacement of a large amount of hand work involved in the use of these machines was resisted as long as possible by the cooperative companies, for they were composed of men whose chief interest lay in the employment of the skill they had acquired" (1905, p. 538).

20. As far back as October, 1872 complaints were raised in the Coopers Monthly Journal concerning a barrel factory in St. Louis: The barrels were raised by boys, clamped and trussed by machinery, the heads were turned by machines and put into the barrels by boys, and there was nothing left for the coopers to do but plane, shave up and hoop the package. When a barrel was finished, it generally leaked at every joint.... But the staves were kiln dried and by the pouring from one to four pints of water in each barrel... it could be made to pass. All this was very well and as the company warranted every package they were not in want of a market (quoted in Commons and Associates 1918, vol. 2, p. 74). Perlman notes that "The effects of such a change in making barrels is obvious. The cooper was now deprived of the protection afforded by his skill. His part in the process now was trimming the barrel instead of making it" (Commons and

Associates 1918, vol. 2, p. 75). Also, in his history of the cooperage industry in the United States, Coyne (1940) observes:

the old hand cooper was entirely eliminated with the introduction of perfected cooperage machinery, and men could be quickly trained for the minor hand operations remaining in barrel manufacture. Many of the old hand coopers found employment in machine cooper shops, however, some [were] employed in repairing leaks and defects which developed in the testing operations, and others were merged with the workers who finished the barrel as it came from the crozer, and who were henceforth known by the lowly name of "hoopers" instead of "coopers", or sometimes designated as "hooper-coopers" (1940, p. 24).

21. Virtue notes that the Hennepin shop attempted to introduce a "heading up" machine, an invention of one of its members, only to have it later taken out, partly because of imperfections, but also because of a strong opposition among the membership (Virtue, 1905, pp. 543-44). Examples such as this point to the importance of further detailed research.

22. In 1895 the cost of producing 100 flour barrels averaged \$12.63 for hand labor, \$3.85 for machine. It took 50.5 hours for the former, 22.33 hours for the latter (Thirteenth Annual Report of the Commissioner of Labor. Hand and Machine Labor, Volume I (1898), p. 41).

23. Leonard's Twentieth Century Cooperage Directory and Telegraphic Code (1899) lists the Hennepin County, Minneapolis Cooperage Co., and the North Star Barrel Co. as machine shops. The Cooperative Barrel Co. is not explicitly listed as a machine shop. The only shops selling flour barrels which were produced by hand were W.L. Dudrey (Moorhead) and the Reichert Cooperage Company (Red Wing), neither of which were in Minneapolis.

24. The burden of bag competition from New York and St. Louis dates at least as far back as 1879. See the Stillwater Gazette (February 19, 1879).

25. In 1901 the trade journal Barrel and Box tried to begin a counter movement against the Eastern trade. One drawing shows a flour barrel with the following inscription:

LET'S MAKE A TRUST to improve the slack cooperage industry. BUY FLOUR IN A BARREL, thereby increasing the market for barrels, staves, heading and hoops, and giving employment to more people in the industry. For information and stickers write THE BARREL AND BOX.

During this time the cooperage industry began sponsoring, essentially, the barrel stunts over Niagara Falls. For instance, on October 24, 1901, the West Bay Cooperage Company of Buffalo, New York made a barrel "constructed especially for [the] purpose" of Mrs. Annie Edson Taylor to take a drop over the Falls. The account of the incident says "we are pleased with the ability of our coopers to make a barrel that will stand the racket", yet continues "still, the lady is old enough to have more gumption, and she ought to have been spanked and put to bed instead of taking such a foolish trip" (see Coyne 1940, p. 36). Perhaps the point was that a barrel was much more reliable than a bag.

26. It is hard to pinpoint exactly when a given cooperative lost its truly cooperative format. Differing judgements are propounded by Watkins (1922, p. 555) who recognized a tendency towards joint-stockism during the 1910s; As early as 1905 Virtue regarded the North Star as "nothing but a joint stock company of 40 members owning the stock in equal amounts" (1905, p. 541); and Engberg (1941, p. 373) goes so far to say that the competition with sacks and the introduction of machinery "resulted in lower wages, strikes, and, finally, failure for the cooperatives by 1887," though it is not clear in what respect he considered them failures.

