

POSITIVISM - FROM WEAKNESSES TO NEW OPENINGS

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Abstract: *Time emphasizes periods of glory and decay for different lines of thought. For the positivist approach, the XIX century has been the period in which it flourished. Its way of seeing the world, inspired from science, represented that newness the society needed for a general social change. Although it impressed and was borrowed by many scientists all over the world, in the XX century positivism stepped into an era of the unknown. The constructivisms have taken its place of fame. It has fallen so much that some authors considered it dead. Intrigued by this change, we started our journey in finding why the positivism failed and if there is a resurrection way for it. We analyze the basic ideas of positivism and with the help of critical analysis we indicate the reasons for its decline. After understanding its weaknesses, we follow the recent scientific discoveries, seeking to reinforce the basic principles of positivism and we highlight a new positivist law through which we can study and understand the world. We conclude the paper by proposing new research directions that can be analyzed through the positivism lenses: ongoing processes like globalization, Europeanization or Americanization, and economic, environmental or health problems.*

Keywords: *positivism; science; causality; general law; modern science*

1. Introduction

Since its appearance, the positivism had several objectives: to establish a new social order, to present new ways of seeing the world, to encourage scientific research and to be a religious alternative. All these objectives sprang from the French Revolution when Auguste Comte understood that at the basis of the revolution was nothing else than a desire for change and a transition from an old and archaic social order to a new one (Harp, 2010).

Thus, if positivism has had so much to offer, why is it considered dead? (Gartrell, Gartrell, 2002, as cited in Crook; Garratt, 2005; Bergmann, 1967; Hamlyn, 1967; Passmore, 1967, as cited in Tolman, 1992), or rarely used by the researchers? as Cohen (1980: 141) and Kincheloe with Tobin, (2009) argued, speaking about the existence of several researchers that still use it in their studies, and highlighting their hope for positivism resurrection.

To give a new breath to the positivist approach, we will begin this study by analyzing positivism weaknesses. Then, considering the latest scientific developments, we will try to reinforce some of the basic positivist ideas.

2. Positivism weaknesses

Although in the XIX century positivism seemed interesting as a paradigm because it brought a new vision of the world, later, when the society concentrated on the human rights and the social evolution, the positivism has lost some of its ground because it neglected the human role in building or changing the world and because the science was not ready to give enough answers to the raising amount of questions.

Several weaknesses stayed at the basis of the positivism decay: 1) the slow development of science in understanding the human brain; 2) positivism was never built well enough to be a religious alternative; 3) it failed in psychology; 4) it failed in sociology; 5) the slow development of other sciences like physics and astronomy.

Positivism was based on mathematics, astronomy, physics and natural science (Comte, 1848) contributions in finding general laws, cause-effect relations and regulations based on repetitive processes or phenomena. Auguste Comte believed that these sciences would be able “to produce social truths” (Kincheloe & Tobin, 2009: 517) that will encourage social development.

Despite the scientific enlightenment at the time, the science couldn't keep up with the man's evolution, with the problems he faced, with the questions he asked about himself. If from a physical perspective, science knew why some organs hurt or fail to work, it was not able to explain why we think and act so differently to the same stimuli. For these reasons, psychology abandoned positivism and adopted other approaches that concentrated on human beings, like constructivism and social constructionism. These paradigms had other methodological frames (qualitative research), which allowed collecting information based on communication and interaction with humans to solve psychological problems.

Similar to psychology case was the sociology, which wasn't able to explain all the new social phenomena only by using the positivist approach. In this rhythm, how could positivism keep up with the human problems and social phenomena if the scientific development was so slow? It was impossible to provide social truths in the absence of materials that would encourage the scientific evolution.

We needed and still need more knowledge about the human brain. Without it, the understanding of human thoughts, decisions and movements would be impossible. The right knowledge about the brain, its functions and the processes inside it, could help us establish cause-effect relations and understand diseases that affect the humans so much: “Alzheimer's disease, Parkinson's disease, autism, epilepsy, schizophrenia, depression, and traumatic brain injuries” (The Brain Initiative, 2020). The causal relations will help identify the general laws that influence the appearance and evolution of these problems. Finally, we would be capable of understanding and finding cures for brain diseases.

In this direction, we barely started to develop with the USA brain initiative and the European Union's Human Brain Project in 2013. Both are concentrated on finding more about "brain structure and function in humans" (Human Brain Project, 2017). Until now, scientists have found little information. They still do not have enough knowledge even about apparently simple problems like brain blood pressure, creation and destruction of neural networks and so on.

