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REVIEW ARTICLE

Ecosystemic Alienation from the Perspective of Paraecology

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ABSTRACT

Individual alienation, which began in the previous century with the industrialization revolution, has now progressed to the level of ecosystem alienation. Catastrophic destruction that occurs with the disruption of natural ecosystem functions proceeds insidiously. The main objective of this study is to make paraecological approaches more understandable, and aid efforts to make nature conservation and environmental ethics a way of life in the solution of environmental problems caused by ecosystemic alienation. With the magic of hedonism, an alienated person becomes lonely and robotic. Today, modernity is the main activator of alienation. Weak living things, which constitute the basic paradigm of modernity, must constantly feed this system. However, maintaining modernity tends to destroy the system by exploiting it. Ecological destruction, such as climate change, drought, and desertification have reached a global threat level. Living things are unaware that they are preparing to perish under the threat of alienation, along with their systems. Ecosystemic alienation, a latent virus that has existed for over a century, is the highest level of alienation. Selling or bartering these functions by calculating the financial value of the services and functions of natural ecosystems is another indicator of alienation. The solution is not to destroy the alienated humans (aliens) responsible for the degradation of ecosystems, but to push them to the limits and neutralize them. Efforts to create virtuous people who will solve ecological problems and adopt living as a part of nature cannot be realized with utopian principles. Adoption of global nature conservation ethics is possible with lifelong education for all ages.

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1. Introduction

1.1. Some Ecological Aspects on Nature and Human Relationship

Human beings, who are in a consumer position in the relationship between nature and humans, have always exploited nature. Unplanned use of natural resources has exceeded the carrying capacity of ecosystems, and ultimately endangered the sustainability of nature. Global climate change is one such danger (Çepel, 2006). To date, many ecological approaches have been proposed to control these negativities, which cause human-centered and environmental disasters. These approaches form the basis of ecological planning. For example; Arne Naess (1986) advocated the "deep ecological" view; While he evaluated nature as an entity with a unique life value like human beings, he stated that nature is seen as a tool for people in the ecological view he called "Shallow" (Ferry, 2000). With a nature-oriented environmental understanding (Tamkoç, 1994), mysticism is located in the main axis of philosophies dominated by the "deep ecological" view (Elkins, 1994). Deep ecological philosophy: This consists of a set of cultural and life chains fed by Buddhist, Christian, and secular philosophers. In this axis, it is emphasized that the existence comes from the same source, even though they are outwardly different. Therefore, humans are only one of the other beings. On the other hand, in Pantheist beliefs, holiness is attributed to all beings (Lynn, 2003). The fact that deep ecologists see human beings as responsible for ecological destruction has

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caused them to be influenced by philosophies called "Ecosophy", which use teachings such as Taoism and Buddhism (Wagner, 2013). The essence of Taoist philosophy is a rhythm in which nothing is treated as an object and everything is interconnected (Elgin, 1994). In Buddhism teaching on this subject, "Patticasamuppada" is responsible for the creation of everything and everything is interdependent (Anonymous, 2013). All these teachings have found a place in the "Deep Ecological' approach to consider oneself as a part of the universe with a spiritual consciousness (Capra, 1994). One of the basic elements of the systems theory of deep ecology is that all beings on Earth are in a chain of relations with each other (Zimmerman, 1989).

In the "Biocentric" understanding of deep ecology, all beings are considered equal. The anthropocentric view was completely rejected (Mellor, 1993; İdem, 2002). In fact, it can be said that the basis of the biocentric view is inspired by a very old approach to bequeathing the world to future generations (Bari, 2003). Man's destiny in the world is determined not by dominating nature, but by using his will in line with his thoughts. The value of all assets is essential. Humans have no superiority over other beings (Metzner, 1994). According to deep ecologists, it is unacceptable to consider humans as leading roles and other living things as extras in natural scenes (Laçiner, 1998). According to ecofeminists, the dominance of men over women is similar to that of nature. Men are the main source of destruction in nature. Merchant has seen and identified woman and nature side by side as two entities that are oppressed and dominated against man (Ünder, 2005). In social ecology, people's domination has led to the domination and exploitation of nature (İdem, 2002). Roszak (1992) combines psychology and ecology with the concept of ecopsychology, and argues that people who isolate themselves from nature are spiritually unhappy and ultimately harm themselves.

The ecopsychological approach aims to reconcile today's people with nature will be possible by revealing the instinct of living together and respecting it, which is inherent in nature. Erzurumlu İbrahim Hakkı (1756), on the other hand, talked about a multidimensional teaching on the creation of beings and the relationship between nature and human; "He first created the universal soul from essence. He then created the spirits of angels, plants, and nature. For these souls, certain authorities were appointed according to their rank and each class went to their own stations. Every soul found its own kind, formed communities, and every community remained in its place." He states that plants and humans souls in nature. This approach shows that man will never be domineering in his relations with nature and can only be a ruler on the condition of observing the rights of all creatures.

Although humans are mostly in a dominant position in the rapid destruction of nature in the relationship between humans and nature, habitat conditions (soil, climate, physiography, etc.) in some regions can be more decisive in these disasters. In the face of a society that constantly consumes resources unilaterally in developed countries, anthropocentric shallow ecology has a worldview that sees all kinds of desires and demands legitimate in its relationship with nature and that the whole earth belongs to humans (Önder, 2003). However, he considered it a duty to make efforts to prevent the depletion of natural resources (Keleş & Hamamcı, 2002). According to deep ecology, the Earth does not belong to humans. Every being has the right to life (Naess, 1995). The creator of all ecosystems has appointed man as a will-powered being on earth, and this role of trustees also includes the management of sensitive and valuable relics, such as nature. Managing trust is an important part of a man's test on Earth. Humans have the will to choose ways such as planning the earth, rehabilitating it, correcting or destroying it, aggravating it, and confusing the world by spreading corruption (Mevdudi & Kayani, 1996; Bursevi, 1997). Öztürk (2002) considers the deterioration of nature (pollution of nature, ozone depletion, etc.) to change the original creation, to be under the control of the devil. It is aimed at being very sensitive about the protection and improvement of nature and to prevent the irresponsible use of unlimited nature (Nasr, 1988; Gürsel, 1995; Özdemir & Yükselmiş, 1995).

In the concept of principles advocated by deep ecology argues that anthropocentric thinking is the only source of ecological problems and that the solution must undergo an ideological, economic, cultural and technological restructuring. Deep ecologists do not take a stance in favor humans in the relationships within the nutrient cycle in ecosystems (Des Jardins, 2006). The alienation of humans from the center of life brings human and non-human creatures to the forefront (Önder, 2003). In this view, where integration with nature and equality are at the forefront, people's ethnic, political, religious, and other ties should not be in front of ecosystem dependency (Ünder, 1996; Pepper, 1999). As a result, deep ecological thinking is important in terms of bringing ecological thoughts that teach not to think and act in a human-oriented manner (Tamkoç, 1994).

