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Introduction

The last few years in the U.S. have seen a return of a discussion of work that is reminiscent of the mid-1970s, but with a number of twists. In the earlier period, books like Where Have All the Robots Gone? (Sheppard 1972), False Promises (Aronowitz 1972) and Work in America (Special Task Force 1973), and phrases like "blue collar blues," "zerowork and "the refusal of work revealed a crisis of the assembly line worker which expressed itself most dramatically in wildcat strikes in U.S. auto- factories in 1973 and 1974 (Linebaugh and Ramirez 1992). These strikes were aimed at negating the correlation between wages and productivity that had been the basis of the "deal" auto-capital struck with the auto-unions in the 1940s. As Linebaugh and Ramirez wrote of the Dodge Truck plant wildcat involving 6000 workers in Warren, Michigan between June 10-14, 1974:

Demands were not formulated until the third day of the strike. They asked for "everything." One worker said, "I just don't want to work." The separation between income and productivity, enforced by the struggle, could not have been clearer (Linebaugh and Ramirez 1992: 160).

This clarity met an even stronger clarity in the auto capitalists' decades-long campaign to reassert control over the work process in their plants and assembly lines. These capitalists did not hesitate to destroy these very plants and assembly lines in order to save themselves. "Rust belt" and "run away plant" became the phrases of the business press when describing auto and other kinds of factory production in the 1980s; these phrases flowed almost seamlessly into "globalization" and "robotization" in the 1990s. The unprecedented result of this campaign was that full time weekly Comnlon Sense No 24

"real" wages in the U.S. manufacturing industry have fallen almost 20% while the work time has actually been increased. But in the mid- 1990s books like The End of Work (Rifkin 1995), The Labor of Dionysius (Hardt and Negri 1994) and The Jobless Future (Aronowitz and De Fazio 1994), and phrases like "downsizing" (New York Times 1996) and "worker displacement" (Moore 1996) have revived themes associated with the crisis of work at a time when the power relation between workers and capital is the inverse of the 1970s. Whereas in the 1970s workers were refusing work, in the 1990s capitalists presumably are refusing workers!

In this paper I will show that these books and phrases are misleading in claiming that "scientifically based technological change in the midst of sharpened internationalization of production means that there are too many workers for too few jobs, and even fewer of them are well paid (Aronowitz and De Fazio 1994: xii), or that "technological innovations and market-directed forces...are moving us to the edge of a near workerless world" (Rifkin 1995: xvi), or, even more abstractly, that the "law of labor-value, which tried to make sense of our history in the name of the centrality of proletarian labor and its quantitative reduction in step with capitalist development, is completely bankrupt ..." (Hardt and Negri 1994: 10).

Jobs and the Manifold of Work

A "jobless future" and a "workerless world" are the key phrases of this literature, but before we can examine the cogency of these phrases for the present and near future it is worthwhile to reflect for a minute on the notions of job and work that they imply. "Job is the easier of the two. It has a rather unsavory etymological past. In seventeenth and eighteenth century England (and even today), "job as a verb suggested deceiving or cheating while as a noun it evoked the scent of the world of petty crime and confidence games. In this context, a "jobless future" would be a boon to humanity. But by the mid-twentieth century "job" had become the primary word used in American English to refer to a unit of formal waged employment with some fuced, contractually agreed upon length of tenure. To have a job on the docks differs significantly from working on the docks; for one can be working somewhere without having a job there. The job, therefore, rose from the nether world of political economy to become its holy grail. The mystic power of the word "job" does not come from its association with work, however. Indeed, "to do a job" or "to job were phrases describing a "crooked" way to refuse to work and gain an income. "Jobs, Jobs, Jobs," became the shibboleth of lateThe End of Work? 22

twentieth century U.S. politicians because the "job emphasized the wage and other contractual aspects of work in capitalist society which were crucial to the physical and mental survival of the electorate. Hence a '3obless future" would be hell for a capitalist humanity, since it implies a future without wages and contracts betweenworkers and capitalists.

Although its salience is unmistakable, the job marks off, often quite conventionally and even with dissemblance, a part of the work process; but there is no one-to-one correlation between jobs and work. The same work process can be broken down into one, two or many jobs. Consequently, "work and its apparent semantic cognate "labor" seem to have a greater claim to reality. Therefore, the "end of work" denotes a more radical transformation than a "jobless future," because there were many periods in human history when societies were "jobless" - e.g. slave societies and subsistence-producing peasant communities - but there were none, Eden excepted, that were workless. Before one can speak of the end of work, however, one should recognize that here has been a conceptual revolution in the last political generation concerning the meaning of work. For a long period of time, perhaps coinciding with the formulation of the collective bargaining regimes in the 1930s and their collapse in the 1970s, "work was synonymous with "the job," i.e., formal waged work. But since then a vast manifold of work was discovered (Caffentzis 1992; 19961 1998).

