THE HISTORICAL EVOLUTION OF HUMAN-ENVIRONMENT RELATIONS: APPEARANCE OF MODERN ENVIRONMENTALISM

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İnsan ve çevre arasındaki ilişkilerin tarihsel süreçte geçirdiği evreler ile toplumsal üretim biçimleri arasında yakın bir ilişki vardır. İnsan ve çevre arasındaki ilişkiler süreci başlıca üç evrede ele alınabilir. Temel üretim biçimlerini de ifade eden bu evreler avcı-toplayıcı toplumlar, tarımcı toplumlar ve endüstri toplumlarıdır. Her toplumsal üretim biçimi insanın doğayla olan ilişkisinde kendine özgü bir biçim yaratmıştır. İnsan oğlunun yarattığı endüstrileşme ve teknolojik gelişme düzeyi ilerledikçe insanın doğaya egemen olması dolayısıyla doğayı sömürmesi de hızlanmıştır. Özellikle yirminci yüzyılın ikinci çeyreğinde endüstriyel üretim ve doğal kaynakların bilinçsizce ve aşırı kullanımı insan oğlunun yarattığı en "modern" uygarlığı ve dolayısıyla kendisini tehdit eden en önemli tehlike haline gelmiştir.

ANAHTAR SÖZCÜKLER: Çevre, Çevre Sosyolojisi, İnsan-Çevre İlişkisi,

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1. Introduction

The main target of this paper is to investigate the historical evolution of human environment relationships. This is a theoretical/historical review and accounting. The paper provides a theoretical/historical foundation to understand the background of modern environmentalism and modern environmental problems. However, the paper does not cover all details of theoretical and historical background of societyenvironment relations. This review only includes basic premises and main points of the three stages of human environment relationships. The stages of the human-environment relationships are hunter-gatherer societies, agricultural societies, and industrial societies. The fundamental assumption of this accounting is that there is a strong relationship between each society type's mode of production and its relationship with the natural environment. Each society or mode of production requires special type of relationship with the natural environment. In other words, each society or mode of production has its own mode of consumption of natural resources. Additionally, each type of society has created a dominant worldview and cognized environment that defined and legitimated mode of production and its relationship with the natural environment. This initiative discussion identifies theoretical basis or assumption of this paper.

The paper consists of the following discussions: First, the relationship between society and the environment and its dominant worldview has been accounted for each type of society. Then, especially, the society-environment relationship in the industrial society has been presented. Finally, appearance of modern environmentalism and its basic premises are also covered in the paper.

The interaction between human and environment is an universal phenomenon. The human-environment relationship shows a dual interaction. On the one hand, human life and culture are affected by natural environmental conditions; on the other hand, human beings are manipulating nature for their satisfaction. This dual relationship between human and the environment is affected by socio-cultural and organizational structures of human society. Therefore, each human society creates its own reality or relationship with the natural environment, and every society creates its own environmentalism. This environmentalism includes environmental environmental action, environmental movements, and environmental policy (Harper, 1996). In this paper, Thomas Khun's (1970) paradigmatic model and Gerhard Lenski's (1966) models are used to explain changes in the type of relationships between society and the environment.

The relationship between society and nature is defined by social paradigms. Therefore, Thomas Kuhn's (1970) paradigmatic model of scientific development can be taken as a model to explain human-environment relationships. According to Kuhn,

change in scientific systems and social systems occurs in a revolutionary way. Each scientific system, similar to social system, has a common sense and a generally accepted worldview. This worldview is supported by dominant institutions of society called the dominant paradigm. According to Kuhn's paradigmatic model, each society creates a broad dominant social worldview, and depending on that each society creates a dominant scientific paradigm (Capra, 1996). The dominant social paradigm explains society and social relations; the dominant scientific paradigm, however, explains general rules of science and scientific understanding. According to his model, dominant social and scientific institutions assume no change in scientific and social structure. However change in society and social relations and social institutions are constant phenomenon. Thus, new necessities and structures require new explanations. Khun claims that when the dominant paradigm is not adequate to explain reality, a new (revolutionary) scientific paradigm or social system appears as an alternative to the dominant paradigm. New revolutionary paradigm challenges and changes all scientific explanations and structures and becomes new dominant paradigm. This scientific change model is labeled Kuhn's paradigmatic model and widely used in sociology of science. Gerhard Lenski (1966) and Harper (1996) constructed a model to explain human environment relationships. There is a strong relationship between Kuhn's model and Lenski and Harper's models.

