CLASS CONSCIOUSNESS AND THE INFORMATION SOCIETY

by

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ABSTRACT

The dominant productive forces of any given epoch generally determine the economic, political and social structures which give shape to society. In the developed nations of the western capitalist world, the organization of society around industrial manufacturing is rapidly giving way to a social organization based on the production, dissemination and consumption of information and its related technologies. The transition to an Information Society is occurring primarily within the confines of the capitalist economies of the west, particularly North America. Consequently, questions regarding the nature and significance of both class relations and class analysis still pertain in the Information Society.

This thesis explores the relationship between class consciousness and the information society, from theoretical, political and sociological perspectives. The examination of class consciousness in the information society achieves a number of objectives. Initially it allows for a theoretical examination of the concepts of both class consciousness and the information society. Secondly, it seeks to highlight significant attributes of the information society, particularly those concerning the changing nature of class dynamics and the potential for the formation of class consciousness. Leading from this, one is able to assess the analytical value of the concept of class consciousness in light of the emerging class dynamics of the information

society. Finally, on the basis of this assessment, I offer exploratory suggestions regarding possible adjustments in class analysis which would make it more sensitive to the nature of class conflict in the information society.

The thesis begins with a conceptual history of the information society, followed by a theoretical examination of the concept of class consciousness. The third chapter examines the changing nature of class dynamics in the information society, and new factors which may have an effect on the formation of working class consciousness. The final chapter briefly highlights some possible theoretical directions which may lead to a more sensitive and fruitful class analysis of the information society. The thesis concludes that while the information society represents a definite continuation of capitalist class society, many elements of its operation severely mitigate against the formation of class consciousness as presented by traditional Marxist theory. This realization reveals weaknesses in the utility of the concept of class consciousness, and necessitates new directions and investigations.

DEDICATION

The following is dedicated to the memory of George and Lena Pelat. It is the legacy of hard work left by Baba and Gido which inspired the completion of this thesis.

"First the hunter, then the miner of the soil; next the mechanical industrialist and now the information engineer."

- Marshall McLuhan

"Tomorrow's struggle will not be a repetition or even a modernization of yesterday's."

- Alain Touraine

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PREFACE

The Information Society, like the majority of those which preceded it, is unfortunately infected with male-dominated language and speech patterns. *Words can make women disappear.* Every effort has been made to purge this text of sexist language. Gender-specific references in original quotations have been left intact. I would encourage readers of this thesis to take up their pencils and "correct" any sexist references which I may have overlooked, if only for the benefit of subsequent readers.

- Darin David Barney

Introduction

Writing in 1969, Marshall McLuhan observed: "Today we live invested with an electronic information environment that is quite as imperceptible to us as water is to a fish." The following thesis is an attempt to increase this level of perception, through an analysis of class consciousness and the information society. Although not uncontested, the concept of the "information society" is one which is rapidly gaining currency. Some have argued that all societies, from Babylon to the present, have been shaped by the production and distribution of knowledge (Innis, 1972, pps.1-11). While this assertion may be a little bold, it is safe to say that the major forces of production and consumption, including knowledge, have historically had a determining influence on the nature of political, social and cultural relations of any given society.

For instance, the industrial revolution of the eighteenth and nineteenth centuries consisted of a series of fundamental technical changes in the production and distribution of goods, accompanied by wide ranging social and cultural changes (Kranzberg, 1989, p.21). In the current era, industrial manufacturing is being replaced as the primary economic activity in the advanced capitalist world, by the production, distribution and consumption of information and its related services and technologies. Just

as water and steam powered machines spawned the factory revolution of the industrial age, now the computer is at the center of the telecommunications explosion within the information society.

For some, the coming of the information society represents the final achievement of the good life. Many contend that the proliferation of information technology will provide for a better informed citizenry, an invigorated participatory political process, increased wealth as a result of more efficient production processes and an elimination of human drudgery (Martin , 1978, p.15). One Japanese scholar has even heralded the arrival of a new "Computopia", which he defines as:

> Computer Utopia, an ideal global society in which multi-centered, multi-layered voluntary communities of citizens participating voluntarily in shared goals and ideas flourish simultaneously throughout the world (Masuda, 1980, p.159).

Masuda assumes that this Computopia will be devoid of the hierarchical class structure which characterized industrial capitalism, as each individual will have the ability to "...[paint] one's own design on the canvas of the future" (Masuda, 1980, pps.32, 148).

However, a more critical approach to these same developments has led to a re-examination of the nature of relationships of power and socio-economic class in the

information society, as well as of the ability of traditional Marxist analysis to continue to address these issues (Lyon, 1988, pps.43-44). Critics of the belief that the coming of the information society represents a "revolution" question whether it has involved a significant shift in the locus of power, the nature of the ideals it purports to adhere to, and its potential for facilitating a re-alignment in the power relations of social classes (Winner, 1989, p.84).

This thesis is situated within this critical context. The information society under study is primarily limited to the advanced capitalist economies of the western world, particularly North America, and I generally use the United States as the most advanced example of an existing information society. In exploring the nature of class relations, and the significance of class analysis in the information society, this thesis achieves a number of objectives. The first is a theoretical examination of both the concepts of the information society and class consciousness. It also highlights those aspects of the information society which most directly concern the changing nature of class dynamics and the potential formation of class consciousness. Further, the thesis critically assesses the analytical value of the concept of class consciousness in respect to the emerging class dynamics of the information society. Finally, on the basis of this assessment, I briefly

explore potential paths to a more fruitful analysis of the prevailing structures of power and consciousness in the information society.

The thesis begins with a conceptual history of the information society thesis, which involves a consideration of post-industrialism and its precursors, the information society thesis itself, as well as those who feel that the information society is a myth. The second chapter offers a theoretical examination of the concept of class consciousness within the Marxist tradition. Following this, Chapter III discusses the changing nature of class dynamics in the information society, paying particular attention to those factors which bear on the potential formation of working-class consciousness. At this point, I argue that while the information society is still a capitalist class society, prevailing conditions severely limit the potential for the formation of working-class consciousness in a traditional Marxist sense.

Chapter IV then explores various attempts to provide a more complete understanding of the character of power relations and social conflict in the information society. I find that various positions which continue to place the burden of social change on the working-class, even in a conceptually altered form, still suffer from the same essentialist limitations as traditional Marxism. This

highlights the need to displace economic class from its central position in the analysis of social and political consciousness in the information society. The thesis concludes that the post-Marxist analysis offered by Ernest Laclau and Chantal Mouffe, with their emphasis on new social movements, provides the firmest foundation for both the analysis and development of progressive consciousness in the information society.

Chapter I: The Information Society - A Conceptual History

It is often said that technological innovation is one of the principal forces of social and economic change. The advent of the factory steam-mill, in this view, stimulated the transition from an agrarian society to an industrial one. Today many claim that the convergence of people's need to communicate with one another and computer technology under the rubric of telecommunications is stimulating a momentous shift in the economic and social organization in the western, industrialized capitalist world. The professed shift is from an industrial society to what has come to be known as the Information Society.

Proponents of the information society thesis generally agree that information itself has taken on a position of greater importance in highly industrialized societies, and that the information sector (though difficult to define) plays a central role in the economy. They further believe that the most influential element in these societies is information technology - telecommunications and computers (Steinfield & Salvaggio, 1989, pps.2-3). However, the concept of the information society is not without its own intellectual lineage, or its detractors.

This chapter will explore the development of the information society thesis, by examining the conceptual

predecessor of the information society, the theory of post-industrialism, both liberal and critical, and their forerunners. Following that, the intellectual genesis of the idea of the information society will be detailed. The information society thesis will then be discussed in its various forms as will the body of literature challenging the validity of the information society concept. It will be concluded that while these critics and their challenges are significant, they serve more to illustrate some of the flaws of the information society as it actually exists or operates, than to effectively impugn the integrity of the information society thesis itself.

The Forerunners of Post-industrialism

Previous to the assembling of theories of advanced capitalism under the rubric of "post-industrialism", serious minds began to turn towards the investigation of the rapidly changing post-War western world. Some of these investigations were philosophical in nature, others empirical. This section will examine thinkers who represent both these approaches, and show how in their exploration of themes such as technology and knowledge they laid the groundwork for what was to become the theory of the post-industrial society.

Jacques Ellul and Technique

Jacques Ellul begins his book, The Technological Society, with the contentious claim that "Capitalism did not create our world, the machine did" (Ellul, 1954, p.5). Indeed, as the volume's translator explains, Ellul spends a great deal of energy describing how technology is in the process of gaining an autonomous existence, and in so doing usurping the role played by traditional cultural values (Ellul, 1954, p.x). The result is a monolithic world culture which is shaped only by the perpetual drive to perfect what Ellul calls "technique".

Ellul defined technique as "...the *totality of methods rationally arrived at and having absolute efficiency* in *every* field of human activity" (Ellul, 1954, p.xxv). Ellul believed that technique was the most important fact of life in the modern world, and that it reigned in all spheres of human activity. Even science itself had become a mere instrument of technique (Ellul, 1954, pps. 9-10). Technique, according to him, had become not only autonomous, but also prior to society insofar as it created a world which was susceptible to the order of the machine. As technique absorbed human beings, it ceased being external to people and became their very substance (Ellul, 1954. pps.5-6).

Ellul explains how the dictates of technique are comprehensively applied to society:

> The two-fold intervention of reason and consciousness in the technical world, which produces the technical phenomenon can be described as the quest of the one best means in every field. And this "one best means" is, in fact, the technical means. It is the aggregate of these means that produces technical civilization (Ellul, 1954, p.21).

Thus, in producing a world which combines technocratic social organization and the scientific management popularized by Frederick Taylor, technique emerges as a self-perpetuating, self-fulfilling entity. Ellul feels that technique has led to an unprecedented unity of civilization, insensitive to the idiosyncracies of geography, culture and tradition (Ellul, 1954, p.78).

It should be noted that Ellul did not relish the advent of the technological society, for in it he saw the potential elimination of individual thought and will (Ellul, 1954, p.418). Furthermore, Ellul saw that technique, designed as a buffer between humanity and nature, has evolved autonomously to the point where human passion has been relegated to obsolescence, and people have been wholly removed from their natural framework (Ellul, 1954, pps. 428-429). In the technological society "...the strains of human passion will be lost amid the chromium gleam. We shall have nothing more to lose, and nothing to win" (Ellul, 1954, p.427).

Marshall McLuhan and The Global Village

In a somewhat less sombre fashion, the pioneering communications scholar Marshall McLuhan discussed themes similar to those which Ellul identified as predominant features of the post-war world. McLuhan believed that the transition from a mechanized to a technological world is representative of the final phase of the extension of humankind. That is, the ability of technology to simulate and communicate human consciousness has facilitated the collective and corporate extension of the process of knowing to the whole of society (McLuhan, 1964, p.19).

According to McLuhan, this "extension" precipitates an entirely new scale for human affairs (McLuhan, 1964, p.23). It is the discovery of this new scale that leads Mcluhan to his now-famous contention that "the medium is the message":

> ...the message of any medium or technology is the change or scale of pattern that it introduces into human affairs..."the medium is the message" because it is the medium that shapes and controls the scale and form of human association and action (McLuhan, 1964, p.24).

Thus, the effects of technology are felt most acutely in terms of their alteration of sense ratios and patterns of perception and cognition. As technological media become the staples of the western economies, they have a distinct and lasting impact on the psyche of both individuals and the community (McLuhan, 1964, pps.33-35). Human beings, argues

McLuhan, see themselves becoming increasingly translated into the form of information (McLuhan, 1964, p.64).

This translation facilitates a further development identified by McLuhan: the emergence of the Global Village. According to McLuhan: "...our current translation into the spiritual form of information seem[s] to make of the entire globe, and of the human family, a single consciousness" (McLuhan, 1964, p.67). McLuhan's vision of the Global village is one of highly decentralized social structures where human beings are electronically thrust back to the life of the tribe, and where media produce values and appetites which resemble those found in pre-literate cultures. While McLuhan's work has been condemned as being far too eclectic to merit serious attention, the concept of the Global Village remains as a perceptive foreshadow of concerns which would give shape to subsequent debates concerning the information society.[1]

Fritz Machlup and the Knowledge Economy

While philosophers such as Ellul and McLuhan were hard at work attempting to elucidate the *potential* social and existential implications of mass technology, social scientists such as Fritz Machlup were struggling to develop means to measure the *actual* economic conditions prevalent in western societies which were increasingly embracing technology-related activity as their primary livelihood.

Machlup determined that the essence of these activities could best be expressed as the production and distribution of knowledge, and so embarked on a study of these processes in the United States (Machlup, 1962).

Machlup defined the production of knowledge as discovering, inventing, designing, planning, disseminating and communicating information. He then developed a classification of thirty industries centered around the production and distribution of knowledge, and grouped them into five major categories: education; research and development; communications media; information machines; and information services. He then calculated the portion of U.S. gross national product accounted for by these industries, and concluded that America was definitely becoming a knowledge-based economy.[2]

In relation to occupational structure, Machlup predicted certain repercussions as a result of the displacement of physical labour in a knowledge-based economy. Machlup foresaw a decline in the demand for physical labour (and a parallel increase in the demand for mental labour) as consumers' purchasing power would increasingly be directed towards goods produced by other types of labour. Consequently, Machlup predicted a change in the composition of the labour force which would reduce the share of occupations characterized by physical labour

(Machlup, 1962, p.378). According to Machlup: "...the changing employment pattern indicates a continuing movement from manual to mental, and from less to more highly trained labour" (Machlup, 1962, p.388). Machlup also raises the spectre of increasing unemployment amongst unskilled manual labour, while employment opportunities would improve for highly skilled knowledge-producing labour.

Machlup's was the first attempt to gauge the extent to which the development of information technologies were actually affecting the economic structure of at least one post-War western nation. Philosophers such as Ellul and McLuhan took up the task of speculating as to what the implications of such transformative trends might be for society as a whole. It was not until a few years later that scholars tried to combine these two endeavours.

The Liberal Post-Industrialists

By the end of the 1960s, it was becoming increasingly evident that what were once regarded as mere shifts in the operation of the western industrial economies were actually reaching convulsive proportions. The widespread re-orientation of these economies towards information and knowledge-related activities, it was believed, was producing profound social and political changes to the extent that it was no longer appropriate to label western capitalist society, particularly its American incarnation, as

"industrial society". However, because of the resilience of identifiably "industrial" phenomena, and the lack of a comprehensively descriptive designation of the new society, it was simply labelled as "post-industrial".

The conceptual significance of the shift from "technological society" and "knowledge economy" to "post-industrial society" should not be overlooked. While the former two isolated the domains of economy and society, the post-industrial thesis, in the tradition of political economy, attempts to synthesize these two areas. In so doing it tries to provide a more comprehensive account of the prevailing social, political, and economic milieu. This is not to say that all theorists of post-industrial society shared the same assessment of the qualitative character or dominant logic of developments in this area. What the banner of post-industrialism does represent, is a body of scholarship which believed that the late twentieth century was witnessing changes fundamental enough to herald a new, post-industrial, political, social and economic order.

This section will examine three thinkers who viewed these changes from what I will characterize as a benign, or liberal point of view. These include Peter Drucker, Zbigniew Brzezinski, and the father of post-industrialism, Daniel Bell.

Peter Drucker and the Age of Discontinuity

Writing in 1968, Peter Drucker observed that "While we have been busy finishing the great nineteenth-century economic edifice, the foundations have shifted under our feet" (Drucker, 1968, p.10). Drucker illustrates this shift through an exposition of what he calls the four major discontinuities of the late twentieth century. These are: the emergence of new technologies and their drastic effect on industrial activity; the emergence of a world economy; the rise of pluralism and managerialism; and the movement of knowledge to a central position in capitalist relations of production, with its accompanying effects on labour, education and politics (Drucker, 1968, pps.ix-xiii).

Drucker maintains that the development of new technologies has facilitated a waning in the supremacy of the three traditional stalwarts of the industrial economies, namely, agriculture, steelmaking, and automobiles. This is evidenced by their failure to continue to contribute to the dynamics of rising national incomes and increasing employment opportunities (Drucker, 1968, pps.12-24). In their place, Drucker predicts that the west can expect "...the rapid rise of major new industries based on major new technologies" (Drucker, 1968, p.24). These include, among others, the information industry and the manufacture of synthetic materials (Drucker, pps.24-38).

The emergence of a global economy, indifferent to national borders, is also a conspicuous feature of the post-industrial society as envisaged by Drucker.

> Today the whole world, whatever its actual economic condition - and whatever the political system in force in a given area - has one common demand schedule, one common set of economic values and preferences. The whole world, in other words, has become one economy in its expectations, in its responses and in its behaviour (Drucker, 1968, pps.79-80).

The basis for this world economy is a community of information which encourages people the world over to develop similar economic expectations, and gives rise to the need for economic institutions able to respond to this world economy (Drucker, 1968, pps. 80-101). Appropriate institutions are also needed to direct and reflect the new pluralism prevalent in the post-industrial society, which, according to Drucker, will make it possible to eliminate poverty through better social and economic management (Drucker, 1968, p.79).

The linchpin of these developments is the growing ascendancy of knowledge as the primary capital resource of post-industrial economies (Drucker, 1968, pps.39-40, 151).[3] Drucker maintains that this will have profound implications for labour, education and politics. In terms of labour, Drucker posits that with knowledge as the basis of skill, the range of occupational opportunities and choices available to individuals will broaden as knowledge work

tends to create an unlimited demand for itself (Drucker, 1968, pps.266-278). Education replaces experience as the basis of productive performance, and new policy frameworks must be developed to accommodate these new priorities. (Drucker, pps.40-41).

Zbigniew Brzezinski and the Technetronic Era

In his attempt to assert a dominant role for the United States in the changing post-industrial global economy[4], Zbigniew Brzezinski claims,

> The post-industrial society is becoming a "technetronic" society: a society that is shaped culturally, psychologically, socially and economically by the impact of technology and electronics - particularly in the area of computers and communications (Brzezinski, 1970, p.9).

Like Drucker before him, Brzezinski foresees that the most conspicuous element of post-industrial society will be the global nature of politics and the economy (Brzezinski, 1970, pps.3-8, 14).

In order to support this view, he also offers a series of contrasts between industrial and post-industrial, or technetronic, society which serves to illuminate a number of the key elements of the post-industrial thesis (Brzezinski, 1970, pps.10-14). Brzezinski asserts that while in the industrial era, the mode of production shifted from agriculture to industry, from human muscle to machines, technetronic society will witness a shift from industry to

services, from machines to automation and cybernetics. Unemployment, urbanization and the provision of minimum social welfare will cease to be the primary labour issues, as concern grows about the obsolescence of certain skills, leisure, and the psychic well-being of the workforce.

While the primary educational task of industrial society was to increase literacy and access to new opportunities, the emphasis of the technetronic age will be on advanced training and the "...rational exploitation of social talent" (Brzezinski, 1970, p.11). Political leadership in the technetronic era will be based on the possession of specialized skills and knowledge, as opposed to the urban plutocracy founded on wealth which characterized the industrial age. Further, whereas the university was once an "ivory tower" or elite repository, in the post-industrial society it becomes a "think-tank" used for political planning and social innovation.

Brzezinski foresaw the waning of the ideological approach to social problems, in favour of a pragmatic approach which replaces nominal equality and deferential politics with complete equality and participatory democracy. This would be facilitated primarily by expanded communication capabilities and the de-personalization of economic power in the technetronic era. The impetus behind these developments would be the complex interdependence

between government institutions, scientific establishments and industrial organizations (Brzezinski, 1970, p.13).

Finally, Brzezinski claims that while in the industrial society the forms of social attainment were the acquisition of goods and the accumulation of personal wealth, in the technetronic era, the adaptation of science to humane ends and a growing concern with the quality of life will become the "moral" imperative. It is precisely this kind of naked optimism which characterized the liberal or benign view of post-industrial society, and which made it the subject of subsequent criticism. However, before proceeding to discuss this critique, it is necessary to consider the contribution of Daniel Bell, perhaps the most important theorist of post-industrialism.

Daniel Bell and the Post-Industrial Society

In choosing the label "post-industrial" as opposed to "information" to designate the character of advanced western capitalism, Daniel Bell was indicating that any attempt to herald the new epoch was ambiguous at best, and should accordingly be approached with caution.[5] While Bell recognized that Western society was undergoing a vast historical change in terms of social relations, power structures and culture, he felt that the exact nature of the new social forms may not be so clear. Describing the new society as the still infant offspring of that which had

preceded it was the best way to intimate the somewhat chaotic, and as yet undefined, state of a society in transition; the hyphenated prefix "post-" implies a lingering relationship to industrial society (Bell, 1973, p.37).

Nevertheless, Bell did manage to make five generalizations which he felt expressed the definitive features of the post-industrial society (Bell, 1973, p.14). The first was that the economic sector was witnessing a dramatic shift from a goods producing to a service economy. Secondly, in terms of occupational distribution, the post-industrial society featured a decline in the number of blue collar workers, and the parallel rise of a professional and technical class. Thirdly, Bell identified the central organizational ethic, or what he terms the "axial principle" of the post-industrial society, as the centrality of theoretical knowledge as the source of innovation and policy formation for the society. Bell further speculated that the future orientation of governments and organizations in post-industrial society would be the control of technology and the increased use of technological assessment. Finally, Bell observed that in the post-industrial society, decision making would occur with the aid of new "intellectual technologies" which would allow for the better technocratic management of society.

Bell observed that in the North American economies in particular, the bulk of activity and the labour force were no longer located in agriculture or manufacturing, but rather were to be found in the service sector, which he defined broadly to include trade, finance, transport, health, recreation, research education and government (Bell, 1973, p.15). Bell produced figures which show that the service sector in North America employs the majority of the workforce, and is responsible for the highest percentage of the gross national product (Bell, 1973, pps.15-17). This led Bell to the conclusion that "A post-industrial society is based on services...what counts is not raw muscle power or energy, but information" (Bell, 1973, p.127). Not only is this a quantitative shift in terms of numbers employed, but also, according to Bell, a qualitative shift as most who work in the service sector are white-collar workers (Bell, 1973, pps.129-142).

This shift to white-collar work creates a situation wherein the technical or professional class ascends to a position of pre-eminence in the post-industrial society (Bell, 1973, p.80). This is certainly felt in terms of sheer numbers of people employed in the white collar sector compared to blue collar, as the growth in the need for management, scientists and engineers, coupled with the extension of state bureaucracy increases the demand for these types of occupations (Bell, 1973, pps.18, 99).

At a more philosophical level, Bell asserts that the escalating demands placed on social control and the direction of innovation cast theoretical knowledge as the primary strategic resource, or the axial principle of post-industrial society (Bell, 1973, pps.20, 26). Bell cites the phenomena of Keynesian economics and the rise of research and development as examples of this principle in operation (Bell, 1973, pps.23, 25). He even goes as far as to claim that theoretical knowledge will replace private property as the axial institution of post-industrial society (Bell, 1973, p.115). But even more important than this, says Bell, is the change in the character of knowledge itself, represented by the ascendancy of codified, abstract, *theoretical* knowledge over mere *empiricism*, and its translation to many and varied circumstances in the post-industrial environment (Bell, 1973, p.343).

This is not to say that there is no place for empirical investigation. On the contrary, Bell argues that the development of new modes of technological forecasting open up vast dimensions for the management of societal growth, and the control of technology itself (Bell, 1973, p.26). With such powerful tools, the management of the organized complexity becomes possible on increasingly sophisticated levels (Bell, 1973, p.28). According to Bell: "The goal of the new intellectual technology is, neither more nor less,

to realize a social alchemists dream: the dream of 'ordering' the mass society" (Bell, 1973, p.33). Thus, in the post-industrial society, the possibilities of logical, rational problem solving are greatly enhanced by the new consortium of theoretical sensitivity and technological precision (Bell, 1973, p.349).

Bell broke significant ground in his exhaustive attempt to combine empirical sociology with a more theoretical consideration of the nature and possible operation of the post-industrial society. However, his analysis is also infused with the same sense of overwhelming optimism that characterizes much of the benign or liberal view of these developments. Like Drucker and Brzezinski before him, Bell approaches the rise of post-industrial society with a curious mix of resignation and idealism, which in turn reveals a serious lack of critical examination of the possible negative effects of this social and economic shift. For instance, while Bell recognizes that the attempt to maintain equality of opportunity fairly within the new meritocracy "...will be one of the most vexing questions in a post-industrial society" (Bell, 1973, p.451), he, nevertheless, maintains an almost careless optimism regarding the possibilities of this achievement (Bell, 1973, pps.454-455). Indeed, it is this type of optimism which though not always explicitly stated, underlies much of the liberal or benign approach to post-industrial society. These

observers rather casually await the arrival of a more educated citizenry, the disappearance of inegalitarian economic stratification, increased democratic participation, a thriving global economy, a scientific community immune to ideology, and the trouble free technocratic management of public affairs, all ushered in by a wave of technological advance which lurches forward under its own unrestrained power.

Critical Post-Industrialism

The dawning of the post-industrial society was not greeted with such detached resignation or idealism in all corners of the academic world. Certain scholars questioned the widely-touted material and social improvements said to be inherent in the fledgling new order. What was contentious to these thinkers was not the *possibility* of advance - they generally recognized the potential for increased human satisfaction and liberation - but rather the belief that such possibilities would be a natural and necessary outcome of the leap forward into post-industrialism. The resulting critique centered around the question of the means by which this leap was being undertaken in the capitalist world, and the less than desirable consequences which were not only likely to accrue, but which were already in evidence.

These critical observers did not necessarily dispute the empirical indicators which suggested a transformation in

the material basis of society, but rather rejected the optimism with which this transformation was customarily viewed. This section will examine the ideas of two of the major early critics of post-industrial society, Alain Touraine and Herbert Marcuse.

Alain Touraine and the Programmed Society

Like the liberal theorists of post-industrial society, Alain Touraine recognized that the rational organization of technology was rapidly replacing the more traditional factors of production - land, labour and capital - as the governing force in capitalist economies. Touraine cited things like rationalized productivity, education, efficiency, and the organization of mass communications and authority systems as the principal harbingers of economic progress (Touraine, 1971, p.81). However, unlike the liberal theorists who maintained a benign view of these developments, Touraine wanted to subject them to an intense critical scrutiny.

Touraine was interested in the social and cultural changes implicit in what he described as the transition to a "programmed society" (Touraine, 1971, p.3). He felt that these changes could best be revealed through an examination of the changing dynamics of social conflict and power struggles, and the character of repression by the ruling elements of society. Touraine found that the most striking

attribute of the programmed society was that economic decisions and struggles no longer possessed either the centrality or autonomy they enjoyed in the earlier society which revolved squarely around the productive process alone (Touraine, 1971, pps.4-5).