This manifold includes informal, "off the books" work which has a wage but can not be officially deemed contractual because it violates the legal or tax codes. This dimension of the manifold tapers into the great region of purely criminal activity which in many nations and neighborhoods rivals in quantity and value the total formal job-related activity. Even more important has been the feminist "discovery" of housework in all its modalities that are crucial for social reproduction (e.g, sexuality, biological reproduction, child care, enculturahon, therapeutic energy, subsistence farming, hunting and gathering, and anti-entropic production). Housework is the great Other in capitalist societies, for it stubbornly remains unwaged and even largely unrecognized in national statistics, even though it is increasingly recognized as crucial for capitalist development. Finally, there is a level of capitalist hell which collects all the coerced labor of this so-called "post-slavery" era: prison labor, military labor, "sex slavery," indentured servitude, child labor.

By synthesizing all these forms of work, we are forced to recognize an intersecting and self-reflective manifold of energetic investments that dwarf the "formal world of work in spatiotemporal and value terms. This vast emerging presence as well as the inverse manifold of its refusal has transformed the Common Sense No 24

understanding of work profoundly, even though many seem not to have noticed. It certainly puts the jejune distinctions between work and labor (Arendt), between bio-power and capitalism (Foucault), and between labor and communicative action (Habermas) into question while forcing a remarkable expansion of class analysis and an enrichment of revolutionary theory beyond the problematics of planning for factory systems of the future. Most importantly for our discussion, this Manifold of Work problematizes the discussion of work and its supposed end at the hands of technological change.

The End of Work

Unfortunately, the notion of work that is often used in the "end of work" literature is often antediluvian and forgetful of work's

capitalistic meaning. This is most clearly seen in Rifkin's central argument in The End of Work He is anxious to refute those who argue that the new technological revolution involving the application of genetic engineering to agriculture, of robotization to manufacturing and of computerization to service industries will lead to new employment opportunities if there is a well-trained workforce available to respond to the challenges of the "information age." His refutation is simple.

In the past, when a technological revolution threatened the wholesale loss of jobs in an economic sector, a new sector emerged to absorb the surplus labor. Earlier in the century, the fledgling manufacturing sector was able to absorb many of the millions of farmhands and farm owners who were displaced by the rapid mechanization of agriculture. Between the mid- 1950s and the early 1980s, the fastgrowing service sector was able to reemploy many of the blue collar workers displaced by automation. Today, however, as all these sectors fall victim to rapid restructuring and automation, no "significant" new sector has developed to absorb the millions who are being displaced (Rifkin 1995: 35).

Consequently, there will be a huge unemployment problem when the last service worker is replaced by the latest ATM, virtual office machine or heretofore unconceived application of computer technology. Where will he/she find a job? There is no going back to The End of Work? 24

agriculture or manufacturing and no going forward to a new sector beyond services. Rifkin applies this scenario to a global context and foresees not millions of unemployed people on the planet in the near future, but billions.

The formal logic of the argument appears impeccable, but are its empirical premises and theoretical presuppositions correct? I argue that they are not, for Rifkin's technological determinism does not take into account the dynamics of employment and technological change in the capitalist era.

Let us begin with a categorical problem in Rifkin's stage theory of employment. He uncritically uses terms like "agriculture," "manufacturing" and, especially, "services" to differentiate the three developmental stages of a capitalist economy as indicated in the passage quoted above and in many other parts of The End of Work One cannot fault Rifkin for making an idiosyncratic choice here, since major statistical agencies like the U.S. Bureau of Labor Statistics also employ these categories to disaggregate employment, production and productivity in the last few decades. The core metaphors that helped shape this trichotomy are rooted in a distinction between material goods (produced on the farm or off) and immaterial services, and in the spatial distinction between farm, factory and everywhere else (office, school, store, warehouse, road, etc.). This trichotomy allows for a rough and ready economic typology, with "the service industry" generally functioning as something of a fuzzy default category.