So, the slow development of science in understanding the human brain represents the first weakness of positivism. If we knew how the brain processes are going on, we would be able to understand more about the human and the social processes.

The second weakness of positivism was the tendency to offer a religious alternative.

Comte's positivism dealt well with spontaneous human inclinations, but it offered no spiritual substitution (Comte, 1848: 5), on the contrary, it asserts that "all abstractions be they 'matter' or 'spirit' have to be rejected" (Kolakowski, 1972, as cited in Husen, 1988). In positivism there are no Gods and humans are supposed to believe in humanity. The problem is that the absence of a deity disturbed the moral order established in society by Christianity. The humanity does not have the possibility of seeing the human thoughts, the hidden actions, and therefore it could worsen the social order based on morality and fear of being judged by God.

Then, there is the fact that Humanity, unlike God, will never have a moral legitimacy to decide what is right and what is wrong, by the simple fact that humans do not have knowledge about the afterlife and because lower instincts guide humans in their decisions. In its writings, Comte highlighted that human nature is characterized by low instinctual actions that come first and influence our thoughts, feelings and affections (Comte, 1848: 29). He also argued that "the human moral and intellectual weaknesses are natural egoism and the mental lethargy, that will never disappear, even when the society will touch the higher lever of sociability and intelligence" (Pickering, 2011: 54). This instinctual action and egoism would not be characteristic to God, which in Christianity, has superior thinking and takes the right decisions considering the facts, the thoughts and the intentions of the judged human.

Consequently, the religious weaknesses of the positivism, despite its great project for a social order restoration, are the absence of a superior force for salvation and forgiveness; rules for guidance (if you went the wrong way)¹; fear of judgment for immoral activities or thoughts; nourishment of the psychological need for continuity of life; superior protection; and the most important- it does not provide hope if science fails to explain or help.

¹ The positivism is counting too much on morality as science and as a sense of the society. The problem is that morality must come together with a conscience- which is very hard to root in every individual mind of society.

Thus, the positivism attempt to present a religious alternative may have aroused repulsions among researchers that may have liked its basic ideas. The third weakness of positivism is in psychology. It was guided on this path by the non- acceptance of the individualism (Mill, 2008) and by diminishing the role of the human" to the state of generalized laws in which individual is not of significance" (Bisman, 2010: 5). Once it did not give so much importance to the individual, it could not explain the psychological problems. Without enough scientific knowledge about the brain, a general approach of human psychological problems would not offer effective solutions. Then, the slow evolution of physics failed to explain the properties of the matter, which could have reduced humans to the smallest particles and analyzed their decisions, activities and thoughts through general laws.

The positivists did not accept individualism. But despite their opposition to this idea, the individualism existed and will exist further, because it is a basic natural state of the human- the reason of egoism that Comte hated so much. Thus, despite Comte's argument that "social order and society itself rest on moral consensus, on organic unity, and any attempt to understand society by dissecting it into its component individuals is fatal" (Halfpenny, 2014: 17), individualism was a reality that the positivists did not accept, and if so- they wanted to change it. The problem was that they did not have the scientific knowledge about the human brain so they could solve the psychological problems of the individuals, and this caused their failure in psychology.

The fourth weakness of positivism is its failure in sociology while trying to understand society through quantitative methods of research and by neglecting the language importance in building social realities, meanings and truths.

The first step the positivists do in research is to admit that society is an organic unity, a system which must be studied as a whole, where everyone "conforms to permanent and unchanging laws and rules of causation and happenings" (Aliyu et al., 2014: 81-82). Then they sustain that the "empirical facts exist apart from personal ideas or thoughts," meaning that the "patterns of social reality are stable" (Stephen & Kasim, 2015: 218) and that the personal thoughts and mental constructs do not influence the real world. This research path is diminishing the human thought power to change the social system. Following the positivist logic, human ideas and thoughts wouldn't have had any contribution to the French Revolution.

Let's take another example: if individuals of a community thought about the world they live in, observed problems, saw things that affected their daily life, there would be a high possibility for them to imagine a world without those problems. If their mind creations were shared, they would have the same future projection: a world with no problems and lacks. Therefore, human thought is strong enough to change society.

An actual example of human thought power is the European Union: it is not a touchable creation, it cannot be seen or measured, but at the same time it

is real, it is a human mind creation that made the people of 27 countries work in a single community with human imposed rules.

