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Demographers and other students of population phenomena often seek to couch their findings in a theoretical framework that will help to interpret their results and guide future research efforts. For many in the population studies field human ecology has served this purpose as the leading theoretical umbrella.

It is the thesis of this paper that human ecology and Marxism share a similar approach to the study of society, and that both theoretical orientations would be the richer if scholars of each discipline examined the similarities and differences between them. Almost alone among the approaches to sociological theory, human ecology and Marxism provide a frame of reference that focuses upon macro-level phenomena. Both emphasize the importance of general social forces rather than the unique attributes of individuals as fundamental to the understanding of society. However, human ecology, along with most of American social science, has ignored the contribution of Marx. Indeed, it would be an interesting sociology of knowledge question to ask why the intellectual development of human ecology is almost devoid of any reference to Marx. However, the purpose of this paper will only be to compare the basic foundations and perspectives of human ecology and Marxism.

Although the theoretical focus of human ecology has broadened substantially during the last fifty years, the general perspective can be traced back to the Chicago school led by Park and Burgess in the 1920's. The earliest academic origins draw quite explicitly upon the theories of plant and animal ecology.

Among the many ideas of the early ecologists, the notions of competition and interdependence were particularly important. In every community, individuals and institutions compete for resources and accessibility to resources. Although this concept was explicitly borrowed from plant ecology, it is closely related to the notion of competition in classical laissez faire economics. However, competition does not lead to chaos, because of the fundamental interdependence of all parts of the human community. This concept was often expressed as the "web of life." The idea of interdependence is an intellectual cousin of the contemporary functional notion of the social system.

The early ecologists saw the interaction of these fundamental processes, competition and interdependence, resulting in human relationships that formed the biotic or sub-social level of society. This level of society was seen as independent of the conscious planning of men, particularly the influence of culture and values.

The early ecological thought at the Chicago school stimulated a rich tradition of empirical research. Urban spatial patterns were perhaps the focal concern, but race relations, the influence of the metropolis, and many other topics were studied from the ecological point of view. Out of the many rich concepts that the early ecologists developed to describe and analyze social reality, the notion of dominance is rather important to our later comparison with the Marxian perspective.

Dominance is a characteristic of a group, and institution or a city. Dominance flows from the functional importance and economic position in a social structure. Thus, the Central Business District was dominant to the rest of the city, and the metropolis was dominant to the surrounding hinterland. These places were dominant in the sense that spatial distribution and social organization of the surrounding area was dependent upon the dominant institutions in these places.

There has been a great deal of criticism of the classical ecological theory. One group of critics has denied the universality of specific urban spatial patterns, particularly the Burgess Hypothesis of city growth. Other critics have attacked the theoretical bases of human ecology, particularly the omission of values and culture. They
criticized ecologists for being biological determinists, and ignoring the fact that man was a social animal. While some of these critics have used cultural variables to advantage in ad hoc explanations, they did not seem to come to grips with the fundamental thesis of classical human ecology, that universal social processes largely determine spatial and social structure of human communities. Nevertheless, the obituary was often read for human ecology during the 1930's and 1940's.

During the 1950's, human ecology theorists revised the classical outlook in a number of ways. Hawley (1950) sought to deemphasize the importance of competition and spatial structure as the central focus of human ecologists. He also dismissed the distinction between conscious and nonconscious or biotic and social aspects of life. He saw the central problem for ecology as the adaptation of a human population to its environment. Hawley thought the ecological process could be best understood by investigation of community structure or social organization rather than the spatial patterns in a community. Several articles appeared in the late fifties (Duncan, 1959; Duncan and Schnore, 1959; Gibbs and Martin, 1959) that continued in Hawley's direction. Gibbs and Martin suggested that sustenance organization should be the primary focus of human ecology. Duncan saw the ecological perspective best represented by reference to the ecological complex of population, organization, environment and technology. Population includes such characteristics of a human community as its size, geographical distribution and composition. Environment includes the physical setting and resources that create problems as well as advantages for the maintenance of human life. Technology refers to the material culture or state of the arts that allows man to manipulate the environment for his own ends. Although all the ecological variables influence one another, it most often is the case that organization is the dependent variable. Organization refers to the wide range of social arrangements that allows the population to solve problems they face as a collectivity. The ecological complex is not conceived as a deterministic set of relationships about the human community, but rather as a frame of reference that is most useful in macro-sociological inquiry. It might be said that contemporary human ecology has moved away from being a theory and more towards a perspective with the recent debate focusing upon which variables ecologists can legitimately investigate.

