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ORGANIZATIONAL BEHAVIOR AND SOCIO-BIOLOGICAL APPROACH

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Abstract

Employees will continue to be the most important and valuable assets of organizations until utterly unmanned organization utopia becomes real. The individual characteristics, knowledge, skills and abilities of the employees play a substantial role in the success of the organization as the most important, valuable resource of them. In this respect: it will be beneficial to utilize multidisciplinary methods at the point of understanding behavior, organizational behavior and their origins. Socio-biological approach has the basic idea that: all social behaviors have biological basis and they should be examined systematically. Socio-biological approaches and ecological methods will help to develop new paradigms and solutions for basic problems of business management. Approaches and theorems produced from these similarities will give a new perspective to the business science by analyzing resemblances between human and animal behaviors within the socio-biological perspective. The increasingly sophisticated technology and globalization phenomenon in the developing world have led to changes in many functions of businesses. Enterprises have begun to shift towards the advanced technologies, as cyborgs, artificial intelligence, etc. in the course of their production processes. It is remarkable that even cybernetic theorems have modeled animal behaviors. In this study, concepts of behavior and organizational behavior were evaluated by socio-biological approach in terms of business functions.

Keywords: Behavior, organizational behavior, socio-biological approach, animal behaviors

INTRODUCTION

As far as evolutionary biology is concerned although being private geniuses eventually, human beings are animals of some sort. From this point of view, researchers tend to ask interesting questions as if they have similarities and commonalities with other animals. Comparative psychologists examine how animals interact with each other while dealing with animal behavior; because these studies provide some important clues to understanding human beings (Hayes, 2011). Everything that an organism does is called behavior (Bloom et all., 2000). Behavior in general terms is the stimulus-response of the organism, and the reaction involves its interaction with the environment and others (Eren, 2008). Human/animal activities in the context of the term "behavior" are diversified. The term of behavior includes everything from the decision of the general manager of the General Motors to the response of a laboratory animal pressing a button after hearing the voice of a bell (Kolasa, 1979). Human behavior is the observable, measurable, replicable and tellable conscious activities of a person (Başaran, 2008). The most fundamental aspect of behavioral sciences is the human behavior that can be analyzed. With a human-based approach human behavior, also defined as the reaction which is presented to events directly or indirectly concern itself has two sources. These are learning and inheritance (Güney, 2009).

When the sources are analyzed chronologically about the formation of behavior; there have been plenty of references on animals, known to exist far ahead of the existence of human beings in nature. For example, studying mountain gorillas in Uganda; Schaller (1997), emphasizes the similarities between humans and animals and points out that behaviors such as applauding the fan groups that support the teams during sporting events, throwing some material on the field, jumping, etc. are the same as those shown by the gorillas. Human behaviors are analogous to animal behaviors in many ways. With

the need of analysing exists at the core of epistemological science, researchers have revealed a new discipline, which is socio-biology. Socio-biology, which attempts to explain all the social behaviors (sexual behavior, parenting, emotional attachment, competition, organization of social groups) that determine the interaction between the organisms with the theory of natural selection (Doksat & Savrun, 2001) defined as: the study of social behavior in animals with emphasis on the role of behavior in survival and reproduction, population genetics, ecology and engaging branches of ethology (Gregory, 2007). This approach, required to perceive and interpret animal behavior (Savaş&Yurtman, 2008) and examined them in their natural environment (Hayes, 2011) by comparative psychologists is called ethology. The socio-biological approach with the idea that all social behaviors have biological bases and that they should be examined systematically, emphasizes the importance of genes. According to socio-biologists working in this field, the influence of social environment, as well as genes in the biological basis of social behavior, should not be overlooked.