Returning to the positivism research methods, as long as science does not have enough information about the human body and matter, it will not be able to analyze social phenomena and processes. Therefore, the sociologists have been limited to using only positivist research methods like statistics, and doing the rest of their research by using other paradigms that allow an in-depth study.

Consequently, the positivist failure in sociology can also be reduced to slow scientific development.

The fifth weakness of positivism is the slow development of other sciences the positivism was counting on: physics and astronomy.

Since the beginning, the positivism argued that the reality was objective, had a real substance, existed independently of humans and could be observed and studied scientifically and empirically (Leppington, 1991; Zukauskas et al., 2018; Rehman, Alharthi, 2016; Wang, Duffy & Haffey, 2007; Aliyu et al., 2014). The problem appeared when our knowledge in physics and astronomy got so limited in comparison to human problems and curiosity. At that moment, we assumed that a phenomena, object or process could be analyzed by reducing the human role to the minimum, but we did not have scientific proofs and explanations that could have helped us to “look at the humans as objects or items” (Aliyu et al., 2014: 90) and understand them under our vague general laws and principles. The positivists look at the world as to a natural environment where the laws of physics are applicable, where the human thoughts have no importance because, in essence, they are movements of some particles and chemical changes. The positivists are very objective indeed, but their limited scientific knowledge made positivism unable to explain all processes and give complete answers to all questions. For example, positivism won't be able to explain processes such as globalization or modernization for the simple reason that the scientific knowledge we have only gives us the possibility to build statistics but not an in-depth analysis.

Following the weaknesses of positivism, we come to the conclusion that there is in fact only one big problem that has led to its failure: slow scientific development. The humans developed so quickly after World War I and World War II that science, weakened by post-war crises, was unable to keep up.

In other words, man has succeeded in developing faster than science. However, it must be said that we cannot blame science for its heavy evolution. The huge universe the human was curious about and the gigantic unknown subatomic world was up to the technological development, which changed the scientific progress only at the end of the 1990s.

Now that science has an advantage, can we support and use the positivist perspective again, or do we stick to the idea of a dead positivism?

3. New positivist openings

Many authors have seen the positivism 'dead' because of its limited capacity to explain the social world. Some would say that the mistake comes from the basic approach of positivism of seeing the social world real and apart from the human thought, where the cause-effect laws guide the stable patterns of the social reality (Crotty, 1998, Neuman, 2003, as cited in Stephen & Kasim, 2015).

We sustain that the problem is not the approach, but the scientific weaknesses. This being said, we believe that positivism will grow in social science, psychology, political science and others, once the sciences it is based on discover much more about the universe and the properties of the matter.

In the last twenty years, physics and astronomy evolved, given the new technologies. Considering these developments, we reinforce two basic principles of positivism: causality and implications of general laws in understanding phenomena, processes and objects characteristics. Then we deepen the idea of diminishing the human role in the world and propose a new general law for the positivism approach, which will help to analyze and understand the world we live in.

Let's start with one of the most debated principles of positivism: the causality.

In science, this principle was the foundation of each study and constituted "the basis of all scientific work- represented the condition that rendered science possible" (Kant, 1973, as cited in Gao, 2008). In 1967, the scientists performed the 'double-slit experiment'¹ where the matter properties were rediscussed. The properties of the smallest particles we could observe at the time behaved as if they did not obey any universal law, so the causality principle was under question. Further research and analysis of particle properties revealed a randomness principle in the behavior of the particles, which meant that there is no causality and the movement of the particles does not follow any law. This discovery seemed to disturb all the knowledge we had from a scientific point of view about the smallest particles we are made of.

In 2007 after we were able to detect smaller particles (with twenty digits after the coma²), we understood that the particles were actually 'particle clouds' which behaved like waves, and passed through both slits projecting two similar particles on the screen.

After we understood more about the unusual results of the experiment, the metaphysics reopened the causality principle debate, by arguing that even for a random subatomic movement there must be a universal cause for

¹ The experiment was elaborated with small particles, electrons, and photons, to see and understand the subatomic movement of matter. As a result, if an electron was released to a double-slit wall, on the screen behind the wall were projected two electrons. The scientists did not understand the appearance of the second electron.