Mellor (1993), who states that Naess's ecosophy is to become conscious of being one with the planet, also criticizes the idea that all living things are equal in the philosophy of deep ecology, and that man sees it as a being who exploits nature. Another criticism is that Kovel (2005) focused on the decentralization of humanity within nature through deep ecology. Plumwood (2004) criticized deep ecology for not giving importance to social structure by emphasizing personal transformation. These criticisms of deep ecology appear as a result of anti-humanism and nature-centrism. Seeing people at the center of all problems and seeing all technologies as harmful is a mistake in itself (Bookchin, 1994; Ata, 2002; Kovel, 2005). While nature gains meaning only within society, the relationship between them depends on the society's perception of nature (Elkins, 1994). Deep Ecologists have significantly

narrowed down humanistic morality's concept of duty and responsibility (Ferry, 2000). Deep ecology movement in world class, race, gender, etc. This consists of an ambiguous, amorphous, and baseless assumption that insults humanity by ignoring differences (Porrit, 1994).

The philosophy of society's relations with nature will not only shape these ecological relations but will also form the basis of ecological planning for a sustainable nature. These approaches bring to the fore an understanding of ecology, in which the uniqueness of assets is reflected at the ecosystem scale; Paraecology, This understanding of ecology; It is based on the transfer of the purpose of creation of beings to life as a whole.

Paraecological approach: Reducing threats to ecosystems and including environmental destruction in the rehabilitation process as a part of the rehabilitation process of human beings sociologically, psychologically, and philosophically. The aim here is to enable the person, who is the basis of the problem, to take an active role in the solution process. Paraecological approaches are flexible ways of thinking that help individuals internalize accepted or planned ethical concepts in their lives, especially in understanding and utilizing the relationships between ecology and psychology, sociology, and philosophy. Understanding and internalizing the relationships between ecology and psychology, sociology, and philosophy can help individuals become more environmentally aware and adopt ethical values. These approaches can encourage people to act responsibly towards their environment and work towards sustainability.For human beings who insist on solving environmental problems on a global scale, "*The real danger is the alienation of people who cannot make ecological planning and implementation in parallel with active changes and developments in the world. First of all, these problems must be identified and then overcome*" (Dindaroğlu, 2014a; Dindaroğlu, 2021).

Some prominent Paraecological approaches (Dindaroğlu, 2014a);

• All assets in nature have values both for themselves and others, and this value forms part of the ecological cycle. The purpose of creating the universe was for man. However, this situation does not give man the right to dominate other beings. Other beings are like the limbs of man. Their point of view is their own heart, hand, leg, and so on, which should be similar to their relationship with their organs.

• Plants are one of the most important components of the ecological cycle. There are no insignificant entities that do not play a role in the ecosystem cycle.

• Stopping pollution should not hinder economic development. Simultaneously, pollution must be stopped and economic development must be achieved. With industrial development, technologies that can eliminate pollution without affecting the ecosystem cycle should be developed. Humans are well equipped to ensure economic development and protect ecosystems. However, this world is a field for increasing the level of intelligence, ability, and knowledge of human beings. Therefore, the relationship between man and nature is one of the stages of positive or negative conclusions for this purpose.

• What is really dangerous is the problem of “alienation of man from himself”, which cannot make ecological planning and implementation in parallel with the active changes and developments in the world. The basis of man's problems with nature lies in man's forgetting of his purpose of existence and alienation from himself. First of all, this problem should be determined and then it should be overcome. All these constitute an important part of the world's wisdom. The person who is alienated from himself or herself deviates from the purpose of existence. However, humans are sufficiently strong to overcome this problem. In this context, before our plans, we should equip society with active, sustainable ecological and environmental ethics, and plan our natural resources with this perspective. Human beings are at the center of the management and responsibility of these processes.

• Living standards should progress in synchrony with ecological balance. It does not make sense to have a luxury villa in an area where everything is covered by garbage and chemical waste.

• “Existence” must fulfill its duty within the ecological cycle, completely and in accordance with its purpose of existence. Otherwise, the system is disrupted.

Nature and humans are not cruel. Both must maintain a balance in ecological relations. Here, it is a man's duty to preserve the natural balance he is dependent on.

• The main goal of ecological relations is to fully and completely maintain ecosystem functions. If the relations continue for or against one side, the entire ecosystem will suffer.

Therefore, while rehabilitation work is being planned, people living in the region should manage natural resources with the awareness that they do not have the right to rule over nature unconditionally in accordance with their purpose of existence, but that they have the right to live in other beings like themselves. Additionally, people with low-income levels should be supported by social and economic projects, and their income levels should be increased. It is necessary to develop an environmental sensitivity that does not sacrifice humans or nature and provides the perception that both are indispensable values for this ecosystem.

“*It is easy to make people love the natural beauties and make them feel pity for the destruction of nature. However, it is very difficult to convince people that they are constantly destroying nature for a more civilized and modern life and that*

this action is equivalent to the destruction of the foundations of life. In this context, these seemingly small tasks to be done individually should not be underestimated" (Çepel, 2005).

1.2. Origin of the Word "Alienation"

In the dictionary of the Turkish Language Association, the word "Wild" is expressed as a desolate place where no people live. This is a word of Persian origin. It is also used in the sense of wild, untamed creature, foreign, unfamiliar. On the other hand, the word alienation is used in the meanings of not knowing, becoming ignorant, being a foreigner, being ignorant, not getting used to it, being strange, being foreign (TDK, 2016).

It is called 'Entfremdung' in German, and 'alienation' in French and English. In English, the word 'Alien' is a foreign noun and the verb form is 'alienate'. It is used to differentiate, deprive, change or alter. However, according to Geyer, in the 1980s, the concept of alienation was emptied, ambiguous and sometimes full of contradictions. To the extent that the basis of problems in many branches of science has been tried to be explained by alienation, schizophrenia, loneliness in old age, perversion, assimilation problems, etc. (Schacht, 2015).

1.3. Alienation with Different Perspectives

In the dualism of man and nature, Hegel and Marx's alienation problematic naturally emerges. By focusing more on people, Mevlana focuses on the alienation of man from himself. According to Mevlana, the main problem stems from the inability of a man to be in harmony with himself and his environment. Feuerbach; expressing it as causing people to form an intermediate stage that leads them to seek their own essence, and draws attention to the positive side of alienation (Tekin, 2010).

Feuerbach, rejecting Hegel's point of view of alienation between nature and the absolute spirit, puts forward the alienated human form of God as the criterion of alienation (Erdost, 2010). The center of alienation, which Hegel focused on theology, became closer to anthropology in Feuerbach's views. Human; With the development of technology and industry, he moved away from his material and moral values, and he was forced to do the work given to him for a certain fee, without knowing what the product he produced was. In a way, the robotization of man is the result of alienation (Marx, 2014). According to Marx, it can occur in the form of alienation of the worker to the product produced by the worker, to the work processes, to nature, and to the self (Demirer & Özbudun, 1999). Albert Camus defines history, religion, customs and traditions as the alienation of a person from himself and his reason for being. According to Duhm, human beings live in a world in which capitalism breeds alienation and is surrounded by the principles of competition and success. Likewise, Pappenheim gives loneliness in modern societies, the egoistic and objectifying understanding of life, as typical examples of alienation (Çelik, 2001).