The Marxian perspective shares many similar features with both classical and contemporary human ecology. The most basic element of a Marxian view is that of a materialistic perspective (Willhelm, 1962, characterizes human ecology as materialistic in orientation). In other words, economic factors and relationships tend to be the dominant social force in a society. Marx saw society as composed of two levels, the substructure and the superstructure. The substructure included economic factors while the superstructure referred to political, legal and ideological aspects of society. The division is quite similar to the early ecological conception of biotic and social levels of society. The economic substructure also bears a close resemblance to the contemporary concept of sustenance organization. It is important to note that Marx was not a pure economic determinist as many of his critics maintain. He believed economic forces will exercise dominant influence in the long run, but there may be reciprocal relationships in the short run among the various spheres of society. In his analysis of the events of his day, Marx always treated these relationships empirically, and often traced the influence of political events upon the economic.

For our purposes here the most important aspect of Marx's theory is his conception of the forces of production and relations of production. Although Marx is sometimes vague, it seems he considered both as aspects of the economic realm or the substructure. The forces of production include technology, producers or workers and "work relations." Work relations are the mode of interaction of man with nature and with one another. An important part of work relations would probably be the spatial structure of work patterns. Marx seemed to consider these forces of production as causally prior to relations of production. The relations of production constitute the formal-legal relations that govern access to and control over the production process and are referred to as the property relations.

Over the course of history the forces of production change, especially technology. In contemporary analysis, this is often seen as the increasing productivity of human labor. These changes auger for changes in the realm of property relations and political power. In Marxian language, the property relations are no longer compatible with the uninterrupted growth of the productive forces.
In order to relate these theoretical propositions with social reality, let us consider an example. In W. F. Cottrell's article (1951), "Death by Dieselization," he studies a small community which is confronted with a radical change in its basic economic institution and traces the effects throughout the social structure. Historically, the social structure of railroad communities is a product of long-continued processes of adaption to the technology of steam. The occupational structure, the stratification of power and prestige as well as the more informal aspects of social life were largely determined by the role of the railroad industry in the community. With a change in technology of the industry, the shift to diesels, the entire community became obsolete in terms of servicing the railroads. The implications of this for the social fabric of the community were striking. Not only were jobs lost by railroad workers, but the impact on local merchants and churches was also felt. The entire community became embittered against the industry decisions made upon the basis of profit and made a number of almost socialistic demands upon the railroad industry and government. It suffices to say that the technological bases, or forces of production as Marx called them, are quite crucial in determining social structure and social change.

Marx was primarily interested in explaining these processes and relationships on a societal level. He did not think that the property relations or social organization would be changed in a slow evolutionary manner. The main obstacle to a societal transformation would be that a certain segment of the society would be benefiting from the existing property relations, and their position would be threatened if there was a change in the structure. Such groups may be the landlords in a society where the property relations are feudal or the owners of industry in a society where the property relations are capitalistic.

With this perspective, Marx saw class conflict as the primary mechanism in the transformation of property relations or social organization. Class conflict is a political struggle between those who are not benefiting from the existing social structure with those who are benefiting from the existing structure and seek to perpetuate it.

Class conflict itself was not necessarily an automatic development when the forces of production and the relations of production were incompatible. First the members of a class must understand their common interest in the existing social structure and then become a political force that attempts to alter the existing relations of production. The process whereby a class becomes aware of its position may be a result of their common everyday experiences or it may come through the work of intellectuals who become political activists. It is not necessary to psychologize about class consciousness to develop Marx's theory.

Although class consciousness is usually measured as some sort of internal cognitive state in opinion polls, it could also be conceptualized as a structural characteristic of a group. In this way, class consciousness could be measured as the propensity of interest group formation depending upon the knowledge available to the group.

It should be noted that the question of whether social change is violent or not is immaterial to the crux of Marx's thesis. Nor did Marx maintain a single evolutionary path need apply to all societies. However, he did think that general processes were at work.

The similarities and parallels between human ecology and Marxism are numerous. The early ecologists' emphasis upon competition for resources is similar to the materialism of Marxian theory. The early ecological distinction between the biotic and social levels of society is similar in form to the Marxian concepts of substructure and superstructure. The Marxian emphasis upon technology as one of the forces of production which contributes to changes in the social structure is similar to the technological and social organization aspects of the ecological complex espoused by Duncan.

However, there are differences as well. An important area is the explanation of change. Ecology seems to perceive social change as a process of evolutionary adaptation of an entire human collectivity to its environment. If a problem arises that affects the functioning of a community or society, then the social organization will adapt to meet these changes. Whether or not conflict will arise is left as an open question. In varying circumstances, the societal adaptation may be a change in the birth rate, a new technological innovation or a change in the occupational structure. This change is seen as an adaptation of the entire collectivity, although not every member is involved.

Marx sees the end product, a change in social organization, in a similar light, but views the process not as one of adaptation by the aggregate, but one of internal struggle between interest groups that stand to benefit or lose from the
changes. For industrial capitalist societies, Marx saw only two interest groups, the owners and the workers. While this may be an oversimplification on some issues, it does point to mechanisms of social change that human ecology does not. The ecological concept of dominance cannot be stretched to represent the same reasoning. Dominance was based on the functional or economic importance of an institution to the community, particularly those institutions that control the flow of sustenance. However, power can be exercised by institutions in areas unrelated to its functional importance or even after its functional importance has disappeared. It is also the case that the private benefit of a dominant institution may not represent the interests of the entire human community.