2. The Historical Evolution of Human-Environment Relationships

The relationship between society and environment has been investigated by many scholars. Gerhard Lenski (1966) investigated social evolution of societies, and defined five stages: hunting gathering society, simple horticultural society, advanced horticultural society, agrarian society, and industrial society. Lenski's classification of societies is general and historical. He investigated power relations, domination, structural and organizational systems of each stage of society. Lenski identified lawlike generalizations for societies and exemplified working mechanisms of these generalizations for each stage of society. He concluded that 'power' and 'privilege' are the main concepts that explain power structure, domination, division of labor, and exploitation in each society. Lenski notes that each society creates an exclusive power relation and a dominant paradigm that legitimize the dominant structure. Accordingly, each society creates a dominant social paradigm. Dominant social paradigm gives broader and general "rules" about social life; and dominant scientific paradigm gives "rules" of science.

On the other hand, Harper (1996) used a different classification of societies according to their relationships with the environment. He reduced Lenski's three different groups of horticultural-agricultural societies in one group: agricultural societies. Harper's overall classification of societies includes three groups: huntergatherer society, agricultural society, and industrial society. Harper described the relationship between society and the environment for each type of societies and defined their exclusive society-environment relationship and their dominant social paradigms.

Harper maintains that each society creates a different relationship with the environment and a dominant social paradigm legitimates the relationship.

According to Harper, "a cognized environment is part of the cultural worldview the totality of cultural belief systems about the world and reality that people share. A cognized environment is also an important component of the paradigms that people share. . . . A social paradigm is an implicit model of how the world works that is broadly shared by people in society" (Harper, 1996: 36). A social paradigm affects society's institutional structure, moral values. Every society has competing paradigms with one tending to dominate. Although the Dominant Social Paradigm (DSP) is not necessarily the only paradigm in a society, it is supported by the elites of social systems and provides an effective worldview (Harper, 1996: 36; Milbrath, 1984: 7-9). The DSP culturally and socially legitimates society's worldview by defining social structure and culture.

As Lenski (1966) and Harper (1996) noted, each society creates exclusive power structures, division of labor, exploitation and surplus structures, and environmental relations. Historically, each society has created an exclusive relationship with the environment and a dominant social paradigm that legitimizes the relationship between society and the environment. The relationship of each society with the environment, dominant social paradigms of these societies, and power structures are discussed in a historical context. Three main types of societies and their relationships with environment were given a historical perspective.

2. a. Hunter-Gatherer Societies

Hunters-gatherers were the earliest type of human society appearing approximately 40, 000 years ago (Harper, 1996). Hunter-gatherers lived as small bands, survived by gathering edible wild plants and killing animals from their close surroundings. They collected their foods on daily or weekly basis, so they could not accumulate long run economic or food surplus. "They survived by the accumulation of a cultural stock of 'expert knowledge'" (Lenski, 1966; Harper, 1996: 37). The "expert knowledge" includes knowing food availability of their close surroundings, including knowledge about soil, water, air, and plant.

Social and organizational structures of hunters-gatherers were not so complicated. They consisted of a simple division of labor and their status-role system was based primarily on age and gender. Relationships between members of the society were face-to-face and informal and there was at its lowest level inequality because there was a very little surplus value accumulated (Lenski, 1966; Harper, 1996: 37).