Durkheim and Weber also discussed the concept of alienation in sociological currents of thought. Durkheim argued that alienation occurs in societies where solidarity and division of labor weaken and industrialization increases. According to Weber, modern people, who have serious problems with trust, tend to strengthen bureaucracy while minimizing personal relationships. An individual's loss of personality or routinization of charisma occurs as a result of rationality and causes the process of mechanization (Weber, 1996). Weber describes this event using the metaphor of the "Iron Cage." Weber and Marx presented the mechanization of the individual and the commodification of labor as two important causes of alienation (Löwith, 1982). Marx argued that poverty, while Durheim argued that wealth is effective in alienation. Horney, on the other hand, views alienation (neurosis) as a mental disorder and argues that the perpetrator is the individual and society (Douglas, 1989). Marcuse (1997) described alienation as a figure in which individuals move away from the human essence, lose their creative qualities, and technology plunges people into a one-dimensional vortex.

1.4. Could Ecosystem-Specific Alienation Be Possible?

When the origin of the word alienation is examined, we can see that the word "Wild," which is the origin of the word, is used for inanimate objects, although it is described for human beings. Being called "Geist" in its inner stages of the Hegelian dialectic has been cut off from its own essence for self-realization, has become someone else and is now alienated from itself. It is nature that provides space for contingency in Geist's self-knowledge in order to reach evolution, and in his passing through this alienation process, in his objectification (Copleston, 1985). Living things find opportunities to live in natural places; thus, nature is also a site for living and non-living things. So, nature is also a site for living or none-living things. In this context, there is a close relationship between space and society. Space forms the basis of social structure and change (Alver, 2006).

In this study, the space that includes living and non-living things and where mutual relations occur will be called the "Ecosystem" ecosystem. Ecosystems consist of non-living organisms (inorganic and organic materials), primary producers (green plants), consumers (who eat plant and animal materials), and decomposers (bacteria and fungi) (Çepel, 1998).

Within the scope of the relationship between change and alienation in ecosystems, the following questions arise:

- Do creatures living in changing habitat conditions in ecosystems live a passive life?

- To what extent can changing habitat conditions in ecosystems change living things?

• To what extent do changes in habitat characteristics alienate living organisms?

• Is alienation in favor of or against living things?

Finding answers to such questions can help us understand the basic facts in the solution to change and the alienation that comes with it.

Natural ecosystems are not like bureaucratic systems created by humans. Bureaucratic systems are strictly prescriptive, formally organized, closed to the outside, non-interactive, and have concrete goals (Wallace & Wolf, 2004). However, natural ecosystems are open systems that have a wide tolerance range in which many living things can live together, and that can be designed and affected by the living things in which they live. Alienation is influenced by changes and transformations that progress over time. Change is the sum of the changes over time. In biology, the "variation" is expressed in mathematics as "a quantity taking separate values from each other or the distinction between two such values" (TDK, 2016). Alienation occurs as a result of transformation (Afşar, 1992).

Living and non-living things integrate with their environment through various adaptations to maintain their existence optimally in the ecosystems in which they interact. This situation differentiates and changes living things, and ultimately provides genetic, species, and ecosystem diversity, which is expressed as biodiversity (Çepel, 1998; Gökmen, 2011). In adaptation processes, living things, especially human beings, can change both themselves and their environment for the continuity of life (Mengüşoğlu, 1971). Habitats, where living creatures live in ecosystems, play an active role in regulating the behavior, personality, and responsibilities of living things. For example, living things symbiotically due to changing habitat conditions can help their host adapt to changing ecological conditions, as well as cause the death of the host and itself in parasitic relationships.

Ecosystems are places of feeding, reproduction, and socialization because they form habitats in which living things live. The stability of species and populations in ecosystems is directly related to their habitat characteristics. Growth environments are the main factors affecting changes and transformations in individual and social scales. In general, nature and man have been evaluated by scientists using a dualist approach. In other words, nature is the source of alienation for humans. However, this point of view is criticized from the ecological perspective, which Arne Naess (1986) refers to as "Shallow", in which nature is seen as a tool for humans. In Arne Naess's "deep ecological" view, he considers nature an entity with a unique life value, like human beings (Ferry, 2000). However, the evaluation of man as a part of nature causes alienation to differentiate.

Each ecosystem aims to reach a natural balance within itself and with other ecosystems. With the deterioration of the balance in ecosystems, a new and different ecosystem emerges, and this process is called succession. In ecosystems, factors such as living things, natural events, diseases, fires, climate change, changes in soil quality, wind, and insect damage are among the causes of ecological success. Human beings are sometimes in a position of dominating succession and are sometimes affected (Çepel, 1995).

Negative alienation specific to ecosystems can be expressed as a situation that occurs as a result of the change, change, or dysfunction of habitat conditions in such a way that ecosystems cannot fulfill their specific niches. Due to changing conditions, it is no longer possible for living organisms to survive in this habitat to realize their optimal growth. It must change and adapt in order to survive. These changes in the alienated ecosystem, called adaptation, form a part of its biodiversity. Ecosystemic alienation has a significant potential to cause changes in species composition in the habitat.

Succession forms the basis of ecosystem alienation. Although they play an important role in the development, maturation, and diversity of ecosystems, they can also cause deterioration of ecosystem health, which cannot be recovered. The main task of the ecological factors that make up the ecosystem is to ensure the sustainability of total efficiency/productivity. If a change in habitat conditions in ecosystems does not prevent the sustainability of this basic task, it can be considered a positive result of alienation. This is because high adaptation to changing conditions is only possible in the presence of organisms with high ecological tolerance. In terms of spatial change, the birth of a baby, the falling of a fruit, and a leaf from its branch are also alienations. The decomposition of organic matter can also be regarded as an alienation. The yellowing of chlorophyll in the leaves due to the decomposition of changing ecological conditions is the first symptom of this (anatomical chemical weathering). In the second stage, the organic materials that accumulated on the soil surface were mechanically decomposed. Organic tissues that undergo anatomical decomposition in soil creatures are mixed with the inorganic part of the soil. With this process, the spatial alienation increases. It is now on the verge of an advanced transformation. The third level is the humusification and mineralization processes. Microorganisms decompose organic tissue into their constituent elements. In an environment in which alienating spaces and transformers play an active role, new products are synthesized. However, this alienation is necessary and positive alienation that ensures the sustainability of matter cycles in ecosystems (Dindaroğlu, 2021). The term "disenchantment" used by Weber (1993) for social alienation would not be wrong to be used for the disruption of the natural balance in the miraculous matter cycles that ensure the sustainability of ecosystems.