Touraine argued that phenomena such as the massive diffusion of information and propaganda, and the potential for broader political participation made possible by technological advance meant that exclusively economic factors could no longer be maintained at the center of social organization (Touraine, 1971, p.5). This also meant that social conflict could no longer be defined and limited within the economic structure, as social and cultural factors were increasingly beginning to infringe on this relationship (Touraine, 1971, p.25).

Thus, the forms of social domination had expanded, in that exploitation was no longer purely autonomous in the economic realm, but also had social, cultural and political manifestations (Touraine, 1971, p.7). The control of vested economic interests was extended, as they were able to "...impose dependent participation on the members of society, not only for the general objective of growth, but for a particular kind of development directed by the corporations and by the exigencies of their power" (Touraine, 1971, p.25). Again, this was largely due to the

propensity of technology to obfuscate the distinction between the economic, cultural and political realms.

Touraine explains that the prevailing human condition in the programmed, post-industrial society was one of alienation, whereby individuals are forced by social, economic and political force to conform to the interests of the ruling class. In the programmed society, power masquerades as de-personalized rationality, responsive to the dictates of progress and change; society itself is identified with growth and enrichment, and individual lifestyles are made into materials to be fitted to this growth (Touraine, 1971, pps. 11,19). Unlike the liberal post-industrialists, this is a condition which Touraine regarded with grave reservation and concern.

Herbert Marcuse and the One Dimensional Society

As a member of the Frankfurt School, the birthplace of critical theory, Herbert Marcuse brought a very sophisticated critique to his analysis of the post-industrial society. Marcuse did not take issue with the belief that a shift was occurring in the economies of the capitalist world. Rather he took issue with the type of analysis which sees this revelation as an end in itself and, in so doing, ignores the serious (negative) social, psychological and political manifestations of this shift.

While most liberal theorists applauded the rationality made possible by technological advance in the post-industrial society, Marcuse contended that this epoch was made conspicuous by its inherent *irrationality*. As Marcuse explains, while post-industrial society appears to be the very embodiment of Reason, in reality,

> ...this society is irrational as a whole. Its productivity is destructive of the free development of human needs and faculties, its peace maintained by the constant threat of war, its growth dependent on the repression of the real possibilities for pacifying the struggle for existence... (Marcuse, 1964, p.ix).

Rather than removing these irrationalities, the technical maturity of the post-industrial society strengthens them. The unfortunate and irrational corollary of the post-industrial society's expanded material and intellectual capabilities is the expanded capacity of society to dominate the individual (Marcuse, 1964, pps.x, 9). Thus, in the post-industrial society a situation ensues whereby the real progress made possible by technological advance would require a radical alteration of the existing order. Consequently, these very technological forces are mobilized to contain this "progress" (Marcuse, 1964, pp.16-17).

Marcuse contends that the ~~post-industrial~~ society brings with it the prospect of more sophisticated forms of domination and social control, which are capable of restricting qualitative social change (Marcuse, 1964,

p.xii). The role of technology in this system of domination is paramount, as technology serves to make social control more pleasant and facilitates a convergence of culture, politics and the economy which subsumes all alternatives (Marcuse, 1964, pps.xv-xvi). These new forms of control reduce the right to political opposition to a mere discussion of alternatives within a well-defined status quo, and individual thought becomes absorbed by mass communication and indoctrination (Marcuse, 1964, pps.1-18).

As Marcuse eloquently illustrates:

> Under the rule of a repressive whole, liberty can be made into a powerful instrument of domination...Free election of masters does not abolish the masters or the slaves. Free choice among a wide variety of goods and services does not signify freedom if these goods and services sustain social controls over a life of toil and fear - that is, if they sustain alienation. And the spontaneous reproduction of superimposed needs by the individual does not establish autonomy; it only testifies to the efficacy of the controls (Marcuse, 1964, pps.7-8).

It is the ability of technology to manipulate human needs into forms which mirror the political and economic needs of vested interests which distinguishes the post-industrial society. Marcuse goes so far as to say that in post-industrial society, false needs are imposed upon individuals by a society whose dominant interests demand repression, and over which the individual enjoys no real control (Marcuse, 1964, p.5). Marcuse calls this process "repressive satisfaction", wherein the dominant order succeeds only in

satisfying the false needs it creates, including: the need for excessive production and consumption; the need for unfulfilling, debilitating labour; and "...the need for maintaining such deceptive liberties as free competition of administered prices, a free press which censors itself, free choice between brands and gadgets" (Marcuse, 1964, p.7). Thus, the liberty of the autonomous individual becomes its own worst enemy in the post-industrial society.

Marcuse believed that this ideology was embedded in the production process itself (Marcuse, 1964, pps.11-12). In a formulation similar to the Lukacsian notion of reification, Marcuse sees that the basis of this process is the reduction of art, philosophy, religion and politics - the entire realm of culture - to the lowest common denominator of post-industrial capitalism, the commodity form. The advent of mass communications makes this reduction more prevalent than ever before, as the production and display of commodified cultural products which reinforce the established order can occur on a massive scale (Marcuse, 1964, p.57).

The mass communications systems of the post-industrial society produce a myriad of commodities which carry with them precisely defined attitudes and behaviour patterns which bind consumers to producers whose primary interest is the maintenance of their own status and economic privilege. That this marriage is a happy one, as secured by the fact

that these commodities sustain needs which are immune to their own falsehood, means that opposition or alternatives to the existing order are either wholly absent, or easily co-opted to serve the needs of this order (Marcuse, 1964, p.12). It is this systematic and highly sophisticated repression of human aspiration which led Marcuse to label post-industrial capitalism "one-dimensional"; a totalitarian universe which homogenizes society and nature, mind and body in a state of self-perpetuating "happy consciousness" (Marcuse, 1964, pps.18, 84).

The essence of the critical consideration of post-industrial society is the contention that the supposed treasures anticipated by liberal observers - treasures such as the demise of physical labour, increased democratic political participation, benevolent rationality, and the replacement of sharp distinctions based on wealth by egalitarian consumption - constitute a mere chimera which conceals the acute lack of individual control over the decisions which most directly impinge on one's life. As Marcuse soberly reflects, "The slaves of developed industrial civilization are sublimated slaves, but they are slaves" (Marcuse, 1964, p.32). However, even these more critical commentators couched their analysis in terms of a society that was still "post" industrial. They did not, or perhaps could not, foresee the impending onslaught of

information technology and structures which were to bring society even closer to that which they feared most.

Making the Transition to an "Information" Society

Towards the end of the 1970s, it was becoming clear that information and information-related activities were beginning to play a central role in the advanced capitalist countries of the western world, particularly North America. As a result, economists began to examine the extent to which information was replacing manufacturing as the dominant feature of western economies. Social scientists began speculative forays into investigating whether information activities were becoming the driving force of social change, and even popular analysts began peddling phantasmagoric predictions about the radical new lifestyles of the impending information age. The sum total of these intellectual tremors was the creation of a climate which represented the genesis of the notion of an "information" society which represented a distinct advance, both theoretically and in material terms, from one which was merely "post-industrial". This section will briefly discuss all three elements - economic, social scientific and popular - of this transition.

Marc Uri Porat and The Information Economy

Marc Uri Porat's book, The Information Economy (1977), represents the first attempt to delineate the pivotal role

that information and its related activities have come to play in the United States. Porat's use of "information", as opposed to Machlup's earlier "knowledge" economy broadens the scope of analysis considerably. Porat refers to information as "...data that have been organized and communicated. The information activity includes all the resources consumed in producing, processing and distributing information goods and services" (Porat, 1977, p.2). The phrase "all the resources consumed" provides for the inclusion of a whole host of ancillary activities which are not explicitly included in Machlup's study.

Porat outlines a primary and secondary information sector. The primary sector includes all industries which produce information machines, or market information services as a commodity, and the secondary sector all those public and private bureaucracies which engage in activities such as planning, programming and scheduling. He then breaks down the primary sector into eight classes of industries: knowledge production and inventive industries; information distribution and communication industries; risk management industries (i.e., insurance); search and co-ordination industries (i.e., market analysis); information processing and transmission services; information goods (i.e., information machines); government activities (i.e., education, postal service); and support facilities. He

further breaks this classification down into 116 sub-industries.

Porat also develops a scheme for classifying information workers and occupations into three major "classes" (Porat, 1977, p.106).[6] The first is "markets for information", and includes those workers whose outputs or primary activity is an information product which is produced and sold as a commodity. The second classification is "information in markets" or information gatherers and disseminators. The final classification is "information infrastructure workers" who operate machines and technologies to support the above two categories of workers. In a testimony to the extent that information has become a definitive force in the advanced capitalist economic structure, Porat shows that in 1967, workers in these three fields earned 53 per cent of the total employee compensation in the United States.

On the basis of the above definitions and schema, Porat delivers additional empirical findings which indicate the growing dominance of the information economy in the United States. In 1967, information workers comprised 40 per cent of the total American workforce, and information activities accounted for 46 per cent of the gross national product. Further, 43 per cent of all corporate profits originated in the primary information sector (Porat, 1977, p.8). Porat's

study left little doubt as to the growing and pervasive impact of information on western economies in general, and the United States in particular. There were as one would expect, subsequent criticisms of Porat's work surrounding the issues of definitional ambiguity and methodological precision (Bates, 1984; Dizard, 1989, pps.101-102). However even critics generally agree that Porat's study was groundbreaking in terms of its attempt to identify and classify information in a way which adequately reflected its emergence as western capitalism's primary economic resource.

The Transition by Daniel Bell

As the decade of the 1970s drew to a close, the surest sign that the post-industrial thesis was grudgingly beginning to give way to the notion of an information society was the cautious embrace of the latter concept by Daniel Bell. While Bell was not wholly willing to abandon the language and baggage of post-industrialism he, nevertheless, pointed to "...the emergence of a new social framework based on telecommunications," and recognized information as "the transforming resource" and "crucial variable" of post-industrial society (Bell, 1979, pps.163, 167). Like Porat before him, Bell found that information was fast becoming the definitive economic element in the advanced western world (Bell, 1979, pps.168, 173).

Bell identifies what he calls five major "problem areas" that will affect major industries involved in the communications arena, and these serve as useful signposts for the transition to an information society (Bell 1979, pps.175-176). These include: the meshing of telephone and computer systems into a single telecommunications mode; the substitution of electronic media for paper processing; the expansion of television through cable systems; the reorganization of information storage and retrieval systems to allow for immediate access; and the expansion of the educational system through computer-aided instruction. Bell would later assert that the technological revolution in telecommunications was escorting the western world into an information era (Bell, 1983, pps.89-91).

Thus, although somewhat unwittingly, Bell provides one of the first accounts of what could properly be labelled an Information Society:

> ...a set of reciprocal relations between the expansion of science, the hitching of that science to a new technology, and the growing demand for news, entertainment and instrumental knowledge, all in the context of a rapidly increasing population, more literate and more educated, living in a vastly enlarged world that is now tied together, almost in real time, by cable, telephone, and international satellite, whose inhabitants are made aware of each other by the vivid pictorial imagery of television, and that has at its disposal large databanks of computerized information (Bell, 1979, p.188).

A society such as the one outlined above is certainly more complex than the simple designation of "post-industrial"

would indicate or allow for. While Bell stood steadfastly by the integrity of his earlier concept, his analysis seems to belie the fact that he too saw the writing on the computer screen.

The Futurists

Some of the most violent reaction against the information society thesis has come as a result of some of the utopian meandering it has inspired along the periphery of the academic world. Clearly the descendants of the liberal post-industrialist tradition, futurists such as Alvin Toffler and John Naisbitt embrace what they see as the impending information revolution with such unbridled enthusiasm that it is no surprise that their writings have achieved more popular than scholarly attention.[7] Although highly speculative in nature, the writings of these two authors merit a brief discussion, as many of their predictions form the basis of what will be considered in a subsequent section as the prevailing "myths" surrounding the information society.

In proclaiming information and its related technologies the "Third Wave" (behind agriculture, and industrial manufacture), Toffler produced a litany of predictions regarding the positive social and political developments which would invariably accompany it. The advent of inexpensive, easy-to-use personal computers would de-massify

both the media and the human mind, and people would become less similar and more individualistic (Toffler, 1980, pps. 158, 251, 254). Huge amounts of information would be readily accessible to every family through huge public databanks (Toffler, 1980, pps.177, 250). Toffler believed that mass production would give way to craft based, personal tailoring of goods, and jobs would ensuingly be enriched (Toffler, 1980, pps. 184, 199, 245). Work would increasingly be done at home, and a flexible family life would characterize a more home-centered society (Toffler, 1980, pps.194, 204, 208). Toffler believed that the nation-state would give way to fair-minded global institutions and politics in general would become more decentralized (Toffler, 1980, pps.257, 325). Finally, Toffler predicts that in the information society, poverty will be eliminated as corporations free from government intervention come to de-emphasize profits and concentrate their energies on problems of social welfare (Toffler, 1980, pps.235, 344, 347).

After spending twelve years "...working with major American corporations to try to understand what is really happening in the United States," futurist John Naisbitt reaches conclusions which are strikingly similar to Toffler's (Naisbitt, 1982, p.2). He too predicts the globalization of the economy; a shift from centralized, representative political structures to decentralized, participatory democracy; and the demise of limited personal

choice in favour of a "...free wheeling, multiple option society" (Naisbitt, 1982, p.2). As far as these thinkers are concerned, the end is not in sight: "With the coming of the information society, we have for the first time an economy based on a key resource that is not only renewable but self-generating" (Naisbitt, 1982, p.23).

The analysis of these futurists has been condemned as "...an ungainly hybrid of potted social science, Sunday supplement journalism, and soothsaying...breezy scenarios of things to come pitched at about the intellectual level of advertising copy" (Roszak, 1986, p.21). Indeed, the unabashed optimism of these roving speculations seems of little intellectual significance in its own right. Where their epistemological significance lies, however, is in the impetus they provided for serious scholars to take up the challenge set forth by the work of Porat and Bell, and begin to undertake detailed examination of the information society in a way that Toffler and Naisbitt failed to do.

The Emergence of the Information Society

As information rose to a pre-eminent position in western, particularly North American society, it became clear that the post-industrial label, like most that begin with the prefix "post", maintained little explanatory merit (Dizard, 1989, p.2). This is not to say that adopting the information society as the definitive description of the

condition of western capitalism meant that the futurists musings had necessarily been realized. Indeed, as I shall discuss in the next section, many felt that no fundamental change had occurred, and others were extremely guarded in their adoption of the new idea, stressing that perhaps we were merely seeing the entrenchment of an information based economy, as opposed to a widespread societal shift (Bates, 1989, pps 16-17).

For others the shift was tangible and profound. These analysts felt that a change on the order of the Industrial Revolution was being precipitated by the convergence of technological, political and economic forces around the exercise of human communication, to the extent that a new society, the Information Society, was and is upon us (Dizard, 1989, p.1; Barron & Curnow, 1979, pps.39-40). As the demands of information and its technological manifestations increasingly begin to not only infringe, but also to define social, political and cultural processes and norms, it becomes exceedingly clear that this shift is permanent (Dizard, 1989, p.5). This section will discuss some of the main attributes of what has come to be known as the Information Society.

The pace and stages of change

Like any fundamental societal change, the transition to an information society did not occur overnight. James

Beniger contends that the societal transformation now underway is rooted in the middle to late 19th century, and began as a response to a crisis of control generated by the industrial revolution in transportation and manufacturing. While phenomena such as Fordism and Taylorism afforded control over production, and the development of infrastructure facilitated control over distribution, only mass communications could provide for control over the third key element of capitalist economies, which is consumption (Beniger, 1986, pps.16-18).[8] Thus, Beniger argues that the new technologies are not the cause, but rather the consequences of societal change (Beniger, 1986, pps.6-7).

But certainly the rapid proliferation of information technology at the pace of, for instance, a new generation of micro-electronic circuits every twelve to eighteen months, cannot be dismissed as having no *ex post facto* social ramifications (Dizard, 1989, p.36). As Wilson Dizard argues, it is this very pace of change which distinguishes the information society from its predecessors as the impact of technological innovation is relatively instantaneous when compared to similar advances previous to the advent of the microprocessor (Dizard, 1989, p.6).[9] Dizard's outline of the stages in the development of the information society indicates the manner in which economic forces and social change walk hand in hand.

The first stage is dominated by the construction of a high technology infrastructure, by a relatively small group of large corporations, which forms the basic operating field for the information economy. Dizard indicates the power of these innovative giants when he reveals that previous to a 1982 U.S. Supreme Court Decision to split up the company, the American Telegraph and Telephone Company (AT&T), the undisputed vanguard of the creation of the information infrastructure, had a gross income greater than the individual gross national products of 118 foreign countries (Dizard, 1989, p.6). The second stage is the evolution of services which provide access to this infrastructure, and the growing dependence of both private and public institutions on these services, such as banks, health care, education, and business offices (Dizard, 1989, p.7). The final stage is described as "...the mass consumerization of high technology information services," wherein what was once available only to big business and government, becomes widespread in homes and small organizations (Dizard, 1989, pps.7-8). As I will discuss in greater detail later, the fact that this technological progression seeps into almost every facet of human existence at such a rapid pace means that the information society will have profound social implications.

The economics of the Information Society

It is no surprise that given the difficulties in precise measurement, due largely to definitional ambiguities, few studies actually pinpoint with statistical and conceptual accuracy the exact extent of information's dominance in the western economies. However, building on the work of Machlup, Bell and Porat, most analysts agree that information is the raw material of the new economy, central to manufacturing, services and government, and that very few occupations exist which do not involve information and its related technologies in some shape or form (Cordell, 1985, pps.51-52; Schiller, 1989, p.73; Dizard, 1989, pps.102-104). As James Beniger comments:

> In the United States, Canada, Western Europe, and Japan, the bulk of the labour force now works primarily at informational tasks...while wealth comes increasingly from informational goods such as micro-processors and from informational services such as data processing. For the economies of at least a half-dozen countries, the processing of information has begun to overshadow the processing of matter and energy (Beniger, 1986, p.v).

While primary information industries are the largest single sector of the American economy, this measurement does not reveal the full extent of the economic significance of information (Dizard, 1989, p.106). As information and communications have shifted from being an overhead cost suffered by industry, to the new center of profit, corporations based in other sectors are increasingly diversifying into the information sector. Proof of the

attractiveness of this practice is exhibited in the case of American Airlines, which in recent years has found its most successful profit center to be the leasing of time on its computerized reservation system to other airlines, rather than the actual sale of airline tickets (Dizard, 1989, p.105).

A exact estimate of how information and its related technologies constitute the mainstay of the western economies is nearly impossible because information and its related technologies are so intricately linked with almost every sphere of economic activity. This ubiquity is perhaps best revealed in the seemingly inextricable link between economic activity of any kind and some form of computerization. Dizard predicted that by the end of the 1980's, one fourth of all jobs in the United States would be directly dependent on computers, and that computers would become even more integrated in the work processes of every sector (Dizard, 1989, p.98). However, the mere mention of the generic term "computerization" no longer suffices to describe the extent to which the advance of information technology has altered the human condition, both within and beyond the sphere of economics.

The technology of the Information Society

There is little doubt that computers are the technological backbone of the information society. There are now tens of millions of machines that can be classified as computers, and as computers cease to be a mere specialized tool of government and business, it is predicted that within the next decade home computer use will become almost universal in the western world, with 30 million computer terminals installed and in use in the U.S. in the early 1990's (Dizard, 1989, pps.78, 81). This is largely due to advances in computer technology which make the computer more amenable to mass consumption. As Arthur Cordell explains: "What once cost millions of dollars and occupied a room the size of a garage now can be bought for a few cents and takes up less space than a dime" (Cordell, 1985, p.11). Advances in software - an industry which services a worldwide market worth thirty billion dollars annually, and offers over 60 000 products - mean that these increasingly complex machines can be operated with greater ease by people who will never need to understand how they work (Dizard, 1989, p.76). Further, the rapid proliferation of public and private databanks create a situation wherein people can access millions of information items on topics in such areas as medicine, news, and law without ever leaving their homes.

Personal computers are not the only area in which this technology is being developed, as the creation of "supercomputers" able to perform staggering feats of information processing is well underway. For example, a new supercomputer designed by the Cray Research Company in 1988 could handle four billion calculations per second (four "gigaflops") (Dizard, 1989, p.81). These supercomputers require superconductors, and research currently underway includes the use of bacteria genetically engineered to produce computer switching components, and the production of a semiconductor chip which could store 100 million bits of memory per square inch, facilitating the performance of large calculations in a billionth of a second (Dizard, 1989, p.83). Such innovations are paving the way for the construction of complex artificial intelligence systems which replicate the thought processes of the human brain (Dizard, 1989, p.85).

Telecommunications is another field in which technological advance is proceeding at a staggering pace. In the telephone industry, fibre optics has replaced traditional circuitry and what once required a quarter million circuits can now be transmitted by a light beam shot through hair thin cables. A pair of copper wires was once required for a single telephone call, but now a pair of optical fibers can process two thousand calls simultaneously. By 1988, 20 000 miles of optical cables had

been installed in the United States alone, and a trans-Atlantic cable was in place which had a capacity equal to 40 000 circuits (Dizard, 1989, pps.47, 53). Laser technology is also being explored in this field, and in 1988 GTE developed a communications laser which pulses at the rate of 22 billion times per second, and can transmit and print the contents of ten sets of the Encyclopaedia Brittanica every second (Dizard, 1989, p.87).

Innovations in satellite technology are eliminating the constraints of geographical distance and are decreasing the cost of delivering information (Cordell, 1985, p.50). Huge space platforms under development will suspend numerous satellites which will not only be able to communicate with each other, but will also have the capacity to contact pie-sized dishes on the ground. The seventh generation Intelsat satellite is able to transmit 120 000 telephone calls and three television channels simultaneously (Dizard, 1989, pps.63-67).

The rapid deployment of these technologies has led some analysts to observe that paper-based information systems will soon be completely replaced by electronic ones, including such things as electronic mail and computerized filling (Barron and Curnow, 1979, pps.31-34).[10] The effects of these technologies are currently felt most acutely in the workplace, and this subject will be discussed further in

chapter three. However, information technology is also penetrating the home at an increasing rate. In 1988, 1.7 million homes in America had satellite dishes, 50 million had video cassette recorders, and over 3000 cable systems maintained 40 million home hookups. Currently underway is the development of High Definition Television, which has the capacity to provide photographic quality video images, stereo sound, data transmission, teletext system and remote computer access (Dizard, 1989, pps.121-123). This deployment has paved the way for the use of interactive telecommunications systems in the home, which will allow televoting, telepolling, teleshopping, tele-education, and telesurveying. Some feel these interactive information services will come to define life in the information society (Cordell, 1985, pps.20-21).

Technological advance, as such, is not a new phenomenon, as it has been with us since the first human beings fashioned the first tools out of stone and bone. However, technological advance in the information society can be distinguished by three qualities. The first is the comprehensive nature of its penetration into human life, as the deployment of computers, telecommunications systems, and microelectronics occurrs so as to leave virtually no element of human life in the western capitalist world untouched by the information infrastructure. The second is the mind boggling pace at which this deployment is proceeding. The

third, and perhaps most significant, distinction is that this technological advance is largely incomprehensible to those who use and are affected by it. These observations apply not only to the technology itself, but also largely to the changes it is precipitating in the organization of human life and society. It is to a brief examination of these changes that I now turn.

The transnational Information Society

Information dominates not only the domestic economies of the western capitalist states, but also the international economy as well. Media, data flow and information technologies are the basis of the transnational economy (Schiller, 1989, p.145; Schiller, 1986, pps.6-12). This economy can be designated *trans*national for two reasons. The first is that the nature of the corporations which occupy this field, and the technology which they wield as both product and method, allows them to operate in numerous nations without actually establishing a physical presence in those countries. For instance, satellite technology allows for direct broadcast into foreign countries by American media companies (Dizard, 1989, p.63). This raises serious questions regarding the regulation of the free flow of information, as well as national sovereignty (Schiller, 1986, pps.56-72).

The second way in which the economy of the information society can be described as transnational is that where companies could previously afford to be national in terms of marketing focus, and unilingual in terms of administration, they are now finding that the dictates of international information economics require a far more pluralistic approach in this regard. Companies are racing to become multilingual, and to make their products and services adaptable to numerous national contexts (Dizard, 1989, p.10).

The lifestyle of the Information Society

According to Wilson Dizard:

> ...[the] vision of a plug-in future, of computers in the living room, of global teleconferences, of robotics factories controlled by telepresence techniques, and of a new quality of life based on access to vast information resources is...too close to possible realization to be dismissed any longer as sci-fi fantasy (Dizard, 1989, p.38).

Indeed, it would be unwise to assume that the massive proliferation of information technologies would have a negligible effect on the way human beings carry out their lives. Widespread automation in factories, the overall shift to information sector industry, the incorporation of information technologies in the home environment and the boom in mass media penetration raises the distinct possibility that "...the distinction between work, leisure, and other activities may become blurred" (Barron and Curnow,

1979, p.39). This potential will be discussed in further detail in chapter three.

If one examines the pace of change in the economic activity of advanced western capitalism, the rapid rate of technological innovation which is fueling this change, and the concomitant and inevitable effects this is having on the human lifestyles, it is difficult to deny the existence of an information society. This is clearly revealed if one only considers the potential result of, for instance, a sudden loss of computer capability in the western world: a total breakdown of military security; immediate cessation of most communications; loss of internal security; debilitating disruption of industry; complete collapse of social and economic infrastructure (i.e., banks, schools, hospitals) (Barron & Curnow, 1979, pps.26-27). Put quite simply, without information and its related technologies, our society would cease to function.

However, not all observers agree that the information society is a legitimate or accurate way to characterize the state of contemporary western capitalist society. Before turning to a discussion of class consciousness in the information society, it is necessary to consider the views of these dissenting voices.

The Information Society as Myth

For every scholar who proclaims the arrival of the information society, there are probably two who scoff at it. This skepticism is not indicative of a mere sentimental attachment to the last vestiges of industrialism, but rather represents a critical challenge to many of the commonly held beliefs about the emergent character of the information society (Schement, 1989, pps.30-31). Critics of the conceptual integrity of the information society label question the existence of a distinctly information-based economy, are cynical about the promised benefits of an information society, and see the information society as being nothing more than a new phase in the continuation of capitalism. This section will consider these arguments and assess their impact on the strength of the information society concept.

Is there an information economy?

A number of observers question the existence of an independently identifiable information economy. Some argue that this assumption is the result of a conceptual inconsistency which mistakenly shifts consideration from the method of production (industry) to the product itself (information) (Douglas & Guback, 1984, pps.236-237). While this criticism does well to illustrate that exploitive labour processes and relations of production still exist in an information economy, it does not negate the fact that

information exists both as a product and a dominant factor of production in most industries. Thus, while some would contend that "...on balance, there is no real indication that the significance of industrial production is withering away" (Hamelink, 1986, p.9), this observation does not take into account the extent to which information as both a product and an operating technology has invaded nearly every industry of advanced capitalism.