² In 2007, the smallest particle we could detect was of a $3.2 \cdot 10^{-20}$ m size.

randomness, so the “causality that makes the world comprehensible” (Gao, 2008: 95) remains a principle of understanding of the micro and macro- world. For a long time, causality was the research mechanism and focus of the metaphysics. The researchers believed that while studying the nature of the world, the causality's role is to reveal similarities that will finally explain how the cause brings its effect (Watkins, 2005). At this moment, probably several constructivists would disagree, insisting that all knowledge is linked to our understandings, personal experiences and is subjective because it is an individual mind construct.

We will answer this by quoting Hume, which was one of the skeptics about causality, which said that even so, “causality is absolutely necessary as a condition of the very possibility of experience” (Hume, as cited in Watkins, 2005: 4). Namely, causality is necessary because “it makes possible knowledge of objective succession as something distinct from the merely subjective flow of our representation in consciousness” (Watkins, 2005: 4).

So, we must continue to follow the principle of causality, which will not only describe but also explain phenomena, processes, or objects in the world. Without explanation and cause-effect relations, we would not be able to identify, classify and distinct the experiences we are going through. Our mind constructions retain a cause that generated a specific experience. For example, the basic human instincts are also based on cause-effect relations: because we experienced the burn, now we know not to touch the fire; we stung ourselves with the needle and learned to use it carefully, and so on.

Therefore, even to understand the individual mind constructs, the causality must be considered as the first principle of research. The second principle of positivism we want to sustain comes together with the causality: the universal laws.

The universal laws in the positivist approach are based on the repetitiveness of phenomena or processes: things fall because of the gravity or they keep moving after being pushed because of inertia, and so on.

So, in positivism, each phenomenon or process can be attributed to a general law, which will describe the final result, the properties of the object and the cause-effect relation.

Sociology, which from a positivist perspective was resumed to statistics, was one of the sciences to criticize the general law principle, and so did the psychology. Maybe it was from the difficulty of approaching such different social phenomena and processes through fixed laws, which implied a total diminution of the individual role in the development and construction of society. Or from the insufficient scientific knowledge we had and still have about the human brain that could help us to identify patterns of behavior: the brain chemical processes could reveal similar reactions, tendencies and desires; the neural processes could provide explanations about social distancing, psychological problems and habitual human decisions (their formation, the processes behind them).

Even though sociology finds it hard to apply the general laws while studying society, we believe that to some extent, they could explain the mass social processes and phenomena through natural science, physics, or other sciences considering the new scientific discoveries. For example, a similar brain reaction of multiple humans to the same impulse would cause body reactions, which we perceive as riots, revolutions, socialization, etc. Considering that the human movement is subject to some general laws, we could elaborate a clear objective study on society.

Unfortunately, the lack of scientific knowledge does not allow us to do this. Nevertheless, this does not mean that general laws are not valid. We believe that as long as science is in permanent development, the general principle laws in research must be considered valid until the opposite will be proven.

Modern science has opened large doors to the positivism. The new ways of seeing the matter particles changed the way we see human beings. Meaning, if a particle is not built in one piece but is a cloud of smaller pieces and if “a ball is a ball cloud” (Gao, 2008: 74)¹, then the human is a ‘human cloud,’ which is well defined in the macro world only because of the environmental factors like the fluctuations of the thermal energy.

If looking at the humans as clouds of matter that interact, the importance of the human as an individual disappears, because, at that micro-level, everything is about particle interactions, general laws that influence each other. A decision equals to a particle movement inside the brain; the human thought and mind will be nothing more than a cloud of particles that react to the external factors. Also, we must sustain the positivist idea that at the same time, the human is separated from reality. This separation is made by its internal processes like homeostasis, which keep the human body intact from the environmental factors.

So, from this perspective, the human as an individual has no role to play, because the processes that make the whole ‘human cloud’ to move and exist, are causal and caused by the interaction between the smallest particles that generate movement that at a macro-level we call: talking, thinking, walking, looking, reacting and all other things the human bodies do.

Therefore, the human role can be reduced and the social processes can be studied from a general perspective.

Returning to science, we continue to believe that science development is slow compared to the speed the humans are asking questions, even though it provided new ways of seeing everything around us. In the XIX century, the positivists presented this way of thinking and studying because of the need for general and objective truths. The society cannot live without knowing at least several objective things about the world it lives in and about itself. So, science was the way to find objective things about the reality on which people relied.

¹ For more on the perception of the matter particles of which our world is built up, see Gao. S., 2008. *God does play dice with the Universe*. United Kingdom, Arima Publishing.