However, the concept of dominance was originally used in explaining spatial structure, and not to explain class and power relationships. Marx goes beyond ecological reasoning by introducing the intervening variables of interest group formation and conflict to deal with the process of social change.

Let us look at a few elementary examples to see how some of these Marxian notions might be useful in looking at problems from the ecological perspective.

William Form's (1954) analysis of the importance of social structure in land use patterns is an excellent case. He suggests that the classical ecological conception of urban spatial structure being determined by free competition of individuals and institutions is an over-simplification. He noted that certain organizations such as real estate groups and governmental zoning agencies have an unusually strong influence due to their unique place in the social structure quite unrelated to their functional importance.

Although Form does not explicitly argue from a Marxian perspective, he criticizes the classical human ecologists for ignoring very powerful interest groups that often dominate land use patterns. It often seems that human ecology assumes that the magic hand of the market or the "web of life" will result in the most efficient and functional organization of urban space. If the present allocation of land in American cities is the product of social forces, these forces seem rather unrelated to the needs of the people who live in the cities.

Another societal phenomenon often studied by ecologists is that of the transportation system. The solutions to the transportation problem often seem to have exacerbated it. The building of more big city expressways has led to even worse traffic problems than before. Although airports have problems providing for the safety and movement of present airplanes, the new jumbo jets are supposed to cause even more chaos.

The problem seems to be that those who control the use of scientific technology in our society, the large corporations and government regulatory agencies, work for economic benefit of private interests rather than the public interest. I suggest that more attention to the powerful interest groups that guide the formation of transportation policies would be a useful addition to ecological analysis.

Another issue of popular interest today is environmental pollution. Otis Dudley Duncan (1961) has outlined how air pollution might be analyzed from the use of the variables in the ecological complex. He suggests that pollution arises from certain technological factors such as industrial processes and automobile exhausts. The resulting pollution causes problems for the population and the environment. This in turn stimulates organizational responses such as concerned civic groups, research organizations and government regulatory agencies. Such organizations then attempt to regulate industry in order to utilize technology in such a way as to minimize pollution. Duncan suggests that there is political interplay between private organizations and branches of the government which has not been adequately investigated. The resolution of this problem, Duncan says, is an open question, although he suggests that the alternative to a harmonious solution might be a convulsion of the eco-system. I think that Marx's explicit focus upon political conflict as a usual consequence of technological change is helpful in the analysis of this topic.

While these examples have mainly dealt with the utility of incorporating Marxian ideas into ecological theory, I also recognize that human ecology could contribute substantially to Marxian theory.

To summarize, contemporary human ecology sees environmental, population, and technological pressures as generating changes in the organizational nature of human society. I think that Marxian is compatible with this perspective and gives further understanding to the dynamics of social change by explicit emphasis upon interest group formation and political conflict as important elements in the process.

References
Bottomore, T. B. (ed.). 1964. Karl Marx: Selected Writings in Sociology and Social
In 1922 E. W. Scripps, newspaper tycoon and prominent philanthropist, read a book on Malthus by Warren S. Thompson. Scripps was profoundly impressed by the potential magnitude of the problems associated with population growth and the general lack of information on this subject. He contacted Thompson immediately concerning the possibility of organizing a full-time research foundation for the study of population problems, and at the same time he also contacted Miami University about providing a home for the foundation.

Thus, in 1922, Thompson began at Miami University the work of the Scripps Foundation for Research in Population Problems. It was a pioneering event, for this was the first foundation of its kind in the world. In 1923, Thompson recruited Pascal K. Whelpton to work with him, and they set up shop in the old reading room of what is now the Alumni Library at Miami University.

Thompson was director of Scripps until his retirement in 1953, and Whelpton then guided the efforts of Scripps until his death in April of 1964. Scholars who at one time or another in the past have been part of Scripps include Donald Bogue, Norman Ryder, Arthur Campbell, John Patterson, and Richard Tomasson.

Throughout its history, the foundation has compiled an impressive record. While the number of people active in the work of the foundation rarely exceeded three or four at any time, in five decades the foundation has produced over 250 articles and over 50 books and monographs covering a wide range of subjects related to population. Research on the U.S. has generally predominated, but there has also been a traditional concern with international perspectives, especially in the work of Thompson and Cottrell.

The research interests of the foundation have remained relatively consistent over its history, although the emphasis has shifted from time to time as a result of changing interests of the staff. These interests can be roughly categorized as follows:

1) problems arising from the strain of population on resources,
2) the structure and development of the U.S. population,
3) urbanization,
4) demographic methods,
5) causes and consequences of population aging, and
6) fertility and family planning.

Apart from its scholarly achievements, the Scripps Foundation is also well known for its library holdings. Beginning with European censuses in the early 1700's, the 8,000-volume library has a fine collection of historical demographic data, and it...