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Social systems according to specific systems theory

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Abstract. The Specific Systems Theory (STS) proposes a system definition that describes them precisely based on six postulates that establish the sufficient and necessary elements for some real entity to be a system. This contradicts and rejects the traditional definition of Bertalanffy (1968), which mentions that a system is a conglomerate of interacting components. Based on the definition of system that is the main foundation of STS, the various types of social systems, which have been scarcely studied, are analyzed in this study. The literature that exists in this regard is abundant in arguments about their behavior, but all the arguments generated have been developed based on various concepts that have no relation to their systemic properties. In this work, social systems are analyzed from the perspective of their systemic characteristics, their systemic nature and their systemic properties. The definition of system that supports STS makes it possible to clearly and easily understand how social systems work and explain their behavior as systems and not simply as societies, which is the inadequate approach that has been used to discuss them until now.

Keywords. System, structure, organization, process, results, social systems, society

Introduction

The Specific Theory of Systems is a logical framework that is based on a solid, clear, complete and general system definition that is applicable to any system of the six types that can be used to exhaustively classify all the systems that can be found in the real world. Systems can be:

1. Living systems: which are everything that has life, from a cell to the organism or more complex being.
2. Natural systems: are all those that were created naturally, without the intervention of human beings.
3. Technological: systems are all those created by human beings.
4. Social systems: are systems in which the components are individual living beings, which can be animals, plants or human beings
5. Sociotechnical systems: are systems in which human beings and technological elements created by human beings participate
6. Complex systems: are those in which two or more systems of the five types mentioned participate.

This classification allows us to perceive that the concept of system covers a very wide range of entities, which can include from some small, concrete and simple, to those that can be extremely

broad, diverse and complex. This poses serious complications when trying to establish a definition that is applicable to all the systems that can be found in the world or in the universe and that is also specific, clear, comprehensive and complete, in order to allow the establishment of principles, laws and properties generally applicable to all systems.

Due to the breadth and complexity that is immediately perceived in the systems, up to the present, the definition established by Bertalanffy L. (1968) has been accepted in all areas, however, it describes not only the systems but to anything that exists in the universe and . Such a definition establishes that a system is: "a complex of interacting components (Bertalanffy L., 1968, p. 94)". This non-rigorous way of defining a system ensures that it can be applied to all the systems that exist, but if you reflect on it a bit, you will easily discover that it can be applied to any thing or entity that exists in the universe, because if the necessary considerations are made, anything can be described as made up of interacting components. Therefore, Bertalanffy's definition defines everything that exists and consequently does not define anything.

According to Pérez G. (2020), the Specific Theory of Systems (STS), has as its central element the concept that a system has the following ontological characteristics that describe it precisely:

1. **Components.** Systems are made up of a set of components that perform consistent and determined actions.
2. **Structure.** Systems have a structure made up of interconnections between components that allow the exchange of matter, energy or information.
3. **Organization.** Systems have an organization that establishes the actions that each component must perform.
4. **Process.** The systems work based on a process that establishes the way to combine the actions of the components in order to obtain the expected final result of the system, which can be actions or materials. The processes can receive inputs that are transformed into material products of the system and if they do not receive them, then the results of the system are actions.
5. **Products.** They are the results obtained from the process, which can be actions or materials.
6. **Energy.** The systems use energy to generate the actions carried out by the components, which can be received from the external environment or generated by the system based on materials obtained, also, from the external environment.

A system, then, is an entity that contains each and every one of the elements mentioned above. It would be enough that some entity under analysis lacks any of them, to consider that it is not a system. This way of defining a system makes it possible to gather all systems into a general and consistent concept and define them precisely, ensures that all their specific properties can be generalized and applicable in all scientific fields and extended to all types of systems. In this way, one of the most important values of the system concept is fulfilled: that it serves as a link to integrate various scientific disciplines.

Social systems

One of the fields that has been studied the least is social systems and the research works that have addressed the subject have focused fundamentally on social systems integrated by human beings, despite the fact that there are a large number of integrated natural social systems. by other individuals of the animal and plant kingdom.