Some deformations or further death may occur in living beings in ecosystems in which optimal living conditions

disappear. Survival is the new and only role for living beings, which are within tolerance limits, trying to adapt to changing ecological conditions. Bauman (2016) also sees alienation among people and the existence of strangers as a necessity in modern life.

2. Aliens in Ecosystems

Ecosystems are interconnected in natural balance through complex relationships. Any break in the coordination between them or the inability to fulfill their requirements causes the alienation process to begin. Thus, an environment was provided for foreigners to settle. This is the initial stage of the process in which the negative consequences of alienation can be seen. Alien species begin to settle under changing habitat conditions. The extent to which alien species settle in their habitats and whether they form a social space is related to both the changing ecological conditions and genetics of the aliens. The main problem is that alienation in ecosystems has become constant. Spatial alienation, especially that starting with soil degradation, is accepted as the beginning of the desertification process. The main purpose of the fight against global climate change and desertification is to push aliens into the ecosystem. Complete extermination of aliens was not possible. This is because alienation and strangers also have duties in the ecosystem (Dindaroğlu, 2021).

Ecosystems (wild land) where alienation creates a permanent and spatial occupation create an uninterrupted resistance to spatial rehabilitation (Dindaroğlu, 2014b). Breaking this resistance is easier with the improvement of the factors that make up the growing environment (especially the soil). Especially in the analysis of the sites in forest ecosystems, climax species and accompanying plant species together form living units in undisturbed areas. The associations between plants were analyzed in habitat studies. For example; beech-fir association (79.5%), Scots pine association (12%) and *Dactylis glomerata-Crataegus tanacetifolia* association (8%), *Sparganiumerectum-Epilobium hirsutum* association (0.5%) in a forest ecosystem (Günay & Küçük, 2007) was determined. In this habitat, climax species and accompanying plant associations are present. All these species are native and established species. The alienation process that occurred in this growing environment developed in a positive way. As another example, when the habitat conditions (physical spatial alienation) changed by forest fires dominate the area, Sistus spp. shrubs form. Populus tremula then entered the area. These two species were alien species that later came to an alienated environment. However, since they form part of the succession steps, they are useful aliens that prepare the habitat for climax species. These aliens also provide genetic, species, and ecosystem diversity, together with habitat (space). Habitats, which are places where living and non-living organisms live in ecosystems, are living spaces where a living species adapts, and biotopes are the living spaces of communities. Their habitats mainly consist of primary producers (green plants with chlorophyll), primary level producers (herbivores), secondary consumers (carnivores), and decomposers (bacteria and fungi). Ecosystems operate with a variable energy flow that occurs between matter cycles and food chains.

Native species in an ecosystem can coexist with alien species. However, many vital relationships can affect this situation. Living in the same ecosystem also leads to the development of relationships between species. These relationships, starting from the necessity of surviving life, vary according to levels in the food chain. Relationships at different nutritional levels often require a subordinate level to nurture predators. Those with the same nutritional level often compete for the same food source. This situation creates both intraspecific and interspecific competitions. In addition, special forms of dependence, such as parasitism, symbiosis, and communalism, can be observed among species. Living with foreign species continues with the most appropriate of the above-mentioned types of relationships. Bauman (2016) describes the environment in which strangers live in a wild region and sees cities as important sites of false encounters. In fact, there is competition here too. He attributes the most basic condition of living with strangers to the mysterious art of fake welcome. While interspecies interaction constitutes the main theme in alien relationships in ecosystems, the basis of living with strangers in human societies is to be pushed beyond the social space without creating an interaction space with foreigners. Thus, a suitable living environment is provided by suppressing foreigners and making them ineffective (Simmel, 1969). Similar to alien species that have settled in degraded habitats in ecosystems that are confined to a limited area, the system can restrict the movements of aliens in order to protect themselves in the defense of social spaces.

Each species has a tolerance range that allows it to adapt to the changing ecological conditions. Even if invasive alien species dominate the environment, they remain alien. For example; Although exotic species are adapted to culture or seem to have adapted to changing conditions for years, that species is an alien species for that habitat. In subsequent processes, they have the potential to move away from the environment.

Both the affirmation of alienation as the dynamics of the ecosystem and the fact that it is held responsible for the deterioration of ecosystems increase the role of ecosystemic alienation and the depth of the occurring paradox, as in social alienation. As a matter of fact, Bauman (2016) uses the expressions "*Need and threat are the mainstay of existence in the perception of foreignness and it is the disaster that prepares its end*". The end of the struggle for life in natural ecosystems, accompanied by their internal dynamics and ecological conditions, is part of the extinction process. However, these extinction processes have paved the way for different species.

2.1. Alienation, Niche and Tolerance Relationship in Ecosystem

Living things in ecosystems are constantly in reactive, co-actional, and actional interactions with other living and non-living beings sharing the same environment (Gökmen, 2011). Every living thing has to fulfill certain duties and responsibilities in the ecosystem to survive. While this necessity is vital for living things, it also fulfills important functions for the sustainability of the ecosystem. However, many living organisms continue their lives without realizing the importance of their functions in the ecosystem.

Tolerance is a response to the degree of adaptability of living things to changing ecological conditions. Tolerance is closely related to different living species and their genetic structures. However, changing ecological conditions can also change species and genetic diversity. In the previous section, if the change in habitat conditions in ecosystems negatively affected the sustainability of a basic task, it was considered a negative alienation for living or non-living things. In fact, the perception of alienation has always been negatively handled. However, if harmony, which is the inevitable result of change and transformation from an ecosystem point of view, does not change the ecological niche and maintains its sustainability within tolerance limits, it can be considered as positive alienation (Dindaroğlu, 2021).

2.2. Alienation and Habit Relationship in Ecosystem

From the perspective of ecology and sociology, one of the most important effects of ecosystem alienation in living life is habits, which are an important part of the ability to adapt to change. In this case, habit gains a character. If it ensures continuity of the niche, it is good; if it harms it, it is bad. Alienation can lead to the acquisition of new habits, which can also become a camouflage of alienation (Dindaroğlu, 2021).

Every being tends to preserve its existence to survive. Habits, on the other hand, are changes that occur in the quality and internal characteristics of beings. Since there is no individuality in a homogeneous inanimate world, habits cannot be mentioned. However, individuality begins with a heterogeneous unity of space and time in nature, where it creates a single and indivisible living world. The law of habit is that the living beings in this world are in constant change and repetition, which is a pattern caused by consciousness (Ravaisson, 2015).

Habit; it means being used to something, temperament, ability, familiarity (TDK, 2018). Habit corresponds to an adaptation of the science of ecology. For example, the ability of plants to adapt to changing ecological conditions is considered a habit. The realization of habit in the science of ecology depends on the realization of succession (sustainable change). Similar to such habits, it can generate tendencies toward survival and functioning.