But it is one thing to use a category ex post fado and another is to use a category in a projective way (either into the past or the future). Rifkin's somewhat Hegelian scheme sees technological change as the autonomous moving spirit that transforms one stage to another until it comes to a catastrophic halt in the present "service" stage of history. Yet when we look at capitalistic societies in the past, this neat series is hardly accurate. For example, was seventeenth and eighteenth century England agricultural? The "service industry" in the form of household servants in the larger agricultural estates at that time was quite substantial, but these servants often worked as artisans (manufacturing) and as farm hands (agriculture). Moreover, with the rise of cottage industry, agricultural workers or small farmers also doubled or tripled as manufacturing workers on the farm. Finally, throughout the history of capitalism we find a complex shifting of workers among these three categories. Instead of simply moving from agricultural to manufacturing, and from manufacturing to service, we find all six possible transitions among these three categories.

The vast literature on the "development of underdevelopment" and on the many periods of capitalist "deindustrialization" abundantly illustrates these transitions which were clearly caused not by some autonomous technological spirit, but by historically Common Sense No 24

concrete and ever varied class struggles and power relations. A machine introduced by capitalists to undermine industrial workers' power can lead to these workers losing their employment and becoming "service workers" or becoming "agricultural workers" according to a complex conjucture of forces and possibilities. There is no evidence from the total history of capitalism that there is only a linear progression that ends with the last service worker. Rifkin's schema is further undermined if we examine its future projection. After a look at the wide variety of applications of computer technology in the service industry (from voice recognition, to expert systems, to digital synthesizers), Rifkin ominously concludes: "In the future, advanced parallel computing machines, high-tech robotics, and integrated electronic networks spanning the globe are going to subsume more and more of the economic process, leaving less and less room for direct hands-on human participation in making, moving, selling, and servicing" (Rifkin 1995: 162). But here the very defaulting function of the category of service makes its future projection problematic for Rifkin, since it will not stay in a single place, in a logical space in order to be reduced to measure zero by technological change. Let us consider one of the standard definitions of what constitutes service work: the modification of either a human being (giving a haircut or a massage) or an object (repairing an automobile or a computer). How can we possibly project such a category into the future? Since there are no limitations on the type of modification in question, there is no way one can say that "advanced parallel computing machines, high-tech robotics, and integrated electronic networks spanning the globe" will be able to simulate and replace its possible realizations. Indeed, the service work of the future might very well be perversely defined (at least with respect to the constructors of these machines) as modifications to humans and objects that are not simulateable and replaceable by machines! (1) Just as today there is a growth in the sale of "organic," non-genetically engineered agricultural produce, and "hand-made" garments made from non-synthetic fibers, so too in the future there might be an interest in having a human to play Bach (even if the synthesized version is technically more correct) or to dance (even though a digitalized hologram might give a better performance according to the critics). I would be surprised if such service industries do not arise. Could they "absorb many workers displaced from agricultural or manufacturing work? That I do not know, but then again, neither does Rifkin. Rifkin's inability to project his categorical schema either into the past or into the future reveals an even deeper problem: his

the past or into the future reveals an even deeper problem: his inability to explain adequately why technological change takes place in the first place. At the beginning of The End of Work Rifkin rejects what he calls "the trickle-down-technology argument", i.e. The End of Work?

greater control over the means of production by substituting capital equipment for workers wherever and whenever possible ... Marx predicted that the increasing automation of production would eventually eliminate the worker altogether. The German philosopher looked ahead to what he euphemistically referred to as the "last ... metamorphosis of labor," when "an automatic system of machinery" finally replaced human beings in the economic process ... Marx believed that the ongoing effort by producers to continue to replace human labor with machines would prove selfdefeating in the end[as] there would be fewer and fewer consumers with sufficient purchasing power to buy their products (Rifhn 1995: 16-17). This use of Marx is part of a new and widely noted trend among social

policy analysts on the U.S. Left, broadly considered. But this revival of Marx's thought is often as selective as is the use of Smith and Ricardo on the Right.(2) In Rifkin's case, he definitely gets the broad sweep of Marx's views on technology right, but with some notable omissions.