Two authors stand out on the subject of social systems, the first of them is Talcot Parsons and the other is Niklas Luhmann, both wrote works in which they reflected their conclusions about the behavior of human societies, mentioning as a basis of analysis the concept of system. Everything that these authors did is based on the concept of human society and not

on the social system as a general concept applicable to human society in a particular way. The latter is the main defect of these two approaches, human society is studied based on the general concept of system and not as a social system, which is a much more specific notion and therefore much clearer.

Parsons T. (1962), does not propose a strict, clear and precise definition of what a system is, but frequently uses the concept of system in his arguments. He posits, for example, that actions can be organized into three types of systems: personalities, social systems, and cultural systems, and he also states that these three types of systems are composed of actions. So, without a clear theoretical basis, he talks about systems and generates a large number of proposals, reasoning and conclusions. Although in one part of his book he states that a property of systems is that their parts are interdependent, he mentions it in relation to empirical systems, although he does not clarify why he specifies this quality. Although Parsons T. (1962) mentions systems, including social systems, as part of his theory, what he really analyzes is the way in which actions are generated in a society.

(Luhmann N., 1998), admits the definition of Bertalanffy L. (1968) as a basis for the study of systems, but clearly specifies that although there is a General Theory of Systems, it can be considered, in some way, in the study of very different types of systems and that specific theories can be elaborated and in his case, he limits his research to social systems and therefore excludes any direct analogy between social systems, organisms and machines. From the above it is inferred that Luhmann considers that there is no theoretical relationship between social systems and other systems and that they are different entities that are studied through exclusive theoretical concepts. Nor does this author establish what the components that constitute social systems are, sometimes he affirms that they are constituted by actions and on other occasions he points out that the components are communication or that it is very difficult to distinguish between communications and actions, because they tend to be the same.

From the foregoing, it can be concluded that up to now a specific analysis of social systems has not been carried out, taking as a starting point their condition as systems and considering their definition, characteristics, properties and principles. As seen in the previous paragraphs, the role played by individual actions in the formation and behavior of societies has been analyzed, but what they are and what are the principles and general behavior of social systems have not been analyzed, in addition, only those made up of human beings have been analyzed. Sociological studies have been made alluding to the concept of system, but this has not been used as the main axis of analysis.

Animal social systems

Natural social systems are those that were created naturally, without human intervention, and whose components are animal or plant individuals. These systems are characterized by the type of individuals that integrate them; Different species of animals give rise to different natural social systems. All of them, however, can be described based on the six general postulates that define what a system is. In this way, it is confirmed that the system definition on which the STS is based is generally applicable, despite the fact that it specifies a set of unique characteristics that only systems present in an integral way. Some other entities might have one or more of the characteristics described by the six postulates of STS, but only in systems can all six postulates be identified and tested.

One of the best known natural social systems is the one made up of ants, which from now on will be called anthills. It is convenient to clarify that in this work the ants known as farmer ants are taken as an example. In these systems the components of the system are the

individuals called ants. Ants in an anthill perform different types of tasks, including: colony construction, food cultivation, larval rearing, colony defense, search and gathering of materials to produce their food.

As components of a system, each ant must perform actions that are predetermined and defined by an organization that has been designed through an "intelligent" process whose origin is unknown, as happens with many of the things that exist in nature. This organization contains all the actions that are required to be performed to maintain the existence of the colony. The organization is complete and exact, which means that all actions are defined and all are strictly necessary. The design of the organization ensures that everything will be done.

The individual ants have in their nervous system the information on how to carry out the tasks and in some way these genetic codes are put into action to determine which are the actions that each individual must carry out. The important thing is that each individual adequately performs the tasks that correspond to him. The components, the ants, accurately perform the tasks that the organization sets and thereby ensure that the organization becomes an exact practice and a reality.

So far, three of the postulates that define a system have been identified in the anthills: the components, the organization, and the purpose or result that the system must achieve. The third of these postulates is the process by which all the actions of the components are combined to generate the pre-established or sought result.

In the anthill there is also a process by which the individual actions of the ants are combined to ensure that the colony survives, since the existence of the colony is the fundamental objective of the system called the anthill. In this case, we speak of a general process with a general result, but if it is analyzed in depth, it can be concluded that the survival of the ant colony is the result of the conjugation of a large number of processes that are conjugated. coherently to achieve the result: the survival of the colony. It should be noted, at this point, that the general objective of all living beings and of systems made up of living beings is always the same: to ensure that the system survives. Actually, the totality of the daily actions carried out by each one of the components, in this case the individual ants, to stay alive is one of the results that the ant colony generates, the other important result is to maintain the life of the colony as such.