Beings that want to protect and continue their lives create resistance to negative changes. Maine de Biran states that what provides resistance is the being's remembering of the principles of action and therefore thinking (Maity, 2014). Action, on the other hand, is the two main roots that create effort and passion. The opposing development of action and passion creates consciousness. What strengthens consciousness is the continuity of action, which weakens it as the ordinarisation of passion. At the same time, with the continuity of action, pain and intensity lose their effectiveness. If there is no work of effort and passion in the formation of the action, it loses its continuity and effectiveness. Even if the habits of humans are harmful, they can become a prerequisite for life (Ravaisson, 2015). Similar to the habits of humans, in biocenosis, adaptive traits acquired later can never replace genetically inherited traits. Living things can adapt to changing conditions in various ways. However, the features gained through adaptation can change vital metabolic or physiological features and lead to serious problems in the absence of adaptations.

2.3. Causes of Spatial (Ecosystemic) Alienation in the Forest Ecosystem

The main ecological problems, such as rapid population growth, poverty, pollution, and climate change, which cannot be effectively solved on a global scale, also constitute sources of spatial alienation. The reasons for ecosystem alienation are as follows (Dindaroglu, 2017):

1-The formation of physical and morphological changes caused by young individuals, whose optimal habitat conditions are changing and trying to adapt to new ecological conditions, in order to survive. Individuals in this situation cannot mature in a healthy manner. Let's evaluate this situation in terms of forest ecosystems; we can say that clear-cut applications in large areas constitute one of the main reasons for negative spatial (ecosystemic) alienation. Reducing operating costs and eliminating some rejuvenation problems. Therefore, clear-cutting methods are preferred. However, Clear-cut applications eliminate optimal local site conditions. If the clear-cut method is to be applied, it can be applied in limited small areas, taking into account the potential of the habitat (Odabaşı & Özalp, 1994; Akdemir & Özdemir, 2015). Clear-cut applications in large areas significantly eliminate the ecosystem services offered by forest ecosystems to society. In such forest ecosystems, which are at risk of spatial (ecosystemic) alienation, unsuccessful regeneration or adverse effects on potential habitat productivity and biodiversity can occur.

2- Formation of new living conditions by mutual interaction between ancient relict endemic species and new species trying to adapt to deteriorated habitat conditions.

3- The removal of young individuals belonging to species that are forced to adapt to changes in habitat conditions and the settlement of new species in their place.

4- Loss of ability to compete within or between species.

5- Loss of habitat conditions and the necessity of living alone as an individual.

6- Incorrect and excessive human intervention in natural ecosystems.

3. Approaches to Combating the Problem of Alienation

Marx stated that the international ideas of Hegel and Feuerbach on alienation, which were a great source of inspiration for him, did not have a chance to be applied in practice (Hyppolite, 2010). Feuerbach focused on the alienation of an abstract person devoid of history and class, whereas Hegel focused on the alienation process that he saw as necessary for people to reach their own consciousness (Marx, 2014). Marx argued that the solution to alienation can come about through the coordinated movement of sovereign people (Marx, 2013).

Duhm states that capitalism is the biggest obstacle in overcoming alienation. However, the inability to find an evaluation of why the analyses they put forward for the alienation problem did not work led to the search for other solutions. In this context, Althusser drew attention to the ambiguity of the concept of alienation and suggested focusing on the exploitation of these workers and class struggle (Çelik, 2001). According to Kierkegaard and Heidegger, the only solution to alienation is to turn to God. According to atheist existentialists such as Sartre and Camus, after accepting the meaninglessness of life in order to overcome alienation, it is necessary to recreate itself with free choices. Mevlâna defined the birth of man as the main source of alienation and described alienation as a break from the whole. Mevlana's analysis against alienation is based on not forgetting the essence and purpose of human creation. According to Mevlana, alienation is everything that will weaken or break one’s relationship with the creator, and to the extent that man gets closer to the creator, he is freed from alienation. In this regard, Mevlana suggested concentrating on the purpose of creation, staying away from worldly passions that distract human beings from the purpose of existence, staying away from deflecting foci for the soul to gain peace, and finding this by turning to their own inner worlds (Tekin, 2010).

On the other hand, Marx analyzed alienation as the separation of humans from nature. According to Marx, religion is seen as an alienating element that enters human nature and reduces human natural and creative characteristics to a passive state (Swingewood, 1991). According to Porrit (1994), people see alienation from the awareness that the nature in which they live is their home, as a problem of alienation. The man’s ability to overcome alienation is part of his test in this world. This is under their own control. According to Bayraktar (1992), on the other hand, human beings have stated that the nature they live in should be purified so that they can evaluate the nature as a sacred entity and design their relationships. According to Freud; It is possible for a person to overcome alienation by becoming aware of the forces that have imprisoned him, expanding the area of freedom and becoming a conscious human being (Dindaroğlu, 2017). Identifying the reality of alienation, which is considered a human-specific phenomenon, with Marxism or other movements can be considered as a reflection that limits the definition and solution of alienation.

Bauman (2016) states that ways to eliminate social strangers are only possible with phagic (inclusive) and emic (exclusionary) strategies. Let's evaluate this approach at the ecosystem scale; alien species either adapt (inclusive) by using the characteristics of the ecosystem and itself, or they have to move away from the environment (exclusive).

Bauman (2016) states that it is necessary to create a physical, cognitive and moral space at the social level in order for the society to get rid of alienation and foreigners. Since humans are living beings in an ecosystem, we can say that this approach also constitutes an important part of ecosystem alienation.

In order to prevent ecosystem alienation or to push strangers into the background, habitat improvement (spatial improvement), as well as the creation of socially improved cognitive and moral spaces. In fact, this approach forms the basis of the "Paraecological" approach. It is a waste of time that human beings tend to isolate themselves from the improvement of environmental disasters caused by them (Dindaroğlu, 2014a).

With today's rapidly developing and transforming modernity, it is not possible to cope with moral experiences left to us from the past (Jonas, 1974). It is understood that the framework and content cannot be determined without establishing effective ethical principles in the future without creating a cognitive and moral space that society will accept. "Forest Engineering" is one of the most important professional disciplines that undertakes important tasks such as preventing ecosystemic alienation in the past and present, controlling foreigners and pushing them into the background. The preservation and development of this professional discipline can provide a more systematic and professional solution to the problem of ecosystemic alienation spreading on a global scale (Dindaroğlu, 2017).

The paraecological approach proposes a solution based on education and the adoption of the problem of "alienation from oneself" in the solution of ecological problems in ecosystems. Paraecological parameters contain flexible solution strategies that can differ for each ecological unit. Some of the prominent

parameters in education, especially for the prevention of alienation, are as follows; (1) In the first stage of education, first of all, the tragic consequences of environmental problems are introduced and then their causes are understood, (2) Various teaching techniques should be used in the education process (quantum technique, experiential teaching, gradualism, thinking techniques, etc.). (3) In this process, non-governmental organizations and role models should encourage an ecological lifestyle. (4) They should play an important role in transforming the solutions produced against environmental problems into a lifestyle and internalizing them by using the unique lifestyles, habits, cultures, religious belief tendencies, symbols, rituals, and myths of societies. In order for these solutions to be applied in daily life, they should be supported by psychological approaches, subliminal messages, and their effects should be expanded by being encouraged by legal regulations (Dindaroğlu, 2015).