Learning is another factor that is very important to human behavior according to the socio-biological approach. At this point, socio-biologists, who have pointed out of the genes, refers behavior of animals and humans have a certain evolutionary origin. According to this opinion, their form of actions had been moved from their ancestors with genes and advanced gradually. During the evolution process, when the organism has been evolving; there has also been an improvement in learned behaviors at the rate of development of intelligence. At the same time, it is determined that the organism changes its behavior and adapts to the environment appropriately. Sumner claims that human beings, through a set of instincts had brought from animal ancestors, developed group behaviors, habits, attitudes which enabled them to succeed in their existence war by a kind of trial and error method. For example; reproduction and breeding are common forms of behavior for both species. To demonstrate the difference between sociologists and socio-biologists in their approach to the subject; will also reveal the basic distinction between the two approaches. The main difference between the two approaches lies in the fact that the way handling of the fact that "every member of society has to be mated and have children to be able to maintain their existence". A socio-biologist tries to reveal the cause of instinctual strain what the basis of man's mating and reproductive behavior are, but a sociologist is tries to reveal its social reasons (Burcu, 1998). The impulse of aggression might be another example. According to Lorenz (1966), aggression is a vital demeanor. All types of aggression described for animals are also present in human behaviors. For example, while competition is an important selection factor in animals it is also the same for humans. In the early ages of humanity, aggression was serving the practical needs of protecting small groups from other groups; today it has become a behavioral pattern for slaughtering the entire humanity. (The practices of Nazism, the events in Africa, Cyprus, Bosnia, and Macedonia are tragic examples of this situation). As mentioned above, these issues are examined by sociologists rather than socio-biologists.

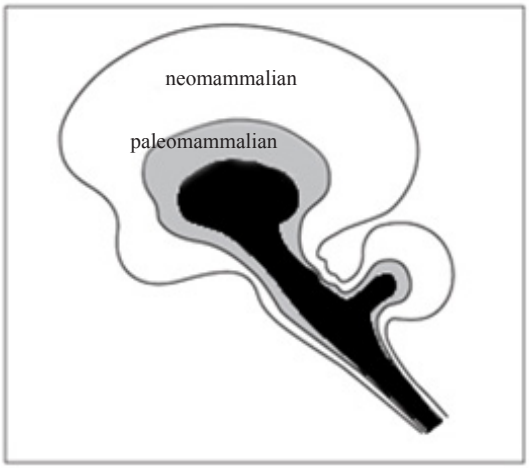

Figure 1. Brain encephalization (Doksat&Savrun, 2001)

MacLean and Triune (1973) argued that the brain of mammals, the most advanced living creatures, is a single brain with three separate but functional continuities and wholeness which is called triune. This theory defines the final state of encephalization. The reptilian brain in the innermost and primitive contains creeping remains and controls day routines, subroutines and a number of pre-linguistic functions. The old mammalian brain (paleomammalian brain) covering the reptilian brain and arranges behaviors not found in reptiles such as care, motherhood, play. The outermost one is the new mammalian brain (neomammalian brain) which organizes sensitive sensory analysis, motor coordination, memories, and associations as well as communication via language (Figure 1). Among all known living species, the human brain is the most advanced one. Human beings are living species enhanced evolutionarily; whose mental behaviors are formed by modules or neural networks. Being aware of himself and his surroundings is a peculiar privilege of this genre. This approach is based on similarities of human-animal behaviors as well as explaining motivational behaviors of them. For example; according to Freud (1953): pets, especially in the upper layers of evolution, were able to learn to control their instincts at various degrees, just like humans.

Organizational behavior is the conscious activities performed by employees who work for the realization of organizational goals (Başaran, 1982). These activities are divided into two: in-role behaviors and extra-role behaviors. in-role behaviors organizational behaviors, those which take part in the job description of the worker, are obliged to do it, and the extra-role organizational behaviors are positive or negative actions not included in the job description (Polatçı& Cindillioğlu, 2013). According to Youssef and Luthans (2007), positive organizational behavior developed by the individual while being in the organization is a factor that produces positive business results beyond hope, optimism and flexibility (Özkan&Börekçi, 2013). Negative organizational behaviors vary in terms of glass ceiling syndrome, organizational silence, cynicism, mobbing, organizational alienation and etc. Until the unmanned organization utopia become real; the workers who play an important role in the success of organizations, through their individual characteristics which are knowledge, skills, and abilities will continue to be the most important and valuable assets of them. Organizational behavior contributes to the literature and practice by determining both the human factor; as well as by identifying the problems in human-organization interaction (Kızıldağ&Özkara, 2016).