The relationship between hunter-gatherer societies and environment was a direct relationship compared to modern societies. Due to the smallness of societal population and local and decentralized social patterns, impact of hunter-gatherers on environment was characteristically limited and localized. Hunter-gatherer societies developed a

strong association with nature which nurtured a dependence on nature and other societal members. This dependence on nature was at the core of hunters-gatherers' dominant social paradigm. They thought of themselves as "as people in nature." "Their cognized environment was that of a living natural world (wilderness/ jungle/ forest/ grassland) of things and beings governed by spiritual forces" (Harper, 1996: 38).

2. b. Agricultural Societies

Human beings discovered cultivation of crops and domestication of animal about 10, 000 years ago. Irrigation, fertilization, and organization of labor accelerated agricultural production in later stages of agricultural societies. Innovation of more advanced agricultural technologies such as the metal plow, pulled by domesticated animal, enormously increased agricultural production and radically changed social life in agricultural societies. Division of labor became more significant in social life and a peasantry appeared as the main force of production. Additionally, artisans appeared as creators of agricultural and other tools, and administrative class appeared as organizer of production and surplus. However, 90 percent of the population were peasants in agricultural society (Harper, 1996: 39).

The appearance of agricultural society is not only depended upon the discovery of cultivation of crops and domestication of animals, but also upon manipulation of the natural environment and society's relation to the environment. Agricultural cultivation, irrigation, and fertilization changed the natural environment and society's relation to the environment. Forests and lands were transformed to cultivated lands. Furthermore, irrigation and fertilization changed soil composition. This symbolized that the alienation of human beings to the natural environment.

Hunter-gatherer societies and agricultural societies differed from each other on respect to inequality and the manipulation (exploitation) of natural environment. Leading classes (Lords and landed aristocracy) accumulated and dominated surplus produced by peasants and artisans. This accumulation created a huge inequality between leading classes and the forces of production. Manipulation, overuse of natural resources, and exploitation of nature for agricultural production were the main environmental premises of agricultural society. Moreover, first urban settlements of human history were established in agricultural society. Urban settlers of agricultural society seem to be "uprooted" from their cultural and natural "roots" compare to hunter-gatherers' holistic life style in natural environment. There was no infra structure of cities in agricultural society, so daily life was misery for poor settlers in the cities.

The social and environmental manipulation and exploitation were not the only reasons of the rise of agricultural society; they were reasons for its collapse as well. Socio-economic exploitation of the peasantry resulted in uprisings against the elites while environmental overuse and exploitation reduced agricultural production. For example, Harper (1996: 41) notes the collapse of the Lower Mayan societies in Central

America. Lower Mayan societies cleared forest for agricultural land; nevertheless, they lost their cultivated lands by erosion because of the lack of forest. Losing cultivated land resulted in hunger and total collapse of the society.

The dominant social paradigm in agricultural society was based upon exploitation, manipulation, and domination of environment. The DSP of agricultural society legitimated human domination on the environment and exploitation of nature. "If the cognized environment of hunter-gatherers was of a natural living wilderness, that of agriculturalists were more like that of a garden, still a natural system on which people depended, but one that could be extensively cleared, plowed, weeded, tended, watered, mined, and dominated for human purposes" (Harper, 1996: 43).

2. c. Industrial Societies

Industrialization started about 300 years ago in Western Europe. Industrialization was based upon some key innovations including the development of the textile industry in England. Discovery of the steam engine, electric power, hydroelectric power, and petroleum were also important contributors to industrialization. Development of these new energy sources and production technologies enormously increased industrial production and surplus. Invention of new technologies and increase in production required more centralized social organizations. The centralization and reorganization of production radically changed people's daily life. People accumulated in industrial centers, and eventually majority of the population began to live in urban industrial centers for the first time in human history. Increased urbanization was accompanied by a significant expansion in political and economic bureaucratization (Lenski, 1966; Harper, 1996; Wallerstein, 1976).