The next element considered in the postulates that define a system is the structure that is constituted by the interconnections that allow the exchange of materials, energy or information between the components. Another way of interpreting the structure is that it is constituted by the means through which matter, energy or information is transmitted, from which it follows that interconnections is the same as means for transmission.

In the case of ants, the structure of the system is constituted, in one case, by the direct contacts that they establish between them, by means of which they exchange information through chemical messages that they identify in the pheromones that contain their saliva or those that they can exchange. through their antennae. The integrity of the colony is a matter of the utmost importance for the ants and therefore they continually meet face to face to exchange with their saliva the pheromones that identify them as part of the colony and thus identify any intruder that represents a threat. danger. Likewise, the drones that take care of the colony when they detect an intruder bite it and impregnate it with a pheromone that identifies it as an enemy and allows the worker ants to attack it in large numbers.

Because social systems are made up of individual components that act on their own impulse, they always require information and, therefore, communication to organize their actions, that is, to determine what actions they must take to act in a manner consistent with the

purpose. to achieve an end or result. For example, when the ants find food on their routes outside the colony, they return by the shortest path and leave a trail of pheromones that the workers will follow to reach the food source and return to the colony and on their way too. they leave trails of pheromones to guide others. Information and communication allow organizing the collection of food for the fungi that, in turn, feed the ants.

The last element that remains to be discussed to complete the identification of the six postulates that define a system is that of energy: every system requires energy that allows the components to generate the actions that the system requires to make its processes work. In the case of anthills, the energy source comes from the food that is generated with the materials they collect to cultivate the fungi from which they obtain their food. The energy that keeps the anthill alive is produced by each individual and this happens in all social systems..

The case of the anthills corresponds to a strongly organized social system in which all the individuals know exactly what to do and strictly do what corresponds to them, they do not need anyone to direct or lead them or supervise them, they are highly capable and disciplined. They all know what to do and they do it perfectly. The anthill is a perfect society, it also has the ability for its individuals to act in non-routine cases and recover balance when there are events that alter the normal life of the colony. Many companies should perhaps aspire to their individuals behaving like an anthill.

Fish provide an example of another type of system that behaves like a single individual, even though it is made up of millions of fish. Schools of fish, such as herring, move in a totally synchronized manner, all swimming in the same direction and at the same speed so that the crowd appears to be an integrated whole moving as a tightly knit group. The school of fish is a social system, in which the components perform synchronous swimming actions, that is what the organization of the system consists of, swimming and moving in the water, that simple, on the other hand, the pre-established process is that the swimming of all the fish must be combined with the swimming of the other members of the system to keep the school always integrated, as a single individual. It is then easy to deduce that the result to be achieved by the fish system is to maintain the integrity of the school.

In military contingents that carry out complex marches with continuous changes, evolutions and crossings, everything is perfectly designed in advance, each soldier knows what he has to do and how many steps he has to take before making a change and all changes are also planned. In synchronized swimming teams, something similar happens, all team members move in sync and the team performs movements as if it were a single individual, but the entire organization and processes are designed in advance and all members know the actions that they have to carry out, the times for each action and the processes that they must develop.

In schools of fish nothing is foreseen, only the result or purpose of the system is pre-established: the school must remain united as a single individual. Therefore, there must be a structure that allows the fish to receive information about the changes that occur in the school and adjust their actions so that the process of always advancing in the same direction and at the same speed is achieved, combining individual actions in a consistent way. This structure, that is, the way in which the components or individuals are related and exchange information must be, especially in this case, fast, precise and exact. Gautrais J., Jost C. and Theraulaz G., (2008) explain that the way in which fish coordinate their movements is, on the one hand, based on optomotor reactions in order to maintain parallel orientation with their neighbors and that this visual detection, is completed by a sensory device called the lateral line that is sensitive to variations in water pressure in the surroundings of the fish, which provides information about the speed and orientation of the movement of its neighbors. So the structure of the system is

made up of the visual field and the lateral line, which are the elements that allow communication and the exchange of information so that the fish act consistently according to the instinctive reactions stored in their brains. This is the social system of the schools of fish, fascinating like all natural systems.