Others argue that it is this very linkage which compromises the explanatory capacity of the term "information economy". They assert that the information sector and related services have arisen only in response to the needs of industrial production (Cohen & Zysman, 1989, p.103). But whatever the reason, the fact remains that the economies of the advanced capitalist countries rest on an ever expanding information base, rely on constant maintenance and extension of the technological information infrastructure, and that information workers constitute the dominant and growing sector of the workforce in these countries. Even scholars who question the information society on other grounds do not dispute these simple truths (Leiss, 1989, pps.294-295).

The broken promises of the Information Society

A second basis of critique of the information society concept is the contention that its promised ideals are not

being realized. While the information society brought with it the promise of a globalized, interdependent economy, the actual processes at work indicate that this merely means the control over technology and information by growing global corporate giants, with little regard for domestic economic priorities and needs (Douglas & Guback, 1984, p.235). It is also becoming increasingly apparent that these huge transnational corporations are manifestations of the United States' desire to resurrect and maintain a badly eroded position of global power (Schiller, 1981, p.10).

Another as yet unrealized dream of the information society is the proliferation of highly decentralized, participatory democracy (Quortrup, 1987, p.135; Hamelink, 1986, p.8). It is convincingly argued that as the technological capability for real democracy is being realized, other changes in society are eroding the individuals ability to utilize them effectively, such as the erosion of basic literacy and ordinary social and political knowledge (Leiss, 1989, p.295). As William Leiss perceptively observes:

> The paradox of the so-called information society is this: on the great issues of society and politics, the role of knowledge in the composition of informed judgement very well may decline in proportion to the increase in available information (Leiss, 1989, p.297).

The question remains as to whether this paradox is sufficient to warrant the dismissal of the entire

information society concept, and, as I shall argue later, I do not believe it is.

The myth of autonomous technology

Another strong area of attack on the concept of the information society can be found in the reaction against the belief that technology somehow maintains an autonomous existence. Critics argue that technology is a means to particular ends, rather than an end in itself (Quortrup, 1987, p.134). It is further believed that these particular ends are represented by data and information needs of the corporate sector, the government bureaucracy, and the military complex (Schiller, 1981, p.25). It is in this way that information is revealed as not a discrete entity, but rather as a social relation which expresses the prevailing relations of power in advanced capitalism (Robins & Webster, 1988, p.70).

A related source of critique is the rejection of the belief that the advance of technology is inevitable and independent of human control or intervention; this "technological hyperbole" or "fetishism" is dismissed as a technocratic attempt to facilitate a compliant public's surrender to corporate driven technological determinism (Leiss, 1989, pps.283-285). In turn, this manufactured commitment to perpetual technological progress leads us to conform our values, institutions and behaviour patterns to

the dictates of the imperatives of technology, and public policy becomes a function of servicing what is believed to be historically inevitable (Leiss, 1990, pps.5-6, 127).

Once again, while these criticisms provide crucial insights into the actual operation of the information society, they do not necessarily mean that the information society does not exist. They merely indicate, quite effectively, the extent to which the vested interests in the information society have been able to wield its tools to their own continued advantage.

The Information Society as the continuity of capitalism

It is the above outlined phenomena which have led to the most serious conceptual challenge to the information society. This is the assertion that it does not represent a fundamental discontinuity with the previous industrial epoch, but rather that it is just another stage in the growth of capitalism, a restructuring aimed at reproducing the same capitalist relations of production which characterized industrial manufacturing (Lyon, 1988, p.84; Quortrup, 1987, p.142; Schement, 1989, p.32; Robins & Webster, 1988, pps.64-65).

It is argued that the genesis and continued operation of the information society is situated squarely within the principles of free enterprise and the free market (Schiller,

1981, p.xii). The commodification of information is described as a specific manifestation of both the belief in the right to own property, and the impulses of the profit motive, which are two of the foundations of a capitalist economy (Schement, 1989, p.38). Further, it is maintained that the guiding rationale for the deployment of information resources and technology is the private accumulation of capital (Douglas & Guback, 1984, p.234). Accordingly, the information society's professed liberation from mundane, alienated labour has not materialized, and the misery of unfulfilling labour continues apace (Hamelink, 1986, p.8; Douglas & Guback, 1984, p.241).

These critics also point out that the power relations evident under industrial capitalism continue to prevail in the information society. According to one analyst, while information may have become the dominant commodity in western capitalism, "What did not change was the power relationships between winners and losers, between rulers and ruled. These only acquired new names" (Hamelink, 1986, p.10). This reflects the belief that the much lauded prosperity of the information society only reached the echelons of the powerful and mighty, and has accomplished little in the interests of human liberation, or improving the quality of life of ordinary people (Traber, 1986, pps.2-3).

The primary reason for this failure is that the control of information lies in the most powerful elite sectors of society, and new technologies and services are provided and owned by the same classes which dominated industrial manufacturing (Douglas & Guback, 1984, pps.234-235; Hamelink, 1986, p.13). Thus, it is believed, the information society represents little more than extension of capitalism.

Conclusion

The question is whether the collective weight of these criticisms sounds the conceptual death knell of the information society. As discussed above, the contention that the existence of an information economy is a misnomer can be fairly easily dismissed as misleading. Difficulties in measurement are not sufficient to validate the careless disregard of the role which information and its related infrastructure and technologies play in shaping contemporary western economies.

However, the argument that the information society is just the next phase in the continued development of capitalism is more troublesome. Witness this observation by one critic:

> For ten years and more we have been waiting for the information revolution to occur. All we have got so far are some new pieces of furniture - mainly video cassette recorders at home and microcomputers in the

office (Traber, 1986, p.1).

Statements such as this clearly reflect the frustration experienced as a result of the apparent failure of the information society to live up to promises by futuristic optimists that the new order would be characterized by greater liberty, more knowledge, more democracy, more choice and less work. However,a correlation between this frustration and the outright negation of the information society concept is not quite as clear. There is no disputing the fact that the information society, in its present configuration, is not an informed society.[11] However, this normative consideration does not negate the empirical reality of the information society.

That the information society has not produced a pluralistic, interdependent global economy, or facilitated the arrival of real democratic participation are criticisms which are vital to our understanding of the true nature of the information society and its operation. However, the fact that these paradoxes exist does not eliminate the overriding influence of information, and all its trappings, on society as a whole. Capitalism is fraught with contradictions and paradoxes. To say that this means that capitalism does not exist would be foolhardy. Yet this is precisely the error committed by critics who observe the myths which the information society promotes to ensure its own smooth functioning, and equate these with the mythhood of the

existence of the information society. Just because the information society does not exist in the form its apologists profess, does not mean it does not exist in another form. The value of the above outlined critiques is that they take strides towards revealing the genuine character of the information society and its actual operation.

The information society was developed and exists squarely within the confines of capitalist economy. Indeed, the basis of this thesis is an examination of the extent to which the class relations and dynamics of industrial capitalism differ from or are similar to those emerging under information capitalism. Implicit in this exercise is the conviction that the emergence of the information society neither means that everything has changed, nor that nothing has changed. Rather, it is my contention that just as capitalism interacted with the industrial economy to produce a particular type of societal structure, so too does it now interact with the information economy to produce a distinctive society. That society can be properly labelled the *Information Society*.

Notes

1. These debates include those surrounding the question of the international information gap, illiteracy and

information technologies, and democratic access to information, among others.

2. Machlup's figures are now so out of date that they are of little relevance here. Also, the methodological problems associated with Machlup's measurement, some of which he himself recognized, will be discussed further in Chapter III. What is significant at this point is the attempt by Machlup to isolate a knowledge sector, and the definite trend towards its economic dominance which he illustrated.

3. Drucker goes so far as to say that "The impact of cheap, reliable, fast, and universally available information will easily be as great as was the impact of electricity" (Drucker, 1968, p.27).

4. At one point, Brzezinski actually posits that the technetronic age is ushering in the third American revolution (Brzezinski, 1970, p.198).

5. Bell criticized Brzezinski's characterization of the "technetronic society" as too quickly shifting from theoretical knowledge to the practical applications of technology, and as being too technologically determinist (Bell, 1973, p.38).

6. Porat calls these "classes" but he does not seem to mean "classes" in the Marxist sense of the term. Instead he appears to use classes as a short form of "classifications".

7. Naisbitt concludes his book with the ringing phrase, "My God, what a fantastic time to be alive" (Naisbitt, 1982, p.252).

8. Beniger points to practices such as the use of mass media advertising to control consumptive and political behaviour, and the refinement of techniques of co-ordinating and evaluating mass feedback as examples of how consumption has been brought under control with the aid of technological advance in the information sector (Beniger, 1986, pps. 344-356, 370-374, 389).

9. As Dizard explains, "It took the telephone 75 years to reach the level of penetration in offices that the small computer has attained in ten" (Dizard, 1989, p.7).

10. Dizard reports that electronic mail has the capacity to currently handle 85 per cent of all first class mail in the United States (Dizard, 1989, pps.114-115).

11. In fact, it is a "misinformed" society, as William Leiss contends (Leiss, 1989, p.294).

Chapter II - The Theory of Class Consciousness

The term "class consciousness" is perhaps one of the most widely misinterpreted in the entire Marxist theoretical lexicon. It is often used to indicate the principal force motivating events as varied as the Russian Revolution of 1917, wildcat strikes in the auto industry, and the selection of colleges by American high school graduates. However, the concept of class consciousness can be interpreted more precisely than its varied uses would indicate. Indeed, the concept of class consciousness maintains a distinct and integral position in the overall body of class theory within the Marxist tradition.

It has been contended that class consciousness cannot be completely separated from the notion of class itself. According to one commentator,

> An essential condition of the existence of a class is...that there should be at least the germ of class consciousness, an elementary sense of common interest and shared opposition to other classes...before one can speak of class there must be a real community of interest, manifesting itself in practice. If its members are isolated from one another, a class has no more than potential existence (Kolakowski, 1978, p.350).

The character of the relationship between class and class consciousness is such that it is the presence of the latter which gives meaning to the former. Without the presence of at least some degree of class consciousness, the concept of class possesses little analytical value, as class without

consciousness is of relatively slight political significance.

This is not to say that the definition of class consciousness was clear from the outset in class-based literature. On the contrary, it is a concept which has developed in the context of the incremental evolution of Marxist theory as a whole. This chapter will trace the development of the notion of class consciousness within the Marxist tradition by considering three major thinkers - Karl Marx, Georg Lukacs, and E.P. Thompson - and also by surveying some of the later efforts to operationalize the concept. The chapter will conclude with a formulation of class consciousness based on a loose synthesis of these various contributions, thus providing a framework for the subsequent discusssion on the applicability of the concept to the information society.

Karl Marx - Foundations of a Theory of Class Consciousness

One of the greatest frustrations facing those who undertake class analysis is the fact that Karl Marx did not fully elucidate his ideas surrounding the subject of class in a single work. This frustration is heightened by the realization that Marx appeared ready to deal with the subject in the final volume of Capital, but was nevertheless unable to finish the task. For just after Marx indicates that the three major classes to be found in industrial

capitalism are wage labourers, capitalists, and landowners, and is about to explain what exactly differentiates these classes, the editor Frederik Engels informs the reader that, sadly, "Here the manuscript breaks off..." (Marx, 1894, p. 885).

Nonetheless, the notion of class is central to Marx's theory, and is inextricably linked with every other facet of his analysis. To examine it, one must rely on Marx's references to class scattered throughout his major works and also draw inferences from other aspects of Marx's overall theory. In this section, such a synthesis will emerge from a discussion of those apsects of Marx's theory which have laid the foundation for the subsequent elaboration of the concepts of class and class consciousness within the Marxist tradition. These include: his critique of idealism; the materialist imperative; his theory of history; class conflict and revolution; and the role of politics in the formation of class consciousness.

The critique of idealism

Marx's great respect for the dialectical method employed by G.W.F. Hegel did not prevent him from rejecting Hegel's "idealist" conception of history.[1] It is in this rejection that one can begin to find the seeds of Marx's contention regarding the pivotal role which class plays in the historical process.

Marx began his critique of idealism in The Holy Family, where he confronts the existence of an abstract or absolute Spirit. Marx argues that in equating human history with the history of the Spirit, Hegel removes any real basis from history (Marx & Engels, 1844a, p.100). Marx felt that this created a false dichotomy between thinking and being, consciousness and life, and mistakenly led exploited workers to believe that the practical causes of their servitute, such as wage labour, could be argued away by merely abolishing "...the thought of wage labour" (Marx & Engels, 1844a, p.63).

The attack on Hegelian idealism becomes more pronounced in The German Ideology, where Marx identifies three basic deficiencies in Hegel's historical method (Marx & Engels, 1846, pps. 70-71). Marx begins by criticizing the attempts of the Hegelians to attribute an independent existence to ideas, thus creating a false separation between the ruling class and the ruling ideas of a given epoch. Marx believed that the prevailing ideas at any given point in history were bound up in the ruling material force of the era, and were "...nothing more than the ideal expression of the dominant material relations, the dominant material relations grasped as ideas..." (Marx & Engels, 1846, p.67). It is this control over ideas which allowed the ruling classes to consolidate their dominance.[2]

The second weakness which Marx reveals in the Hegelian argument is the granting of a mystical, independent existence to these ruling ideas, by characterizing them as forms of self-determination of the Concept, Idea or Spirit. Marx sees this attempt to bring order to an otherwise chaotic rule of ideas as merely the entrenching of the erroneous belief that the fetters which bind human beings are nothing more than fantastic illusions of consciousness, wholly divorced from their material basis in the class system (Marx & Engels, 1846, pps.35-36).

Finally, Marx confronts the weakness of the Hegelian attempt to remove this mystical appearance by personifying the self-determining Concept or Idea as "self-consciousness". The result is a casting of history as an individual progression towards the realization of the Idea as discoverable within the essence of humanity (Marx & Engels, 1846, p.67). For Marx, this reasoning errs fundamentally by disregarding the real material forces responsible for the movement of history, as embodied in the class structure of any given epoch.[3] It is in this way that Marx's rejection of Hegelian idealism led to his placement of class at the center of the historical process.

The materialist imperative

As is well known, Marx's theory of history reversed the causal relationship posited by Hegel between material

conditions and consciousness. As he said in The German Ideology, "It is not consciousness that determines life, but life that determines consciousness" (Marx & Engels, 1846, p.42). The same thought was articulated in the Communist Manifesto:

> ...man's ideas, views, and conceptions, in one word man's consciousness, changes with every change in the conditions of his material existence, in his social relations and his social life (Marx & Engels, 1848, p.52).

This determinism extended to the point where Marx believed that any significant historical advance had certain clear material pre-conditions (Marx, 1844b, pps.72-73). Particular types of class antagonism were central to this historical process. He felt that it was only when material (primarily economic) conditions reached a point where they provoked and evinced this antagonism that fundamental historical change would occur.[4] Consequently, Marx rejected the working class pursuit of abstract ideals, and recommended instead that it attempt to "...set free the elements of the new society with which the old collapsing bourgeois society is pregnant" (Marx & Engels, 1871a, p.76).

The connection of this materialist imperative to the notion of class becomes clear from the nature of objective material conditions Marx identifies as integral to the historical process. The Marxian conception of class centers

around a certain degree of commonality of circumstance and interest, which causes a given group to be acted on by objective historical forces, as a class, in a way which is scientifically discoverable (Calhoun, 1982, p.214). Attempts to formulate a comprehensive Marxist definition of class have often extended far beyond this simple claim.[5] However, the common denominator of most Marxist definitions of class is the primacy of position in relation to the ownership of the means of production. Thus, in capitalist society, those who own the means of production are labelled the bourgeoisie, and those who own only their labour power (which they are forced to sell), are labelled the proletariat or working class.[6] For Marx, it was the conflict between these two classes - the fact that they represented "...two great hostile camps...two great classes directly facing each other..." (Marx & Engels, 1848, p.35) - which would give rise to the dialectical force necessary to advance history.

Other material forces which gave rise to, aggravated, and revealed this conflict were all rooted in the class system itself. Marx indicates that class relations in any given epoch revolve around the prevailing constitution of property and its ownership, and the division of labour which accompanies that constitution (Marx & Engels, 1846, pps.38-41). As explained by Leszek Kolakowski, Marx saw that,

> ...in all the forms in which class divisions

> arose, their ultimate origin lay in the division of labour. This was the condition of the whole evolution of mankind, and was therefore the cause of private property, inequality, exploitation and oppression (Kolakowski, 1978a, p.358).

Furthermore, it was the division of labour, according to Marx, which led to alienation amongst the working class under capitalism. When forced to sell their labour in order to survive, people became estranged from their essential being, and in this process of estrangement, workers experienced a profound loss of self due to the fact that their labour no longer belonged to them (Marx, 1844e, pps.74-76).[7] This alienation was intensified by the automation of the work environment under capitalism, which removed the individual character of labour, engendered craft idiocy, and condemned the worker to become, in Marx's words, "...an appendage of the machine" (Marx & Engels, 1848, p.40; see also Marx, 1847, pps.132-33).

However, such feelings of alienation would not constitute a sufficient objective material basis for the historical transformation of capitalist society. These feelings of estrangement and powerlessness also had to be supplemented by certain conditions of actual human existence before they would accelerate the course of history (Marx & Engels, 1844a, p.43). The key supplemental factor was the relative deprivation of the working class, an inevitable by-product of a capitalist economy. According to Marx, this inhuman and intolerable existence would catalyze class

consciousness when workers realized that their collective action would end this process of exploitation (Marx & Engels, 1846, p.88).

Marx's theory of history

This revolutionary process would not rely on the vagaries of individual action. For Marx, this course of events was determined by the forces conspicuous within capitalism itself. Private property necessarily thrusts the majority of people into poverty and dehumanization, and sets them in motion to abolish the conditions of their misery. According to Marx, working-class consciousness results from an "...urgent, no longer removable, no longer disguisable, absolutely imperative need...to revolt against this inhumanity" (Marx & Engels, 1844a, p.44). Marx reasons that,

> ...it follows that the proletariat can and must emancipate itself...It is not a question of what this or that proletarian, or even the whole proletariat, at the moment regards as its aim. It is a question of what the proletariat is, and what, in accordance with this being, it will historically be compelled to do. (Marx & Engels, 1844a, p.44).

Both the object and the direction of this historical compulsion resided in the actual life situation of the proletariat in bourgeois capitalism (Marx & Engels, 1844a, p.45).

The above passage reveals a great deal about Marx's thoughts regarding class consciousness. The immediate

subjective interests of the proletariat are of no consequence in relation to its role in the objective course of history. Marx makes this point in particularly blunt fashion when he insists that "...consciousness is something the world must acquire, like it or not" (Marx, 1844d, p.15). In other words, Marx felt that the class consciousness of the proletariat was objectively and historically inevitable.

When the proletariat gains this consciousness of what the objective forces of history compel it to do, it transforms itself from being a *class in itself* into a *class for itself* (Marx, 1847, pps.159-60; Calhoun 1982, p.215; Miliband, 1977, p.22). As a class for itself, the proletariat recognizes that it is the physical embodiment of the inevitable self-dissolution of capitalism (Marx & Engels, 1844a, p.44). In so far as it is the product of the final and irreconcilable contradiction of capitalism, the proletariat's consciousness consists of its awareness of its role in the dialectical movement of history (Marx & Engels, 1846, p.60; Kolakowski, 1978, p.323).

Class conflict and revolution

The existence of class within a society relies on the presence of a polarized relationship between the fundamental economic groups within that society (Miliband, 1977, p.19). This means that for a class to exist, it must be seen to exist in opposition to, and conflict with another class or

classes (Kolakowski, 1978, p.353). It is in this context that revolution as a particular manifestation of class struggle becomes integral to Marx's notion of class consciousness.

Marx posits that because the proletariat is the "abstraction of all humanity... [and] the conditions of life of the proletariat sum up all the conditions of life in society today in their most inhuman form..." (Marx & Engels, 1844a, p.44), it is the only class which can hope to accomplish the liberation of society as a whole (Marx & Engels, 1844b, p.71). This liberation must entail the abolition by the proletariat of the conditions of its exploitation.[8] Thus, for the proletariat, class consciousness becomes "...the consciousness of the necessity of a fundamental revolution..." (Marx & Engels, 1846, p.60). Marx makes it clear that this radical consciousness plays a dual role, accomplishing both objective and subjective aims.

> Both for the production on a mass scale of this communist consciousness, and for the success of the cause itself, the alteration of men on a mass scale is necessary, an alteration which can only take place in a practical movement, a *revolution;* the revolution is necessary, therefore, not only because the ruling class cannot be overthrown in any other way, but also because the class *overthrowing* it can only in a revolution succeed in ridding itself of all the muck of ages and become fitted to found society anew (Marx & Engels, 1846, p.60)

Revolutionary activity functions as both a result and stimulant of the class consciousness of the proletariat. By reconciling the subjective and objective consciousness of the proletariat, the will to insurrection becomes the ultimate extension of class consciousness (Miliband, 1977, p.39).

Politics and the formation of consciousness

While Marx emphasized that revolution was the only true means for achieving the proletariat's emancipation, he also recognized the political character of working class struggle. This meant that politics had a definite role to play in the formation of working-class consciousness (Miliband, 1977, pps.20, 23).

This recognition was not evident in Marx's early writings. During this time Marx felt that working class political battles were necessarily doomed to failure because of their lack of sensitivity to the objective economic causes of their exploitation. Marx goes so far as to say that,

> The more developed and universal the political understanding of a people, the more does the proletariat... squander its forces in senseless, useless revolts, which are drowned in blood (Marx 1844c, p130).

By adding the qualification that this misdirection is most likely to occur at the beginning of the movement, Marx is

essentially saying that for the proletariat to engage in truly efficacious political activity, it must have a well-matured sense of the objective economic conditions of its existence.

However, Marx did recognize the importance of the proletariat achieving enough political power to represent its interest as the general interest of society as a whole (Marx 1846, pps.52-53). Indeed, in later writings Marx emphasized the importance of political movement not only as a means of articulating the interest of the proletariat, but also as a catalyst for the type of organization needed for it to become a "socially coercive force" (Marx, 1871b, p.589). The desirability of this organization was linked to its basis in economic struggle of the proletariat.

Thus, political organizations such as trade unions had a definite role to play in organizing the working class (Marx, 1865, p.585). Even in his early writings Marx explained what he saw as the consciousness-raising potential of political activity engaged in through trade unions (Marx, 1847, p.159). The wage fluctuations and job insecurity that workers experienced under capitalism would lead them to combine in their effort to oppose these hardships (Marx 1848. p.42). Eventually, these combinations and the associated struggles take on a political character, and sow

the seeds for extending the class struggle to a wider front (Marx, 1847, p.159).

Marx's treatment of the subject of class consciousness was, at best, sporadic. A coherent conceptualization of his thoughts in this regard requires a synthesis of ideas gleaned from other significant areas of his political and economic theory. These include his rejection of Hegelian idealism in favour of a materialist stance which led him to view history as a process determined by objective economic conditions. The role of consciousness was one of realizing the essentially class-bound nature of these conditions, and precipitating the necessary steps towards a revolution to eliminate capitalism's inherent contradictions. Thus, while class was central to Marx's analysis, his treatment of the notions of class and class consciousness was clearly contingent on his broader philosophy of history (Elster, 1985, p.390). Subsequent Marxist theorists, with varying degrees of success, have attempted to extricate these concepts from the fetters of determinist historical materialism. The remainder of this chapter is devoted to a discussion of some of these attempts.

Georg Lukacs - History and Class Consciousness

Georg Lukacs' 1923 classic, History and Class Consciousness, was the first systematic attempt by a Marxist intellectual to examine the concept of class consciousness.

The book has since been heralded as "an underground classic", a "philosophical must", and even a "monumental historical contribution" (Piccone, 1969, p.111). However at the time of its publication, the book's reception was not so uniformly warm, as Lukacs came under attack from both orthodox Marxists and social democrats (Piccone, 1969, pps.95-96). Lukacs was also resoundingly condemned by the Third International, the Fifth Comintern Congress in Moscow in 1924, and by a variety of prominent Bolshevik intellectuals (Kolakowski, 1981, pps.259-260).

It is this sort of criticism that had led to the belief that Lukacs's work represents a radical departure from Marxist orthodoxy. In this section I will argue that while it is true that Lukacs provides a fundamental critique of "vulgar" Marxism, and in so doing manages to illuminate facets of class consciousness not fully elaborated by Marx, his analysis of class consciousness, nevertheless, falls squarely within the Marxist tradition. As with the analysis of Marx, this will require a consideration of Lukacs' thoughts regarding the question of class consciousness within the context of his broader theoretical framework. This section will include discussion of the question of Marxist orthodoxy, Lukacs' attempt to "re-Hegelianize" Marx, the notion of totality, the centrality of historical materialism, and the role of theory *vis a vis* class based action.

The question of Marxist orthodoxy

One's answer to the question of whether Lukacs was an "orthodox" Marxist invariably has repercussions for subsequent consideration of his theory of class consciousness. Attempts to answer this question have revealed that the evidence available to support a claim on either side is ambiguous at best.[9] Nevertheless, it is instructive to recognize that Lukacs made concerted efforts to defend his work against claims that it was an attack on Marxist orthodoxy. In defending orthodox Marxism, Lukacs says,

> We adhere to Marx's doctrines, then, without making any attempt to diverge from them, to improve or correct them... our underlying premise here is the belief that in Marx's theory and method the *true method* by which to understand society and history has *finally* been discovered (Lukacs, 1923, pps. xlii-xliii).

Given Lukacs' subsequent injection of idealism into the Marxist view of history, it could be charged that this disclaimer is somewhat exaggerated. What cannot be denied, however, is that Lukacs remained faithful to the basic premises of Marx's historical materialism. And to that extent he also remained faithful to Marx's theory of class consciousness.

This is not to say that Lukacs descended into the quagmire of dogmatism in his observations on class and history. Lukacs was quick to decry the vulgar materialism

which failed to recognize the transitory nature of capitalism, and saw class as being embodied in categories which were historically fixed and eternally valid (Lukacs, 1923, p.9). Lukacs emerges with his orthodoxy intact because in place of this vulgar construction of Marxism, he posits a vision of history sensitive to the idiosyncracies of various stages of societal development. Most importantly, he places these stages within the broader context of the total historical process as revealed by Marx (Lukacs, 1923, p.10).