The organization of production and distribution of surplus saw the rise of a new bureaucratic organization: the nation-state. The nation-state became the biggest, most effective, and most complex organization in industrial society. The nation-state not only organized production and distribution of surplus, it organized daily life in society as well. The nation-state also perpetuated an unequal distribution of surplus between the leading class (bourgeoisie) and the working class.

The Western industrial nations established industrial empires. These industrial Western countries imported raw materials and natural resources from undeveloped countries, and they re-exported these materials as manufactured goods to undeveloped countries. Expansion of industrialization to an international level also expanded environmental exploitation.

Environmentally, industrialization is based upon the exploitation of natural resources. The vital change in the human-environment relationship was the usage of cheap fossil fuels in industrial society (Lenski, 1966; Harper, 1995: 45; Catton, 1980). Using fossil fuels resulted in more extensive exploitation of natural resources, more pollution, and greater environmental destruction. Some immediate results of using fossil

fuels were air and water pollution, acid rain, and global warming (Keleş, 1997; Keleş & Hamancı, 1997; Tuna, 1998).

Industrialization also increased domination of humans over other species. Clearing exotic species and natural environments were acceptable to establish industrial plants and to increase industrial production.

Harper defined industrial society's Dominant Social Paradigm (DSP) as follows:

"... if the main cognized environment of agricultural societies was, that of garden to be tended, modified, and dominated by humans, that of industrial societies is a dramatic extension of this" (Harper, 1996: 46). The European Enlightenment prepared cultural (scientific, moral, and philosophical) bases of exploitation and manipulation of nature.

Harper summarized the five main premises of the DSP of industrial society:

- "1. Low evaluation of "nature" for its own sake: The natural environment is valued as a resource to produce goods; human dominate nature; and economic growth is more important than environmental protection.
- 2. Compassion mainly for those near and dear: Other species are exploited for human needs; less concern is shown for "other people"; more concern is shown for this generation of humans than future ones.
- 3. The assumption that maximization of wealth is important and risks are acceptable in doing so: Faith in science and high technology as beneficial; use of markets rather than regulation to allocate risks; risks are typically born by individuals.
- 4. The assumption of no physical (real) limits to growth: Problems with resource shortages and population growth can be overcome by human technological inventiveness.
- 5. The assumption that modern society, culture, and politics are basically OK: No serious damage to nature by humans; emphasis on competition and democracy but also on efficiency, expert knowledge, hierarchies, and control by large-scale organizations; variations in ownership and control of the means of production; complex and fast life-styles" (1996: 47).

According to widely accepted basic assumptions of industrial society, limitless use and exploitation of natural environment is accepted as basic value and given. Modern Environmentalism appeared as the criticism of the mentioned basic assumptions of the industrial society.

3. Appearance of Modern Environmentalism

Thus the overall evaluation of society-environment relationship from a broadhistorical perspective indicates that exploitation of the environment has been accelerated by human beings. The relationship between society and the environment was a direct relationship in hunter-gatherer society. Human beings were part of the environment, there was no exploitative relationship within society and between society and the environment. Mutual and equal relations within society and between society and

environment were legitimized by hunter-gatherer society's dominant social paradigm. The first exploitative relationships within society and between society and environment were established in agricultural society. Direct relationships between society and the environment evolved to indirect relationships, and a wide exploitation and domination of the environment by society were established in agricultural society. Agricultural production required changes in natural conditions, soil and water structure, and forests. However, agricultural surplus was not distributed equally and fairly. Landed aristocracy accumulated agricultural surplus and natural enjoyment, and peasantry received poverty, misery, and dirt. The dominant social institution of agricultural society, religion -- the dominant ideological and ethical social institution-- promoted agricultural production and domination of the environment. Finally, the relationship between society and environment was radically altered in industrial society. Most people lived in big industrial cities with almost no enjoyment of natural environment. The domination of the environment and exploitation of natural resources are recognized as basic necessities in industrial society. Industrial production and surplus enormously increased, and it is accumulated by bourgeoisie (Lenski, 1966; Harper, 1996). Exploitation of nature by humans and exploitation of humans by other humans have reached their highest level in industrial society. The DSP and major social institutions of industrial society including science, religion, ethic, education, and politics; support, encourage, and legitimize domination of the environment and exploitation of natural resources.