The first omission is of workers' struggles for higher wages, for reduced work, for better conditions of work, and for a form of life that absolutely refuses forced labor. These struggles are the prime reasons why capitalists are so interested introducing machinery as weapons in the class war. If workers were docile "factors of production," the urgency for technological change would be much reduced. The second omission is Marx's Ricardlan recognition that every worker permanently replaced by a machine reduces the total surplus value (and hence the total profit) available to the capitalist class as a whole. Since the capitalist class depends upon profits, technological chang"e can be as dane"e rous to it a s to the workers. Hence the capitalist class faces a permanent contradiction it must finesse: (a) the desire to eliminate recalcitrant, demanhng workers from production and (b) the desire to exploit the largest mass of workers possible. Marx comments on this eternal tension in Theories of Surplus Value: The one tendency throws the labourers on to the streets and makes a part of the population redundant, and the other absorbs them again and extends wage-slavery

absolutely, so that the lot of the worker is always fluctuating but he never escapes from Common Sense No 24

it. The worker, therefore, justifiably regards the development of the productive power of his own labour as hostile to himself; the capitalist, on the other hand, always treats him as an element to be eliminated from production (Marx 1977: 409)

Capital's problem with technological change is not the loss of consumers, but the loss of profits.

Marx's most developed discussion of this insight is to be found in Part III of Capital III: "The Law of the Falling Tendency of the Rate of Profit." There he recognizes that a tendency towards the tobal replacement of humans by an "automatic system of machinery" must continually be met by "counteracting causes" or else the average rate of profit will actually fall. These counteracting causes either increase the mass of surplus value (e.g., raising the intensity and duration of the working day), or decrease the mass of variable capital (e.g, depressing wages below their value, expanding foreign trade), or decrease the mass of constant capital (e.g., increasing the productivity of labor in the capital goods industry, expand foreign trade) or some combination or these dsjunctive possibilities (Marx 1909: 272-282). Contemporary US capitalism appears to be applying the maximal synthesis of these counteracting causes while the European capitals are being more selective. There is no inevitable capitalist strategy in the drive to overcome workers' struggles and prevent a dramatic decline in the rate of profit. These struggles can lead to many futures from the reintroduction of slavery, to a dramatic increase in the workday, to the negotiated reduction of the waged workday, to the end of capitalism depending on the class forces in the field.

But there is one outcome that definitely cannot be included in the menu of possible futures as long as capitalism is viable: Rifkin's vision of "the high-tech revolution lead[ing] to the realization of the age-old utopian dream of substituting machines for human labor, finally freeing humanity to journey into a post-market era" (Rifkin 1995: 56). For capitalism requires profit, interest and rent which can only be created by a huge mass of surplus labor, but the total replacement of human work by machines would mean the end of profit, interest and rent. Although Rifkin seems to agree with much of Marx's analysis of the dynamics of capitalism, Marx's fatal conclusion is carefully kept out of the sanguine scenario presented at the last part of his book. Riflun lays out a future that would combine a drastic reduction in the workday along with a "new social contract" that would provide financial incentives (from "social" or "shadow" wages to tax benefits) for worlung in "the third sector" the independent, "non-profit" or volunteer sector between "the public and private" sectors. This sector can become the "service industry" of the 21st century, since it "offers the only viable means for constructively channelling the surplus labor The End of Work?

cast off by the global market" (Rifkin 1995: 292). That is, it absorbs workers who do not produce surplus value, and provides them with a

wage for non-surplus-value creating work.

In other words, Rifkin's vision of the "safe haven" for humanity is a form of capitalism where most workers are not producing profits, interest or rent. He contrasts this vision with a future where "civilization ... continue[s] to disintegrate into a state of increasing destitution and lawlessness from which there may be no easy return" (Rifkin 1995: 291). But how viable is Rifkin's social Chimera with its techno-capitalist head, its ample, woolly third-sector body, and its tiny surplus-value producing tail? There are proportions that must be respected even when dealing with futuristic Chimeras, and Rifkin's cannot exist simply because the head, however technologically sophisticated, cannot be nourished by such a tiny tad. The capitalism resulting from Riflun's "new social contract" is impossible, for it is by definition a capitalism without profits, interest and rents. Why would capitalists agree to such a deal after they trumpeted throughout the Cold War that they would rather blow up half the planet than give up a tenth of their income?

This "impossibility proof is so obvious that one can not help but ask why Rifkin invoked Marx so directly at the beginning of The End of Work only to completely exorcise him at the end? Is he avoihng reference to the unpleasantness of world war, revolution and nuclear annihilation that his earlier reflections stirred up? Is he trying to coax, with veiled Marxian threats, the techno-capitdst class into an act of suicide camouflaeed as a new lease on life?