Thus, for Lukacs, orthodoxy essentially means adherence to the dialectical method of interpreting history (Parkinson, 1977, pps.38-39). According to Lukacs, "...orthodoxy refers exclusively to method. It is the scientific conviction that dialectical materialism is the road to truth..." (Lukacs, 1923, p.1). This view of orthodoxy does not entail uncritical allegiance to every view advanced by Marx, but rather allows for the elaboration of the dialectical method, provided that elaboration occurs along the lines laid down by Marx himself (Kolakowski, 1981, pps.264-265). It is in this sense that Lukacs is able to maintain a highly orthodox belief in the "...overpowering supra-personal law of nature which propels all social phenomena" (Lukacs, 1923, p.63), while still giving weight to what he sees as the important Hegelian aspects of Marxism (Parkinson, 1977, pps.38-39).

The re-Hegelianization of Marx

Lukacs believed that his attempt to restore Marxism to its Hegelian roots was one which Marx himself would have been amenable to (Lukacs, 1923, pps. xliii-xliv). This re-Hegelianization takes place primarily by way of Lukacs' assertion of the importance of the dialectic within the materialist tradition. Lukacs seeks to eliminate the characterization of Marxism which freezes it in a particular historical period, while still retaining its primary analytical and theoretical components.

By stressing the importance of the dialectic to the overall theory of materialism, Lukacs is attempting to re-assert the importance of revolutionary action to the process of history. He sees the dialectic as existing in the relationship between theory and practice, consciousness and action (Lukacs, 1923, pps.2-3). This conceptualization recognizes the materialist imperative for a class to be conscious not only of its own nature but also of the nature of the prevailing production relations as a whole. It further injects the idealist necessity of a theorization of the Idea in order for history to advance in a conscious manner. It is in this duality that the dialectical relationship between theory and action exists, and in which class becomes both the subject and object of history (Lukacs, 1923, p.3).

The consciousness of totality

The concept which Lukacs uses to establish the link between Hegelian idealism and Marxist materialism is the notion of totality, which he presents as the foundation of the Marxist dialectic (Kolakowski, 1981, p.254). Lukacs believed that the essential feature of dialectical materialism was the interplay of the subject and object of history in the historical movement towards unity or totality (Kolakowski, 1981, pps.259-260).

It is the realization of the character of this totality which, according to Lukacs, constitutes the fundamental basis of class consciousness on the part of the proletariat. In short, for a class to understand itself it must first understand society as a whole, and its historical role as determined by the objective conditions of that society (Lukacs, 1923, p.20). The actual evolution of history and the evolution of the proletariat's own self-knowledge are thus intrinsically linked in the same dialectical process (Lukacs, 1923, p.21; Kolakowski, 1981, p.270).[10] Thus, class consciousness ceases to be a mere abstraction, and becomes a concrete phenomena, an aspect of the actual progression of history (Lukacs, 1923, p.23).

This vision of totality carries profound implications for the strategy of the class struggle. According to Lukacs,

> The superior strength of true, practical

> class consciousness lies in the ability to look beyond the divisive symptoms of the economic process to the unity of the total social system underlying it (Lukacs, 1923, p.74).

This ability still hinges on the presence of the objective material conditions brought on by the maturation of the contradictions inherent in capitalism (Lukacs, 1923, p.76). However, Lukacs maintains that because of this, the industrial proletariat is the only class able to fully understand society as a whole (Parkinson, 1977, p.45). Because the proletariat is the class which feels the brunt of exploitive class divisions under capitalism, its historical role necessarily entails the complete understanding of society, and the apprehension of history as a whole (Kolakowski, 1981, p.270).[11] At this point, when the working class is able to "...consciously throw its weight onto the scale of history" (Lukacs, 1923, p.69), the class consciousness of the proletariat ceases to be a mere reflection of the independent movement of history, and becomes the driving force of that movement (Kolakowski, 1981, p.269).

Lukacs asserts that the objective forces of history can only lead the proletariat to the brink of transforming society, at which point conscious action reflecting the "...ideological maturity of the proletariat..." must take over (Lukacs, 1923, p.70). At the decisive point, the proletariat must take up the role history has prescribed for

it, and this requires more than the mere presence of certain objective conditions (Lukacs, 1923, p.73). Thus, Lukacs suggests that, "...the class struggle must be raised from the level of economic necessity to the level of conscious aim and effective class consciousness" (Lukacs, 1923, p.76). It is in this emphasis on the need for the proletariat to act at the appropriate historical moment that Lukacs most seriously highlights the Hegelian aspects of Marx's theory of history.

The retreat to historical materialism

While Lukacs does succeed in re-introducing a consideration of the subjective role of the proletariat in the class struggle, this achievement should not be overstated. Lukacs' reiteration of Hegelian idealism as an important facet of dialectics is, at best, of marginal importance when juxtaposed with his overall focus on a relatively orthodox brand of objective historical materialism. Lukacs continues to assert the importance of economic factors in the formation of the proletariat, and maintains that a class can only transform itself from a class *in itself* to a class *for itself* as it moves away from idealism and towards a true materialism (Lukacs, 1923, p.22).

One indication of the primacy of historical materialism in Lukacs' analysis is his insistence that class

consciousness can only exhibit itself in a tangible way in the struggle between the bourgeoisie and the proletariat (Lukacs, 1923, p.59).[12] Other classes, such as the peasantry, the petit bourgeoisie, or the lumpenproletariat cannot really have consciousness because they have no part to play in the dialectical relationship between the bourgeoisie and the proletariat. Since this dialectical relationship is the motor force of history which will lead to the transcendence of capitalism, these other classes essentially have no conscious role in history, regardless of their "particularist strivings" (Lukacs, 1923, p.61).

Lukacs extends historical materialism to the point where he sees little or no role for the empirical psychological consciousness of the proletariat at any given point in history. The desires, thoughts and feelings of the actually existing proletariat are wholly independent of the objective historical necessities of that class (Kolakowski, 1981, pps.280-281). Thus, according to Lukacs, "...the real motor forces of history are independent of man's (psychological) consciousness of them" (Lukacs, 1923, p.47). While Lukacs attempts to achieve the synthesis of subject and object, he is unable to extricate himself from the bonds of an obdurately orthodox Marxist configuration of historical materialism.

According to Lukacs, objective material conditions are not only prior to consciousness, they are also the sole determinant and measure of that consciousness:

> ...class consciousness consists in fact of the appropriate and rational actions 'imputed' to a particular typical position in the process of production. This consciousness is, therefore, neither the sum nor the average of what is thought or felt by the single individuals who make up the class (Lukacs, 1923, p.51).

While Lukacs goes on to say that the significant historical actions of a class are determined by their consciousness, he nevertheless maintains that, "...this consciousness is nothing but the expression of historical necessity" (Lukacs, 1923, p.178).

It is this position which allows Lukacs to draw a distinction between true and false consciousness; true consciousness is what the proletariat *would* think in certain situations if it grasped them correctly, and false consciousness is any other flight of fancy which may enter the proletariat's head (Parkinson, 1977, p.52). Lukacs defines false consciousness as that subjective consciousness of the individual which does not encompass a comprehension of the social totality, its relations of production, and the steps necessary to transcend it (Lukacs, 1923, p.50). Conversely, to possess true class consciousness is "...to know the direction that determines concretely the correct

course of action at any given moment - in terms of the interest of the whole process..." (Lukacs,1923, p.22). This construction makes it possible to dismiss the actual psychological consciousness of the proletariat, and in its place it becomes, "...possible to infer the thoughts and feelings appropriate to their objective situation" (Lukacs, 1923, p.51).

Lukacs recognizes that this presents the proletariat with an extremely difficult task, especially in light of the debilitating effects of reification in capitalist society.[13] But regardless of the fact that this construction of the nature of class consciousness makes the possibilities for its attainment seem highly remote, Lukacs continues to maintain that the proletariat will only become truly conscious when it realizes its historical role as a class (Lukacs, 1923, p.73). Consequently, Lukacs believes that class consciousness can be measured according to the extent to which the proletariat performs the actions that history has imposed on it 'consciously' or 'unconsciously' (Lukacs, 1923, pps.52-53). This view of class consciousness is perhaps even more teleological than the one which Marx himself would have advanced.

Praxis and the party

Regardless of his overreaching emphasis on deterministic historical materialism, Lukacs must be

credited for his attempts to achieve the unity of theory and practice by including at least a marginal notice of the role of subjectivity in the formation of class consciousness (Lukacs, 1923, pps.2-3). Lukacs does concede that although the proliferation of certain objective material conditions of industrial capitalism is necessary for the emergence of proletarian class consciousness, this relationship is not a mechanistic one (Lukacs, 1923, p.173). This means that in order to transform its miserable existence, the proletariat must advance beyond the consideration of its immediate self-interest, and search for the more remote factors of its exploitation (i.e., a comprehension of the totality). This necessitates a movement based on *praxis* - a synthesis of knowledge and action, theory and practice - which, with its ability to conceive the totality, can seek to abolish not only the actual forms of human social life, but also the reified relations of capitalism (Lukacs, 1923, pps.175, 197).[14]

However, given that Lukacs has already established that the seeds of praxis are not to be found in the actual psychological consciousness of individual workers, the question becomes: where is one to look to discover the stimulus for, and direction of this praxis (Parkinson, 1977, p.52)?

It in his answer to the above question that Lukacs most clearly descends from theory into ideology. For it is this interpretation of the nature of class consciousness that leads Lukacs to conclude that the Communist Party is the only visible and legitimate embodiment of working class consciousness. The party is the only guarantor of the historically correct political orientation of proletariat, and the only means by which the proletariat can expound its 'real' will (Kolakowski, 1981, pps.281-282). Some have argued that this capitulation to Leninism was the main thesis of Lukacs' work, and that it provided a theoretical basis within orthodox Marxism for the advocacy of struggle carried out from the top down (Piccone, 1969, pps.99-100).[15]

The impact of Lukacs' work on the theory of class consciousness has been profound, not only because of his re-introduction, albeit somewhat diluted, of Hegelian idealism into the canons of Marxist orthodoxy, but also because of the vigorous criticism which it has inspired. It has been argued that once Lukacs adopted Marxism, he merely sought out ways to proclaim its truth. His work has been called,

> ...a collection of dogmatic statements and not of arguments. Having once and for all found a standard of truth and accuracy...his dogmatism was absolute, and almost sublime in its perfection (Kolakowski, 1923, pps.306-307).

Lukacs was indeed skillful in his attempt to reconcile a subjective role for the proletariat within a vision of history which saw it as an essentially objective and determined phenomenon. However, it is impossible for him to escape his own characterization of future history as actual, knowable and determinate, and the concomitant implication that this objective future was theoretically more significant than the actual present manifestations of the consciousness of the proletariat (Kline, 1989, p.21). While it is not difficult to support Lukacs' claim that capitalism makes the existence of the proletariat historically necessary, it is not so easy to believe that consciousness of this existence necessarily entails the pursuit of a rationally formulated, historically determined path to revolution (Parkinson, 1977, p.52). As I will show in the next chapter, this path is extremely difficult to locate in the information society.

E.P Thompson - The Process of Class Formation

The publication in 1963 of E.P. Thompson's, The Making of the English Working Class, signalled an abrupt departure from the highly deterministic analyses of class consciousness which had preceded it. As one commentator has observed: "...it blew across the doldrums of the transatlantic academic community like a breeze of liberation" (Palmer, 1981, p.65). This is not to say that Thompson had wholly abandoned the Marxist vision of society.

On the contrary, his book managed to draw the fire of more conservative intellectuals who accused him of having "...an inextinguishable thirst for bourgeois blood" (Chambers, 1966, p.184).

However, from his initial exhortation that "The working class did not rise like the sun at an appointed time," and his further observation that "It was present at its own making" (Thompson, 1963, p.9), Thompson makes it clear that his is an attempt to transcend some of the limitations present in the orthodox Marxist rendition of class history. This section will discuss how Thompson's history impinges on the theory of class consciousness, by examining his method of defining class, his notion of class as an historical process, and the plurality of factors which he claims shape class consciousness (as well as a critique of Thompson's theoretical shortcomings).

The definition of class

Thompson's best definition of class came not in The Making of the English Working Class, but rather in an essay entitled "The Peculiarities of the English":

> When we speak of a class we are thinking of a very loosely defined body of people who share the same categories of interests, social experiences, traditions and value-system, who have a *disposition* to *behave* as a class, to define themselves in their actions and in their consciousness in relation to cther groups of people in class ways (Thompson, 1965, p.295).

This definition indicates that for Thompson class entails a high degree of common experience, an articulation of an identitity of interests, and a perception of relationship to other classes (Hartwell, 1971, p.363). Thompson feels that this articulation of interest occurs not only between the members of a given class themselves, but also as against other classes whose interests are different from and generally opposed to theirs (Thompson, 1963, p.9).

The most conspicuous element of this definition is that it does not characterize class as a "thing" which can be said to have an independent objective existence determined by individuals' relations to the means of production (Thompson, 1963, p.10). The corollary to this definition is Thompson's denial that there exists a "correct" consciousness for a proletariat sufficiently aware of its true interests. According to Thompson, the working class is not a static body and, accordingly, cannot effectively "...lie as a patient on the adjuster's table" (Thompson, 1963, p.11). Instead, Thompson posits a definition of class which suggests that class is a phenomenon bound up in the formation of consciousness itself, and can only be examined as such.

Class as an historical process

Thompson insists that class analysis must take into account the reciprocal dialogue between social being and

social consciousness (Thompson, 1978, p.9). That is, class is more a process of historical formation than it is a concrete economic category (Calhoun, 1982, p.17). In Thompson's words,

> By class I understand an historical phenomenon, unifying a number of disparate and seemingly unconnected events, both in the raw material of experience and in consciousness. I emphasize that it is an historical phenomenon. I do not see class as a 'structure' nor even as a 'category', but as something which in fact happens (and can be shown to have happened) in human relationships (Thompson, 1963, p.9).

Class cannot be observed by stopping history at a given point and discerning the prevailing economic structure. Rather, it can only be discovered in the patterns of relationships and ideas - the social and cultural formations - which develop between individuals over a considerable time period (Thompson, 1963, p.11). Class consciousness emerges as the culmination of an historical experience which involves the direct intervention of human agency into the context of the prevailing material conditions (Palmer, 1981, pps.70-71).

It is this emphasis on the role of human agency in the formation of both class and class consciousness which distinguishes Thompson from earlier class theorists (Calhoun, 1982, p.222). Thompson insists that "Class formations arise at the intersection of determination and self-activity" (Thompson, 1978, p.106). It is, therefore,

inappropriate to separate class and class consciousness by placing them in a sequential relationship. Instead, Thompson believes that they exist simultaneously within an active process; working-class consciousness is not the spontaneous result of the industrial mode of production. Rather it is the specific product of the active and intentional relationships of individuals within a somewhat broader social, political and cultural context. It is through the process of the class struggle that class itself arises (Thompson, 1978, p.106): "[t]he working class made itself as much as it was made" (Thompson , 1963, p.194).[16]

A pluralistic materialism

Thompson believed that class consciousness stemmed not only from decidedly material factors, but from an intricate composite of the numerous influences individuals' experience in society, both on a personal and institutional level (Thompson, 1963, p.424). Consequently, his analysis examines the total life experience of the working class, rather than merely their immediate economic interests (Thompson 1963, p.444). According to Thompson, it was more than just their position in the process of production which shaped the consciousness and subsequent behaviour of the working class.

> The pressures towards discipline and order extended from the factory, on the one hand, the Sunday school on the other, into every aspect of life: leisure, personal relationships, speech, manners. Alongside the disciplinary agencies of the mills, churches, schools, and magistrates and

> military, quasi-official agencies were set up for the enforcement of orderly moral conduct (Thompson, 1963, pps.401-402).

In terms of explaining the manifestations of consciousness, then, Thompson advises that an exaggerated emphasis on abject material conditions springing from the mode of production cannot yield comprehensive results.

However, while Thompson maintains that "In the end, it was the political context as much as the steam engine which had most influence upon shaping the consciousness and institutions of the working class" (Thompson 1963, p.197), he nevertheless maintained that intense economic deprivation was a necessary, but not sufficient condition for the formation of working-class consciousness (Hartwell, 1971, p.363). It is an indisputable fact that economic exploitation and political oppression were acutely present in the early development of English working-class consciousness (Thompson, 1963, pps. 198-199, 322-349). But Thompson does not go so far as to claim that there exists a directly causal, or even a necessarily correlative relationship between these conditions and the ensuing form or character of consciousness.[17] Instead, he attempts to identify the effects of other, non-economic factors on the strength of this relationship, as well as those which have given rise to certain attributes of consciousness wholly independent of economic origin.

This pluralistic methodology has led to the claim that Thompson is a "culturalist". Clearly, he did place a great deal of emphasis on the cultural determinants of consciousness (Calhoun, 1982, pps. 32-33; Palmer, 1981, p.71). Thompson believed that class was a social and cultural formation which exhibits itself only over a considerable period of time (Thompson, 1963, p.11). While class *position* could be designated in terms of productive relations, this was as far as purely economistic analysis of class could go.[18] Class *consciousness* could only be effectively studied as the way in which this position was operationalized in cultural terms, as perceived in traditions, value structures and social institutions (Thompson, 1963, pps. 9-10). These factors play a primary role in the continuing development of that consciousness, via the processes of socialization.

As an example of such a cultural tradition, Thompson cites certain elements of the 18th century Jacobin tradition which, when imported to England, infused ideas into the working class which were to persist over time. These included radical democratic sentiments, as well as the need for self-education and the rational criticism of political and religious institutions (Thompson, 1963, p. 183; Hartwell, 1971, pps. 362-363). Thompson also goes to great lengths to describe the effects of the proliferation of Methodism on the development of working-class consciousness.

He illustrates how Methodism managed to play a dual role as "...the religion of both the exploiters and the exploited" (Thompson, 1963, p.375). By reinforcing the religious ideal of the blessedness of poverty, Methodism provided for an inner compulsion within the proletariat to adhere to the strictures of discipline in work, subservience and the endurance of hardship (Thompson, 1963, p.350). It also provided the working-class with a sense of community which laid the foundation for class based activity (Thompson 1963, p. 375-383). The examples of the traditions of Jacobinism and Methodism, were, for Thompson, strong indicators of the importance of non-material factors in the formation of working-class consciousness.

The critique of Thompson

Much of the importance of Thompson's work on the development of the theory of class consciousness can be revealed through consideration of some of his critics. Interestingly, one of the common criticisms of Thompson is that his study lacks any theoretical insight at all. While his later essay, "The Poverty of Theory", is a more theoretically constructed attack on the structural Marxism of Louis Althusser, it is generally accepted that Thompson's landmark book could have benefitted from more theoretical clarity (Palmer, 1981, p.109) and conceptual rigour (Calhoun, 1982, p.viii). Supporters have hailed Thompson's effort as the ultimate synthesis of the structural and

economic dimensions of class with the social, political and cultural factors neglected in other analyses (Palmer, 1981, p.114). But a crucial point in the critique of Thompson is that he merely hijacked, then deployed the vocabulary of class analysis in a fashion which seriously compromised the theoretical integrity of not only his own analysis, but the concept of class itself (Calhoun, 1982, p.18).

Much of this criticism stems from the outrage with which Marxist theorists greeted Thompson's abandonment of a brand of historical materialism which relied solely on the operation of objective economic conditions. They claimed that Thompson's overwhelming stress on subjective consciousness as the definitive element of class rendered "class" analytically impotent (Calhoun, 1982, p.22). Moreover, it was argued that Thompson's exclusive attention to the actually existing consciousness of individuals led him to embellish the significance of what were really only the immature activities of a fledgling proletariat (Nairn, 1972, p.199). As aptly expressed by one critic: "Mr. Thompson is forced to assume an unprovable secret revolutionary tradition among the workers which was responsible for those revolts which did not occur" (Hartwell, 1971, p.370). Still others criticized Thompson for not realizing that a conceptualization of class consciousness which relied so heavily on subjective forces ran the risk of condemning the proletariat to ideological

assimilation by the bourgeoisie. As the proletariat could not independently create a separate world beyond the reach of bourgeois customs and values, it would steadily come to rely on the bourgeoisie for the transformation of society (Chambers, 1966, pps.184-185; Nairn, 1972, p.202).

Even bearing the above criticisms in mind, it would be overly rash to summarily dismiss Thompson from the Marxist tradition, as some have done (Thernstrom, 1965, pps.90-92). Thompson did not devote much space to the centrality of historical compulsion and the inevitability of proletarian revolution because he felt that such an analysis was mere rhetoric unless it was substantiated by empirically verifiable working-class activity (Palmer, 1981, p.7). Nevertheless, his empirical study of the English working class developed under the rubric of identifiably Marxist normative priorities, but in its unfolding revealed the potential deficiencies of an inflexible allegiance to Marxist determinism. As one analyst has put it,

> ...he is Marxist enough to believe that class consciousness can, given appropriate historical conditions, become an enormously strong element in the way a mass of men and women think (Best, 1965, p.272).

Thus, while Thompson could never be accused of being a doctrinaire historical materialist, his analysis nevertheless employs Marxist categories and can easily be deemed to be operating within the spirit of the Marxist

theoretical framework. His primary contribution to the theory surrounding the notion of class consciousness can be found in his re-examination of the subjective element of consciousness in manner which is far less obscure than that found in the work of Lukacs. However, Thompson's subjective focus should be tempered with a consideration of the degree to which the subjective consciousness of the proletariat constitutes an awareness of the objective nature of the conditions of capitalism which enslave it, as well as a realization of the most efficacious route for transcending this debased existence.

The Operationalizing of Class Consciousness

The broad theoretical terms in which class consciousness has been stated in the preceding sections have proven to be insufficient to those social scientists who have sought to locate the phenomenon within existing societies. As a result, numerous attempts have been made to formulate a more precise definition, which would fulfil certain minimum conditions before class consciousness could be said to exist. As observed by Ralph Miliband, "One consequence of this is to turn class consciousness into a catechismal orthodoxy" (Miliband, 1977, p.35). Indeed, such definitional rigidity does have the potential to limit the sensitivity of analysis.

However, an additional consequence of such attempts at elaboration and refinement is often the renovation of a concept in a way which allows it to be more easily operationalized as an analytical tool. In the case of class consciousness theory, subsequent attempts at delineating conditions which could allow designation of an actor as "class conscious" have tried to incorporate the main theoretical points of thinkers such as Marx, Lukacs, and Thompson. What they have attempted to add is some form of clearly stated operational framework neglected by these earlier thinkers. This section will discuss a few of these attempts, and highlight the areas which other class theorists and analysts have seen as the most important elements of class consciousness.

The acceptance of the subjective

It can generally be asserted that most observers concerned with class consciousness as a verifiable phenomenon in capitalist society, are willing to concede that some consideration must be given to the subjective disposition of the working class. This was acknowledged even before Thompson, by scholars such as Ralf Dahrendorf, who realized that class conscious behaviour on the part of the working-class had to entail at least some degree of conscious action towards formulated goals (Dahrendorf, 1959, p.25).[19]

However, after Thompson's embrace of the subjective aspect of class consciousness this element became integral to all subsequent elaborations of the concept. As one analyst observed,

> ...we have long since passed out of the era in which the real consciousness of social groups, expressed in their beliefs and actions, could be discussed as mere 'psychological', 'false' consciousness (Bottomore, 1972, p.62).

Ironically, it was the changing objective conditions of capitalism which predicated this change in perspective. The increase in the opportunities for geographic and social mobility, the growing complexity of the division of labour, the swelling of the middle class and the disruptions caused by new technologies severely compromised the analysts' ability to isolate material forces to which could be attributed a homogeneous and cohesive working-class consciousness (Bottomore, 1971, pps.51, 60). Hence the abandonment by many of the search for consciousness within these highly volatile objective circumstances, and the recognition that essentially subjective class-based *action* would have to find a place in the lexicon of the theory of class consciousness (Meszaros, 1971, p.120).

The criteria for class consciousnesss

Many political and sòciological analyses of the concept of class consciousness stop short of defining it, and are

satisfied to list the possible variables which can affect its existence. While such analysis is important, it often leads to the frustrating conclusion that "...for collective action to take place so many conditions must be fulfilled that it is a wonder it can occur at all" (Elster, 1985, p.361). Nevertheless, a number of scholars have posited criteria by which the existence of class consciousness in a given context can either be established or denied. I will now outline three such attempts.

The first is advanced by Joseph Lopreato and L.E. Hazulrigg, who define class consciousness generally as,

> ...a state of mind in which the individual identifies with a given class to the point of adopting its interests as his own, and engaging in concerted action within that class against the interests of another (Lopreato & Hazulrigg, 1972, p.116).

On this basis, the authors develop a five-point schema for measuring the class consciousness of any given socio-economic group. The first dimension is presence of *social perceptivity*, or an awareness of differences in individual skills and rewards. The second dimension is *class awareness*, which entails identification of crystallized political and economic interests in society. Such images of the class structure of society may relate to economic, political or occupational indexes of prestige.

A third component of class consciousness outlined by Lopreato and Hazulrigg is *dimensional awareness*, which is a comprehension of the factors underlying class division and membership. These factors include: style of life; occupation and education; and wealth or poverty. The next attribute of class consciousness is *class placement*, or the self-location of an individual within a subjectively conceived class structure. The final dimension is *class solidarity*, which denotes the identification of one's interests as *class* interests. It is only when all five criteria are satisfied that a class can be said to comprise what Lopreato and Hazulrigg call a fully conscious "community of fate" (Lopreato & Hazulrigg, 1972, p.123).

Another attempt at developing a set of minimum conditions of class consciousness comes from the sociologist Michael Mann. In Consciousness and Action Among the Western Working Class, Mann designates four basic elements of class consciousness (Mann, 1973, p.13). The first is *class identity*; for the worker this means a self-identification as working-class in terms of the distinctive role one plays in common with others in the productive process. The second important element is *class opposition*, or a workers' perception that the capitalist and his agents constitute his or her enduring opponent. Thirdly, class consciousness requires a condition of *class totality*, or the proletarian's acceptance that the above two elements are the defining

characteristics of his or her existence, and of society as a whole. Mann's final constitutive element of class consciousness is a vision or conception of some sort of desirable alternative society. According to Mann, the combination of these four elements represents truly revolutionary class consciousness.

But perhaps the most informed contribution to the development of a set of attributes which indicate the presence of class consciousness comes from Ralph Miliband, who defines class consciousness as,

> ...an understanding that the emancipation of the proletariat and the liberation of society require the overthrow of capitalism; and this understanding may also be taken to entail the will to overthrow it (Miliband, 1977, p.33).

This definition places Miliband squarely within the Marxist tradition. However, Miliband argues that for Marx, consciousness did not necessarily mean an unswerving and absolute adherence to given formulas, as some analysts may believe (Miliband, 1977, pps.34-35). Instead, Miliband refutes the dogmatic assumption that class consciousness is a static condition which, once achieved, is irreversible, and posits in its place a view that the conceptualization of this dynamic phenomenon must allow for this reality (Miliband, 1977, pps.35-36).