Following scientific development, we found a new general law we may consider while studying the world: the law of existence.

The 'double-slit experiment' raised many questions about the properties of the matter. It was reproduced with many microscopic particles: photons, neutrons, electrons, atoms, and even molecules (Gao, 2008: 18). What was found brought us to the conclusion that the way they behave at a micro-level is attributed to the existence principle. This means that if the object's properties like "mass, charge or length" (Keinanen, 2015: 157) are given by the interaction with other objects, when the object is in a separated environment, where it cannot interact with anything, it should disappear. Contrary to appearances, the objects will not disappear, why? Because of its internal environment. At the micro-level, the scientists have found that the particles are particle clouds that behave like a wave and move in permanence for its own existence. This is the reason the scientists, apart from Einstein, sustain that "God does play dice for subatomic particle movement to make the world exist" (Gao, 2008: 100).

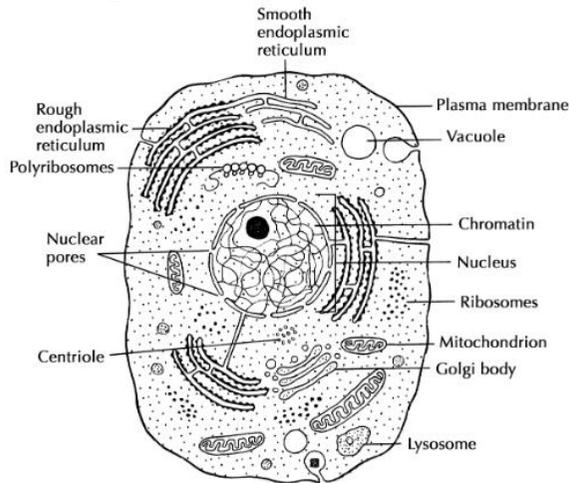
This law can be applied to the macro world as well, meaning that every change, phenomena, social process, and others, will have at the basis the reason for existence.

Given the positivism principles and the new general law we highlighted, we believe that at least sociology should be able to apply the whole positivist approach, not only its research methods.

4. Existence and causality - a biological approach

Let us begin by presenting the animal cell, which is the smallest form of life. It has an intricate structure (see figure 1) where each one of its components is doing a specific activity: 1) the nucleus is responsible for cell's growth and reproduction because it contains the DNA material (as a recipe for further cell production); 2) the mitochondria is responsible of transforming the energy into cell usable fuel; 3) the endoplasmic reticulum together with the ribosomes produces membranes, proteins, hormones, lipids and carbohydrates; 4) Golgi complex is producing, carrying and storing some cellular products specially those produced by the endoplasmic reticulum; 5) peroxisomes contain enzymes and are responsible for detoxifying, decomposing the fats, producing acids; 6) vacuoles store nutrients, detoxify, transport the cellular waste; 7) centrioles are essential in cell division; 8) lysosomes contain enzymes and are responsible with breaking different molecules that enter the cell and participate in other processes like repairing the membrane plasma, energy metabolism, etc. (Davidson, 2015).

Figure no. 1: Animal cell structure

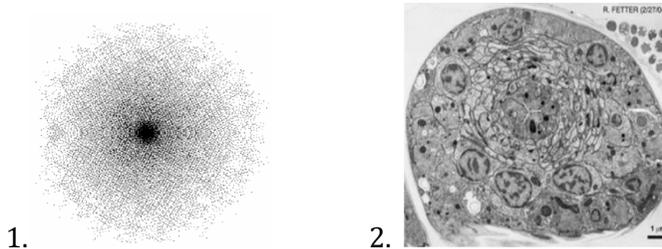


Source: Syavula, 2020. Cell structure and function. Figure 2.9: Diagram of the cell ultrastructure of an animal cell.

Cell structure, even though complicated, ensures its perfect functionality, meaning all its components are engaged in a process of 1) absorption of oxygen, minerals and sugar; 2) processing the absorbed nutrients and transforming them into necessary substances to feed the cell; 3) eliminating the waste in the blood cells (Wolpert, 2009). So everything a cell does, it does it to stay alive. If it stopped doing at least one thing, it would die.

We can see that even if we exceed the subatomic level, the smallest structures that define our formation behave the same as Gao's cloud particle (see figure 2). There is nothing intelligent in their structure to make them decide to do so; they just do it to exist.