Organizations benefit from knowing the factors that affect the characteristics, potentials, abilities, attitudes and behaviors of their employees. One of the ways in which would be able to shed light on the biological basis of organizational behavior is the socio-biological approach. In this area, especially social insects such as ants, termites and honey bees are studied. According to Kaptan (2010), there are many things that can be learned from these insects, although the separation of our roads took about 600 million years ago in the evolutionary process. These animals live in the colony, each undertaking a specific task within the group and being divided into castes. The methods of sharing complex activities such as forming an organization, fighting and collecting food are transferred as genetic information according to the findings at hand. This leads researchers to think about class structures among people at the same time. Self-adapting complex systems; they also show organizational behavior (self-organization) while adapting themselves to the environment. Ant colonies are classic examples of self-organizingWithout being led by any leader (the queen is only a spawning machine) and does not study in any engineering or social sciences, each ant performs its work in accordance with a few basic rules that interact with the environment and its homologues. A complex and orderly community emerges from the interaction of numerous ants (Koç, 2007).

Animals of the same species exhibit similar social behaviors. These social behaviors can arise in the form of competition and superior hierarchy, communication and field defense behaviors which based on both contention and co-operation interactions. Cooperative social behavior includes reproductive behavior, family relationships and large group activities. Most animals live in groups and benefit from the situation. These species are bound to each other and must form a group in order to sustain their existence. Animals living in groups are more cautious than animals living alone. When a member perceives any danger, it communicates this with the whole group. The groups also create some protective behaviors against aggressive animals. For example, male musk oxen form a protective ring around their females and cubs, many animals stand together for defense; small birds, attack crows and hawks

massively. Group hunting is seen in wolves, lions and wild dogs. All these examples are remarkable in terms of socio-biological evaluation of organizational behavior. It is possible to consider organizational activities from socio-biological point of view. Management functions and approaches iare evaluated from a socio-biological point of view, below.

Classical Era

Fayol, one of the pioneers of the classical era thinkers who was the first phase of the scientific management period, explained the activities of an organization or its activities and the functions and principles related to them. According to Fayol, one of the principles that must be observed in the fulfillment of managerial activities is "Unity of Direction". "Subordination of Individual Interest" is another principle of the era. So keeping the general purposes and interests of the organization must be superior instead of the departmental and individual aims and interests (Eren, 2008). In the view of socio-biological approach, interesting examples are found related Fayol's principles when human and animal behavior are compared. For example; King penguins come together in flocks to mating areas. The males are the duty to take care of the eggs, after males and females mate and spawn. Females go to find food for the offspring. To be able to resist harsh weather conditions males stand together. Provided that they stand in the middle in turn, warm each other and the offspring in the egg (Koç, 2007). The work sharing between the penguins reminds Fayol's principles mentioned above, which are "Unity of Direction" the "Subordination of Individual Interest". As claimed among the rules of Fayol, the units which are forming the business must be organized in a way that provides effective participation to be able to achieve the same purposes and objectives. These are not seen only in the enterprises but also in many systems in nature (Uygur&Göral, 2005).

Neo-Classical Era

Theories in management science have developed and changed over time. New approaches were brought up as solution proposals for the needs of the current period and the previous one. This change required a new perspective in management science. So a new period which is known as the neo-classical era that emerged behavioral management models, started. The management science has begun to benefit from psychology in a multidisciplinary approach to be able to define and understand the behavior and produce new theories. This helped organizations to solve organizational problems which were caused by behavior. Psychology a science that studies human/animal behavior (Çalık&Düzü, 2009). The use of psychology in the management sciences has led to the emergence of behavioral management and, in particular, organizational management. Organizational behavior is the continuation of the human relations approach. It reflected the spirit of the 1930s and aimed to explain the behaviors of individuals by psychological and sociological terms. According to this approach, the manager could increase productivity by recognizing behaviors of the employee (Nişancı, 2015).

For example, mobbing is a kind of psychological terror applied in the form of repetitive attacks by other employees or employers in the workplace (Akbıyık, 2013). The term of mobbing was first used by ethologist Lorenz who was studying animal behaviors in 60's. The term was used to designate the attack of a gaggle, wanted to scare a fox (Davenport et al., 2003). Similar cases are found in other animals. Ornithologists claim that if a white crow placed in a group of black crows, will be killed or thrown out by the others. There are many similar behaviors in human society (Soysal, 2007).