This attention to the dynamism of class consciousness leads Miliband to develop a flexible set of criteria with which to investigate class consciousnesss in any given society (Miliband, 1971, pps.22-23). The first element Miliband requires is an individual's recognition of class membership. The second is a coherent sense of the immediate interests of one's class, involving a shared perception of short-term strategic objectives. Thirdly, Miliband posits that for an individual to be class conscious, he or she must exhibit a will to advance the interests of his or her class. The final requirement for determining the existence of class consciousness in a given situation, according to Miliband, is an individual's perception of what this advancement requires. Miliband would later assert that while class consciousness entails definite perspectives and delimitations, it does not necessarily produce an immediate will to insurrection; it is not an irreversible Marxist "state of grace" to be "achieved" once and for all (Miliband, 1977, pps.36-40). Thus, movements for progressive social reform cannot be summarily dismissed as manifesting false consciousness. Indeed, under Miliband's criteria, such movements are identifiably class conscious insofar as they indicate "...a certain understanding of the nature of the social order and of what needs to be done about it" (Miliband, 1977, pps.35-36).

In formulating the indicators of class consciousness in this manner, Miliband presents class consciousness as an analytical tool which can be used in a well developed industrial capitalist society. This is something which previous class theorists such as Marx, Lukacs, and, to a lesser degree, Thompson did not provide for in any easily accessible way.

Conclusion

The notion of class consciousness is one of the key analytical apparatuses of class theory as a whole. Indeed it can be argued that without it, analysis based on class is deprived of a great deal of its capacity to address observable political phenomena. Class analysis which neglects class consciousness is unlikely to advance beyond the level of a static and descriptive sociological categorization. In this chapter, I demonstrated the importance of the notion of class consciousness to class theory as a whole, by tracing the development of the concept within the Marxist tradition. While the treatment of class consciousness offered by Marx himself was sporadic, his views on the subject can be inferred from other fundamental aspects of his theory, particularly his vision of historical materialism. By marrying it to his broader theory of history, Marx offers a concept of class consciousness which is highly objective, deterministic and rigid.

Georg Lukacs does not succeed in escaping this rigidity. Although he to re-introduces a certain degree of Hegelian idealism into his admittedly orthodox theory of historical materialism, Lukacs still casts consciousness as the subjective enactment of the objectively determined role of the proletariat in history. This subjectivity is relatively minor, as it exists only in so far as it constitutes a recognition by the proletariat of the social "totality" and the historical responsibility to which this recognition gives rise.

E.P. Thompson goes to the other extreme in relating subjectivity and class consciousness. His flexible construction of class consciousness appropriately emphasizes the importance of the role of subjective consciousness much less obscurely than Lukacs. Thompson also effectively highlights some non-economic factors which shape consciousness, such as religion, culture and tradition. However, at times, Thompson's attention to empirical detail deprives him of a coherent theoretical statement of the role of class consciousness in history.

This survey of three major thinkers in the development of the theory of class consciousness was intended to sensitize the reader to some of the theoretical debates which have given shape to this concept. These include: the debate between idealism and materialism; subjective versus

objective forms of consciousness; historical determinism as opposed to pragmatism; and the conflict surrounding the primacy of economic as opposed to pluralistic materialism. In their attempts to operationalize the concept of class consciousness, subsequent class theorists have dealt with the implications of these debates. As I will discuss in the following chapters, the significance of these debates is enhanced by the changing nature of class dynamics in the information society.

This chapter offers no conclusions on these specific theoretical controversies. The fruits of such an exercise tend to be the production of criteria for class consciousness which are so exceedingly complex that they invariably lead to the conclusion that, "It seems rather unlikely that the proletariat carries *in itself* the power to be a class *for itself*" (Mann, 1973, p.73). Though this may be true in certain specific cases, it is a mistake to assume that this conclusion can comprehensively account for the full range of working-class political activity.

Instead of surrendering to this complexity, what I will do is outline a number of variables, the relative strength of which can be said to indicate the presence of a certain degree of class consciousness in a given individual or group. These are as follows:

1. The knowledge that different classes exist in

society, and a knowledge of the factors which distinguish them;

2. The identification of oneself as belonging to a particular class (i.e., the 'working-class');

3. The perception that one's interests are connected to the interests of his or her class as a whole;

4. A discursive awareness of the character of the relationship between one's class and other classes (i.e., exploitation, subjugation, custody, mutual benefit, etc.);[21]

5. The propensity of individuals in a given class to act cohesively, in such a way that reflects the above four considerations.

It should be stressed that the above variables, particularly the fifth, must be considered in the context not only of each other, but also of other salient socio-economic and ideological factors. Evidence of the complete presence of all five variables is not necessary to establish the existence of a certain degree of class consciousness; rather it is the relative influence of these variables, on a broad range of social activity, which determines the significance of class consciousness.

I believe that this conceptualization of class consciousness retains the spirit and form of the Marxist tradition, while still allowing for meaningful assessment of the concept's analytical efficacy. On this basis I will assess the potential ability of this theoretical construction to illustrate the possibilities for class consciousness in the information society.

Notes

1. The so-called "Young Hegelians" included Bruno Bauer, Ludwig Feuerbach, and Max Stirner.

2. Marx contends that the ruling class, "...rule also as thinkers, as producers of ideas, and regulate the production and distribution of the ideas of their age" (Marx & Engels, 1846, p.67). This is a theme which Marx returns to in the Communist Manifesto when he declares, "The ruling ideas have ever been the ideas of its ruling class" (Marx & Engels, 1849, p.52).

3. Hence the famous declaration by Marx at the beginning of the Manifesto: "The history of all hitherto existing society is the history of class struggle" (Marx & Engels, 1848, p.35).

4. This is evidenced in Marx's criticism of the utopian socialists, such as Robert Owen, Charles Fourier and Paul St. Simon. Marx feels that their efforts failed precisely because the economic conditions necessary for the emancipation of the proletariat, conditions which could only be produced by advanced bourgeois capitalism had not yet developed (Marx & Engels, 1848, p.64).

5. For instance, John Elster develops a composite definition of class which is predicated on property, exploitation, market behaviour and power (Elster, 1985, pps.321-322). He then proposes a general definition which holds that, "A class is a group of people who by virtue of what they possess are compelled to engage in the same activities if they want to make the best of their endowments" (Elster, 1985, pps.330-331).

6. The central role of ownership of the means of production in the Marxist definition of class has been established by a number of authoritative sources. See, for instance: Cohen, 1978, p.73; Kolakowski, 1978a, p.353; Miliband, 1977, pps.26-27; Elster, 1985, p.322. This is further validated in the note by Engels in the 1888 English edition of the Communist Manifesto, which reads, "By bourgeoisie is meant the class of modern capitalists, owners of the means of social production and employers of wage labour. By proletariat, the class of modern wage labourers who, having no means of production of their own, are reduced to selling their labour power in order to live" (Marx & Engels, 1848, p.35).

7. This alienation was also felt in the immediate sense that workers no longer had control over the fruits of

their labour. According to Marx, under capitalism, "...the worker is related to the product of his labour as to an alien object" (Marx & Engels, 1844e, p.72).

8. Marx advises that, "...the working class cannot simply lay hold of the ready made state machinery and wield it for its own purposes" (Marx & Engels, 1871a, p.68). Thus, a class conscious revolution must be one which opposes and seeks to abolish not just a particular *form* of class rule, but class rule *itself* (Marx & Engels, 1871a, p.71).

9. This ambiguity is revealed in Leszek Kolakowski's chapter on Lukacs, which he subtitles: "Reason in the Service of Dogma." Kolakowski outlines how Lukacs was prone to abrupt ideological shifts in response to pressure from the Communist Party (Kolakowski, 1981, pps.253-264). It has been argued that Lukacs' periodic retreats into Marxist dogmatism were not so much conscious re-capitulations of his earlier positions as they were necessary measures for his political survival (Piccone, 1969, p.103).

10. While Lukacs would not say that class consciousness magically springs from material conditions, he would maintain that, thus construed, it is still explicable under the rubric of historical materialism.

11. The need to recognize the totality of social and economic forces was something which Marx himself saw as an important indicator of true class consciousness. In his discussion of the Silesian weavers uprising of June 1844, he remarks on its "superior character" in that it attacked not only the small property holders, but also the institution of private property itself, as embodied by, "the banker, the hidden enemy" (Marx 1844c, pp128-129).

12. This is due to the fact that it is only in capitalist society that economic factors are revealed in consciousness itself, and it is only the proletariat and bourgeoisie which can be aware of the class character of these factors.

13. Lukacs devotes an entire chapter to the question of reification, which can be defined as the combination of alienation and commodity fetishism under capitalism. The result of this combination is an internalization of the relations of production by the worker to the extent that she believes herself to be a commodity, and no longer recognizes this process as either the source of her exploitation, or subject to change. See, for instance, Lukacs, 1923, pps.70, 86-87, 100-101.

14. It is this element of Lukacs' theory which has caused him to be labelled as the predecessor of the Frankfurt School. For a discussion of this connection see Maier, 1970, pps. 53-61.

15. It has been pointed out that this argument provides for the absolute sanctity of the party. The party is the embodiment of proletarian class consciousness, which, owing to the social and economic reality from which it springs, is necessarily historically correct. Therefore, the party is always correct (Kolakowski, 1981, p.282).

16. As indications of this agency during the time period he is studying, Thompson presents the proliferation of trade unions, friendly societies, educational and religious movements, political organizations and periodicals (Thompson, 1963, p.194).

17. In fact, Thompson even leaves room for the possibility that no correlation may exist, i.e., that actual human experience run directly contrary to what is in the objective best interests of the working-class at a given point in time (Thompson, 1963, p.211). Thompson further argues that a change in economic life does not necessarily produce a corresponding change in social or cultural life, and he warns against the underestimation of the resilience of political and cultural tradition within the working-class community (Thompson, 1963, p.193).

18. Gerald Cohen does not even credit Thompson with this minor degree of materialism. Cohen strongly criticizes what he sees as Thompson's belief that because class consciousness is not mechanically determined by the relations of production, class position itself cannot be defined by these relations. Cohen insists that productive relations are the only means by which to define class position, and that consciousness as exhibited in cultural or political activity is totally secondary to this objective definition (Cohen, 1978, pps.73-77).

19. Dahrendorf links this to a psychological component of class consciousness, wherein he cites the need for a consciousness of certain "manifest interests" on the part of the proletariat (Dahrendorf, 1959, pps.178-179).

20. John Elster, for example, goes to considerable length in discussing factors such as group size, physical proximity of members, membership turnover, membership homogeneity and the technology of group action (Elster, 1985, pps.354-357).

21. By "discursive" I mean an awareness which can be

articulated in a manner which is understandable and meaningful to members of each class involved in the relationship.

Chapter III - Capitalism, Class, and Class Consciousness in the Information Society

The relationship between technology and society was not one which Marx left unexplored. Indeed, within the confines of capitalism, Marx felt that the character of class relations could effectively be gleaned from the manner in which technology was utilized in the process of production. According to Marx:

> Social relations are closely bound up with productive forces. In acquiring new productive forces men change their mode of production, and in changing their mode of production, in changing their way of earning a living, they change all their social relations. The handmill gives you society with the feudal lord; the steam mill, society with the industrial capitalist (Marx, 1847, p.102).

The information society definitely represents a change in the productive and social character of the western capitalist world. The question is whether the class relations specific to capitalism have also undergone a change, and whether Marxist interpretations of class and class consciousness still apply to the information society.

There is fairly widespread agreement that the explanatory capabilities of crude Marxism are no longer sufficient to reveal the dynamics of the information society. Liberal observers feel that the established Marxist analytical categories are no longer able to address the changed conditions in western capitalist societies

(Brzezinski, 1970, p.22). In regards to the issue of class, these analysts generally believe that the information society has eliminated the possibility of a revolutionary role of the working class, as technological affluence has served to radically alter, and in some cases erase, class distinctions (Bell, 1973, pps.107-109). For liberals, the question of class as Marx envisioned it is simply not an issue any more.

More critical observers also feel that the classical Marxist account of class and class consciousness is somewhat limiting in regard to the understanding of the information society. However, this is not because the information society has eliminated class divisions, but rather because the notions of class and class consciousness formed in the 19th century era of capitalist industrialization are not theoretically dynamic enough to cope with the nature of class relations in the information society (Marcuse, 1964, p.xiv; Touraine, 1971, p.27). Sentimental attachment to these more orthodox forms of analysis has led to false expectations, the posing of questions in misleading or unanswerable forms, and the neglect of certain salient features of the information society itself (Calhoun, 1982, p.x).

This does not, however, mean that class analysis of the information society should be dismissed out of hand, for

this would represent a severe underestimation of the resilience of many class related features of industrial capitalism, as well as the potential for the rise of new conflicts and struggles which have a distinct class character (Lyon, 1988, pps.4-5). Instead the task is to affirm the fundamental importance of class in the information society, by detaching it from its historical accretions through a critical analysis of the shortcomings of its old themes in relation to the new empirical realities.

This chapter will show that while definite class structures continue to exist, developments in the information society severely limit an individual's ability to be aware of them. In so doing, this chapter will shed light on the nature of, and factors involved in, the class relations and potential formation of class consciousness in the information society. It will also consider the analytical efficacy of the conceptual framework laid out in the previous chapter. Through these and other discussions, this chapter will advance a critical examination of the information society itself.

The Continuity of Privilege

Liberal observers such as Daniel Bell posit that in the information society, class stratification based on wealth will give way to a meritocracy wherein scientists and

engineers will comprise a new, benign elite which will direct and manage society (Bell 1973, pps. 221-223, 345, 358). Bell feels that these technologists are not bound by sufficient common interest to constitute a political class, nor are they likely to become an economic class, as the norms of this new intelligentsia represent a departure from the economic self-interest which characterized the industrial era (Bell, 1973, pps.362, 374-375).

However, in a much more insightful and convincing approach, critics of the information society point out that while information may be changing the way that power is wielded, it is not changing the nature of power itself. Rather the information revolution is predominantly conservative in nature, insofar as it serves to consolidate the existing relationships of social power and control:

> Current developments in the information age suggest an increase in power by those who already had a great deal of power, an enhanced centralization of control by those already prepared for control, an augmentation of wealth by the already wealthy (Winner, 1989, p.88).

It is contended that the communication revolution represents a concerted effort to extend and maintain the advantage of certain already entrenched and well-endowed minority groups in society, including the government, the military and the corporate elite (Schiller, 1989b, pps.109-110, 112).

The proliferation of information technologies and their related structures actually serves to prevent the kind of social change that would threaten entrenched privilege. Those responsible for and in control of these innovations do not intend for them to be used in any other way than the pursuit of profit, and the reinforcement of existing social and economic inequalities (Schiller, 1989b, p.106; Robins and Webster, 1987, p.113) This means that in the information society the basic social relationships of power remain intact, and the division of labour with its accompanying class structure still exists (Eckencrantz, 1987, pps.80-86). Thus, while its members may be engaged in jobs of a different nature, there is still a working class dominated by a capitalist class which controls information in the prevailing mode of production, and enjoys the appropriation of its surplus (Schiller, 1989a, p.158).

Just as they ignored the class character of pre-information society capitalism, liberal observers of the information society have failed to recognize its continuing class character. This is primarily because they have concentrated their efforts on the *potentials* of technologies rather than the social relations which determine the manner in which these potentials may or may not be realized (Garnham, 1982, p.285). As William Leiss warns, "...there is no fixed relation between new technologies themselves and the distribution of benefits and costs among persons and

institutions" (Leiss, 1990, p.x). As such, analysis of class dynamics in the information society must be sensitive to the fact that technological innovations have no social meaning independent of the manner in which they are used. That in the information society this use is generally determined by those who already exercise control over technology means that the capitalist class relations and privilege are not about to disappear (Young, 1987, p.121).

However, those who deny that information technologies and their use are having an effect on the character of these class dynamics are committing the same error as the liberal observers. Both assume that class relations remain constant despite changes in the forces of production and social integration - in this case, the rising pre-eminence of information. Thus, it is just as important to highlight the changes in class relations, precipitated by the onslaught of information technologies, as it is to recognize what has remained unchanged.

Such an approach has been formulated by Tessa Morris-Suzuki. In outlining the concept of "information capitalism", she shows that both the old and new features of capitalism in the information age can be synthesized to provide a comprehensive class analysis (Morris-Suzuki, 1986, pps.88-89). Morris-Suzuki contends that the direct exploitation of the manufacturing workforce which

characterized the industrial era has, via the process of automation, given way to "...a new system where exploitation increasingly encompasses all those involved in the creation of social knowledge and its transmission from generation to generation" (Morris-Suzuki, 1986, p.89). The exploitation inherent in capitalism continues apace in the information society, but its scope and operation has changed.

The continuity of privilege and exploitation indicates that the information society is still a class society. Whether this realization works its way into the consciousness of individuals is the topic of subsequent sections. Before moving on to that discussion, it is necessary to examine some of the changing dynamics of class relations in the information society.

Class Boundaries in the Information Society

If the information society involves a continuation of privilege for an elite minority, then it becomes important to identify how this privilege is accrued, and how it manifests itself in terms of class division. This section will consider the changing nature of the factors which are commonly held to distinguish one class from another, and discuss the effect this has on the class composition of the information society.

Information and private property

The right to possess private property is the cornerstone of any capitalist economy, and the ownership of this property is one of the main axes upon which Marxist definitions of class turn. Some scholars believe that with the demise of industrialism came the end of property as a dominant basis of stratification. Liberal observers such as Bell felt that property was being replaced with technical skill, education and knowledge as the determinants of status in the post-industrial world (Bell, 1973, p.115). Critics such as Touraine felt that in the programmed society, the dominated classes would be defined by their submission to the machinery of perpetual growth, and their dependence on the mechanisms of engineered change, rather than property (Touraine, 1971, p.54). Others felt that although education and skill levels were becoming increasingly important, basic social divisions would continue to be determined on the basis of property (Lyon, 1988, pps.63-64).

The fact that private property in its classical or *physical* sense still exists as a significant manifestation of wealth and power is indisputable. What appears to be a more pertinent question, however, is whether or not information, as the new primary resource of capital, can legitimately be construed as property, and whether the answer to this question has any implications for the study of class in the information society. While information

facilities and machines can be properly construed as *physical* property, the status of information itself is not so clear

According to one analyst,

> Information may be a property object because it is valuable, scarce and appropriable. When it is created, information has the quality of natural property - that is, something new brought into being by a creator or discoverer (Wunderlich, 1974, p.86).

However, the protection of informational property has proven to be somewhat problematic. Old mechanisms of protecting intellectual property, such as copyright, patent and secrecy are not well suited to the new information products. For instance, while copyright is designed to protect literary expression, it is difficult to see what it is about a computer program that defines it as a literary work (i.e. is it the coded language which makes the program work or the way the program looks on a screen?). Traditional categories of intellectual property law based on certain types of products and processes are unable to cope with the complexities of the outputs of the new information generating technologies. Coupled with the globalization of the marketplace and the privatization of many information providers, this makes the designation of information as property in the traditional sense very difficult (Branscomb, 1989, pps. 408-409).

Nevertheless, this has not curtailed attempts by the corporate sector to use existing property laws to protect information as property, as their enterprises become increasingly dependent on the ability to effectively control information (Schiller, 1989a, p.50). This struggle to turn information into private property stems directly from the corporate sector's recognition of the value of information as a source of profit (Garnham, 1982, p.290). Notwithstanding this desire on the part of the corporations, information still maintains a fairly ambiguous existence as property, and it is for this reason that the question of ownership, *vis a vis* class structure, must also be re-examined.

Ownership versus control

If the status of property as an economic value has changed, due to the ambiguous nature of information *as property*, then so too has the importance of ownership as a determinant of class position. In the classical Marxist formulation the ruling class is designated as those who own the means of production. However, as information and knowledge become the primary capital resource, and power increasingly is vested in those who have authority over the use of this information, the relevance of the "ownership of the means of production" becomes subject to question (Bell, 1973, p.119; Drucker, 1968, p.147).

Information as an abstract social value cannot properly be "owned" and therefore it is difficult to base a model of class stratification on the ownership of the means of production in the information society. But information can be controlled, and it is widely believed that the new basis for class stratification in late capitalism is the control, as opposed to ownership, of information (Young, 1987, p.121). Power in the information society centers around the ability to centralize and manipulate information, which has been made easier by the development of new technologies (Dizard, 1989, p.156). As the controllers of information are able to select and shape the information which is circulated throughout society, class analysis becomes "...a matter of who the selectors are and whom they represent" (Schiller, 1981, p.20).

Conceptualized as the control of information, class power is also revealed in terms of proximity to decision making power, and this becomes the locus of class conflict (Touraine, 1971, p.77). According to Touraine:

> There are new social conflicts peculiar to the society we observe being formed. Rather than simply a conflict between capital and labour, the new conflict is between the structure of economic and political decision making and those who are reduced to dependent participation (Touraine, 1971, p.9).

Thus, analysts of the class structure in the information society generally point to the potential for cleavage

between the technocrats who comprise the dominant class of information controllers, and those who are governed by them (Lyon, 1988, pps.4-5). *Function*, as opposed to ownership, becomes the crucial category of power in a society whose direction is largely determined by information services and technologies (Burnham, 1960).

However, this is not to say that the ownership of physical property has vanished as a factor of class relations in the information society. Indeed, much of the infrastructure of the information society - the computers, satellites, and fibre optic cables - can be and are "owned" just like any other piece of property. The fact that this ownership generally coincides with the control of the informational outputs of this infrastructure indicates that information can be captured by and subject to the same market relations that were present in industrial capitalism. This has led to the claim that the ruling class in the information society is comprised of those who maintain private ownership of the means of "cultural production", and control the sale of its outputs for profit (Schiller, 1989a, p.32).

Thus, class boundaries in the information society are determined by a complex configuration of the ownership of the physical structures of the information infrastructure, and the control over the distribution of its products. The

fact that these two phenomena customarily coincide should come as no surprise, as information technologies have generally been developed and implemented at the behest of the vested power interests of society. As Ralph Miliband points out, this distinction between ownership and control is unlikely to reveal a dramatic shift in the composition or behaviour of the ruling class: those who control but do not own (managers) are still concerned with the maximization of profit and accumulation of capital; both managers and owners are subject to the constraints imposed by the objective requirements of capitalist market behaviour and success; and, as such, both owners and managers usually share similar ideological and political dispositions (Miliband, 1977, p.27).

The privatization of information and the question of access

As Daniel Bell observed "Information is power. Control over communications systems is a source of power. Access to communication is a condition of freedom" (Bell, 1979, p.176). Indeed, it is the inequity of ability to access information, and the ability of a privileged minority to control that access which most vividly illustrates the class character of the information society (Bates, 1989, pps.21-22). The question of access is affected by a number of considerations. One is that information itself is becoming increasingly complex and specialized, and its use demands highly developed skills which are not evenly distributed

throughout society (Hamelink, 1986, p.10). The widespread use of home computers by many individuals does not really represent a significant point of universal information availability if access to relevant networks is tightly controlled. As one observer points out, "The management structure of the information industry is not affected by the proliferation of electronic gadgets. If anything, it is considerably strengthened by the widespread use of its products" (Hamelink, 1986, p.11).

The most important factor in the control of access has been the widespread privatization and commercialization of information, and the concomitant undermining of the belief that information is a social good belonging to the entire community (Schiller, 1981, p.47). As Nicholas Garnham notes,

> ...the introduction of on-line information systems in the United States has led to a shift of information out of the public sphere and into the private, where price barriers to access are making that information less freely available than it was before and where decisions on what information to make available and in what form, are made on the basis of market considerations or other corporate interests, rather than on the grounds of public interest (Garnham, 1982, p.290).

An example of the effects of privatization in the information society is the deregulation of the telephone industry in the United States, with the result that the price of long distance service has risen beyond the level that many people can afford (Mosco, 1988, pps.11-12).[1] Another example of how privatization disproportionately

affects the lower classes negatively is the introduction of user fees for library access in the United States; the imposition of a market criterion in the form of ability to pay seriously challenges the ideal of egalitarian access to information (Schiller, 1989a, p.75).

The commodification and privatization of information have led to what has been called a "pay-per society", wherein "...we have lost sight of a growing class of people who cannot afford the price of admission to the information age" (Mosco, 1988, p.10).[2] The much heralded potential for mass access to information has been transplanted by the reality of an elite class of corporate and government interests who have unlimited access to and control over information (Dizard, 1989, pps.38-41). The result has been an increasing widening of the gap between those endowed with the attributes necessary to exploit and control information, the so-called "information rich", and those who lack either the money or the opportunity to access information, the "information poor" (Dizard, 1989, p.179).

Thus, the dominant class image of the information society is that of a small minority who through its ownership of the information infrastructure is able to control the distribution of information, and a large majority of people who are effectively disenfranchised by their inability to access information. The difference is

essentially between information "haves" and information "have nots" (Schiller, 1981, p.42). Discussion of the growing concentration and power of the former group will reveal a good deal about the possibilities for class consciousness in the information society.

Government involvement in the information society

While the dominant trend in the information society is towards the privatization of information, and the consequent location of control within the corporate sector and the free market, government, particularly in the United States, remains a major force in the control of information.[3] A large degree of this control is exercised via direct government involvement in communications and information gathering. In the United States, government agencies involved in these areas include: the Federal Communications Commission; the Department of Transport; the State Department; the U.S. Information Agency; NASA; the National Security Agency; the F.B.I. and the C.I.A.; the Internal Revenue Service; and numerous other scientific and professional services which regulate medical and educational information (Dizard, 1989, pps.162-163).

Perhaps more important in terms of information control has been the establishment by the American government of a complex network of policies that restrict access, shape content, and regulate the communication of information. This

network includes such things as an expanded classification system, limits on the exchange of unclassified information, export restrictions for technical data, and restraints on contacts between American and foreign citizens (Shattuck & Spence, 1989, p.451-454). Furthermore, the federal government's funding of information related projects places it in a unique position to influence content and to restrict publication (Shattuck & Spence, 1989, pps 456-457).[4] It is becoming increasingly evident that even the small portion of information which remains in the "public" sphere is subject to strict control by government, and therefore not universally accessible to the public at large.

Corporate concentration in the information society

As information began to be recognized as a source of profit it moved quickly into the private sphere where it could be fully exploited. However, this movement did not produce in the corporate sector a vigorous plurality of activity in terms of the proliferation of a large number of new interests moving in to take advantage of a newly abundant resource and market. Instead, what has characterized the corporate sector in the information society has been a rapid concentration of a few giant companies in the spheres of both hardware manufacture and content-related information services (Schiller, 1981, p.40; Schiller, 1989a, p.4). This concentration represents a huge consolidation and intensification of the power of the

information controlling class, as well as the creation of an ever more complex set of institutional power arrangements between that class and the information poor.