27. It is worth mentioning that not all neoclassical economists agree on the extent to which the disincentive problems posed by Alchian and Demsetz (1972) and others such as Holmstrom (1982) militate against the cooperative format (see chapter 3, note

21). For example, Oliver Williamson (1975) has argued that excessive monitoring may actually lower the performance and morale of team workers. All too often, however, the unintended, undesirable consequences of monitoring such as this are overlooked in the theoretical literature (cf. Putterman 1984, pp. 176-7). Moreover, when one considers the degree to which our knowledge is embodied in tacit skills and judgement, the extent to which real world monitors can technically obtain the information required for efficient metering as the models suggest becomes somewhat questionable. Williamson's awareness of information being "impacted" within a team of workers accords well with the Polanyi-Hayek thesis about personal knowledge: much of the knowledge embodied in team production may not be adequately observed by a monitor or efficiently communicated to a central metering authority. In fact, each team worker may have a better idea of what the others are doing (and are able to do) than a monitor, even though any particular worker may not be able to articulate that knowledge to a monitor. Under these cases the cooperative format may handle the monitoring problem more effectively than the traditional business organization.

Now Alchian and Demsetz recognize this type of knowledge among "artistic" and "professional" work (1972, pp. 92-3) and thereby admit that boss-type monitoring in these cases by not be effective nor desirable. If the Polanyi-Hayek position holds - that inarticulate knowledge is the basis of all human action - then the extent to which most work has an "artistic" element becomes all the more likely and the effectiveness of boss-type monitoring in most cases is open to debate.

CONCLUSION

In this dissertation I have critically analyzed the notion of workers' self-management from a comparative economic systems perspective. Specifically, I have focused on the way different systems convey and utilize knowledge in order to coordinate the plans of worker-managed enterprises.

Karl Marx has greatly influenced the socialist variant of workers' control. In Chapter One I therefore analyzed Marx's socialist vision. I argued that Marx's vision has two contradictory notions - he calls for decentralized workers' self-management and yet unified, comprehensive economic planning. I argued that a one-sided interpretation of Marx - as a radical decentralist or a central command planner - overlooks an essential tension in his own thought between self-management and planning. In this chapter I critically assessed the centralist interpretation of Marx, an interpretation offered by some economists, from the standpoint of Marx's humanistic praxis philosophy. I demonstrated that the central command notion of compre-

hensive planning, while it may partly solve the problem of economic alienation, maintains if not increases the problem of political alienation, and therefore contradicts Marx's call for de-alienation in the political dimension.

While I have criticized the economic interpretation of Marx from the standpoint of praxis philosophy in Chapter One, in Chapter Two I analyzed workers' cooperation and socialist planning from the perspective of economic theory. Influenced by the Austrian critique of socialist calculation, I proceeded to critically examine the other side of Marx - the praxis-inspired notion of decentralized socialism. I argued that decentralized socialism would lead to planning chaos. This clearly contradicts Marx's call for de-alienation in the economic dimension. The organizational implications of overthrowing the "anarchy" of the market with a comprehensive plan must lead, in principle, to a hierarchical planning structure. That is, in the sincere attempt to rationally plan the overall economic system and overcome chaos, a unified plan logically implies a central planning organization.

Thus, I argued that the one-sided interpretations

of Marx are misleading because they both overlook the struggle in Marx's vision. Complete decentralization leads to chaos and thus continues economic alienation. The logic of trying to overcome economic alienation tends toward centralization and command planning, which in turn promotes political alienation.

I argued that this tension is the result of Marx's ignorance of the knowledge problem. Some economists, informed by the socialist calculation debate of the 1920s and 30s, have developed formal, neoclassical models of decentralized socialism which are thought to overcome the knowledge problem and the tension between decentralization and centralization. They combine market and plan in order to render worker-managed enterprise economically efficient. The neoclassical modelling of workers' self-management has led to an extensive debate over the problem of economic incentives, a debate I discussed in Chapter Three. I demonstrated that the debate has focused too much on the formal equilibrium properties of a worker-managed enterprise and, in many respects, has led to a stalemate. From a comparative systems standpoint, it largely overlooks what I maintain is the more fundamental

problem of knowledge conveyance and utilization.

In Chapter Four I critically addressed the notion of formal model building from the perspective of the interpretive turn in contemporary philosophy of science, and argued that the Austrian school's notion of the problem of knowledge utilization in comparative economic systems is consistent with this contemporary notion of knowledge in general. I argued that the socialist plea for greater dialogue through planning misunderstands both the broadly dialogical properties of the unhampered market process and the form of knowledge conveyed in market prices. I maintained that the knowledge necessary to rationally coordinate a complex economy can only be generated in an unhampered market for the means of production.

In Chapter Five I analyzed the feasibility of workers' cooperatives in a market system. Focusing on a case study of cooperative barrel making firms in Minneapolis near the turn of the century, I argued that, contrary to the beliefs of the critics, cooperatives will not necessarily resist technological change or fail to compete with more traditional forms of business enterprise. I argued that private ownership

of the means of production allows worker-owners the flexibility to use their entrepreneurial abilities in order to adequately respond to dynamic changes in the market process.

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