Answers to sLch questions would require a political analysis of the type of rhetoric Rihn and his circle employ. I forgo this effort. But it is worth pointing out that Rifkin's chimerical strategy is not totally mistaken. After all, he is looking for a new sector for the expansion of capitalist relations. He is mistaken in choosing the "non-profit," volunteer sector, for if this sector is truly "non-profit" and voluntary, it cannot be a serious basis for a new sector of employment in a capitalist society. (And there is no way to get out of capitalism via a massive fraud, however tempting that might be).

But Riflun's intuition is correct. For the Manifold of Work extends far beyond the dmension of formal waged work and this non-waged work does produce surplus value in abundance. If it is more directly and efficiently exploited, this work can become the source of an new area of surplus-value creating employment through the expansion of forced labor, the extension of drect capitalist relations into the region of labor reproduction and finally the potentiation of micro- and criminal enterprises. That is why l'neoliberalism," "neo-slavery," "Grameenism," and the "drug war" are the more appropriate shibboleths of the Third Industrial Revolution rather than the "nonprofit" third sector touted by Rifkin, for they can activate the "counteracting causes I' to the precipitous decline in the rate of profit 29 Common Sense No 24

that computerization, robotization and genetic engineering provoke Negri and The End of the Law of Value

Rifkin can. perhaps, be indulged in his half-baked use of Alarx's thought. After all, he did not come out of the Marxist tradition and his previous references to Marx's work were few and largely in passing. But the themes Rifkin so clearly presented in The End of I,I'ork can be found in a number of Marxist, Post-Marxist, and Post-modern Marxist writers, often in much more obscure and sibylline versions. One of the primary figures in this area is Antonio Negri who developed arguments supporting conclusions very similar to Rifkin's in the 1970s, but without the latt,erls "Marxist" naivet6. His The Labors of Dionysius (with Michael Hardt) which was published in 1994 continued a discourse definitively begun in Marx Beyond Marx (Negri 1991, originally published in 1979) and continued in Communists Like Us (Guattari and Negri 1990, originally published in 1985).(3) In this section I will show how Negri's more sophisticated and hlarxiste analysis of contemporary capitalism is as problematic as Rifkin's. It is hard to discern Negri's similarity to Rifkin, simply

because Negri's work is rigorously anti-empirical - rarely does a fact or factoid float through his prose - while Rifkin's **The** End of Ilbrk is replete with statistics and journalistic set pieces on high-tech. Negri does not deign to write plainly of an era of "the end of work." He expresses an equivalent proposition, however, in his theoretical rejection of the classical Labor Theory or Law of Value with hypostasized verbs. In the late 20th century, according to Negri, the Law is "completely bankrupt" (Hardt and Negri 1994: 10) or it "no longer operates" (Guattari and Negri 1990: 21) or "the Law of Value dies" (Neeri 1991: 172). ."

This is equivalent to Rifkin's more empirical claims, but the equivalence can only be established after a vertiginous theoretical reduction. Negri's version of the classic labor theory of value h a s a s its "principal task ... the investigation of the social and economic laws that govern the deployment of labor-power among the hfferent sectors of social production and thus to bring to light the capitalist processes of valorization" (Hardt and Negri 1994: g), or it is "an expression of the relation between concrete labor and amounts of money needed to secure an existence" (Guattari and Neeri 1990: 21) or it is a measure of . "the determinate proportionality between necessary labor and surplus labor" (Negri 1991: 172). The Law of Value was alive in the 19th century, but just like Nietzsche's God, it began to die then. It took a bit longer for the Law to be formally issued a death certificate, however. The bankruptcy, inoperativeness, and death of the Law of Value simply mean that the fundamental variables of capitalist life - profits, interest, rents, wages, and prices - are no longer determined by laborThe End of Work? 30

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The development of "automatic processes" in genetic engineering, computer programming and robotization since the 1960s have 31 Common Sense No 24

convinced both Negri and Rifkin that the dominant features of contemporary capitalism are matched point-for-point by Marx's vision in 1857-1858. The major difference between Negri's work and Rifkin's The End of Work is that while Rifkin emphasizes the consequences of these "automatic processes" for the unemployment of masses of workers, Negri emphasizes the new workers that are centrally involved in "the intelligence of society" and "social labor." Whereas Rifkin argues that these new "knowledge workers" (e.g., research scientists, design engineers, software analysts, financial and tax consultants, architects,