One area where this concentration is highly developed, and evident, is the mass media. In his definitive study of this subject, Ben Bagdikian observes:

> Each year it is more likely that the American citizen who turns to any medium - newspapers, magazines, radio or television, books, movies, cable, recordings, video cassettes - will receive information, ideas or entertainment controlled by the same handful of corporations, whether it is daily news, a cable entertainment program, or a textbook (Bagdikian, 1990, p.ix).

Bagdikian meticulously documents corporate concentration in the television, movie, radio and publishing industries to reveal what he calls the "media-industrial complex" (Bagdikian, 1990, pps.11-15). He uses this designation to describe the situation whereby despite the existence of over 25 000 media outlets in the United States, only twenty-three corporations control the majority of all media business (Bagdikian, 1990, p.4). As Bagdikian finds, "There are fourteen dominant companies that have half or more of the daily newspaper business, three in magazines, three in television, six in book publishing, and four in motion picture production" (Bagdikian, 1990, p.18).[5] He further predicts that if the current rate of acquisitions, mergers and takeovers continues, by the end of the 1990's a half dozen large corporations will be in control of **all** the major

media outlets in the United States (Bagdikian, 1990, pps.3-4).

The trend of corporate concentration is also in evidence in the information technology and hardware manufacturing industries. In 1981, Herbert Schiller reported that IBM, one of the giants in this field, was operating 44 plants in 15 countries, controlled 50 per cent of the communications markets in most developed countries of the world, and supplied over 65 per cent of the computer equipment in the United States. Thus, "The manufacture of computers and the vital components of computers, the microcircuit, have become the business of a few giant companies" (Schiller, 1981, p.40). By, 1989, IBM was operating in over one hundred countries throughout the world (Schiller, 1989a, p.160).

This concentration has occurred largely as a result of rapid corporate mergers, as companies feel the need to integrate vertically (i.e., control not only hardware manufacture but also software development, distribution, marketing, etc.), as well as horizontally (i.e., companies regroup around a coherent range of compatible products) Lyon, 1988, p.31). A second important element of this concentration is the proliferation of interlocking directorships between information and non-information firms. Directors of information firms are also directors of

companies in other sectors, including agribusiness, defense contracting, banking, energy, insurance, etc. (Bagdikian, 1990, p.25).[6] This indicates that control of the information sector resides squarely within the confines of the corporate sector, who through their ownership of the major components of the information infrastructure, are able to effectively control the production of information technologies, access to information, and the content of popularly available information.

It is no secret that the ideological disposition of this class is not one which would produce much enthusiasm for the realization of the highly touted potential for liberty and the emancipation of the working class in the information society. This section has shown that while the character of property and ownership may have changed, the ability of a small minority to control access to information means that the information society is still a class society. The consolidation of power in the private sphere through corporate concentration in the information sector may mean that the ruling class is more formidable and harder to identify than ever before. It is more formidable because the resources at its disposal are staggering; Time Warner Inc., the world's largest media corporation, has more technical communication power than most governments, and possesses assets greater than the combined gross domestic product of Bolivia, Jordan, Nicaragua, Albania, Liberia and Mali. The

ruling class is more difficult to identify because it controls the very means by which this identification can occur, the channels of information, and as I will discuss later, the messages it transmits through these channels invariably serve to consolidate its further control by mitigating against the development of class consciousness. However, before undertaking this discussion I will examine some of the changes information technology has brought to the working life of the information-poor, and the effects these changes have had on the formation of working-class consciousness.

Working Life in the Information Society

The effects of the information society on class structure have not been confined to the configuration and behaviour of elites. On the contrary, the vast weight of changes precipitated by the information society have been, and continue to be, felt by the "working-class", even if certain attributes of the information society make this class very difficult to define or "locate". The difficulty centers primarily around the troublesome determination of what exactly constitutes the information sector and, correspondingly, information work (Lyon, 1988, pps.48-50).

This difficulty is one which was recognized in early attempts to quantify the information society, as Fritz Machlup raised the question of whether workers should be

classified according to the industry they worked in or by their actual individual occupations within those industries (Machlup, 1962, p.45).[7] Machlup also pointed out that the production of information occurs at a myriad of different levels within the economy. While there are entire industries devoted to the production of information and information technologies, so too are their information firms within other industries, information departments within non-information firms, groups within departments, and individual workers specializing in information tasks which comprise only a small portion of a group's overall responsibilities (Machlup, 1962, pps.46-48). This is compounded by the fact that information activity cuts across the manufacturing, agriculture and service sectors, as all are becoming more information intensive. Is it appropriate to lump workers in these various sectors together under one heading (Lyon, 1988, pps.50-51)?

These difficulties in measurement are significant and should not be ignored. However, the lack of a clear designation of what constitutes the information sector and who exactly is an information worker does not necessarily impair the attempt to study the working class in the information society. It is certain that new industries have arisen as a result of innovation in information technology and the increase in demand for information goods and services. It is also certain that the proliferation of

information technologies are having a significant effect on the working life of those not specifically involved in the information sector. Thus, what is being witnessed is not the generation of a quantitatively new working class, but rather the subjection of those forced to sell their labour, to qualitatively new conditions in the labour process. This often occurs whether they are specifically information workers or not. Furthermore, the ubiquity of information and its related technology outside of working life means that all those who do not control information are subject, as a class of citizens loosely defined, to those who do. This section will examine a sampling of these new conditions, and their effect on the consciousness of the working class.

Unemployment, de-skilling and the work process

A study published in 1985 predicted that as many as 45 million jobs in the United States would be "affected" by information technologies (Cordell, 1985, p.41). One of the major "effects" is the massive elimination of jobs due to the restructuring of employment patterns and opportunities. The implementation of sophisticated labour saving devices brought about by advances in microchip technology, and the displacement of workers from manufacturing as economies shift their emphasis to information has resulted in widespread unemployment (Lyon, 1988, p.67).

For instance, between 1972 and 1977, while there was an 18 per cent increase in telephone calls, advances in information technology allowed AT&T to reduce its labour force from 1 000 000 to 940 000 (Dizard, 1989, p.35). This is not an isolated occurrence:

> The telephone system is an outsized example of what happens when high technology becomes an integral part of an industry. Its experience is being replicated, in varying degrees, across the range of United States industrial and service enterprises (Dizard, 1989, p.35)

Proponents of the spread of information technologies are quick to predict that the new capabilities carry with them the potential for the creation of new and numerous types of employment to replace the old jobs (Cordell, 1985, p.57). However, it is generally conceded that the new jobs being created are fewer in number than those lost, that they seldom directly replace specific jobs, and that they usually are not, and cannot be staffed by the same personnel, as the skill requirements are radically different (Cordell, 1985, p.39; Lyon, 1988, p.72). Another factor of employment in the information society is that as technology facilitates the streamlining of management operations (through, for instance, the ability to supervise workers electronically), the need for middle managers decreases (Braverman, 1974, p.243; Clement, 1988, p.221).

This is indicative of an overall tendency towards the de-skilling of labour in the information society, as jobs

either become essentially routine or are wholly taken over by machines (Lyon, 1988, p.74). In his definitive study on this process, Harry Braverman shows how automation allows for a rapid extension of Taylor's principles of scientific management; those who control production are increasingly able to dissolve the labour process as one conducted by the worker, and reconstitute it as a process conducted by management (Braverman, 1974, pps.170, 181-182). Technology allows the worker to be reduced to a mere object and instrument in the process of production (Braverman, 1974, p.172). As more sophisticated technology is introduced, the amount of skill the worker needs in order to produce decreases, as does his or her understanding of the labour process itself (Braverman, 1974, p.425).

The rapid development of technology in the information society has accelerated this process of de-skilling. This has led to the observation that the information society is,

> ...dividing into a society characterized by a high-tech minority at the top and a mass of people at the bottom whose work has suffered the ravages of automation and de-skilling (Mosco, 1988, p.12).

The introduction of new information technologies and sophisticated methods of automation is producing a two-tiered workforce, where a division occurs not only between those who are highly skilled already and those who are not, but also between those who are able to acquire the skills necessary for employment in the information society, and

those who cannot (Bates, 1989, p.19). Thus, opportunities for technically skilled employment are growing fewer, and access to them is difficult for the average worker. The result has been a massive de-skilling and a corresponding rise in menial service occupations paying low wages (Rumberger & Levin, 1985, p.415; Winner, 1989, p.88).

The working conditions for those who are employed in low level information occupations also may have an effect on the formation of working class consciousness. Some estimates predict that by the mid-1990s, 15 per cent of the workforce in North America will be able to work at home through computers connected to the office mainframe (Cordell, 1985, p.33).[8] The problem is that individual workers isolated from the collective workplace are deprived of many of the material and social benefits enjoyed by traditional office workers. Further, homeworkers are often paid for piece work and thus their working conditions, such as hours of work per day, are difficult for labour organizations to control (Mosco, 1988, p.23).

Even collective workplaces suffer from debilitating conditions, whether they are automated offices or factories producing microelectronic hardware. Computer data entry pools have been described as an "Electronic Sweatshop":

> ...a windowless basement where dozens of women sat spaced apart, keying with three fingers of one hand...the women worked non-

> stop, their fingers flying in a blur as they keyed with one hand and turned little slips of paper with the other. Clearly this work was already as routinized as any assembly-line job (Garson , 1988, pps.9-10).

Hardware production, though more highly skilled, is not much different in terms of working conditions. One description of a German silicon chip factory paints a picture of a totally sanitized and hyper-secure environment, where technicians are covered from head to toe to avoid contaminating the chips (Fischer, 1991, pps.25-28).

The effects of these developments on class consciousness are both psychological and practical. The effects of job loss due to technological redundancy is somewhat different from other factors relating to unemployment. As Cordell observes,

> ...there is a feeling of being singled out for replacement, a feeling that the individual's contribution to the firm was negligible (since it could be replaced by a machine). The loss of self esteem that follows the sudden realization that one's skills are no longer needed or wanted can be overwhelming and psychologically damaging (Cordell, 1985, p.42).

Instead of identifying the controllers of technology as the source of his or her misery, and making common cause with other workers, the disemployed worker is more likely to internalize blame for his or her situation.

The effects of de-skilling are similar, as increased automation not only separates the worker from his or her

product, but also from fellow workers, as within the employed working class there arises a division between skilled and unskilled labour (Lyon, 1988, p.72). Even though they maintain the same position in relation to the class which controls information and its related technologies, technologically skilled labourers may find little common cause with their unskilled fellows. This makes the identification of class position and class interests extremely problematic. Further technological advance serves only to perpetuate and accentuate this condition.

The working conditions outlined above also have a deleterious effect on the potential for class consciousness. Isolated homeworkers are extremely difficult to organize (Mosco, 1988, p.23), and workers in the electronic sweatshops of the information age are alienated not only from the products of their labour, but also physically from each other.[9] This lack of proximity severely compromises the potential for forming the kinds of associations necessary for the identification and articulation of class position and common interest.

White collar workers in the information society

Even though information technology has rendered the role of many "middle" managers obsolete, and de-skilling has thrust a number of people into the blue collar workforce, the information society still depends on a large number of

white collar occupations (Bell, 1973, pps.148-154). It has been estimated that professionals and managers now hold fully a quarter of the jobs in the United States (Dizard, 1989, p.99). The rise of the middle class and its basis in white collar occupations have long confounded both class analysis and socialist political movements. In his classic study, C. Wright Mills explains how even though white collar workers share a similar structural situation with their blue collar counterparts (i.e., both are propertyless in terms of means of production, both sell their labour), their aspirations reside not in removing the ruling class from power but rather in joining their ranks (Mills, 1953, pps.297-301). Indeed, later studies showed that most white collar workers were more concerned with individual advancement than they were with collective emancipation (Crozier, 1965, pps.210-211).

This disposition has generally survived in the information society with a few novel developments. One is that more and more workers whose objective economic position is blue collar actually prefer to see themselves as white collar: "...the knowledge worker sees himself as just another 'professional' no different from the lawyer, the teacher, the preacher, the doctor, the government servant of yesterday" (Drucker, 1968, p.276). This outlook essentially nullifies any potential for the development of working class consciousness amongst this category of workers, and given

that they are generally not organized (with the exception, particularly in Canada, of the public sector), the white collar workers are particularly vulnerable to employment fluctuations caused by the introduction of new technologies (Touraine, 1971, p.58).

The behaviour or white collar workers in the information society is well illustrated in a recent study of working life in California's Silicon Valley, considered by many to be the archetypal community of the information society. It was shown that work ethic in Silicon Valley is driven by a high degree of competition and entrepreneurial spirit, which translates into a fast pace and excessively long hours (Larsen & Rogers, 1989, pps.53-57). Added to this are highly transient living arrangements and a peer culture which pressures individuals into working long hours and the relinquishing of personal concerns for professional ones. Thus, it becomes evident that the potential for working class consciousness amongst the white collar occupations is no greater in the information age than it was in industrial times.

Surveillance

One area in which the development of information technologies has had a drastic effect on both the work process and the potential formation of working class consciousness is in the greatly enhanced capabilities for

electronic workplace surveillance. Advances in electronic monitoring have facilitated the increased scrutiny of a worker's performance with far greater precision and in much greater depth than ever before (Clement, 1988, pps.218, 230). The information society provides for "...a work world in which the machine embodies relentless supervision" (Mosco, 1988, p.7).

Electronic workplace surveillance is defined as,

> ...the computerized collection, storage, analysis and reporting of detailed information about employees...obtaining data about employees directly through their use of computerized equipment (Clement, 1984, p.2).

The examples of this practice in the information society are myriad. A single program allows management to gather 76 specific pieces of data on a telephone operator's performance. A system called Reservec II generates reports on Airline reservation agents which detail the number of passengers booked, call volumes and lengths, car and hotel reservations and overall revenue generated.[10] The Nixdorf system measures data entry clerks for keystrokes per hour, and a system called Supervision IV allows supervisors to remotely view the screens of word processing clerks without them knowing it. Retail check-out clerks process goods through electronic terminals linked to in-store computers which measure items per minute, customers handled and total sales (Clement 1984, pps.2-6). In most large firms, data security systems log attempts by employees to access certain

files. Electronic mail transmissions are also recorded, and Station Message Detail Recording provides computerized records of which employees phone who and for how long. Further, the integration by computer of time records and a building's physical security system (i.e., electronic locks) allows employers to chart employees' arrival and departure times (Clement, 1984, p.5). As one observer notes in regard to electronic workplace surveillance: "It is precise, relentless and pervasive" (Clement, 1984, p.2).

A good example of the extent of electronic surveillance is the Force Administrative Data System (FADS) used by AT&T in the early eighties to monitor the performance and work habits of its telephone operators. FADS produced, in every operator office across the United States, a quarter-hourly print out of the complete productivity record of each individual office. These summaries documented how many operators were on the board at a given time, the number of calls they handled, the average working time per call, the number of late answers, and even reaction time to the beep which signals an incoming call. At the press of a button, a supervisor could access an individual employee's up-to-the-minute performance record (Howard, 1981, p.44). At AT&T, telephone workers were supervised to the extent that they had to ask permission to go to the bathroom, be put on a waiting list, and eventually have their visit to the washroom timed by FADS (Howard, 1981, pps.45-54).

The incessant nature of electronic surveillance creates the feeling amongst workers of being in a "fishbowl", and has a decided impact upon the their psychological well-being (Clement, 1988, p.232). The most common problem is, predictably, stress and stress related disorders (Clement, 1984, p.8; Howard, 1981, p.41). Furthermore, workers subject to high levels of electronic surveillance suffer feelings of degradation and a great loss of personal dignity, as they find themselves treated like children who cannot be left to supervise themselves, and have no control over their immediate environment (Clement, 1984, p.7; Howard, 1981, pps.45,54).

These adverse psychological effects also have a debilitating influence in terms of the formation of class consciousness. Workers begin to see their misery as their own personal shortcoming, or an inability to measure up to company standards which monitor their conformity (Howard, 1981, p.56; Mosco, 1988, p.9). Highly de-capacitated, these workers consequently experience a sense of profound resignation to a system which they regard as being beyond their capability to change, and often they choose passivity and compliance as the safest route (Howard, 1981, p.55; Winner, 1989, p.94). Indeed, even if workers did form the urge to act against their degradation, electronic surveillance measures essentially prevent the formation of

social relationships in the workplace, and access to key information is either monitored or restricted, thus limiting both association and action (Clement, 1984, p.9; Clement, 1988, pps.232-235; see also note 9 below).

In their discussion of Jeremy Bentham's "Panopticon", Kevin Robins and Frank Webster begin to broach one of the key ways in which electronic surveillance mitigates against class consciousness. In Bentham's model of the quintessential prison, a circular building of cells has at its center a tower which allows the inspector to see every cell without being seen himself. According to Bentham's design, it is desirable that "...for the greatest proportion of time possible, each man should actually *be* under inspection," or, at the very least, "...the persons to be inspected should always feel themselves as if under inspection" (Bentham, as quoted in Robins & Webster, 1988, p.57). Under this kind of supervisory structure, the individual is not only marginalized and isolated, but also reaches the point of being self-monitoring, insofar as he or she feels as if under constant supervision even though this may not necessarily be the case (Robins & Webster, 1988, p.58).

It is the ubiquitous character of surveillance which, like Bentham's Panopticon, inclines the worker to comply

with the dictates of an authority that he or she can neither see nor comprehend.

> The seamless quality of the corporation's control of work - the fact that it resides in no specific manager, that it is everywhere, is one reason that stress, instead of becoming a motivating force for change, simply serves to reinforce the system that caused the problem in the first place (Howard, 1981, p.56).

It becomes next to impossible for the workers to identify who it is that is exploiting them, as this exploitation is quite often managed by a computer which tracks their every move. In this way, electronic surveillance severely lessens the potential for the formation of a clearly articulated working class consciousness - even regarding particular issues of work pace, design and so on. Rather than brutalizing workers into an unbearable submission which would lead them to revolt, sophisticated techniques of technological monitoring facilitate the subtle absorption of workers into the very system which ensures their continued domination (Lyon, 1988, p.93).

Brave New Workplace: Trade unions and Quality of Work Life

The corporate managers who control information technology see these types of surveillance as part of their vision of a social transformation of working life which will feature more satisfying and meaningful work in what has been labelled as the "brave new workplace" (Howard, 1985, p.2).

Robert Howard describes the principal elements of the brave new workplace as follows:

> New technology as the harbinger of meaningful work; the corporation conceived, not as an impersonal bureaucracy, but as a caring community; the workplace as a realm of self-fufillment; business enterprise as the fundamental source of identity in modern society...(Howard, 1985, p.7).

The brave new workplace is essentially a corporate utopia in which egalitarianism and efficiency are reconciled, increased profits co-exist with worker satisfaction, and social renewal walks hand in hand with economic prosperity, all as a result of high technology (Howard, 1985, p.9). However, as I have shown, new technology has primarily been used by the corporate elite to generate increasingly subtle forms of exploitation.

Trade unions have historically been the primary vehicle for class conscious action on the part of workers. With the introduction of new technologies, working conditions appear to be gaining ascendancy as an issue that is important to the working class, and one would expect that trade unions would be coming to the fore to set a new agenda for industrial relations (Lyon, 1988, p.78). However, labour's role in the brave new workplace seems to be marginal at best, as the majority of workers in technologically intensive industries in the U.S. remain non-union, and few workers in the high-tech industries see unionism as a

panacea for their problems (Howard, 1985, p.174). In the information society,

> ...technological changes and management practices...are challenging the very foundations of union power - cutting into membership levels, eroding union bargaining units and occupational categories, and undermining the traditional skills, work rules, and union tactics such as the strike. With these changes has come an increasingly widespread perception that unions have, somehow, become outmoded and obsolete...irrelevant to the concerns of a new generation of workers and the issues of a new kind of workplace (Howard, 1987, p.174).

Thus, it appears that there is little room for trade unionism as a vehicle for class consciousness in the brave new workplace.

There are a number of reasons for the decline of private sector unionism in the information society. One is that the transnational character of many information corporations makes it difficult to negotiate with an authority that may not even reside on the same continent as the majority of its workforce (Lyon, 1988, p.13). A second reason is that the drive towards increased "flexibility" in workplaces with high rates of technological turnover and changing skill requirements has rendered traditional union work rules and classifications meaningless (Howard, 1985, pps.180-181). Trade unions faced with a daily deluge of micro-level problems find it difficult to devote resources to the kind of long-range strategy and planning needed to

address these sorts of questions (Deutsch, 1986, pps.535-536).

The result of all these considerations is that trade union response to the introduction of new technologies which have a drastic effect on worklife is almost always reactive and piece-meal in nature. Since World War II, trade unions have rarely opposed technological change as such, and have generally accepted the corporation's right to introduce new technologies. Instead, the response has been primarily defensive, as unions have attempted to cushion members from the deleterious impact of technologies (i.e., job loss, wage reductions, etc.), *after they have already been introduced* (Howard, 1985, pps.181-183; Cornfield, 1987, p.13; Lyon 1988, pps.80-81). This reactive posture differs markedly from one which challenges the fundamental issue of exclusive managerial control over the deployment of new technologies in the workplace, and the failure of trade unions to confront the issue of technology directly has meant a general erosion of union control (Howard, 1985, pps. 182, 184).[11]

Another serious challenge to the efficacy of unions as a vehicle of class conscious activity has been the proliferation in the information society of employee participation schemes which usurp the union's traditional role as a conduit for employee input on management

decisions. One of the most sophisticated of these schemes was developed in the mid 1980's by AT&T under the name of Quality of Work Life (QWL) programs. These joint committees, comprised of both management and labour representatives, were presented by the corporations as an opportunity to extend the voice of the worker into areas of work life which were traditionally determined by management alone. The idea was to provide a more flexible management structure and a means by which workers could exert some degree of control over work situations (Howard, 1985, pps.186-195).

But far from being actual mechanisms for the genuine involvement of workers in decison-making, QWL programs are essentially a style of management designed to lull employees into a false sense of participation by giving them latitude on a range of relatively unimportant issues (Braverman, 1974, p.39). Fundamental decisions concerning the deployment of new technologies, an issue which extends beyond minor workplace considerations and reaches into the prerogatives of management, are left well beyond the purview of QWL committees (Howard, 1985, p.189).[12] The effects on class consciousness are devastating:

> ...the participatory schemes which have been on the scene for the past decade... turn out to be little more than efforts to cool out the workforce, gain compliance with managerial directives, and obtain precious little real influence over technology and work (Deutsch, 1986, p.536).

In the information society, the control of information technology is the cornerstone of corporate power, and it is therefore highly unlikely that management would jeopardize this control by subjecting it to the vagaries of joint decision-making (Howard, 1985, p.195). Participation schemes which enlist the involvement of workers in decisions concerning the more mundane aspects of their work day serve the two purposes. The first is to usurp the traditional role of unions in industrial relations in most sectors. The second is to dull the employees' awareness of the unequal power relationships which continue to exist in the brave new workplace, by instilling in them a false sense of control over technology, when in reality they have none. Taken together, these two phenomena indicate that the potential for concerted class conscious action arising from the brave new workplace of the information society is highly limited.

Thus, the attributes outlined in the model of class consciousness outlined in chapter three do not appear to be strongly evident in the workplaces of the information society. The ability to identify oneself and one's interests as working-class is extremely difficult to achieve or sustain in the unstable employment atmosphere of the information society, which is characterized by massive de-skilling, widespread unemployment, and the spatial isolation of workers. The information society further encourages the individualistic disposition of white collar workers and thus

decreases faith in the necessity or utility of collective action. Sophisticated electronic surveillance techniques serve to de-capacitate the worker, as well as to mystify the nature of power relationships within the workplace. Finally the growing obsolescence of trade unions and the co-opting of employees through nominal participation schemes severely limit the potential for collective action by the workers.

However, the debilitating effects of the information society on workers are not confined to only the workplace. I will now discuss how the information society operates in many other facets of the life of the average worker to impede the development of working class consciousness.

The Information Society as a Potential Classless Society

In Chapter I, I noted that one of the prevailing myths identified by critics of the information society was the belief that the information society carried with it the potential for the elimination of class boundaries. This chapter has shown that far from eliminating inequalities based on economic class, the information society may, in fact, be recreating and even widening this gap. The conspicuous feature of the information society is that while this widening is occurring, and class relationships are becoming further entrenched, the working class, for the most part, is unaware of this reality. This section will outline how the information society operates in various social,

economic, political and cultural arenas to conceal its class nature, and thereby severely curtail the potential for the formation of working class consciousness.

Media, culture and politics

The mass culture critics of the early 1970's recognized that the ascendancy of technocratic rationality represented a serious threat to human freedom, insofar as it mystifies the actual distribution of power and control in a given society (Habermas, 1971). This mystification is achieved through the various processes of social integration, cultural manipulation and political consolidation. The process of production imposes a lifestyle conducive to the achievement of its objectives and maintenance of its power system. Peoples' needs and attitudes are controlled and conditioned, and the range of political alternatives is systematically narrowed (Touraine, 1971, pps.7-8). The information society embodies the fundamental refinement of these processes.

One of the reasons for this refinement is that in the information society, the corporate sector is able to directly access and influence the public to a far greater extent than ever before. The corporate concentration and interlocking directorates documented earlier in this chapter mean that corporations whose primary interests may lie outside the information sphere now have unobstructed access

to media facilities and transmission (Schiller, 1989a, p.30; Schiller, 1989b, p.111). New technologies further expand this access:

> ...the latest communication technologies, such as video cassettes, home recorders, video discs, cable TV, computers, and direct satellite broadcasting are providing corporations whose main economic activities are not media production with remarkable opportunities to reach mass audiences directly with their messages (Schiller, 1981, p.80).

It goes without saying that these messages are rarely critical of concentrated corporate control of media resources (Bagdikian, 1990, p.15).[13]

On the contrary, the messages being offered by the corporate controlled media sources, which are responsible for the vast majority of symbol production in the information society, are essentially no more than elements of corporate expression (Schiller, 1989a, p.44). This is true of messages in the spheres of entertainment, education, advertising and public affairs. As Schiller observes, "What is now happening is the creation and global extension of a near-total corporate informational-cultural environment" (Schiller, 1989a, p.128). The manner in which corporate control over the elements of this environment is wielded does not bode well for the formation of working class consciousness.

The dominant characteristic of this control is the manipulation of information in order to perpetuate the dominance of the corporate elite, and the compliance of the general public, who are predominantly working class. Not only are the corporate controllers of information able to narrate and manipulate history to suit their own purposes (Schiller, 1989a, p.7), but they also are able to effectively construct and maintain the parameters of acceptable political and social debate in society. Social dialogue in the information society is characteristically devoid of critical discourse or the discussion of significant political or economic alternatives to the prevailing order (Schiller, 1986, pps.40-41). Whole areas of consideration are effectively ignored if they are deemed to be potentially threatening or disturbing:

> An increasing number of [people] are being informed, educated, and entertained by corporate-created or sponsored media and cultural programs and materials that exclude or minimize or misrepresent the great social conflicts of our time...(Schiller, 1986, p.41).