3.1. Aporia of Alienation in Ecosystem

Beck (2014) stated that the source and solution of the problems faced by modern humanity today pass through technology. This is also a reflection of the doom and indispensability of technology. The dangers posed by modernization are similar to those occurring in ecosystems. Neither was immediately recognizable. Projections of the possible effects may be too long. This is similar to alienation. Alienation may have become a culture and perhaps a habit. Even if this situation is understood, it is much more difficult to take precautions or change lifestyles.

Restoration of deteriorated habitats in natural ecosystems, that is, eliminating alienation, is difficult. Nature takes advantage of its internal dynamics to re-establish disturbed balances. These dynamics gradually begin to repair parts individually, thus transforming the environment. However, these processes are complex interrelationships that affect each other. Despite its complexity, nature has always acted justly. Ecosystems act to achieve or maintain the equilibrium. For example, a large tree will not steal the nutrients of a small sapling because it is very strong. In particular, as forest trees age, the use of plant nutrients does not increase according to their age. Small saplings that require more growth receive more nutrients (Çepel, 1998). However, under competitive conditions, the situation may differ in terms of the environmental effects. Ecosystems can sometimes show a very strong resistance to change. For example, reclaiming an area that has been invaded by invasive species. Sometimes this change happens much more easily. Therefore, it is very important to protect natural ecosystems for self-reference when necessary.

Today, modern society has transitioned from an industrial society to a risky society. Understanding and eliminating threats or reducing their effects depend on the identification of risks and success in risk management. Therefore, more budget and time will need to be allocated for the management of risks in the future. Such predictions can be revealed using mathematical probabilities (Beck, 2014). Antony Giddens states that risk surveillance will form an important basis for the colonization of the future. Despite the fact that the indispensable means of transportation in daily life exploit natural resources and the damage caused by the polluting gases it spreads to the environment, we also witness that the contraction in automobile sales is considered a disaster in many countries. In the end, the excess common interests of the chains of causes that prepare the results that cause the disaster of the people makes the solution even more difficult. Therefore, risk creates an equalizing effect, threatening everyone (Bauman, 2016). Every link that constitutes the chain is alienated. I wonder whether the alienation of mankind is due to the fact that he thinks that the world was created for him. Alienated ecosystems are in a real struggle and war, with their ability to heal and adapt. Again, Bauman (2016) argued that science and technology, which are the other soldiers of the war in the fight against risks, only ensure the sustainability of risks.

One of the most important factors in meeting risks is to evaluate the effects of the action well. Basic features, such as the definition of the impact, its temporal and spatial variation, frequency, and magnitude, should be revealed. Understanding the main characteristics of the impacts that can be caused by natural intervention and developing measures to reduce these impacts can prevent negative ecosystem alienation.

The phenomenon of self-alienation, which is getting increasingly deeper day by day with modernity, can turn into a vicious circle in which it has to use the values it produces even to fight itself. How likely is it that the resources to be used to rehabilitate a deteriorated ecosystem will not increase the pressure on other natural resources? Bauman (2016) continues by stating that the systems that feed modernity will eventually kill their host by constantly exploiting them; "*Growth, imperialism and inflation; It is suicidal in terms of its long-term consequences… What we call economic growth is not the global rise of order, but the process of usurpation of order… More modernity is needed to remove the effects of the wounds inflicted by modernity. It cannot be said with certainty when the tail ends and the snake begin to eat itself. Unfortunately, the snake itself will never have a chance to learn that this point has been passed*."

3.2. The Motives of Nature and the Globalization of Alienation

The main purpose of preserving natural balance is to ensure continuity in substance cycles. This purpose is a source of perfection in nature. The food web is also part of this cycle. In detail, it is actually the world of the strong who survive thanks to the weak victims. Actions, reactions and co-actions feeding each other. Therefore, the existence instincts of nature forced living things to survive. Basic paradigm: Although the weak are

chosen as victims, they are built upon the fact that they never perish. Thus, the system must be constantly fed. The strange thing is that none of the living things that make up the system know or understand that they are the victims of the feeding relationship. Every living thing is conditioned to live. The abnormal pattern of events that occurs when the balance is disturbed initiates selection processes and eliminates stability in populations. Now that the weak have lost their lives, the strong will become proportionally more involved in the environment. The abundance of powerful organisms in the environment is a result of ecosystem alienation.

According to Karl Marx, a man's relationship with nature reflects a reflection of individual life. As a result of the disappearance of feudal society and the development of the bourgeoisie, the alienated person left nothing but a callous, self-seeking, and monetary exchange. Modern states function as committees dedicated to the services of the bourgeoisie. Those in the servant class have to sacrifice some of them so that they are not completely destroyed. It cannot be exchanged or sold among people; conscience, virtue, competence, honor, dignity, and so on, are now marketable. The modern world bourgeois and alienated nature use similar arguments. Both were unaware that they were preparing their own ends under the grip of alienation. In this environment, interests are at the forefront and they fight for their interests. Money, the god of man alienated from his own nature, reigns at the last point of interest. The desire to live luxury is the shallowest manifestation of alienation.

Ecosystem services are defined as the products and services provided to all beings on earth. These services can be listed under general headings, such as regulatory, procurement, cultural, and supportive (MEA, 2005). Modern states now demand the monetary equivalents of ecosystem services to be determined and ignore them, taking advantage of the fact that these services cannot be fully compensated because of their multidimensional interactions. This behavior is precisely the result of alienated systems. The necessity of calculating the monetary values of the breath taken, the clean water that is drunk, the soil formed over thousands of years, the comfortable climate, and a landscape with high aesthetic value; then, the sale or exchange of these values, that is, bringing them to the market, is an indicator of the highest level of alienation on a universal scale (Dindaroğlu, 2021).

3.3. Relation of Natural Selection and Alienation

Karl Marx states that in interest-oriented relationships, the person himself does not have value. In the 20th century, society expressed discomfort with degenerating relations, but people who feed on corruption are also afraid of being a part of it. He feels obliged to maintain order to survive as an individual and to continue his comfortable life. Instead of solving problems, a human profile that covers them and moves away has been created. It was thought that a society fed with hypocrisy would be happier in this way. A thousand and one types of hypocrisy, hypocritical morality, hypocritical religion, hypocritical education, hypocritical trade, hypocritical marriages, etc., adopted and finally reached the hypocritical one in happiness.

The digitalized world not only facilitates access to everything but also tends to consume and devalue everything that can be accessed quickly and easily. When the pragmatic thought that he sometimes hides behind him evolves into an opportunistic one, everyone who finds the opportunity starts to take advantage of this situation. What is eroded is actually nothing but self-value judgment. Although the masks were designed by the Venetians to hide themselves and act more freely in history-liberated people at that time, it was understood centuries later that the moral collapse faced by society, which was deprived of identity, could not be solved by talking behind the mask. As a result, the alienation of humans is a basic requirement for the new world order.