marketing specialists, film producers and editors, lawyers, investment bankers) can never be a numerically large sector and hence are no solution to the problems created by this phase of capitalist development, Negri takes them as the key to the transformation to communism beyond "real socialism." It is important to note a terminological difference between Negri and Rifkin. This is because Negri has over the years termed Rifkin's "knowledge workers" first in the 1970s to be "social workers," and later in the 1990s he baptized them as "cyborgs" a la Donna Haraway (Haraway 199 1: 149- 18 1). Although singularly infelicitous in its English translation, the term "social worker" directly comes out of the pages of the Gmndrisse. When looking for a descriptive phrase that would contrast the new workers in the "information and knowledge sector" to the "mass workers" of assembly line era, many of Marx's sentences e.g., "In this transformation, what appears as the mainstay of production and wealth is neither the immediate labour performed by the worker, nor the time that he works-but the appropriation of man by his own general productive force, his understanding of nature and the mastery of it: in a word, the development of the social individuar' (Manr 1977: 380) deeply influenced Negri. The social worker is the subject of "techno-scientific labor" and he/she steps out of the pages of the Grundisse as a late 20th century cyborg, i.e., "a hybrid of machine and organism that continually crosses the boundaries between material and immaterial labor" (Hardt and Negri 1994: 280,1). (4) The old mass worker's labor-time on the assembly line was roughly correlated to (exchange-value and use-value) productivity and he/she was alienated from the factory system; the social cyborg's labor-time is independent of its productivity but it is thoroughly integrated into the terrain of production. Rifkin sees the "knowledge class" of "symbolic analysts" as fundamentally identified with capital and explains the new interest in intellectual property rights as a sign that the elite capitalists have recognized the importance of the knowledge class and are willing to share their wealth with it. Knowledge workers are "fast

rather different reading of this class's present and future. The The End of Work? existence of social cyborgs not only is evidence that the dialectic of capitalist development has been "broken," according to Negri, but capital simply cannot "buy it out," because "the social worker has begun to produCe a subjectivity that one can no longer grasp in the terms of capitalist development understood as an accomplished dialectical movement" (Hardt and Negri 1994: 282) In other words, techno-scientific labor cannot be controlled by capital via its system of wages and work discipline rounded out with the promise of entrance into the top levels of managerial, financial and political power for the "best." Not only is the social working cyborg beyond the bounds of capital's time honored techniques of control, it is also in the vanguard of the communist revolution. Why? Let us first hear and then interpret Negri's words: Cooperation, or the association of [cyborg] producers, is posed independently of the organization capacity of capital; the cooperation and subjectivity of labor have found a point of contact outside of the machinations of capital. Capital becomes merely an apparatus of capture, a phantasm, an idol. Around it move radically autonomous processes of selfvalorization that not only constitute an alternative basis of potential development but also actually represent a new constituent foundation (Hardt and Negri 1994: 282)

becoming the new aristocracy" (Rifkin 1995: 175). Negri has a

Negri claims that the cyborg workers have escaped capital's gravitational field into a region where their work and life is actually producing the fundamental social and productive relations appropriate to a communism. These relations are characterized by "self-valorization" i.e., instead of determining the value of labor power and work on the basis of its exchange value for the capitalist, the workers value their labor power for its capacity to determine their autonomous develo~ment and self-valorization arises when techno-scientific labor becomes paradigmatic (Negri

1991: 162-163) (Caffentzis 1987). In effect, Negri's notion of "selfvalorization" is similar to the "class for itself" or "class consciousness" of more traditional Marxism; but self-valorization

distinguishes the cyborg from the politics of the mass worker and marks the arrival of the true communist revolution ironically percolating in the World Wide Net rather than in the (old and new) haunts of the mass workers, peasants and ghetto dwellers of the planet.

The clash between Negri's picture of the anti-capitalist cyborg Common Sense **.WO** 24

and Rifkin's image of the pro-capitalist knowledge worker can make for an inviting theme. But just as Rifkin's knowledge worker (as the last profit-making employee) is built upon a faulty conception of capitalist development, so too is Negri's cyborg. Consequently, it is more useful to consider and critique the common basis of both these views. Negri bases his version of "the social worker" on Marx's Grundrisse just as Rifkin does for his knowledge worker, but we should remember that the "Fragment on Machines" was not Marx's last word on machines in a capitalist society. Marx continued work for another decade and filled Volumes I, 11, and I11 of Capital with new observations. This is not the place to review these developments in depth. It should be pointed out that in Volume I Marx recognized not only the great powers machinery threw into the production process; he also emphasized machines' lack of value creativity analogous to the thermodynamical limits on availability of work in a given enerw field (Caffentzis 1997). Even more crucial for our project is the part of Capital mwhere Marx revisited the terrain of the "Fragment on Machines." In these passages he recognized that in any era where capitalism approaches the stage of "automatic processes," the system as a whole must face a dramatic acceleration of the tendency for rate of profit to fall. He asked, "How is it that this fall is not greater and more rapid?" His answer was that there are built-in processes in capitalist activity that resist this tendency and therefore the system's technological finale.