Prides of lions

Not all social systems behave like an anthill, in reality there is a wide range of social systems ranging from those with extremely rigid organization and processes in which all actions are absolutely defined and individuals are strictly disciplined, the structure is unalterable and constant and the subsistence of all the components depends on all carrying out the assigned actions.

At the opposite extreme, there are social systems where the organization is minimal, which means that there are few predetermined actions and generally very simple, the structure transmits little information and is made up of few messages emanating from bodily expressions, the survival of the conglomerate does not depend on individual actions. In this extreme we can cite as examples a herd of zebras, antelopes or a colony of birds.

Between both extremes are animal social systems in which the organization is created when it is necessary for individuals to act coherently in carrying out a process, for example, hunting. Prides of lions integrate a social system representative of this intermediate level of rigidity and precision of animal social systems. Lions live in a pack all the time, they stay together, but when they are not hunting, each individual does what he wants and his actions do not affect the other individuals or the security or survival of the system.

The systemic behavior of the pride of lions is manifested when they have the need to hunt and since this is an activity in which the result does not depend exclusively on the actions of the individuals or components of the pride, since the prey make their own decisions, then the scenario and the situations change abruptly and constantly and the participants in the hunt have to adapt their actions to the circumstances, in order to continue in search of the expected result: to catch the prey.

According to Stander P. (1992), lionesses begin the hunt by locating themselves in certain positions. In the center are located those that are going to attack the prey frontally and on the sides are located those that will carry out an encircling action to converge on the target prey from both flanks. The role that each individual has to perform is defined in a very general way, the initial organization is not very precise, each lioness has to select the place and this establishes what will be her way of participating in the hunt. The organization, that is, the precise and concrete actions that each lioness will carry out, must be chosen by each one of them according to their observation of what happens, in terms of the movements of the prey and those of the other lionesses. The organization is designed on the fly based on the information that flows through the structure, which in this case is constituted, mainly, by the vision and to a lesser extent by the hearing of the lionesses. Success depends on all individuals correctly performing the actions that correspond to them according to unpredictable circumstances. As these are random situations, the success of the hunt and the precision of the actions are subject to probability. In order to increase the effectiveness of the hunters, Stander P. (1992) demonstrates with a statistical study that the lionesses prefer certain positions in the hunting system and are located in them in a preponderant way, thus becoming more effective specialists.

In this case, the structure is also variable, since the interrelationships that are established through the scope and the visual intention of each individual are variable and decided by them. Systems with variable structures are those that have to adapt quickly and

accurately to changing circumstances in the environment in which the system operates. For these systems to exist, it is necessary for individuals to possess a certain degree of intelligence that allows them to observe changing situations and make the appropriate decisions that shape the organization. The design of the organization requires intelligence that allows anticipating what actions are required for the desired result. The more complex the result, the greater the intelligence required.

Human social systems

In every way human social systems are similar to animal social systems. The differences between them are located mainly in the greater intelligence of the human being that allows him to design more complex, more complete, effective and efficient organizations.

In human social systems there are some in which the organization is precise, in the sense that the actions are established in an exact and detailed manner and all individuals perform such actions according to the established design. In order to achieve total effectiveness in the execution of the actions, the processes are practiced many times until each of the individuals becomes a specialist who achieves perfect executions.

An example of these rigid systems is that of a battalion of soldiers performing complicated marching movements with turns and changes of direction in which movements can be made in which two sets of marchers pass each other while maintaining their marching rhythm and although the contingents they mingle in motion, there is no clash between the soldiers.

In these cases, the organization has been designed in detail regarding the actions that each participant must carry out, the structure is made up of their sight and hearing, although the information that will be received is minimal and consists of instructions on the moment to carry out the planned joint actions. The process is also perfectly designed and learned, all actions are combined perfectly, The result or product is the movement of each platoon as an integral unit, as a group individual.

There are a large number of human social systems and similar to natural social systems they cover a wide range of varieties in which the organization can be defined in the greatest detail and the processes are executed with absolute accuracy, up to systems in which the organization does not exist and is created by each of the participants and the processes are improvised on the fly according to the judgment and decisions made by them. Something similar to what happens with hunting teams made up of lions.