Species selection is inevitable in ecosystems that become wild over time. The most dramatic effect of selection is that it destroys species with the narrowest tolerance range. Darwin, surviving species; “Not because they are strong, but because they are best adapted to changing conditions and can act together against common threats.” he describes. Here, the adaptation abilities of living things and their ability to act together come to the forefront.

Living organisms that use different speciation mechanisms to survive in changing conditions with ecosystem alienation manage to survive. Although it must use different mechanisms of speciation, its physiology or morphology changes as a result. Metamorphosis must be completely different. Thus, the basic building blocks were completely modified. If his passions have turned into habits and weaknesses in habits, the human being is fighting to survive alone in an ecosystem that is alienated again without realizing that he is alienated or depersonalized. This struggle is part of the selection process. Those who survive at the end of this period are subject to physical, mental, or spiritual changes without realizing it. These changes not only change and develop people but also leave traces of alienation.

3.4. Paraecology Approach in Education

The sustainability of the solution to ecological problems brings up efforts to create a virtuous person (Curry, 2011). However, ecological movements have been criticized for adopting principles that cannot be applied in real life. Combat against environmental problems reaching a global scale can only be achieved by adopting a global moral understanding (Colucci-Gray et al., 2006). However, ecological views cannot be successful without support from political forces (Brzezinski, 1994). For this, environmental education should be provided starting at a young age.

It is only possible for environmental education to reach the expected goals in society when supported by different

disciplines (Atasoy & Ertürk, 2008). Environmental education should also be designed to raise a well-equipped human being who has the ability to direct human behavior and respect nature (Geray, 1995; Ayvaz, 1998). However, rote environmental education is not very effective for people (Yücel & Morgil, 1998; Haktanır & Çabuk, 2000). For this reason, different teaching strategies that make students think, comprehend, analyze, synthesize, evaluate, and apply knowledge should be used (Ben-Peretz et al., 2003). However, modeling is also required to establish the relationship between fields with different impact factors, such as environmental education. To organize human life as a sustainable solution to environmental problems, seven basic elements (myths, symbols, goals, organizational order, control system, rituals, routines, and paradigm) in the culture network were used in Johnson (1998)'s organizational theory.

Dindaroglu (2015) determined some parameters suitable for paraecological approaches that highlight the psychological, sociological, and philosophical values that can help people fight ecological problems, especially in providing eco-ethical improvement, and to examine their potential for use in environmental education. Impact matrices were created using the main components of the methodology created in the "Malik Sensitivity Model" (Vester, 2007) with the parameters determined in accordance with the paraecological approaches (Dindaroğlu, 2015) to combat environmental problems. The effects of the parameters, according to the active and passive values, were determined by the participants and experts (Table 1). Prominent paraecological parameters; understanding of environmental problems; teaching strategies; cultural approach; symbols; rituals; myths; lifestyle; habits; belief tendencies; psychological support; political influence; legal regulations; communication, thinking, metaphors, incrementalism, quantum techniques, civil society organizations, multimedia, materials, field experiences, and role models (Figure 1).

Table 1. Paraecological parameters (mean values) matrix in the education of combating environmental problems (Dindaroğlu, 2015).

	Parameters	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	Passice Total (PT)
1	Understanding environmental problems		3	3	3	2	2	2	3	3	3	1	3	3	3	3	3	3	3	2	3	2	3	2	**58**
2	Instructional strategies	3		2	2	2	1	2	3	1	3	3	3	3	3	3	3	3	2	3	3	1	3	3	**55**
3	Cultural approach	3	3		3	3	3	3	3	3	0	0	0	1	1	1	1	1	2	2	2	2	2	3	**42**
4	Symbols	2	2	3		3	3	3	1	3	2	1	1	1	1	2	2	2	2	2	2	2	0	2	**42**
5	Rituals	2	2	3	3		3	3	1	3	2	1	1	1	1	2	2	2	2	2	2	2	0	2	**42**
6	Myths	2	2	3	3	3		3	1	3	1	1	1	1	1	2	2	2	2	2	2	2	0	2	**41**
7	Life style	3	3	3	2	2	2		3	3	2	1	1	3	3	3	3	3	3	3	3	2	1	3	**55**
8	Habits	3	3	3	2	2	2	3		3	2	1	1	3	3	3	3	3	3	3	3	3	1	3	**56**
9	Religious trends	3	2	3	3	3	3	3	3		2	2	1	3	3	3	3	3	3	3	3	3	0	3	**58**
10	Psychological support	3	3	3	1	1	1	3	3	2		2	2	3	3	3	3	3	3	2	3	1	1	3	**52**
11	Political influence	3	3	3	1	1	1	3	3	0	3		3	3	2	2	2	2	2	2	2	2	2	2	**47**
12	Legal regulations	3	3	3	1	1	1	3	3	0	3	3		3	2	2	2	2	2	2	2	2	2	2	**47**
13	Communication	3	3	3	3	3	3	3	3	3	3	3	3		3	3	3	3	3	3	3	3	3	3	**66**
14	Thinking	3	3	2	2	1	1	3	3	3	3	2	2	3		3	3	3	3	3	3	3	3	3	**58**
15	Metaphors	3	3	2	2	1	1	1	3	3	3	2	2	3	3		3	3	3	3	3	3	3	3	**56**
16	Incrementalizm	3	3	2	1	1	1	1	3	1	2	2	2	3	3	3		3	3	3	3	3	3	3	**52**
17	Quantum technique	3	3	2	2	1	1	1	3	3	3	2	2	3	3	3	3		3	3	2	2	2	2	**52**
18	Civil society organizations	3	3	1	1	1	1	1	1	1	1	2	2	3	3	2	2	2		3	3	2	1	2	**41**
19	Organizations	3	3	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2		2	1	1	2	**36**
20	Multimedia	2	3	1	1	1	1	1	1	1	1	2	2	3	3	3	3	2	3	3		3	1	3	**44**
21	Materials	2	3	3	1	1	1	1	1	3	2	1	1	3	3	2	2	2	1	1	2		1	2	**39**
22	Field experiences	3	3	3	2	1	1	2	1	1	2	1	1	1	2	2	1	1	1	1	1	1		1	**33**
23	Role models	3	3	2	1	1	1	1	3	1	2	2	2	3	3	3	3	2	3	3	3	3	3		**51**
	Active Total (AT)	**61**	**62**	**54**	**41**	**36**	**35**	**47**	**50**	**45**	**46**	**37**	**38**	**55**	**54**	**55**	**54**	**52**	**54**	**54**	**55**	**48**	**36**	**54**	

According to the matrix values of the paraecological parameters; understanding of environmental problems, teaching strategies, cultural approach, lifestyle, habits, belief tendencies, psychological support, communication, thinking, metaphors, incrementalism, quantum technique, civil society organizations, multimedia, role models were included in the critical region of the matrix. Symbols, rituals, myths, political influence, legal regulations, organizations, materials, and field experiences were included in the non-critical but important area (Figures 1 and 2).