The result is that some of the most vexing social questions, including those involving the changing shape and modes of class inequality, are not openly discussed by a knowledgeable or well-informed populace in the information society (Schiller, 1986, p.42).

The overwhelming thrust of the messages emanating from the corporate-driven media-informational complex is the

promotion of consumerism, and the concomitant equation of this consumerism with democracy itself (Schiller, 1989a, pps.5, 107).[14] This equation rests on the belief that in the information society, vastly expanded capacities for the exercise of free choice grants consumers more freedom than ever before. However, given the fact that consumers have precious little control over the information or products which are made available to them, their capacity for choice is reduced to mere acceptance or rejection (Lyon, 1988, pps.34-35). In the sphere of information distribution, such choice is rendered inoperative due to the market dominance, and often near-monopoly, enjoyed by an increasingly small number of very large conglomerates (Bagdikian, 1990, pps.8-9). Furthermore, the horizontal and vertical integration of information firms outlined in a previous section means that corporations which market certain technological products are also responsible for distributing, through their media operations, the information upon which people base their consumptive decisions. It is at this point that the myth of increased freedom of choice in the information society gives way to the reality of highly manipulated mass preferences, tastes, and lifestyle values (Curtis, 1988, pps.103-105).

The effects that the above developments have on the consciousness of the working class in the information society are profound. The atmosphere of increased choice promoted by the information society serves the dual purpose

of advocating an easily manageable consumptive behaviour, and lulling the disadvantaged and dominated classes into a false sense of democratic freedom. Perhaps even more ominous in terms of the development of working class consciousness is the near complete lack of serious social criticism of the major political, social and economic divisions and conflicts which characterize the information society. The educative and media airwaves of the information society are instead festooned with dramatic portrayals of personal crises in the midst of universal affluence (Schiller, 1989a, p.108; Bagdikian, 1990, p.xii).

Television, the dominant media form and message center of the information society, is disproportionately viewed in large quantities by the poorer sections of society (Garnham, 1982, p.288).[15] Nonetheless, accurate representations of the predicament, concerns and relationships of the working class are conspicuously absent in this medium (Aronowitz, 1989, pps.136-137). In fact, "From the mid-1970's, there simply are no direct representations of working class males (much less women) in television" (Aronowitz, 1989, p.146). Instead, the working class is presented with a barrage of images in the form of beer commercials and cop shows, which make unfulfillable promises of a qualitatively better life, unlimited consumption and the chance to transcend the constraints traditionally associated with working class life (Aronowitz, 1989, pps.141, 147). The negative implication in

terms of the formation of class consciousness is that a realistic image of working class existence has effectively been removed from representation in mainstream media portrayals of life in the information society.

This is made particularly significant by the fact that as the primary mode of human communication, mainstream popular media sources largely define the social and political agenda of the information society (Schiller, 1989a, p.34). Purged of all realistic references to the actual character and situation of the working class, these media almost decisively undermine the formation of working class consciousness according to the criteria outlined in Chapter II. Mainstream information media represent a consolidation of corporate control over the spheres of both culture and politics. The conspicuous feature of this control system is that its strength lies in its apparent absence, as citizens in the information society have generally internalized the values of corporate consumer culture and conservative politics. (Schiller, 1989a, pps.8, 33).

Conclusion

To say that the information society is not a class society would constitute a definite misrepresentation of reality. As shown at the beginning of this chapter, the continuity of privilege for some and degradation for others

indicates that classes still exist in the advanced capitalist economies of the western world. However, phenomena such as growing corporate concentration in the information society, the ambiguous status of information as property and its ramifications for the relative salience of ownership and control as determining factors in the class structure, indicate that the dynamics of the relationship between classes has changed. I have also discussed changes in the character of working life of the information society, such as unemployment and de-skilling due to advances in information technology, the persistence of the white collar mentality, increasingly sophisticated means of electronic surveillance and management, and the decline of trade unions as a vehicle for working class expression. The combined effect of these developments has been to curtail severely the likelihood of the realization of class consciousness as outlined in the preceding chapter. This unlikelihood is further reinforced by the ability of the corporate class to determine cultural and political awareness via its control over the major sources of mainstream information media.

The significant question is whether this means that class consciousness is a dead issue in the information society, or whether the old conceptual framework is no longer able to detect and highlight the fundamental character of class relationships and class conscious activity in the information society. The framework outlined

in Chapter II was constructed in an era wherein the relationship between classes was adversarial in a way that was clearly understandable to the dominated class. Furthermore, the class conscious action anticipated by this framework was to occur in a situation where the strategies and tactics available to the working class were clearly formulated in response to perceived weakness in the ruling class. As this chapter has shown, the dynamics of class relations in the information society differ markedly from those prevailing in the industrial era and, as such, the earlier framework of class consciousness has limited analytical value.

It is Antonio Gramsci's concept of hegemony that most aptly describes the prevailing character of class dynamics in the information society:

> The "spontaneous" consent given by the great masses of the population to the general direction imposed on social life by the dominant fundamental group; this consent is "historically" caused by the prestige (and consequent confidence) which the dominant group enjoys because of its position and function in the world of production (Gramsci, 1929, p.12).

As Herbert Marcuse would later note, one of the discerning features of advanced capitalism was "...the extent to which the needs and satisfactions that serve the preservation of the Establishment are shared by the underlying population" (Marcuse, 1964, p.8). In the information society, the corporate class has more or less successfully infused the

values which serve to perpetuate its dominance and privilege into the majority of the population through its control of information.

One of these values is the belief in the imperative of technological advance. People in the information society are conditioned to believe that every technological breakthrough is "...a triumph for humanity in general, and thus...do not have to worry about the distribution of costs and benefits that attend its use" (Leiss, 1990, p.5). This technological imperative is portrayed as irresistible and extra-human, and to object to innovation is equated with objecting to progress in general (Schiller, 1986, p.78). Thus construed, technological determinism easily works its way into the consciousness of the working class, even though it is one of the primary mechanisms of their continued domination.

It is the very complexity of the information society which makes it difficult to form bonds of community and to identify structures of power and authority (Dupuy, 1980, p.5). In this situation, the concept of reification first advanced by Lukacs becomes helpful (Leiss, 1990, pps.62-67).[16] Individuals in the information society have become so alienated, and information and its related technologies have become so fetishized as commodity forms, that they are no longer able to locate or properly conceptualize the source of their domination. The capacity of people to act in

accordance with class consciousness has become atrophied because as mere *consumers* of *things* produced by unassailable information and technological *institutions*, they have becomes subjects of an *objective order of things* which they can neither perceive nor comprehend (Dupuy, 1980, pps.10-11; Marcuse, 1964, p.144).

This high degree of mystification, coupled with the belief in the futility of searching for fundamental alternatives to the private dictates of technological determinism, has given rise to a condition of consciousness whereby things such as, the concentration of control over mass media sources, are seen by the working class as perfectly reasonable (Schiller, 1989a, p.40). Thus the working class, still subjugated and still highly controlled by the priorities of the capitalist class, no longer appears to be the living contradiction to the established society. Marcuse identified this as the "rational quality of irrationality" in advanced capitalism, and it is this phenomenon which most directly confronts both the analysis of class consciousness and the hopes of class-based social movements in the information society (Marcuse, 1964, pps.31-32).

Notes

1. Mosco predicts that rising rates will mean that three out of every ten U.S. homes will soon be without phone service (Mosco, 1988, pps.11-12).

2. Herbert Schiller documents the sale of an independent Los Angeles television station in 1985 for $510 million. This clearly shows that not "just anybody" can have access to media control (Schiller, 1989a, p.36).

3. In this section I will limit myself to the activities of the U.S. government, which serves as a general example of similar government activities in other information society countries.

4. For instance, the U.S. government's 1983 order that all federal employees must agree to a lifetime review of anything they wish to publish (Shattuck & Spence, 1989, p.457).

5. This number totals thirty. However, if overlap is eliminated (i.e., firms dominant in more than one medium) then the number is reduced to 23. Bagdikian indicates that in 1981, this number was 46 (Bagdikian, 1990, p.21).

6. For example, Bagdikian documents the interlocking directorships held by the directorate of Time Warner Inc., one of the largest of the 23 dominant media controllers. The list includes: Mobil Oil; AT&T; American Express; Firestone Tire and Rubber; Atlantic Richfield; Xerox; General Dynamics; and a number of international banks.

7. For instance, a computer programmer working in an auto plant may be classified as an information worker because of his or her occupation, but not on the basis of the industry he or she works in. The opposite is true of the maintenance worker at IBM, who is clearly not involved specifically in an information task, but nevertheless works for a corporation which is clearly at the center of the information industry.

8. Although, in a similar study conducted in West Germany, it was found that the transition to homeworking was not occurring as rapidly as was first predicted (Becker, 1988, pps.259-264).

9. As Garson describes: "...in the [industrial] factories I'd visited workers talked, joked, cursed and even yodelled when the supervisor was out of sight. I wondered why my fellow data clerks so rarely stopped to talk or stretch" (Garson, 1988, p.10).

10. Consider the following: "At Air Canada, agents are expected to handle 150 calls in a 7.5 hour shift with an average call duration of 144 seconds...at Pacific Western Airlines, the Reservation Handbook states that agents will receive individual counselling if they don't meet the expected standard" (Clement, 1984, p.3).

11. Howard documents how, in some cases, the reactive strategy of unions actually serves to erode worker solidarity. For instance, wage stability for some workers is purchased at the cost of unemployment for others, and senior workers are often protected from the effects of technology at the expense of younger ones. (Howard, 1985, p.182).

12. Even so-called Technology Change Committees do not really allow direct worker participation or influence in decisions regarding technological development and deployment. They are limited to an advisory role, and the committees are relegated to the status of being bodies in which workers are given advance notice of technological changes which they can neither affect nor stop. Their only option is to adapt to them (Howard, 1985, pps.191-193).

13. The corporate sector is also rapidly moving in to control "high culture" space. Schiller documents how major corporations (particularly tobacco companies) spent nearly $1 billion on "the Arts" in 1987. To the extent that museums, galleries, orchestras and theater companies have become dependent on the private sector as a source of funding, the corporations are able to wield a decisive influence over content. Even the institutions of high culture are reluctant to transmit messages which may offend their corporate benefactors (Schiller, 1989a, pps. 92-94.

14. Schiller documents how national network television in the United States alone broadcast 5131 commercial advertisements per week in 1985 (Schiller, 1989a, p.107).

15. In what he labels as "the class determination of cultural consumption," Garnham explains that given their fixed income, the television represents a major, and relatively low maintenance entertainment investment for the working class, and is thus extremely popular. This accounts for higher levels of television consumption among the lower class. He also illustrates how the lower classes do not develop the "dispositions" and "competences" to appreciate and therefore consume other cultural forms (Garnham, 1982, p.288).

16. Although in the information society, this processs is

far more sophisticated and advanced than Lukacs might have imagined.

Chapter IV: Towards a Better Understanding of Class, Consciousness and Conflict in the Information Society

Three preliminary conclusions can be reached on the basis of the analysis provided thus far. The first is that advanced capitalist countries have passed out of what was labelled post-industrialsm, into what can now properly be termed the Information Society. Secondly, identifiable inequalities based on class still exist in the capitalist economies of the information society, although in somewhat different forms than they did in industrial society. Finally, class dynamics in the information society are now such that the emergence of working-class consciousness in the form outlined in Chapter II seems highly unlikely at the present moment.

This third conclusion is of most concern in this chapter. The remoteness of the potential for the formation of working-class consciousness in the information society can be explained in two possible ways: either the conceptual apparatus of the theory of class consciousness is no longer sensitive enough to reveal the complex nature of the class situation and, consequently, requires revision; or the issue of class is no longer salient enough to have a decisive impact on the formation of consciousness in the information society. Thus, the challenge to the Left posed by the emergence of the information society is at once theoretical

and pragmatic, and requires various efforts at description, prediction and prescription. As some scholars seek to reformulate the notions of class and class consciousness to suit the new realities, others try to lay the theoretical groundwork which will reveal the most likely sources and most efficacious strategies in the struggle against the inequities of the current societal configuration.

This chapter will examine efforts which range between both these poles. I will begin by discussing Erik Olin Wright's attempt to resuscitate class analysis with his concept of contradictory class locations. Secondly, I will discuss the class-based response to the information society advocated by those who have come to be known as the neo-Luddites. Thirdly, I will consider the work of Andre Gorz, who highlights the possibility of re-constituting the existence of the working class through a liberation from work. After a critical examination of these three perspectives, I will argue that the work of Ernesto Laclau and Chantal Mouffe, concerning the concept of hegemony and new social movements, provides the most plausible framework for understanding the information society, as well as the most hope for stimulating socially directed change.

Erik Olin Wright and Contradictory Class Locations

In his efforts to account for the problematic behaviour of the middle class in advanced capitalism, Erik Olin Wright

has emerged as one of the major and most creative figures attempting to revive class analysis. This section will examine Wright's formulations concerning class and class consciousness, with particular attention to those aspects which further our understanding of these phenomena in relation to the information society. A critical assessment will also reveal the weaknesses of Wright's position.

The primacy of class structure

Following in the tradition of Althusserian Marxism, Wright asserts at the outset that he is primarily concerned with the position of the middle class *vis-a-vis* class structure (Wright 1985, pps.31-32). Wright sees class structure as the structure of social relations which determine the class interests of individuals. He differentiates this from class formation, which he defines as the formation of organized collectivities around those interests determined by the class structure (Wright, 1985, pps.9-10). As defined by Wright:

> If class structure is defined by social relations *between* classes, class formation is defined by social relations, social relations which forge collectivities engaged in struggle (Wright, 1985, p.10).

In terms of the information society, while the parameters of class structure have altered somewhat, they are still discernible. However, it is the process of class formation which seems most troublesome in the highly mystified information society.

Insofar as it constitutes the basic mechanism for the distribution of access to key resources in society, Wright feels that class structure is the most fundamental determinant of class formation, class consciousness and class conflict. While other factors such as race, gender and ethnicity are significant, Wright maintains a distinctly Marxist position by claiming that these non-class elements operate within the limits imposed by the class structure itself (Wright, 1985, pps.28-29). Thus, according to Wright, "Class structures constitute the essential qualitative lines of social demarcation in the historical trajectories of change" (Wright, 1985, p.31).

Accordingly, Wright uses class structure to broach the subject of the middle class in advanced capitalism. Although not explicitly referring to the information society as such, Wright observes that the growth of professional, managerial and technical occupations in both the private and public sectors have considerably eroded the simple polarized class structure envisioned by Marx. With this in mind, Wright reconstructs the concepts of class and class consciousness to account for this new non-polarized structure.

Class as a relationship of exploitation

Wright identifies four definitive attributes of class: classes are relational; those relations are antagonistic;

those antagonisms are rooted in exploitation; and exploitation is based on the social relations of production (Wright, 1985, pps.34-37).[1] Building on the rational choice approach of John Roemer (1982), Wright defines exploitation in terms of the existence of a causal link between the deprivation and poverty of one class, and the well-being and affluence of another (Wright, 1985, pps. 36, 65).

Such exploitation has a material basis in the relations of production, and revolves around both inequalities in the distribution of productive assets, or property, and the capacity of asset-holders to deprive others of equal access to those assets (Wright, 1985, p.71). Wright deviates from Marxist orthodoxy in his comparatively broad definition of what constitutes property and productive assets. He includes not only traditional "capital" assets, but also what he calls skill assets (i.e., credentials, qualifications), and organization assets (control over the organization of the processes of production), as forms of property (Wright, 1985, p.283).

With this particular conception of three distinct axes of exploitation, Wright can more clearly explain the class position of the middle class, as they most commonly control skill and organization assets. It is these assets that are the source of their power and interests (Wright, 1985, p.91). Such a conceptualization also effectively reflects

the nature of *control* as a source of class power in the class structure of the information society. Wright's next step is to illustrate how this conception of exploitation bears on the interests of the middle class within the class structure.

Contradictory class locations

Wright was not the first to question the absolute polarity of classes in advanced capitalism. Nicos Poulantzas and Guglielmo Carchedi before him both recognized the contradictory position occupied by those members of society who are not unambiguously members of the bourgeoisie or the proletariat. However, unlike these other two thinkers who heralded the arrival of a "new petty bourgeoisie" and a "new middle class" respectively, Wright posits the notion of contradictory class locations to account for the structural position of the managerial and technical employees (Lindsey, 1980, pps.18-19).

Wright feels it is unnecessary to regard all positions in society as located uniquely and coherently within a particular class. Instead, he contends that individuals often maintain positions which display a multiple class character (Wright, 1985, p.43). Keeping in mind Wright's three axes of exploitation, it is possible to conceive that an individual may be an exploiter along one axis, while still being exploited along another, and it is this

ambiguous duality which produces what he calls a contradictory class location (Wright, 1985, p.87-91).

The effect this has on class interests is revealed in Wright's illustration of the contradictory class location of technicians and managers:

> On the one hand, they are like workers in being excluded from ownership of the means of production; on the other, they have interests opposed to workers because of their effective control of organization and skill assets (Wright, 1985, p.87).

In an earlier formulation Wright indicated that the more contradictory a class position is, the greater the significance of political and ideological factors in the consciousness of the individuals occupying that position (Wright, 1976, p.39). Given the rising number of technical, managerial and professional occupations in the information society, and the tendency of ideological and political mystification to deter the formation of working class consciousness, Wright's analysis would appear insightful. However, Wright still maintains the primacy of class structure in the formation of consciousness, and suggests that other political and ideological mechanisms of exploitation are essentially just reproductions of relationships originating in the relations of production (Wright, 1985, pps.97-98).

Class consciousness

In his earlier writings, Wright gave class consciousness a causal status that was seemingly prior to that of class structure:

> In the end what really determines whether or not a particular social position belongs in the working class is whether or not it shares the fundamental class interests of the working class. And ultimately, this means whether or not it has an interest in socialism (Wright, 1976, p.41).

But in his later work, Wright reversed this stance and opted for a more identifiably materialist position. He maintained that "class" consciousness should be understood as the subjective processes which shape an individual's intentional choices with respect to his or her objective interests, as determined by his or her position in the class structure (Wright, 1985, p.246).

In a conceptualization with considerable potential for greater understanding of the effects of the information society on class consciousness, Wright breaks the latter concept down into three constituent parts: the perception of alternatives; an understanding of the consequences of a given choice; and value preferences (Wright, 1985, pps.247-248). Even cursory reflection reveals how the information society operates on each of these levels to disrupt the formation of working class consciousness. The hegemonic character of the information society is such that

opportunities are structured so as to restrict the perception of possible alternatives to those which are compatible with the interests of the dominant class. The high degree of mystification in the information society serves to blur the actual causes and consequences of particular practices and social relations. Furthermore, the elite-controlled, media-driven structures of legitimation perpetuate highly conditioned value preferences. Wright's breakdown allows for a more systematic examination of the effects of these processes on class consciousness.

Is Wright right?

Wright's re-conceptualization has been criticized from various points of view. One critic asserts that his recasting of exploitation leads Wright to excessively stretch the boundaries of what can be considered property (Burris, 1989, p.163). Indeed, the problematic designation of organizational and skill assets as "property", as identified by this critic, echoes the ambiguous status of information as property which I discussed in Chapter III. Another analyst points out that it is highly unlikely that managers and technicians will be induced to form an independent class opposition to capitalism on the basis of skill or credential exploitation (Meiksins, 1989, pps.179-181). Still others have criticized Wright for connecting class formation too closely with objective material interests, and for being overly deterministic in his casting

of the relationship between class structure and consciousness (Brenner, 1989, pps.184-190; Carchedi, 1989, pps.118-119).

These latter criticisms most significantly compromise the ability of Wright's theory to explain class dynamics in the information society. As one of his critics has argued, even though class is the central determinant of access to resources, the myriad of possible variations of non-economic, non-class relations effectively limit the salience of economic class as a determining factor of consciousness (Becker, 1989, pps.136-138). Enhanced consideration of these factors as a way out of the morass of class analysis of the information society will be discussed in further detail in subsequent sections of this chapter. As for Wright, while his framework may help us to understand the nuances of class structure, it is predominantly *descriptive*, and thus does not really point the way towards progressive action embodying a change of the inegalitarian nature of the information society.

The Possibilities of a Latter-day Luddism

Before discussing a possible departure from class analysis, a brief account of a more prescriptive form of working class analysis of the information society will be useful. This approach traces its lineage back to the Luddite movement of the early nineteenth century, wherein English

weavers, wary of the dangers of mechanization, took to destroying machines such as hosiery and lace frames, gig mills and shearing frames. Between 1811 and 1812, up to one thousand mills were destroyed by the Luddites (Noble, 1983, pps.11-15).

It is not surprising then, that the term Luddite has come be associated with indiscriminate opposition to progress. The Luddites are characteristically portrayed as violent, ignorant and backward looking, and the label of "Luddite" is now often affixed to anyone who chooses to debate the social and political implications of technological change (Webster & Robins, 1986, p.2). However, those who wish to resurrect the spirit of Luddism in respect to the new technologies of the information society believe that the Luddites of old were not frenzied bigots, mindlessly opposed to any and all progress, or to machinery *per se* (Webster & Robins, 1986, p.3; Noble, 1983, p.14). On the contrary, they view the Luddites as a highly organized and disciplined movement which was well aware of the social relations implicit in technology (Robins, 1982, p.71). The Luddites, on this account, understood the possibilities of redundancy due to technological replacement of labour, that technology embodied political and cultural means of domination, and that technological change was not necessarily inevitable (Noble, 1983, pps.11-15).

It is this awareness and sensibility that some analysts wish to see form the basis of a new Luddism in the information society. They argue that technology has allowed for increasing homogenization and integration of industry, thus creating a basis for the workers' recognition of common identities and interests across industries, workplaces, and even entire nations (Noble, 1983, p.76). While incorporating a radical critique of technology, this new Luddism does not propose a return to simple machine breaking, but rather calls for rigorous scrutiny of the exploitation and constitution of technology as an expression of a particular type of social relations (Robins, 1982, p.71). This goes beyond the mere proclamation that technology has unpleasant effects, and extends to an recognition that technologies embody certain social values and choices which can be affected by direct action. The new Luddism involves more than an *ex post facto* reaction to the implementation of new technologies, and calls for an insistence on technology to conform to democratically determined social constitutions (Webster & Robins, 1986, p.5).

For these neo-Luddite thinkers, the question of new technologies is distinctly a class-based issue. They feel we are in the midst of a "war" in which the capitalist class uses the new technology as a "weapon" to destroy workers'

skill, organization and autonomy (Noble, 1983, p.8). Their strategy is as follows:

> ...in the long run to try to shift the balance of power, and in the short run to do everything possible to prevent the introduction of the present technology since it reflects the interests of those in command (Noble, 1983, p.78).

The Luddites reject the possibility that technology can perhaps be used to the advantage of workers by ushering in a socialist transformation via the liberation from work. Such musings, they argue, are both overly optimistic in their faith that technology can be removed from the structure of capitalism, and strategically harmful, in that their "futurism" diverts attention away from the current realities of power and technological development (Noble, 1983, pps.79-80).

This class-based strategy most clearly reveals the deficiencies of the Luddite analysis of the information society. In concerning themselves with technology in particular, as opposed to information, the neo-Luddites essentially limit their analysis to the development of consciousness in the workplace, where the effects of technology are felt most acutely. This raises two problems. As was shown in chapter three, numerous barriers to the formation of such a radical consciousness exist in the workplace of the information society. To hope for the development of class consciousness in the form exhibited by

the English weavers' movement is to ignore these very real barriers. Secondly, the neo-Luddite analysis fails to take into account the fact that in the information society, many of the sites of consciousness formation exist outside the workplace, and operate to discourage the formation of working-class consciousness. Thus, the latter-day Luddite analysis does not succeed beyond offering a valuable critique of technology's potential negative effects.

Andre Gorz - The Liberation From Work and the Working-Class

Not all thinkers on the Left had the same unqualified negative response to technology. Thinkers such as Andre Gorz recognized the possibility of harnessing technology to the benefit of previously disadvantaged groups in society. This section will explore the work of Andre Gorz, with emphasis on his thoughts regarding the relationship between technology, work, liberation and class.

Technology and capitalism

Andre Gorz did not see technology, in its current state, as inherently and independently liberating. On the contrary, he sought to challenge the myths that technology was "neutral" and that the division of labour it established was "objectively necessary" (Gorz, 1971, p.165; Gorz, 1976, p.viii). Gorz argued that the exploitative and alienating specialization and fragmentation of jobs in the production process were not a result of purely technical imperatives,

but were the prerequisites of capitalist accumulation (Gorz, 1971, p.168). Thus, the transformation to a more egalitarian and satisfying lifestyle could not be based on the technology and related institutions which derive from capitalism (Gorz, 1976, p.xi). What is required, according to Gorz, is a radical restructuring of the division of labour, revolving around the nature of work and working life.

The character of work

The transformation of capitalism and the social harnessing of technology require first a recognition of the actual character of work in capitalist society. Gorz defines "work" as follows:

> ...an activity carried out: for someone else; in return for a wage; according to forms and time schedules laid down by the person paying the wage; and for a purpose not chosen by the worker (Gorz, 1980, p.1).

Construed in this way, work emerges as a creation of capitalism, objectively representing to both worker and employer not an end in itself, but rather merely a means to earn money. Consequently, work is antithetical to freedom (Gorz, 1980, p.2).

There are two major social consequences of work in capitalist society. The first is that the majority of work conducted emerges as meaningless, superfluous and wasteful for both the individual and society as a whole (Gorz, 1972,

p.58). The second is that the capitalist "work ethic" - the identification of an individual with his or her work and the belief that if one works harder one can "get ahead" - facilitates the maintenance of the relations of domination and exploitation in the workplace (Gorz, 1985, p.35). On the basis of these observations, Gorz determines that the key to escaping the degradation of capitalism is the struggle to become liberated from work.

The liberation from work

Gorz posits that a serious challenge to the capitalist organization of work involves a challenge to the system as a whole that goes beyond mere reformism (Gorz, 1972, p.60). The emancipation of the working class can be achieved only through its struggle to establish its power of self-determination over the labour process, and in so doing assert its cultural, physical and psychological integrity (Gorz, 1976, p.x). According to Gorz:

> For workers, it is no longer a question of freeing themselves *within* work, putting themselves in control of work, or seizing power within the framework of their work. The point now is to free oneself *from* work by rejecting its nature, content, necessity and modalities (Gorz, 1980, p.67).