As known, communication has a very important function in business. One of the essential factors of productivity and success of a firm is to have employee with effective communication each other (Güler, 2006). When it comes to organizational behavior, the concept of intra-organizational communication emerges as one of the matters which is required to be addressed. From a socio-biological point of view; communication in animal groups, which can also be called intra-organizational communication, is carried out with smell, secretion and voice messages. The sound is an important communication tool for insects, frogs, birds, whales and other animals. The female Aedes fly attracts the male by the sound it makes with her wings while flying. Similarly, male crickets are attracting females with the sounds they have pulled together by rubbing them together. Male frogs make typical sounds to call females to the lake or bog. The whales communicate with each other with songs that are still being explored by biologists. Chemical secretions is also used by animals for communication. This secretion which affects the behavior of other individuals of the same species is called pheromone. The female silk beetle can

attract a male by its strong pheromone more than 3 km away. Communication with body movements also observed among honey bees which are a social group at the same time. The most advanced form of communication between bees is a kind of dance. The worker bee dances on the bucket to inform the others after finding a rich nectar (nutrient) area. According to the figures of this dance, the direction and distance of nectar can be perceived by other bees (Scott, 2005).

According to Hayes (2011), human beings, who have an extremely high adaptability ability, benefit from a wide variety of learning methods. Human inherited the simple mechanisms of the first animals, more complex learning methods of more advanced animals and his own social and cultural learning styles. To have different learning abilities make human beings special. Moving from this point; analyzing the groups of animals that form the basis of socialization may help to identify many problems in organizations and to develop alternative approaches for solutions.

Modern Era-System Approach

System approach is inspired by biology at the modern era of management science (Can et al., 2005). The system is consisting of a set of parts (sub-systems) to be able to achieve an aim with a regular and reciprocal gathering. So all are made up of other sub-systems or parts which are necessarily connected to each other. These sub- systems and parts are in relation with each other. However, the system as a whole is also related to the external environment. There may be an integral system on top of each system as well as having other structures underneath which form its own whole. For this reason, the system should be evaluated with a holistic approach, which should not be taken as a single point of view and apart from other influencing factors. The system approach, envisages the application of scientific method principles, approaches the issues holistically, followes interdisciplinary insights to the resolution of problems when examining a situation (Nişancı, 2015). Ludwig von Bertalanaffy, explaining the General System Theory, has used this approach as a paradigm for interdisciplinarity and has introduced a generally accepted theory (Yoldaş, 2004).

When all systems are considered, it is clear that there are many commonalities between groups of animals and the organizations of humans, interacting with each other. According to Hayes (2011): animals do not only adjust to their surroundings; at the same time they change the environment they live in. Even a single-celled amoeba causes a change in the environment by releasing chemicals to the water that swims in. More complex animals, often have very powerful effects on their surroundings; so these environments evolve with the animals together. According to system theory: all entities in the nature are a part of a whole and the factors directly or indirectly which are affecting/influencing. When we look at management sciences in terms of socio-biological approach; system theory makes it even more meaningful.

Modern Era - Contingency Approach

Contingency approach brings together various concepts, techniques and behaviors. There is not a single best organizational structure suitable every location and condition. The best one changes from situation to situation (Koçel, 2007). One of the most important issues that this approach has emerged is the "leadership". Researchers focused and discussed leadership and leadership types in the modern era.

In terms of socio-biological approach; it has seen that some struggles in an organizing group or within communal living animals determine the hierarchy of superiority. For example in the duck and poultry groups, the superiority level is determined by pecking movements. Birds which are dominant in groups have food, water, and roosts without any dispute of others. Superior-subordinate regulation reduces tension in the group. Because there is less argument about who gets what at the beginning. Individuals at high levels in the hierarchy of superiority have the right to choose the priority for their needs.

For example, if the behaviors of migratory birds are to explore according to the socio-biological approach during their migration; a significant example of cooperative leadership has emerged. Migrating birds fly together in a V formation. The bird flying at the forefront leads the group; it creates air voids for the birds in the rear of the V shape. It makes flight easier. Because they just follow the leader. In addition, the air friction reduces so the rears get less tired. After a while, the tired leading bird rushes back and through the air flow created by all the birds can only fly and rest by just opening its wings. Along the way, all the birds are leading in turn, and this cooperation can lead to hundreds or even thousands of

kilometers, in virtue of the leadership style (Eren, 2017).