This broad historical review indicates a close association between exploitation of nature by humans and exploitation of humans by other humans; the higher exploitation of nature is related to the higher exploitation of humans. Additionally, one point is clear that manipulation and exploitation of the environment by society have reached the highest level in industrial society. As the historical review presented, the highest level of exploitation within society and between society and the natural environment or deep crisis in social life indicates the beginning of a new stage in social history (Lenski, 1966; Khun, 1976; Harper, 1996). Some scholars such as Beck (1992), Eder (1996). Gare (1995), Giddens (1990, 1991), and Inglehart (1995b) labeled this new stage in industrial society as late modernity or postmodernity. Although their theoretical approaches are not necessarily same, they commonly note that postmodernity or late modernity is a setting for the emergence of new alternative paradigms to industrialization and modernity. Environmental concern is an important component of this emerging era. Environmental premise of the postmodernity thesis can be summarized as "back to nature phenomenon," and it is labeled as an "ecocentric" worldview. The postmodernity thesis mainly advocates that industrialization and modernity have created an exploitative-anthropocentric culture or paradigm to describe the relationship between society and the environment. Environmental problems such as ozone layer depletion, green house effect, global warming, biodiversity loss, and nuclear danger (risk) are direct results of industrialization and modernity. The

postmodernity thesis suggests a new, holistic, and respectful relationship with the environment instead of an exploitative relationship. The postmodernity thesis mainly proposes that postmodern conditions including an ecocentric environmentalism is a real challenge to modernity (Tuna, 1998).

The postmodernity thesis maintains that society is on the border of a new stage, and environmental problems and environmental concern are the most distinguished premises of this new stage. Environmentalism presents a challenge to the DSP of industrial society (Yearly, 1994, 1996; Szerszyski, 1996; Dunlap and Catton, 1978, 1984, 1994, 1996).

No further explanation is given on the late modernity or post modernity at that point. It may be a subject of another paper. Instead, late or post modernity is just mentioned for its strong association with the appearance of modern environmentalism. However, the definition of environmentalism is given as a result of historical/theoretical evolution of human environment relationships.

4. Environmentalism Defined

Environmentalism as a challenge to the DSP of industrial society has a cumulative meaning that includes environmental action, environmental movements, attitudes. Harper and environmental environmental politics. environmentalism is both an ideology and action; "as ideology, it is a broad set of beliefs about the desirability and possibility of changing the human relationship with the environment" (1996: 293). According to this definition environmentalism comprehends environmental beliefs and attitudes. Environmentalism is a total perception or a worldview of society on environmental relations. Environmentalism, as a paradigm, infers a totally different way of thinking on environment and society. Environmentalism in industrial society identifies society's preservation of the natural environment and physical and mental well being in the environment. Modern definition of environmentalism identifies a holistic life style within the natural environment (Kempton et al., 1995).

Historically, environmentalism as social movement and political ideology varies from the anthropocentric perspective to the ecocentric perspective. Resource conservation, human welfare ecology, preservation, animal liberation, and ecocentrism are major environmentalist streams (Eckersley, 1992: 34). The resource conservation movement basically advocates conservation of natural resources for better exploitation. This movement is basically an anthropocentric movement, and preservation movement was the early stage of environmentalism in the U. S. (Hays, 1987; Eckersley, 1992). Human welfare ecology targets a clean ecology, safe, and more pleasing human environment. Resource conservation movement prefers maximization of sustainable yield and growth, targets safer and cleaner environment for human; accordingly, human welfare ecology movement is also anthropocentric. Preservation movement advocates reservation of wilderness for human enjoyment, accordingly this movement, like

resource conservation movement and human welfare ecology movement, is human centric as well. These three environmental streams are anthropocentric streams. According to these streams, environment has instrumental value for us. These environmental streams are confounded by the DSP of industrial society. However, nature should have been valued for its own sake (Eckersley, 1992: 42; Naes, 1995).