These are to be found directly in Capital D, Chapter XIV on "counteracting causes" and indirectly in Part I1 on the formation of the average rate of profit. I mentioned the critical consequences of "counteracting causes" in my discussion of Rifkin, and they apply to Negri as well. Negri imperiously denies "the social and economic laws that govern the deployment of labor-power among the different sectors of social production" and rejects the view that labor-time is crucial to "the capitalist processes of valorization." But capital and capitalists are still devoutly interested in both. That is why there is such a drive to send capital to low waged areas and why there is so much resistance to the reduction of the waged work day. For the computerization and robotization of factories and offices in Western Europe, North America and Japan has been accompanied by a process of "globalization" and "new enclosures". Capitalists have been fghting as fiercely to have the right to put assembly zones and brothels in the least mechanized parts of the world as to have the right to patent life forms. Instead of a decline, there has been a great expansion of factory production throughout many regions of the planet. Indeed, much of the profit of global corporations and much of the interest received by international banks has been created out of this low-tech, factory and sexual work (Federici 1998). In order to get workers for these The End of Work? 34

factories and brothels, a vast new enclosure has been taking place throughout Africa. Asia and the Americas. The very capital that owns "the ethereal information machines which supplant industrial production" is also involved in the enclosure of lands throughout the planet, provoking famine, disease, low-intensity war and collective misery in the process (Caffentzis 1990 and 1995). Why is capital worried about communal land tenure in Africa, for example, if the true source of productivity is to be found in the cyborgs of the planet? One answer is simply that these factories, lands, and brothels in the Third World are locales of "the counteracting causes" to the tendency of the falling rate of profit. They increase the total pool of surplus labor, help depress wages, cheapen the elements of constant capital, and tremendously expand the labor market and make possible the development of high-tech industries which directly employ only a few knowledge workers or cyborgs. But another complementary answer can be

gleaned from Part II of Capital Q: "Conversion of Profit into Average Profit," which shows the existence of a sort of capitalist selfvaluation. In order for there to be an average rate of profit throughout the capitalist system, branches of industry that employ very little labor but a lot of machinery must be able to have the right to call on the pool of value that high-labor, low-tech branches create. If there were no such branches or no such right, then the average rate of profit would be so low in the high-tech, low-labor industries that all investment would stop and the system would terminate. Consequently, "new enclosures" in the countryside must accompany the rise of "automatic processes" in industry, the computer requires the sweat shop, and the cyborg's existence is premised on the slave.

Negri is correct in connecting the rise of the new workers in the high-tech fields with self-valuation, but it has more to do with capitalist self-valuation i.e., the right of "dead labor" to demand a proportionate share of "living labor" rather than workers' selfvaluation. Indeed, capital's self-valuation is premised on the planetary proletariat's degradation.

One can easily dismiss Negri's analysis as being profoundly Eurocentric in its neglect of the value-creating labor of billions of people on the planet. Indeed he is Eurocentric in a rather archaic way. He would do well, at least, to look to the new global capitalist multiculturalism and the ideologies it has spawned (Federici 1995), instead of to the rather small circle of postmodern thinkers that constitute his immediate horizon, in order to begin to appreciate the class struggles of today, even from a capitalist perspective. But the charge of Eurocentricism is a bit too general. What can better account for Negri's methodological oblivion of the planetary proletariat is his adherence to one of the axioms of Marxist -Leninism - that the revolutionary subject in any era is synthesized Comnlon Sense No 24

from the most "productiye" elements of the class. It is true that Negri has nothing but scorn for the metaphysics of dialectical materialism and for the history of "real socialism" but on the choice of the revolutionary subject he is Leninist to the core. Negri makes so much of computer programmers and their ilk because of their purported productivity. Since the General Intelligence is productive, then these intellectual workers are its' ideal (and hence revolutionary) representatives, even though they have not yet launched a concrete struggle against capitalist accumulation qua "social workers" or "cyborgs."