Modern Era- Dynamic Management Approach

The dynamic management approach is based on flexible, high-level participation, collaboration, development, and volunteerism. In this approach, the role of management is exchanger, developer, builder, improver and the main determinants of the holistic structure are transparency, clarity and variability (Baş, 1996). The human factor has become more important in all over the world, as it has been in the management perception. When the political and social developments in the world are evaluated; dynamic management approach has emerged as a natural process cause of the requirements of the modern world.

The most important feature that characterizes information society organizations is the necessity to live in a nonpermanent environment. According to the dynamic management approach, everything can change at any time (Ünsalan&Şimşeker, 2011). This approach in the management sciences also provides some examples for natural sciences. Amphibia (frog), for example, represents an animal group in vertebrates that represents the transition from water to land life. That is, they were not completely free from water, nor were they able to follow the land. These features show us that the environment in which they come first is water. According to paleontological information, Amphibia originated from a group of fish called Crossopterygii. This species had quite likely emerged from the water and encountered some changes and new features in order to keep pace with the land environment at the time of Devonian (the geological period in which the transition to land life was experienced) (Budak, 2006).

A termite species living in Australia is constructing their nests in a flat shape. The flat sides of these nests are built, showing east and west. The reason of this; when the sun rises, the eastern-facing part of the termite is heated by the sun's rays. When the sun goes down, the nest takes the same rays again from the other side and warm up. Termites accumulate especially in the cold weather, in the eastern-facing parts of the daytime, and in the western part in the evening (Tekin&Kurugöl, 2011). A kind of spider called Misumenvatia changes color according to the flower it is on to catch the bees (Selçuk&Aydın, 2013). When the socio-biological approach is taken into consideration, all of these examples show us that the self-generated tremendous management process in nature is alike to the dynamic management approach. As in dynamic management approach: everything in nature can change at any moment; species create conditions for their survival (such as businesses that continue to operate) and are forced to adapt to new conditions.

Post-Modern Era- Organizational Configuration

It is possible to give many examples for postmodern management approaches related with the socio-biologic approaches as organizational configuration approach, information processing approach, transaction cost approach, and so on. For example, according to the organizational configuration approach; the evolution which starts at a particular unit will cause corresponding changes in other units of the whole (Bumin,1990: Ünsalan&Şimseker, 2011). This fact increases the importance of environmental adaptation in all systems.

Coral reefs are examples of this situation from nature. The corals with rigid skeletons come together to form large structures called coral reefs over the time. These structures, formed in millions of years in the depths of warm, shallow oceans, are known the rainforests of underwater with their diversity of living. The reefs are habitat for fishes, tortoises, starfishes, giant oysters, snails, octopuses, anemones, sea urchins, seashells, and many more. These areas are complex living spaces with their own food chain. About 25% of the living species in the oceans live in coral reefs (http://www.bilimteknik...). The interchange of any species or coral with natural or artificial ways causes many alteration subsystems to change like to be same in organizational configuration approach.

Post-Modern Era- Information Processing Approach

The information processing approach treats organizations as units that process information and make decisions from the lowest level to the highest level like the human brain. Decisions made at lower levels which depend on established principles and procedures. But strategic decisions are made on the top levels of the brain. Organizations that adapt to their environment and sustain their lives are able to make changes in their decisions, principles, frameworks and mechanisms; can collect and evaluate

information on changing conditions. In this sense, organizations continuously evaluate their own activities; similar to systems that subject to editing (Koçel, 2007).

As known ants are living organisms with the most crowded population on earth, living in very well organized colonies. They build a social system, a kind of caste system and three divisions: queen, males, soldiers, and workers. The ants have physical differences according to their tasks in the colony. For example, the guardian ants are known for their large head structures and protect their nesting area. They can close nest entrance with their heads by taking a "strategic decision" when it is necessary. Male and female wing ants leave their nests at a certain period of their life and start to work on to build a new one. The queen chose a proper nesting place, opens a small hole under the soil and leaves her first eggs. During this period, it feeds itself with its own wings. The queen nourishes offsprings, which are the first workers of the nest, with its own secretions. When infants grow up, they get responsible for the queen's care and nourishment. The number of workers increase rapidly.