This does not mean that people will cease to labour, but rather that work will no longer take place under the direction of capitalist priorities which necessitate the sale of individual labour and the accumulation of unneeded surplus (Gorz, 1980, pps.4-5). Work then becomes a self-

determined activity which is not just a means of earning money, but rather an end in itself, freely chosen by the individual (Gorz, 1980, p.2).

Gorz argues that the liberation from work requires a number of interrelated developments. For instance, direct control by workers over the process of production is necessary to expose and correct the irrationality of the capitalist division of labour, as well as to enrich individuals' working lives (Gorz, 1971, pps.172-173). Gorz also sees the need to "...work less so that we all may work and do more things by ourselves in our free time" (Gorz, 1980, p.3). It is regarding strategies such as these that the question of technology becomes significant.

Technology as an instrument of liberation

Gorz envisions technology playing a key role in the liberation from work in two separate ways. The first is in its capacity to facilitate the *physical* possibility of achieving some of the aims outlined above. The second, which I will discuss in the next section, is in its potential for producing the group of social actors which will instigate these changes.

Gorz argues that technology itself is not necessarily opposed to the interests of the majority of working people. It is only when it is deployed within the confines of the

capitalist division of labour that technology becomes inefficient, wasteful and debilitating (Gorz, 1972, p.56).[2] It follows for Gorz that if technology is divorced from the logic of capital, it can be utilized as an instrument of liberation. Under the proper conditions, technology can liberate a worker's time by decreasing the duration of work, increase the satisfaction of work by diversifying the task, and abolish the repetition and monotony of waged work (Gorz, 1980, p.136; Gorz, 1983, pp.212-213; Gorz, 1985, p.32).[3]

Gorz is careful to stress that this requires more than just working-class control over the productive machinery of capitalism. He points out that it is this *mode of production itself* which is oppressive, so workers cannot merely wield it for their own purposes. In order the liberating potential of technology to be realized, a radical transformation of the labour process is necessary, which has as its priorities individual autonomy and collective welfare (Gorz, 1976, p.ix; Gorz, 1980, p.48). In relation to the neo-Luddite approach, it is ironic that Gorz foresees that the impetus for this transformation will come not from the traditional working class, but rather from elements of society marginalized by the de-skilling and unemployment resulting from the marriage of technology and capitalism.

Farewell to the working class

The momentum for change will not come from those who continue to identify themselves with their work - those who find a sense of individual sovereignty in the pride of a "job well done". The deskilling endemic in the capitalist use of technology means that workers who still embody the capitalist work ethic are becoming a minority in society (Gorz, 1980, pps.6,46,69; Gorz, 1988, p.88). Furthermore, as I discussed in Chapter III, the operation of technology in capitalism is such that it works to erode, rather than promote the solidarity of the work force (Gorz, 1988, pps.96-97). Finally, the replacement of labour by technology has usurped a great deal of the working class's power to withhold their labour through strikes. This lack of power effectively removes the traditional working class from the center of social change (Gorz, 1980, p.67).

In place of the traditional working class, Gorz sees the emergence of what he calls a "non-class of non-workers" who experience work as an externally imposed obligation (Gorz, 1980, p.7). This non-class is composed of those who experience only temporary or part-time employment, whose jobs have been lost due to technological redundancy, and who have no long-term job security (Gorz, 1980, p.69).[4] These people have not been decisively marked with the stamp of the capitalist relations of production and do not embody its work ethic (Gorz, 1980, pps.68, 83-86). Consequently, their

goals exist outside the horizons of the capitalist division of labour, and it is in them that Gorz places the most faith for unleashing the liberating potential of technology (Gorz, 1980, p.73).

Altering the socialist project

Gorz is careful to assert that the realization of this potential is not historically determined, and that this non-class does not see itself as the messianic agent of some transcendental historical mission (Gorz, 1980, pps.73-75). As Gorz puts it:

> It is not the harbinger of a new subject-society offering integration and salvation to its individual members. Instead it reminds individuals of the need to save themselves and define a social order compatible with their goals and autonomous existence (Gorz, 1980, p.11).

Instead of merely substituting the working class with another one imbued with a similar prophetic role, Gorz's analysis recognizes the diversity of interests involved in the advance of socialist project. The decline of work as the center of personal identification and the increasing importance of social relationships formed in the larger community outside the workplace necessitate a recognition of the importance of movements aimed at the promotion of new ways of consuming, co-operating and co-existing (Gorz, 1980, p.124; Gorz, 1990, pps.40-41).

The analysis of advanced capitalism and the possibilities for its transcendence offered by Gorz succeeds at some levels but fails at some others. Gorz does well to underscore how technological development bound up in capitalist relations of production is prohibited from realizing its liberating potential. He also provides the beginnings of a much needed critique, from within the Left itself, of the limitations of traditional socialism in reconciling the plurality of social struggles now evident. In rejecting Marxist determinism, and in displacing the working-class from the center of the socialist transformation, Gorz opens the door to a more comprehensive exploration of the struggle for egalitarian liberty in the information society.

Nevertheless, Gorz's analysis still suffers from a number of shortcomings. While he succeeds in removing the fetter of strict working-class determinism, by concentrating on the notion of "work" he still centers hopes for liberation within the arena of the relations of production and technology. As with the Luddite analysis, this effectively ignores the importance of information and its effects on consumptive behaviour and consciousness formation in the information society. In addition, Gorz is exceedingly utopian in his predictions. He barely begins to address the hard questions of how this plurality of groups may find and develop common cause in a tightly controlled information

environment, how they might coalesce in the absence of a shared institutional point of reference (i.e. a workplace), and what strategies they might invoke against the very formidable forces of capital in the information society. In the following section, I will discuss two thinkers who have made progress towards answering these questions.

Ernesto Laclau and Chantal Mouffe - Hegemony and New Social Movements

Although cloaked in the often obscure language of post-modernism, the theoretical analysis recently offered by Ernesto Laclau and Chantal Mouffe emerges as one which seems particularly able to address the complex social relations of the information society. They see their analysis as the beginning of a response to a crisis facing left-wing thought in general, and orthodox Marxism in particular. This crisis has been precipitated by a number of related events, including the decline of the traditional working class as a result of structural transformations of capitalism and the penetration of capitalist exploitation into new areas of *social* relations (Laclau & Mouffe, 1987, p.80). Both of these phenomena are intimately linked with the development of the information society.

Laclau and Mouffe contend that this crisis has led left-wing thought to a "crossroads" at which many of the "truths" of Marxism are being challenged (Laclau & Mouffe,

1985, p.1). Their chosen direction at this crossroads embodies an effective mix of description, prediction and prescription, and illuminates a potential path towards a fuller understanding of the information society and the hopes for social change within it. This section will discuss the major elements of this new theoretical direction.

The critique of essentialism

Laclau and Mouffe recognized that the major obstacle to an understanding of advanced capitalism through the lens of traditional Marxism was its essentialism. That is, at the center of the Marxist tradition were some basic assumptions about human ontology or essence which determined the form and scope of Marxist analysis. The fact that the assumptions they identify are no longer valid is what debilitates a Marxist analysis of the information society.

This essentialism is comprised of two closely related components. The first is termed "classism" by Laclau and Mouffe, and is defined as "...the idea that the working class represents the privileged agent in which the fundamental impulse of social change resides" (Laclau & Mouffe, 1985, p.177). This class essentialism generally involves a reduction of all subjective actors to class subjects, all ideologies to class ideologies, and a marginalization of any determinants of consciousness which are not reducible to class position (Laclau & Mouffe, 1981,

p.94). Laclau and Mouffe argue that this reductionism is inappropriate, as there is no longer any reason to assign the working class an *a priori* position of privilege in the struggle against capitalism (Laclau & Mouffe, 1987, p.104).

The second component of essentialism which Laclau and Mouffe discuss is "economism", or "...the idea that from a successful economic strategy there necessarily follows a continuity of political effects which can be clearly specified" (Laclau & Mouffe, 1985, p.177). In rejecting economism, Laclau and Mouffe argue that there is no logical and necessary relationship between an individual's economic situation and his or her development of a progressive, socialist consciousness (Laclau & Mouffe, 1985, p.86). In fact, Laclau and Mouffe go so far as to argue that it is the non-economic social relations in which workers are involved that will determine their behaviour inside the factory (Laclau & Mouffe, 1985, pps.167-168).

The rejection of the ideas of privileged points of social agency and economic determinism is a necessary step towards revealing the limitations of a classical Marxist understanding of the sources of consciousness and conflict in the information society. In so doing, Laclau and Mouffe are sketching a terrain which is obdurately "post-Marxist" in both method and strategy (Laclau & Mouffe, 1985, p.4). However, once the essentialism of Marxism is dispensed with,

it is necessary to identify the forces which do shape consciousness in advanced capitalism, and to assess the potential for qualitative change arising from this consciousness.

Discourse and hegemony

As opposed to a polarized class structure determined by the economic position of actors in the relations of production, Laclau and Mouffe develop the concepts of discourse and hegemony to describe the nature of social relations in advanced capitalist society. According to Laclau and Mouffe:

> Today we can see that the space which traditional Marxism designated the "economy" is in fact the terrain of a proliferation of discourses. We have discourses of authority, technical discourses, discourses of accountancy, discourses of information...there is *not* a single moment that can be called the "economic" as different from the political. The unity of the economic sphere in classical Marxism... was conceived in a way which today we cannot accept (Laclau & Mouffe, 1981, pps.92-93).

The authors define discourse as the structured totality resulting from the various articulations which establish the relations between different elements in society (Laclau & Mouffe, 1985, p.105). Therefore, just as there are different forms of relationships between individuals in society, so too are there a number of levels of discourse (Laclau & Mouffe, 1981, p.100).

Laclau and Mouffe then build on Gramsci's concept of hegemony to re-assert the primacy of politics, ideology and subjectivity in the formation of consciousness (Laclau & Mouffe, 1985, pps.47, 67, 71). As we have seen in the information society, the structure of social relations in advanced capitalism is not characterized by a strictly polarized, economically determined antagonism. Laclau and Mouffe define hegemony as the totality of the discursive constitution of society and its agents (Laclau and Mouffe, 1981, p.100). Thus construed, the concept of hegemony not only comes closer to theoretically identifying the interplay of forces which affect the formation of consciousness in the information society, but also points the way to the possibility of numerous and varied sites of conflict and social movement.

This conceptualization also entails a definite abandonment of some sacred Marxist ideas. Firstly, it rejects the separation between the economic base and the superstructure, as the two are united under the banner of hegemony (Laclau & Mouffe, 1981, pps.101-102). Secondly, the idea of hegemony as the totality of discourses excludes the possibility of "objective" interests existing independently of the consciousness of the agents who are their bearers (Laclau & Mouffe, 1987, pps.96-97). Implicit in the priority placed on discourse in the formation of consciousness is the assertion that the dominant conscious interests of the agent

are actually formed outside the relations of production (Laclau & Mouffe, p.87, p.103).

This analysis seems better suited for the detection of mechanisms and practices affecting consciousness in the information society. As discussed in Chapter III, factors such as unemployment, de-skilling, and increasingly pervasive electronic surveillance have caused the decline of work and the workplace as locations of social relations. The concept of discourse allows for the recognition of other spheres which embody relations of authority, power and subordination, as significant sites of consciousness formation. The concept of hegemony further illustrates the importance of taking into account the potential for the manipulation of discourse through concentrated media and information control. These two concepts also provide a theoretical point of reference for both the identification of potential progressive actors, and the development of political strategies for those actors (Laclau & Mouffe, 1985, p.3).

New social movements

Laclau and Mouffe observe that in contemporary society, it is not only as a seller of labour that an individual is subordinated to the interests of capital, but also as a participant in a multitude of other social relations (Laclau & Mouffe, 1985, p.161). These include relationships of race,

gender, culture, leisure and political belief, to name but a few. As a result, new social movements have arisen to challenge these forms of subordination, and they represent an extension of social conflict to a wide range of human discursive activity (Laclau & Mouffe, 1985, p.1). They also represent the primary site of progressive consciousness in advanced capitalism. A selective list of examples of these movements includes: the environmental movement; the feminist movement; urban citizen's movements; minority rights movements; and the peace movement (Laclau & Mouffe, 1985, pps.159, 165).

It quickly becomes obvious that the demands of such groups cannot be easily understood within the confines of a strict economistic framework (Laclau & Mouffe, 1981, p.96). Instead, they embody a general desire to extend the terrain of egalitarianism to encompass the needs of these new political identities (Laclau & Mouffe, 1985, p.158). It should be stressed that Laclau and Mouffe do not envision any *one* of these movements *replacing* the working class. Rather they see these struggles as existing on an equal level with all other struggles and demands, as the meaning of each individual struggle develops within the context of their larger common discourse in relation to capital and other sources of structured power (Laclau & Mouffe, 1985, pps. 87,169).

The prospects for radical democracy

While the direction and ultimate outcome of these new social movements is by no means pre-ordained, or even necessarily anti-capitalist, Laclau and Mouffe believe this plurality of social agents and interests will lead to increased demands for radical democracy (Laclau & Mouffe, 1985, p.178; Laclau & Mouffe, 1987, p.106). They go so far as to predict the convergence of a multiplicity of antagonisms under the framework of a "democratic revolution" (Laclau & Mouffe, 1985, p.168). More than a mere alliance, this revolution will embody an equivalence between these various individual struggles, based on a respect for the rights to equality of each subordinated group (Laclau & Mouffe, 1985, p.184).

Laclau and Mouffe also see the communications technology of the information society playing a role in the formation of this democratic consciousness. For while society as it actually exists is far from egalitarian, the dominant media images offered to the mass population encourage the ideal of individual equality in the capacity of consumer. These egalitarian expectations are then displaced to other levels of discourse, and provoke discontent with the other forms of subordination they entail (Laclau & Mouffe, 1985, pps.163-164).

The applicability of the analysis of Laclau and Mouffe to the information society does not stop at this reference to communications media and its messages. Their challenge to essentialism exceeds that of Gorz in finally recognizing the declining salience of both class **and** the relations of production as the primary determinants of consciousness in the information society. While they do not entirely remove the working class from the picture, they contend that given the immense barriers to the realization of working-class consciousness, it can only hope to be one of *many* groups active in the struggle against subordination (Laclau & Mouffe, 1981. pps.106-107). Furthermore, their conceptualization of the ideas of discourse and hegemony allow for a clearer illustration of the nature of social relations and consciousness formation in the information society. Finally, their recognition of new social movements as the center of progressive democratic consciousness is not only theoretically sensitive, but also holds the most hope for a successful politics of the Left in the information society.

Conclusion

The question posed at the beginning of this chapter was developed in response to the conclusion that while the information society bears the inegalitarian markings of capitalist class society, the possibilities for the development of "classical" working-class consciousness

within it are highly remote. The concern was whether this meant that class consciousness was no longer an issue, or if the traditional Marxist conceptual framework was no longer able to detect and analyze it. The resolution offered by this chapter suggests that the answer involves a little bit of both.

The analysis of the neo-Luddites revealed that the negative effects of technology is still an issue which acutely effects the working class. The conceptual adaptations suggested by Erik Olin Wright further indicate that a re-conditioned class analysis may still be able to reveal significant aspects of the class structure of the information society. However, with the analysis of Andre Gorz, it becomes evident that the centrality of the working-class is difficult to establish. As Gorz argues, the liberating potential of technology can only be realized at the behest of those whose identity is not bound up in the capitalist production process.

It appears that the non-essentialist theory of Ernesto Laclau and Chantal Mouffe is most able to critically address the prevailing social climate of the information society in the face of the declining importance of working-class consciousness in contemporary political struggles. As economic exploitation becomes extremely mystified, and non-economic forms of subordination proliferate and gain

importance in the subjective consciousness of individuals in the information society, the efficacy of class analysis will continue to decline. Laclau and Mouffe appropriately emphasize the concepts of discourse and hegemony, and as a result pay close attention to new social movements. It is these theoretical and strategic directions which are most likely to produce fruitful results for both the critical analysis of, and struggle against exploitation within, the information society.

Notes

1. According to Wright: "Antagonistic means the relations which define classes intrinsically generate opposing interests in the sense that the realization of the interests of one class necessarily implies the struggle against the realization of the interests of the other class" (Wright, 1985, pps.35-36). In the information society, class relations are certainly antagonistic in an objective sense. But, as we have seen in Chapter III, these relations are not openly and discursively antagonistic along class lines in a subjective way.

2. In an interesting observation which relates to automation, de-skilling and workplace surveillance, Gorz argues that "Work has not been made idiotic because the workers are idiots, or because you can increase the efficient expenditure of a given amount of human energy by turning them into idiots. Work has been made idiotic because *workers cannot be trusted*" (Gorz, 1971, p.171).

3. These "proper" conditions include: the existence of co-operative and voluntary associations for collective services; the reduction of individual work time so all can work; and the institution of a life-time social wage (Gorz, 1983, pps.213-215).

4. In a similar prediction almost twenty years earlier, Herbert Marcuse suggested that the most likely center of revolt would be that substratum below the normal working

class, "...the substratum of outcasts and outsiders...the unemployed and unemployable" (Marcuse, 1964, pps.256-257).

Conclusion

The analysis offered by Ernesto Laclau and Chantal Mouffe has been regarded by traditional Marxists as nothing short of heresy. Marxists have scrambled to produce explanations of the new social movements, discussed by Laclau, Mouffe and their contemporaries, which try to reconcile these movements within the framework of historical materialism. Marxists point out that these "new" types of conflict are not class neutral, and can still be explained in terms of class benefits and exploitation. They further assert that the persistence of the plurality of social divisions is a result of the strength of the obstacles to class consciousness, and therefore they remain historically insignificant in comparison to the epochal class struggle (see Elster, 1985, pps.392-394). The placing of new social movements at the center of the socialist project, and the displacement of class are, from their point of view, a descent into relativism and idealism (Geras, 1987). One critic has likened this retreat from class to the anti-materialism and moral idealism of utopian socialism, disparagingly dubbing it as the "New 'True' Socialism" (Meiksins-Wood, 1986, pps.47-75, 76-89, 167-179).

Perhaps the strongest critique of the discourse analysis advanced by Laclau and Mouffe has come from the respected Marxist Ralph Miliband. Referring to it as the

"new revisionism", Miliband sees the displacement of class from the center of analysis not as a way out of the current crisis in Left-wing thought, but rather as a part of it (Miliband, 1985, p.6). Miliband believes that the working class, however reconstituted, must still carry the torch of progressive social change (Miliband, 1985, p.9). This assertion rests on three basic premises. The first is that the working class struggle *is* the struggle of *all* subordinated groups and, therefore, encompasses many of the aims of the new social movements. The second is that it is still the working class which most acutely experiences the contradictions of capitalist society. The third is that no other group is able to mount the struggle against power and privilege (Miliband, 1985, pps.12-13). Thus, according to Miliband:

> ...the principal "gravedigger" of capitalism remains the organized working class. Here is the necessary, indispensable "agency of historical change". And if, as one is constantly told is the case, the organized working class will refuse to do the job, then the job will not be done (Milliband, 1985, p.13).

This thesis has attempted to assess the validity of such a claim, on both theoretical and practical levels, in relation to the potential for the formation of working-class consciousness in the information society. I will now briefly summarize the course taken in this assessment.

In Chapter I, I analyzed the thinking of various writers who have thrown light on the concept of the information society. I showed that in the period following World War II, philosophers and economists began to discuss the emergence of technology and knowledge as central forces in the development of both society and the economies of the western world. This line of thought then developed into the theory of post-industrialism, which had both liberal and critical strains. The liberal strain, pioneered by Daniel Bell, highlighted the globalization of the world economy, the transition in western economies from the production of goods to the provision of services, the changing occupational structure in response to the ascendancy of theoretical knowledge, and viewed these developments with a benign mixture of resignation and optimism. The critical post-industrialists, such as Touraine and Marcuse, concentrated on the potential for social malaise; they saw post-industrial society as a "programmed" or "one-dimensional society" which brought with it the erosion of personal freedom and individual autonomy.

I then documented the transition from the theory of post-industrialism to the information society thesis. Provoked by crudely optimistic and futuristic projections of a benevolent, fulfilling, and technologically driven "third wave" society, as well as empirical studies of the increasing importance of information to the western

economies, scholars began to seriously consider the possible existence of an "information society". Indeed, subsequent analyses showed that the marriage of technology and information has led the western world into what can properly be labelled the Information Society. The production, distribution and consumption of information and its related technological infrastructure are the dominant characteristics of advanced capitalist society, and the lifestyles of its citizens. Those who claim that the information society is a myth provide a valuable critique of its social relations and shortcomings *vis-a-vis* its promised splendour, but do not succeed in disproving the central role played by information and its related technologies in the late twentieth century capitalist world.

In Chapter II, I traced the theoretical development of the concept of class consciousness within the Marxist tradition. The chapter began with an attempt to draw together the references to class and class consciousness made by Marx which, although central to his overall theory, are scattered throughout his major works. This involved consideration of Marx's rejection of Hegelian idealism and his corresponding assertion of materialism in conceptualizing class. I then showed how Marx's ideas surrounding class and class consciousness are intimately linked with his overall theory of historical materialism, and its emphasis on class conflict and revolution.

Following this, I recounted some attempts to further develop the concepts of class and class consciousness within the Marxist tradition. This included the work of Georg Lukacs, a self-proclaimed orthodox Marxist, and his attempts to re-Hegelianize Marx via the introduction of the ideas of totality, reification and praxis. I then discussed the work of E.P. Thompson, who viewed class as a relationship in a historical and cultural process, and who employed a very pluralistic brand of materialism in his exposition of the development of working-class consciousness. On the basis of the consideration of these three thinkers, and various other attempts to formalize the concept of class consciousness, I posited five criteria as representing the identification of class consciousness within the Marxist tradition. These include: (1) the perception of class divisions; (2) the identification of oneself in a class; (3) the recognition of the interests of that class as one's own; (4) the awareness of the character of the relationship between one's class and other classes; and (5) the propensity to act according to these considerations.

In Chapter III, I discussed the changing social and economic dynamics of the information society which impinge on the potential for formation of class and working-class consciousness as construed above. The continuity of systemic privilege in the information society indicates that it is

still a capitalist class society. That is to say that while elements of the old industrial society have changed, significant elements of capitalism have remained, albeit in a somewhat altered form. In terms of objective class boundaries, factors such as the ambiguous nature of information as property, and the concomitant development of control as a source of power, have meant that along with ownership of the technological infrastructure, access to information resources has become a prevalent feature of capitalist class relations in the information society. The concentration in the corporate and state sectors of this ownership and control has made the ruling class more formidable than ever before.

The information society has also had a decided impact on the working life and consciousness of the non-owning and non-controlling class. One factor has been the rise of white collar occupations in the information economy, with all its consciousness-related ambiguities. More fundamental has been the trends toward unemployment and de-skilling in the information economy. Coupled with the increasing sophistication of electronic workplace surveillance, and the co-opting of working class militancy through nominal participation schemes, these factors have severely debilitated the working class as a conscious collective force. Furthermore, the ability of capital to manipulate information in the spheres of culture and politics, via its

control of mass media sources, has produced a highly mystified hegemonic order which induces workers to blithely accept the dictates of a technological imperative which they can neither control nor understand. These developments lead to the conclusion that the possibility of the realization of working-class consciousness, in the mold cast by the Marxist tradition, is extremely remote in the information society.

Thus, Miliband's claim that the working-class remains the principal "gravedigger" of capitalism is difficult to defend within the context of the information society. In Chapter IV, I reviewed attempts to resuscitate class analysis through the conceptual adjustment offered by Wright, and the neo-Luddite assertion that the working-class is the only group able to challenge the onslaught of oppressive technology. While certain aspects of both these attempts provided partial but useful insights into class dynamics and behaviour in the information society, they remain fettered by the same essentialist limitations of traditional Marxist class theory. It is the displacement of class from the center of social analysis begun by Andre Gorz, and brought to fruition by Laclau and Mouffe, which provide the most useful insight into the altered nature of capitalism, and the opposition to it, in the information society.

In his most recent work, Ralph Miliband claims "Nothing that has happened in recent years to the working class warrants the view that workers will not continue to wage class struggle..." (Miliband, 1989, p.50). This statement clearly encapsulates the limited vision of Marxist class reductionism. Miliband claims that while new social movements are important in terms of the issues they raise and their ability to mobilize people, they nevertheless rely on a working-class led socialist revolution for the achievement of their ultimate ends (Miliband, 1989, pps.109-110).[1] What Miliband fails to recognize is that left wing advocates of new social movements do not deny the importance of socialist transformation, but only question the sufficiency of class position as a basis for generating the consciousness needed to enact this transformation.

The time has definitely come to look beyond the "...theoretical and political horizon of Marxism", and there is "...no space for complacent sleights of hand that seek only to safeguard an obsolete orthodoxy" (Laclau & Mouffe, 1987, pps.106, 79).[2] The Left, in both its intellectual and political incarnations, must choose whether it wishes to represent the information society as it really is or as it sentimentally wishes it to be (Laclau & Mouffe, 1987, p.106). That is, the choice is between clinging to outdated notions of a strictly polarized class structure, or recognizing that in the information society, the

exploitation of capitalism extends over a number of terrains to produce antagonisms which cannot be articulated exclusively, or often even primarily, in terms of class. It is my contention, building on Laclau and Mouffe, that the new social movements arising from these antagonisms represent the most likely site of conscious demands for social change in the information society.[3]

However, there is no guarantee that these movements and the changes they demand will necessarily be progressive (Laclau & Mouffe, 1985, p.168). Increased understanding of the social dynamics of the information society does not eliminate the hard choices to be made in regards to the use of information and it related technologies. We can only hope that these choices will be made on the basis of values such as freedom, justice and equity, rather than in deference to profit and a mythical technological imperative (Leiss, 1990, p.126). We must realize that "...the future of the information society is too important to leave to IBM, AT&T, HBO, NBC and the other private information powers" (Dizard, 1989, p.162). It is this urgent realization which will hopefully inform the agendas of the new social movements in the information society.

Notes

1. According to Miliband: "...so long as organized labour and its political agencies refuse to fulfill their transformative potential, so long will the existing

social order remain safe from revolutionary challenge, whatever feminists, or black people, or gays and lesbians, or environmenatalists, or peace activists, or any other group may choose to do..." (Miliband, 1989, p.110).

2. Miliband performs a number of such "sleights of hand". For instance: his broad definition of working class to include basically anyone whose interests are opposed to those of capital; his distinction between regular exploitation and subordination and "super-exploitation" and "super-subordination"; and his rejection of consciousness as a necessary attribute of class (Miliband, 1989, pps. 23, 40, 46).

3. A number of other scholars have also advanced this point of view. See, for instance, Henderson, (1974), Boggs, (1983), and Luke, (1989).

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