Animal liberation movement and ecocentrism movement, however, are not anthropocentric environmental streams. Animal liberation stream targets equal consideration of animals with humans. Furthermore, ecocentrism stream advocates equal relationship of human with all non-humans. Ecocentrism movement proposes protection of natural environment for not only human satisfaction, but also for non-human well being. Ecocentrism is a holistic environmental stream.

Accordingly, environmentalism represents an ecological or ecocentric (Eckersley, 1996) meaning in this context. Environmentalism with its ecological meaning also identified as "deep ecology." The term "deep ecology" was first used by a Norwegian philosopher Arne Naess (1991). The deep ecology approach, like ecocentrism, identifies a holistic life within the environment. Deep ecology also criticizes "shallow" environmentalism that is also anthropocentric. Shallow ecology movement identifies an uncritical environmentalist position. Shallow ecology movement is against pollution and resource depletion. The main objective of this movement is to make better health and affluence conditions of people in the developed countries (Naess, 1991: 243).

The modern environmentalism in the late stage of the modern society is a real challenge to the Dominant Social Paradigm of modern society. Accordingly, the modern environmentalism is also symbolizes the new stage of the modern society that is labeled as late or post modernity.

5. Conclusion

The evolution of the relationship between human societies and natural environment was at the core of the discussion in this paper. The relationship between human societies and natural environment changed from a mutually coersive and close relationship to exploitative relationship. The hunter-gatherer societies created a holistic relationship with the natural environment. The first exploitative relationship between the natural environment and society was appeared in agricultural society. The industrial society present the highest level of exploitation of the natural environment. Environmental problems have reached the maximum level especially in the second half of the twentieth century. The overuse and exploitation of natural resources, air and water pollution, deforestation, desertification, and global warming have become threatening to human civilization in the modern era. The environmental danger and risk has become a global forebode. Especially, by the begining of the second half of the

twentieth century, the environmental and societal conditions of the modern society is being identified as a new stage labeled as late or postmodernity. Accordingly, modern environmentalism appears as a real challenge or alternative to modernity.

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ÖZET

Bu makalede insan ve çevre arasındaki ilişkilerin tarihsel süreçte geçirdiği evreler ele alınmıştır. İnsan ve çevre arasındaki ilişkiler başlıca üç evrede ele alınabilir. Temel üretim biçimlerini de ifade eden bu evreler avcı-toplayıcı toplumlar, tarımcı toplumlar ve endüstri toplumlarıdır. Avcı toplayıcı toplumlarda doğa ile insan arasında karşılıklı ve dostane bir ilişki varken, tarımcı topluluklarda insan ve doğa arasındaki bu dostane ilişki artı ürünün ve sömürünün ortaya çıkmasıyla zayıflamaya başlamıştır. İnsan tarımsal üretimde bulunmak için doğal işleyişe müdahale etmeye başlamış ve böylelikle insanın insanı sömürmesi ve insanın doğayı sömürmesi eş anlı olarak ortaya çıkmıştır. Endüstri devriminin ortaya çıkmasıyla birlikte artı ürün üretiminde ve doğal kaynakların tüketilmesinde bir patlama yaşanmış, daha çok üretip daha çok tüketmek adeta yaşamın tek amacı haline gelmiştir. Yirminci yüzyılın ikinci çeyreğinde endüstriyel üretim ve doğal kaynakların bilinçsizce ve aşırı kullanımı insan oğlunun yarattığı en "modern" uygarlığı ve dolayısıyla kendisini tehdit eden en önemli tehlike haline gelmiştir. Bu dönem aynı zamanda toplumsal teoride postmodernite ya da geç modernite kavramlarıyla ifade edilen teorik yaklaşımların ve modern çevrecilik akımlarının modernite düşüncesine alternatif olarak ortaya çıkmasını ifade eder.