As is the case with the information processing approach, different procedures are operated at the upper and lower levels of the organizations in nature. The queen nestles at the bottom of the nest and starts to live there. The workers who care the queen also send her information about the situation with the pheromones. The queen makes various decisions through this information. For example, if there are a large number of soldiers lost during the war, it is the task of the queen to direct the new offspring to become soldiers. The queen is 8-10 times the size of the other ants and can live for 10-20 years (Cabbar&Doruker, 2004). This whole biological system reminds us of the information processing approach that is being used widely in the management sciences.

Total Quality Management

TQM is a management philosophy that envisages the fulfillment of predetermined customer needs and expectations through continuous improvement of business processes in an organization (Öğüt, 2003). This philosophy consists of strategies and techniques aimed at providing quality goods or services to customers (Can et al., 2005). There is no room for mistakes in animal behavior towards survival. In the event of a mistake, the entity's presence will be in danger. Being in an organized animal group in nature is also one of the factors bringing the error risk closer to zero. For example, an antelope swarm does not have any luxury of making mistakes while escaping from lion. The obligation to remove the existing fault in nature; reminds us TQM in terms of businesses. As known; in total quality management, the aim is to produce goods and services with zero mistakes (Hoşgörür, 1997) and achieve perfection. If the products of social institutions arising from social necessities are not in the qualities that society desires, after a while the demand for their products decreases and the presence of the institution becomes dangerous (Başaran, 2008).

Core Competency

The core competency distinguishes the organization from the others; expresses knowledge, skills, and abilities which play a key role in forming a vision and can not be easily imitated by competitors (Koçel, 2007). Enterprises can evaluate opportunities with these valuable talents and eliminates the threats. Such abilities are not ordinary talents and are therefore they are valuable. If we give an example from the sociobiological perspective; stenocara would be a good one. How living creatures can survive in the arid desert of Namibia, has been the subject of studies in different diciplines for many times. One of these creatures is a desert beetle called stenocara. To benefit from the water in the mist, the beetle turns towards the wind on a small sand top and makes a 45-degree angle with its body. In this situation, it holds fog droplets with its hardened wings. The beetle's water collection system is based on a special design with a surface consisting of small protrusions on its back. The surface of the spaces between these protrusions is covered with some kind of wax. This allows water, to be collected easily. Once the droplets reach a sufficient size, they roll towards the mouth of insect. The insect gets water from the moisture, which is very rare in the desert air, owing to its specialty (Tekin&Kurugöl, 2011). It is a kind of core competency. This body design of Stenocara has been the subject of many academic studies even in the field of architecture. There are similar situations in the marine life as like as the core competency in the business life. For example, mussels can convert pesticides into pearls due to the mother-of-pearl they contain (Nobles&Zhang, 2011) so they can protect themselves and survive.

Employee Empowerment

Employee empowerment is the process of raising the staff to develop and make decisions (authorization), with cooperation, sharing, training, and teamwork (Koçel, 2007). Similar specimens are seen in ant colonies. The ants have not individual but a systematic work on nutrition. Nutrients are collected and consumed jointly. Solid foods are transported to the common area and shared; liquid nutrients are not only transported; also removed from the maws in the nest and distributed. For example, the name 'honey ant' is fed with the sugary liquid and plant nectar obtained from the aphids. There's a difference in Honey Ants. Workers pour the lower part of their body they have turned into a honey sac into the mouth of the other workers in the nest. These ants, which have become a honey barrel, are hanging in the nest with their feet during this process. These worker ants, which can transport honey 8 times more than its own weight, are used as nutrient stores. They strengthen and maintain the other members of the group in winter or when the food is less (Cabbar&Doruker, 2004).