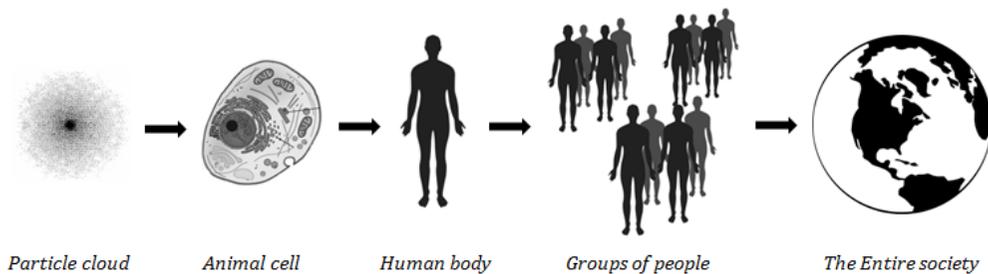
Figure no. 2: A parallel between cloud particle and animal cell activity for existence



Source: 1. Gao, 2008. God does play dice with the universe. Figure 5.1. A particle cloud. and 2. Syavula, 2020. Cell structure and function. Figure 2.9: Diagram of the cell ultrastructure of an animal cell.

From the above comparison we understand the principle behind the behavior of both the cloud particle and the animal cell: the existence principle. They behave like this in order to exist, because otherwise they would no longer exist. We believe that this principle can be applied to higher levels, to explain human beings' actions, society decisions, organizations formation, activities, etc. (see figure 3). Our idea started from the smallest particles, but we believe that it can be expanded to the macro level to explain multiple processes, natural and social phenomena.

Figure no. 3: The applicability of the existence principle in sociology



Source: Author's figure

5. New research directions

World War Two has changed a lot the society we live in. Everything started with the common need to overcome the war crises. This needs encouraged constructions of international structures (EEC, ECSC, EAEC or Euratom, EFTA, CSI, and others) that soon started to cooperate for common economic development.

Thus, the countries that several years ago fought to defend their borders, now cooperate and eliminate borders. The most special and unique example we can give is that of the EU, which was formed from the initial European organizations: EEC, ECSC and EAEC. These organizations have helped a fast economic recovery of the European countries after the War, which encouraged them to form a single organization to manage the directions and affairs of the previous three.

Have we ever seen, in history, France working so closely with Germany? So we are asking ourselves, what is the reason that made these countries change that much? The organization evolved from economic interests to common policies, to intervene at the national level, then it enlarged, after that the goods, services, capital, and labor became internal freedoms, the Organization formulated policies, rules, ideas and values and spread them for incorporation at the national level. So, after 50 years, Europe seems nothing like before the war.

Several years ago, the EU policies, standard qualities, values, and ideas were spread and found even over its borders in China, Russia, Ukraine, and other states (Gilbert and Rubinfeld, 2011; De Flers and Muller, 2010). We observe that the states all over the World collaborate for common development, sharing experiences, technologies, and new findings. Recently the cooperation has touched another level. The global problems raised the question of global unity. Namely, the SARS-COV-2 virus that appeared in China and spread all over the World mobilized all the countries in a common search for a vaccine, common efforts to overcome the economic difficulties, sharing the medical materials and knowledge, and so on.

Almost at the same time in the world was triggered a reaction of solidarity for a clean environment. So, how this happened?

In 1945 the USA bombed Hiroshima and Nagasaki, destroying a lot of Japanese environments. In 1940 Italy joined the Germany cause in World War Two and fought against many European countries. Between 1940 and 1944, France was under the German occupation. Now, 70-75 years later Germany is one of the greatest contributors to the EU's budget (Gaudiaut, 2019), which is mostly given to change and develop the eastern European countries¹, then at the helm of Europe is the "Franco-German Couple" (Gavrilov, 2017) and so on².

To answer how these changes happened, we would like to suggest the positivist approach, where we would explain them by highlighting cause-effect relations, general laws, and the existence principle.

Referring to the existence principle, we will argue that all these changes we observe in the world are linked to the need of existence.