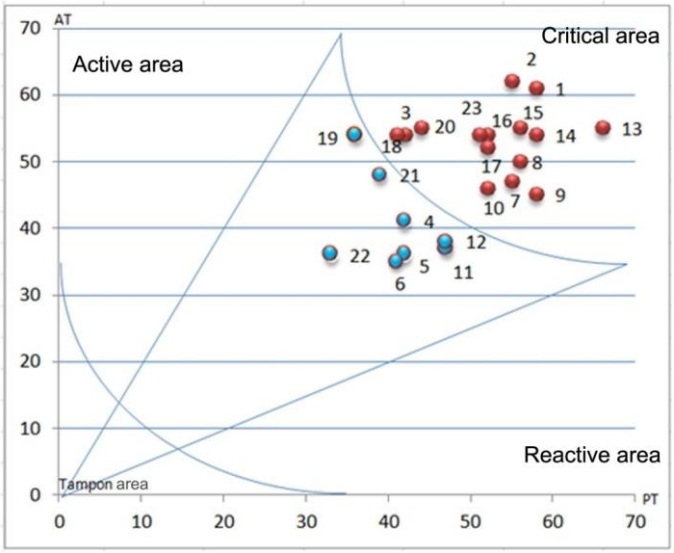

Figure 1. Consensus matrix results (Dindaroğlu, 2015).

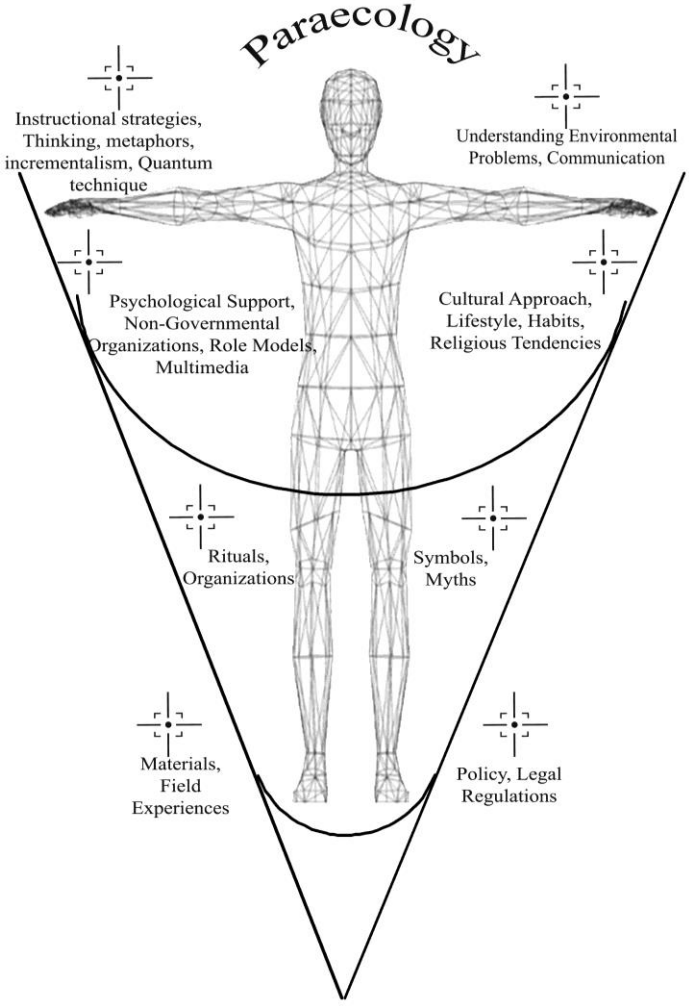

Figure 2. Illustration of paraecological parameters and consensus matrix in education (Dindaroğlu, 2015).

4. Conclusion

For ecosystems to perform their functions efficiently, the structural and functional properties of the entities composing them must not be impaired. For this, the characteristics of the habitat and food web must not change, and the natural balance must not be disturbed for any reason. In fact, it is accepted by everyone that "balance" ensures the continuity of these cycles. However, the balance of the ecosystem is closely related to the balance of the human beings who are dependent on it. Ensuring the multidimensional balance of humans (social, economic, cultural, spiritual, etc.) primarily depends on the provision of ecological balance.

The creation and maintenance of optimal conditions for living organisms can only be achieved through ecosystem services and cycles. For example; Plants that lose their optimal living environments as a result of global climate change or due to unconscious use migrate over time and disappear completely if change or pressure continues. In terms of ecosystem diversity, losses in gene diversity can also cause losses in species diversity. Losses in species diversity are a result of ecosystem alienation. The alienation processes in ecosystems that cannot fulfill their natural functions have a large share of anthropogenic pressures. However, the ecosystem, which has become alienated by the deterioration of natural balance, will no longer be a safe harbor for human beings. The alienation process, like balance, is a multidimensional phenomenon and has the potential to constantly change its role and shape under the influence of active and passive processes, such as actional, reactionary, and co-actional.

As a result, while the problem of "self-alienation of human beings" is generally based on ecological problems, the present century creates a time period in which the ecosystems are alienated and abandon their functional services, and the aliens in the ecosystem begin to create continuity by creating a social space.

From the perspective of paraecology, alienation accepts this century's pandemic-level latent virus as an ecosystem alienation. Individual human alienation, which started with the industrialization revolution in the past century, has reached the scale of ecosystem alienation by leveling up in this century. Mankind's struggle with alienation became even more difficult in this century. An ecosystem with impaired functions is the background source of never-ending mutations in alienated humans.

Loss of ecological diversity causes disruptions in the food chain at different trophic levels. With the loss of living spaces of plants, which are important raw materials for the pharmaceutical industry as well as food supply, it will pass to a stage that cannot be fed healthily and cannot find the medicine to cure when sick or can be reached at a high cost. As habitat degradation forces plants to migrate, it is not difficult to predict the direction of migration movements of humans, who are more mobile than plants. Weak communities, whose natural resources are plundered by imperial powers, suffer the most from environmental disasters. Protection of natural ecosystems and ensuring their sustainability are among the most important tasks to be addressed in this century. Optimal land use should be planned and anthropogenic-induced land degradation should be prevented. In nature, deserts should remain as deserts, and forests should remain in forests. Each natural ecosystem has important duties in protecting its natural balance, and sustainability can only be achieved by their planned operation and protection with strict rules. One natural ecosystem should not be favored over another.

Efforts to create virtuous people to solve ecological problems to be sustainable cannot be realized by adopting principles that cannot be realized in real life. Combating environmental problems that have reached a global scale can only be possible with the adoption of global nature conservation morality. To create environmental ethics, many parameters that can affect every stage of education can be used: understanding of environmental problems, teaching strategies, cultural approach, symbols, rituals, myths, lifestyle, habits, belief tendencies, psychological support, political influence, legal regulations, communication, thinking, metaphors, incrementalism, quantum techniques, non-governmental organizations, multimedia, materials, field experiences, role models, etc.

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Conflict of Interest

The author has no conflict of interest to declare.

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