But this methodological identity between revolution and production has proven false time and again in history. Leninists and Leninist parties in the past have often paid for this mistake with their lives. Mao's political development clearly shows that it took the massacre of communist workers in the cities and many near mortal experiences in the countryside before he recognized that the Taoist principle - the seemingly weakest and least productive can be the most powerful in a struggle - was more accurate than the Leninist. Negri's choice of revolutionary subject in this period, the masters of the ethereal machines, is as questionable as the industrial worker bias of Leninists in the past. Indeed, the failure of The Labor of Dionysius, which was published in the US in 1994 to address the revolutionary struggles of the indigenous peoples of the planet, especially the Zapatistas in Mexico, is a definite sign that Negri's revolutionary geography needs expansion.

Conclusion

Negri and Rifkin are major participants in the "end of work" discourse of the 1990s, although they occupy two ends of the rhetorical spectrum. Rifkin is empirical and pessimistic in his assessment of the "end of work while Negri is aprioristic and optimistic. However, both seem to invoke technological determinism by claiming that there is only one way for capitalism to develop. They, and most others who operate this discourse, forget that capitalism is constrained (and protected) by proportionalities and contradictory tendencies. The system is not going to go out of business through the simple-minded addition of more high-tech machines, techniques, and workers come what may, for Marx's ironic dictum: "The real barrier of capitalist production is capital itself (Marx 1909: 293), is truer than ever. It might be an old and miserable truth, but still to this day profit, interest, wages and labor in certain proportions are particular, but

necessary conditions for the existence of capitalism. Capital cannot will itself into oblivion, but neither can it be tricked or cursed out of The End of Work? existence

Rifkin tries to trick the system into believing that a viable way out of the unemployment crises he foresees is to abandon profit creating sectors of the economy. He reassuringly says that all will be well if the capitalists are in control of automated agriculture, manufacturing, and service industries and nearly everyone else is working in a non-profit third sector which makes no claim on hegemony. But this scenario could hardly pass the eagle eyes of the capitalist press much less those of the boardroom without ridicule. So it cannot succeed.

Negri tries philosophical cursing instead. He calls late 20th century capitalism "merely an apparatus of capture, a phantasm, an idol" ontologically (Hardt and Negri 1994: 282). I appreciate Negri's desire to put a .curse on this system of decimation, humiliation and misery, but I question his "merely." As the highest organs of capitalist intelligence (like the Ford Foundation) have shown, capital is as impervious to these ontological curses as the conquistadors were to the theological curses of the Aztec priests. Indeed, capital revels in its phantom-like character. Its main concern is with the dumtion of the phantasm, not its ontological status.

The "end of work literature of the 1990s, therefore, is not only theoretically and empirically disconfied. It also creates a failed politics because it ultimately tries to convince both friend and foe that, behind everyone's back, capitalism has ended. It motto is not the Third International's "Don't worry, capital will collapse by itself sooner or later," rather it is, "Capitalism has always already ended at the high-tech end of the system, just wake up to it." But such an anti-capitalist version of Nietzsche's motto "God is dead is hardly inspiring when millions are still being slaughtered in the many names of both God and Capital.

Notes

(1) This "perverse" definition is reminiscent of Cantor's diagonal method that has proven so fruitful in mathematical research in this century. The trick of this method is to assume that there is a list that exhausts all items of a particular class K and then to define a member of K that is not on the list by using special properties of the list itself.

(2) For example, in much of the current discussion of free trade, a low wage level is considered by many to be a Ricardian "comparative advantage." But such a reading is a distortion of Ricardo's views and an invitation to justify repressing workers' struggles. The sources of comparative advantage for Ricardo are quasi-permanent features of the physical and cultural

environment of a country, not economic variables like wages, profits or rents. (3) This is not the place to discuss Negri political and juridical life since the 37 Common Sense No 24

1970s. For more of this see Yann Moulier's Introduction to The Politics of Subversion (Negri 1989). He voluntarily returned to from exile in France in July 1997 and is now in Rabbi Prison (Rome). There is an international campaign demanding his release.

(4) Negri often describes the work of the social worker cyborg as "immaterial." But an analysis of Turing machine theory shows that there is no fundamental difference between what is standardly called material labor (e.g., weaving or digging) and immaterial labor (e.g., constructing a software program). Consequently, one must look to other aspects of the labor situation to locate its value creating properties (Mentzis 1997). Bibliography

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