The initial cooperation in Europe after the War was necessary to overcome the hunger that threatened the existence of the human race. Then the international cooperations were encouraged by the need for development (as the humans understood that they are all a part of the same system and that for their existence they must cooperate and share their knowledge and sometimes means and goods). After that, the transnational companies appeared, where companies from other countries founded offices in different countries and offered jobs to the local citizens. A symbiotic relationship developed between states, companies and citizens. The companies work contributed to human existence. Their need of employees for existence and

¹ According to the European Commission, in 2017 the beneficiaries of the EU budget were: Poland, Romania, Greece, Hungary, Czech Republic, Slovakia and Bulgaria. Spain and Portugal also benefited. For more details, see: European Commission, 2017. EU budget 2017. Available at:

op.europa.eu/en/publication-detail/-/publication/c48c1c91-cdc8-11e8-9424-01aa75ed71a1/language-en/format-PDF

². For more details, see European Commission, 2020. Coronavirus: European Solidarity in action. Available at:

https://ec.europa.eu/info/live-work-travel-eu/health/coronavirus-response/coronavirus-european-solidarity-action_en

growth coped perfectly with the citizens needed of jobs for their existenc, the state's existence depends on the companies economic contribution, and so on.

One of the best examples that explain global unity is the ongoing pandemic situation. The virus that weakened all the world states represents, in the first place, a threat to the existence of the human race. The number of deaths from this virus on 22 April 2020 touched 176 786 deaths (ECDC, 2020)- a death rate of 7%, and that with regulations and control by the governments. At this moment, the European countries developed the highest level of solidarity we have ever seen: the Austrian hospitals treat patients from France; the Italian and French citizens are treated in Germany; Luxembourg treats France patients too; the Czech Republic sent 10 000 protective suits to Italy and other 10 000 to Spain; France donated 20 000 protective suits and 1million masks to Italy; Poland and Romania sent doctors to Italy; Germany gave 300 ventilators to Italy; Ireland, Spain, Italy and Latvia repatriated citizens from other EU countries during the crisis; Latvia gave 478 500 masks, and 307 800 respiratory apparatus to Estonia, and 60 000 masks to Lithuania; Hungary delivered over 1 520 000 masks in Italy and the Eastern Europe, etc.

All these changes of countries behavior and the global unity during the pandemic state are due to the fact that the virus is threatening our existence. Thus, as long as we are part of the same domino system, we must cooperate for our existence. We are interconnected as in an ecosystem, where each member has its role in ensuring stability and mutual existence.

We suggest these themes to be taken further in much deeper research for a better understanding of the complexity of the ongoing processes, their cause-effect relations, and their results.

6. Conclusions

The XIX century has been quite glorious for the positivism. The right times, when science has evolved with no precedent, encouraged the construction of the positivist approach, where the world was seen through the scientific lenses. Unfortunately, soon enough, the positivist place was taken over by other approaches that kept up with human curiosity and problems.

The wars the world has passed through and the multiple economic crises have not encouraged the scientific development and therefore the very basis of the positivism was weakened.

Once the peace was restored, at the end of the XX century, the humans managed to fortify strong bases of technology that encouraged the further development of science. This technology allowed the humans to make fast operations, retain enormous quantities of information and therefore to accomplish scientific studies easier. Still, the years that science has lost during the two World Wars and the financial crises that followed, have left their mark on the development of science- the reason why science must catch up so much.

Despite the scientific findings, since 1880, when the positivism bases were laid down, the positivism was not reinforced in its basic form. The Vienna Circle developed a "narrow positivism" (Smith, 1996: 8), which has reduced the use of positivism only to statistics in both sociology and education.

After understanding the weaknesses of positivism, we turned to the discoveries in physics, of which Comte was also impressed in his time. The recent discoveries highlighted a serious debate on causality in physics and metaphysics. As a result of these discoveries, the causality was sustained again as a basic research mechanism that has the ability to explain and create fixed knowledge based on the repetitiveness of processes or phenomena. Then, starting from the same findings that questioned and sustained causality, we highlighted the importance of the general laws in characterizing and understanding the phenomena, processes, or object's characteristics.

Finally, inspired by the new discoveries, we identified a new general law that we align with other laws used by positivism in research- the general law of existence. The discoveries of new properties of matter at the subatomic level inspired us to transform it into a general principle of analysis of the world we live in. As gravity influences the smallest and the greatest objects or galaxies in the Universe and as inertia characterizes the Universe expansion and the small objects movement, the need of existence explains the random movement of the subatomic particles, the decisions we make day by day, the permanent transformation of our social system and the movements and processes of the whole universe. This would mean that the bad and the good things must happen so we could achieve that harmony of the combined yin and yang.

This being said, positivism has had a period of decline, but given its strong bound with science and the fast technological development, from now on, we can only expect the growth of its importance in research.

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