Within this wide variety of human social systems, all possible combinations of rigidity and looseness or flexibility in organization can be found. The processes and these basic conditions are important and very useful elements to understand the systems and their operation, determine the degree of precision that can be achieved in predicting their behavior and determine what actions can be applied to improve or modify the results. of the system, its organization or its processes. It should be borne in mind that to the extent that the processes are rigid and the components perform exactly and in a timely manner the actions determined by the organization, the need for the structure is reduced and its role in the system's operation is minimal. At the other extreme, flexible systems require a broader, more complex and effective structure that allows the exchange of information to make individual actions effective and consistent.

For example, an orchestra is a social system in which the organization is designed in detail and all the components of the system are experts in executing the required actions. The score lays out each action exactly and clearly and accurately describes the process. Therefore, the structure that binds the components of the system, the musicians, is minimal, they require

little information about what the other musicians do. Although the ear provides a general guide, the only structure that is more firmly maintained is the one established based on the sense of sight, so that each one of the members can follow the nuances that the director of the orchestra points out.

Social systems in the company

A company is a conglomerate of social systems, in reality, due to the great technological development that humanity has achieved, all the processes in a company tend to be sociotechnical systems, since technology intervenes in some way in all processes, either as tools to increase human capacities or as elements to create structures that facilitate communication, that is, the transmission of information. However, in this part these systems will be analyzed, emphasizing human participation and avoiding the intervention of technology.

All the results obtained in a company are the product of a human social process and each process belongs to a system, as established by the STS definition of a system. Therefore, companies are constituted by a wide and complex network of social systems. Pérez G. (2021) proposes a model that is deduced from the STS and describes a structure through which the processes are interrelated to generate the results or products of the company.

In companies there are rigid systems in which the organization is designed in detail and the processes work precisely according to it. Deviations in time or actions are not allowed, these must be carried out in accordance with the organization and strictly following the established process. This happens, for example, in assembly lines for the production of goods, in which all participating human beings are obliged to behave in a disciplined manner according to what the processes and organization require.

In other areas of the company, social systems will be more flexible and the only thing that is established is the type of product to be obtained, but neither its characteristics, nor the detailed organization, nor the processes are detailed, allowing people to interpret the definition of the product, freely determine the organization and establish, according to their criteria, the processes. In these cases, the product changes constantly and any result is good, since it is not established in detail what characteristics it should have.

However, there are situations in which it is essential and indicated to use flexible systems that encourage the free participation of people. For example, when a team is integrated in order to solve problems of any kind or when creative results are sought to be achieved, teams must function based on flexible processes that stimulate and allow free thought and for this the organization must be modified. continuously and the processes of the social system must be modified and adjusted in the search for the desired result. In these cases, the structure is made up of auditory and visual capacities and must be adapted to facilitate communication and coordination between team members as much as possible.

Between the rigid end of assembly lines, to the extreme laxity of some other systems, there is, of course, a wide range of system types. For example, in some areas of the company, there are bureaucratic commandments that must be complied with, either due to legal or control requirements, in these cases, so-called procedures are established, which are nothing more than processes described in some detail and about them systems have to be built that will make the results and purposes of such procedures feasible. If the systems are not properly integrated, all the results will be uncertain, since the processes are only part of the systems. It is crucial to understand that companies are made up of systems and not processes and that if attention is only paid to the latter, many mistakes will be made, which is why the management approach called "process management" is an incomplete approach.

In many companies, people do what they have to do, but even so, the expected results are not achieved. This is surely a consequence of someone determining what people should do, but without taking into account the result to be obtained, and therefore performance is evaluated based on people doing “what they have to do”. This is a wrong approach, people must carry out actions to achieve something and the results are always generated by the combination of many actions, that is, through a process and every process is part of a system that must be managed.

If the result is to be obtained accurately, it is necessary to carefully design the system that generates it, thoroughly train the participants and ensure the obligation to always carry out what is determined to be the actions of the people. A structure must also be designed that facilitates the conjugation of actions and ensured that the process is executed strictly based on the design that is made of it. Thus the result or product of the system will always be predictable.

If the circumstances demand that there be flexibility in the organization and the process, because there are many variables that cannot be foreseen, then the participants must be thoroughly trained in all the details of the process and the product and a structure must be designed that allows them to know what happens, what adjustments individual actions require to adapt to the changes that reality requires and how they should be coordinated with the rest of the participants to adapt the organization and the process, in order to always achieve the desired result.