Strategic Management- Strategic Alliances

According to the famous Russian philosopher Kropotkin (2008), mutual assistance observed as a decisive principle among animals is also present among societies that have existed throughout history. Mutual assistance is seen in many species of animals. The tendency for solidarity is widespread, especially among birds. Sparrows and similar small birds are known to help each other while protecting themselves from raptors such as falcons, hawks, eagles (Yıldırım, 1989). Symbiosis, which is a concept of biology discipline, is also exemplified for this cooperation situation. Symbiosis refers to a form of social life in which mutual interests are protected, in particular by solidarity among animals. Symbiosis under the heading of zoological interactions is classified as unilateral exploitation, mutual benefit and coexistence (Gemalmaz, 2010). Examples of mutual benefit includes birds, eating the bits of nourishment from the teeth of crocodiles (https://www.turkcebilgi.com/protokooperasyon). So two different species go to cooperate for common purposes. As known; solidarity and co-operation with other in enterprises because of the intensification of competition conditions; efforts to create strategic alliances are prevalent in business (Kumkale, 2007) like nature.

Strategic Management - Population Ecology-Adaptation

In the organizational ecology approach, the evolution of organizations will be with natural selection (Yurteri, 2008) and the birth and growth of those adapting to changing environmental conditions; and those who can not adapt to it will decrease/disappear (Güneş, 2012). When evaluated in this respect the relationship between the environment and the community of organizations (population) is examined in a particular society, industry, or region (Koçel, 2007). Population ecology is one of the concepts that have more place in nature. While species which are strong can sustain their existence; the weak species are condemned to disappear after a while in natüre. For example; spotted moth, (biston betularia), a species found in arboraceous of England. Most of them were light colored before the 50's, dark colored ones were rare. The UK was intensively industrialized from 1850 to 1900 and consequently air pollution occurred. Before the industrialization, light-colored moths were easily concealed and reproduced inside the mosses which were living on the trees. With the smoke and soot blackening of trees, algae died so light-colored moths were more easily seen than dark-colored ones and fed to birds. Those with dark-colored extinct and light-colored survived, according to natural selection rules. This research has shown that species can change gradually from one form to another, in a certain period of time (http://www.ktu.edu.tr/...) The case also has the feature of being one of the socio-biological examples which can be given to "adaptation approach". Organizations that are selected by the environment and given the right to continue their lives are basically organizations that have the characteristics of a gap, which fit them and fill this gap (Koçel, 2007).

Strategic Management - Chaos and Complexity Approach

When the chaos which emerged as the result of instability is addressed, a new formulation of natural laws is mentioned. According to Progogine (1998), modern science is built by the law of nature. All organizations are influenced by various other living and non-living organizations, both inside and outside. Edward Lorenz is the scientist who makes the most effective description regarding the chaos. Lorenz pointed out that a winged butterfly in China could create a storm in New York, pointing out to

the existence of many other factors that could lead to an event, and even if they seem to be very small, the consequences can be great (Çavuş et al., 2016). According to Mutlu (Mutlu, 2006), chaos is the process of evolution itself. A living system will be obliterated, If it can not adapt to the conditions of an upper system as being a part of it (entropy). If a living system, replaces the upper one in spite of its restrictive applications, this means that it has developed a spontaneous organization process to be able to live in the current environment. The abilities which living systems have developed to survive could be described as the typical feedback process. Because living systems are open systems, they are unbalanced or near-equilibrium complexes.

For example: the faster the wild animal runs, the more it hunts. The more it gets fat and the less it runs. Without running fast it can't hunt. As the hunting diminishes, the animal weakens and starts to run fast again, and the process starts As can be seen, each living creature's unique behavior or adaptive abilities are the results of chaotic processes. Human beings also experience the same chaotic processes in the organizations they are involved in as a result of a similar process, which in turn pushes businesses and internal systems to react similarly.

Strategic Management - Crisis management

Crisis is the inability to intervene in threatening conditions. Crisis management is the implementation process in response to the possible crisis situations. It requires taking the necessary precautions to assess the crises. Crisis management gives an opportunity to the organizations avoiding the crisis with a minimum loss (Budak&Göçmen, 2008). There are many factors that lead to the crisis. These are rapid changes in the environment, economic uncertainty, fluctuations, poor information gathering methods in the organization, excessive and inaccurate data, very little data, inadequate communication, less organizational coordination inside and outside, the existence of different value systems, changing management tools, political disturbances, time failure and etc. However, in general terms, it can be said that the mutual negativities between the business and the environment cause the crisis (Delibalta&Özyurt, 2006). This forces the organization to change its system, to respond quickly and, therefore, go beyond the ordinary and existing experience, knowledge, and operation (Dinçer, 1996). The most important feature of the crisis is unpredictability. Cause of being unpredictable no precautions would be taken. It is through management that organizations should survive crisis periods with minimum loss or gain (Ünsalan&Şimşeker, 2011).