Human systems in society

There is a general concept of society, according to the dictionary of the RAE (Royal Spanish Academy) society is a group of people, cities or nations that live together under common rules. So when we talk about society we can refer to diverse groups of people that can be small in number or be made up of huge crowds. Thus, a human social system can be made up of all the citizens of a country or a state or a city or by a small group of people who contribute to the generation of a product or result.

As already mentioned above, in human social systems there is also a wide range of possibilities in terms of the rigidity and exactness of organization and processes. There are some rigid ones, such as a battalion of soldiers who march doing complex joint actions as an integral whole, to teams of people who come together to generate creative designs or find non-trivial solutions to diverse problems.

In companies, the social systems that operate in them are aimed at achieving results that are established by it and that are required to generate value for customers and ensure that it remains in the market and is successful. In society there will be social systems with specific goals and results and others in which all people contribute with their actions so that society acts as a whole and achieves majority collective results, that is, the final result is established by the consistent actions that performed by the majority of the participants, which define what the corresponding society does or achieves.

A very frequent and characteristic social system is the one that is made up of people who participate with their vehicles in the traffic of an avenue or area of the city. This system is bounded by certain rules that everyone must know in order to adequately contribute to the achievement of the purpose of the system, which is that all vehicles can move in the direction of traffic, without causing collisions between them, or other types of unwanted accidents. . In these systems, the structure is made up of the visual and auditory senses of drivers, it is through them that they receive information about what is happening around them, the movement of pedestrians, the behavior of traffic lights and the actions of other motorists, in this way, each driver can analyze the situations and make decisions about the actions that must be carried out

to continue their traffic in the direction they want to follow and, also, allow everyone to circulate without problems.

The organization, that is, the actions that each driver or component of the system must carry out, is defined by the individuals according to the existing circumstances and the process, that is, the consistent conjugation of the actions, is also designed by the drivers of the vehicles. Nothing that happens in the traffic of vehicles has been previously established, everything is designed on the fly and depends on the means of communication available and the knowledge and intelligence of the participants. Therefore, the more accessories that provide information about what is happening around a vehicle, the better decisions the driver can make to consistently contribute to the constant and adequate flow of traffic.

Something similar happens in a soccer team, but the game is not as stable as vehicular traffic, in soccer conditions change continuously and there is a rival team that is focused on preventing the opposing team from performing its actions correctly and being successful. The environment is complex and the evolution of situations and plays is unpredictable. Each player has to quickly analyze what is happening, make some assumptions about how the actions will unfold, make their decisions and act in a way that they consider to be consistent with what other players, both those on their team and the opposing team, will do. Therefore, it is a complex sport.

In the game of soccer, two social systems with diametrically opposed objectives are in conflict, each team is a system, the components of each one, have to design the organization and the process, that is, the correct actions and their coherent integration. The structure is based almost 100% on the sense of sight and very little on hearing and it is also variable as each player decides how and with whom to establish a connection, where to fix their gaze and what information to obtain. We have then that soccer is a sport in which the organization, structure and process are variable and designed by the components of the system that are people. If something is not done to control people, they will always try to manage the variables of a system in their opinion and modify the organization: what is done, the process: the integration and sequence of actions and the structure: how, what and from where to obtain information to decide the actions, by changing the people that are observed, the relationship between the components changes and the structure is modified.

The society seen as a system depends on which group of people is selected for the analysis, since people can participate in different social systems and there are a large number of societies whose identification depends on the purpose that brings together the participating people. A city, for example, seen as a group of inhabitants, has the purpose of maintaining peaceful and harmonious coexistence and ensuring that society survives and stays together, for this each component of the social system called the city does what is necessary to coexist correctly with the other people or components of the system and their actions are conditioned by the rules established in that society, whether legal, cultural or moral. Although there is freedom for each person to decide the actions they want to perform and how they integrate with those of others, there is a framework of principles that guides what is acceptable and restricts the actions and their integration. Therefore, the society that lives in a specific territory is a flexible system, with variable organization, structure and processes, but bounded by various regulatory frameworks.