There is a purpose behind the display of a behavior. This is motivation. For example, being social, getting healthy nutrition, following everyday events, saving money for future are the motivations for being successful and healthy. There is basis lie under the urge of some animal behaviors like ants storing food, cats and dogs molting, iguanas changing color, birds migrating and etc. The underlying reasons of surprising resemblances between these stimulations are curiosity for many researchers.

Crisis and crisis management issues, which have been discussed much in the management field, can also be attributed to animal behavior and stimulations. King penguins in Antarctica, for example, gain weight before the cold season as a crisis precaution. During the incubation period, some of the follicles between the legs of the parent's spill, in which the egg contacts the body more tightly and warmly and is optimally protected against cold weather (http://www.bilimteknik.tubitak...). The camels can be given as an example to the crisis management. Camels are living creatures that last a long time in the desert environment, using their energy very convenient with some techniques. They can travel for at least one week without drinking water and can live a few months without eating. They can drink nearly 46 liters of water at a time. Camels can stay without eating for 8 days at 50 °C, and lose 22% of their total weight. A man dies when he loses 12% of the water in his body, but a camel does not although it loses 40% of the water in his body. Another reason of camels drought tolerance is that they have a mechanism that increases body temperature to 41 ° C during daytime. This keeps the water loss at minimum level during daytime at extreme desert temperature. In cold desert nights, body temperature can be reduced to 30 ° C (Lamine, 2009). As it is known, crisis management requires the determination of potential crisis situations and how to deal with them. Organizations need to allocate the necessary resources against possible crises, build infrastructural systems and strengthen their equipment. An important factor in coping with the crisis is that the management of the organization is wise and talented in crisis preparedness and crisis management issues (Sezgin, 2003). The introduction of new approaches in socio-biological

aspects to overcome crises; will provide alternative solutions to problems in management science

Cybernetic Approaches:

Cybernetics is a notion introduced by Mathematician Norbert Wiener (Sezgin&Talaz, 2016) It is the science of transmission and control in animals and machines. Shanno later developed the concept by the theory of information. Theory of information points out the communication channels used in engineering control systems and feedback, which deals with the most effective transmission of information. In the second phase, the concept of cybernetic was redefined by Foerster's work on information dynamics. The concept now refers to examining the substance of social processes such as design, education, organization, arts management, politics, social sciences and natural sciences through self-definition (Banathy, 2001; Pangaro, 2000). Cybernetics explores the similarities of working between living things and self-regulating machines (Kaban, 1994). The known definition of cybernetics is the science of mutual communication, equilibrium, and governance in humans and machines. It examines information exchange, control and equilibrium in people and machines. This approach has evolved over time, so computers that are among the indispensable become parts of our lives today. In the light of all these expressions, it seems that the cybernetic concept which has entered into the field of management and organization actually emerges on the basis of a biological point of view. The increasingly sophisticated technology and globalization phenomenon in the developing world has led to changes in many functions of businesses. Business world has started to shift towards production processes as advanced technologies, cyborgs, artificial intelligence, etc. It is socio-biologically significant that modeling of animal behaviors at the outset of cybernetic theorems, which were being shown as a source of developed world technology.

CONCLUSION

The rapid change in today's world makes it necessary to revise existing theories or to create new ones in management and management functions. When the management theories were examined; it has seen that; the business science has been repeatedly sampled nature, with or without awareness. Moving from this point; researching and analyzing groups of animals which form the basis of socialization, may identify many problems in organizations and give an opportunity to develop alternative approaches. When viewed from this standpoint; it will be rewarding to continue to benefit from multidisciplinary methods at the point of understanding behavior, organizational behavior and outcomes. Socio-biological approaches at the point of solving basic problems encountered in business science will be instrumental in developing new paradigms and creating alternative solutions with ecological methods. There is a limited number of studies about the socio-biological evaluation of management science in the literature. It is suggested for the future that both the theoretical and empirical studies should be conducted to reach alternative results.

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