Another society that emerges at certain times is the society of people who come together to vote for various candidates to occupy political positions within the government that manages the resources and the instruments for compliance with the regulatory framework that limits the actions of society in general. People who define themselves as part of a political party

have an organization, individually designed by themselves, that determines in favor of whom they will cast their vote and the process consists of individually carrying out the necessary actions to make their vote effective. In this case, the structure continues to be integrated by their senses of sight and hearing and by the means through which the information they must process to carry out their analysis and make their decisions is sent to them.

The structure, in these cases, is not decided or modified by the people, it is the politicians who design the means that will be used to reach the eyes and ears of the voters and ensure that the information is acquired, by them, the rest, its assimilation, its analysis and the final decision are, absolutely, individual and are subject to the free will of the people. The important thing is, then, to ensure that the appropriate reasons are generated so that the decisions are oriented towards certain candidates. In these systems, the organization is variable, the processes are pre-established and the structure is variable and designed by third parties.

Today's technology allows many forms of media to be used to access people's senses and therefore allows for the creation of a wide variety of structures in human social systems. Today, there are cell phones that allow a continuous means of reaching the eyes and ears of all people, these devices have many applications that serve as vehicles to bring information to people of any social system, the illustrative power of audiovisual media allows the design of clear and persuasive messages to convince and incline the decisions towards the desired purposes. Today it is easier to influence and get people to individually determine the organization that is required for some purpose, in societies people determine for themselves the actions they will carry out, that is, the organization of the system, but all the means that technology provides have greatly simplified the task of influencing personal decisions and directing them towards specific purposes.

An example of this is the very effective way in which social networks and cell phones have allowed the population of many countries to organize themselves to carry out tumultuous demonstrations demanding improvement in their living conditions. Without cell phones and without access to traditional media, radio and television, for example, these meetings of people to demand rights would not have been possible because without communication it is impossible for human systems to achieve an organization oriented towards a specific goal. All over the world today cell phones are being used to organize the actions of many social systems. Cell phones allow a complex structure in which the immediate relationship of any of the components of the system with all the others and vice versa is feasible. The foregoing is proof that the organization of any social system depends on communication and that this is only possible through an effective and efficient structure that ensures the relationship between all the components of social systems, which are people.

For example, if in soccer players were allowed to carry a radio receiver and transmitter, actions could be directed based on the instructions transmitted to them by a person who could observe a wide area of the field and determine the most effective plays and also It would allow the players to exchange information about possible plays, thereby greatly increasing the effectiveness of the players and giving the opposing team more difficult situations to resolve, with which the game would not lose spontaneity and emotion and more spectacular plays would be seen . It should not be forgotten that the opposing team could also better organize its defense and its plays.

Assault Commandos do something similar when they must attack a heavily defended fortification that is difficult to capture. Despite the fact that they prepare a previous plan that stipulates the organization of the assault, that is, the activities that each of the soldiers is expected to carry out, they carry radios so that communication and information allow them to

adjust said organization to the circumstances that arise. during the event, especially due to variations in the foreseen situations or due to the unforeseen actions of the defenders. The radio provides them with a complex structure through which they can all receive and send information and adjust their individual behaviors to correct the organization and the process. Through the network communication made possible by the radio, everyone can provide additional data, receive or issue instructions, exchange points of view and, above all, coordinate individual actions so that they are consistent with the result and the circumstances and are combined in the sequence required by the process that will lead to success.

Conclusions

Based on the Specific Systems Theory (STS) it has been possible to carry out a detailed analysis of social systems, with which it is confirmed that the definition of system on which SST is based is applicable to all systems, even to complex systems such as human social systems, which involve the unpredictable behavior of human beings, their decisions, their emotions, their interests, feelings and their will, the last and main factor that determines decisions.

It has been possible to illustrate, with various examples, that the concepts of: Components, Structure, Organization, Process, Product and Energy, are present in all social systems, both natural and human, and they clearly determine and explain the behavior of systems, so that if it is intended to lead a system to the achievement of certain specific results, it is necessary to modify all or at least some of the determining parts of systemic behavior such as organization, structure and process..

Given that STS allows us to understand systems, explain their behavior and understand which are the elements that must be acted upon in order for the systems to achieve certain behaviors oriented to specific results, it is important to study the specific systems that are of interest to the various scientific disciplines and perhaps in some of them it will be possible to reach new conclusions or support more clearly the conclusions that have previously been obtained.

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