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**The Case of Cultural Schizophrenia:**

**Alleged Tampering with DNA Codes via Covid-19 Vaccines**

**Abstract**

The covid pandemic, which started in December 2019, was announced with a delay of 2 months in many developing countries. With the announcement of the first cases in Turkey in March 2020, it was clear that a precise different situation would be experienced both in the socioeconomic and medical fields. It took time for the World Health Organization to decide whether Covid-19 was a pandemic or an endemic. While all this was going on, the first problem faced by the public was the contradictory statements made by politicians about what happened. However, the issue that everyone discussed the most was the immune system and the biopolitics of politicians regarding the covid -19 vaccine. Public understanding of science has led governments to be unable to eliminate covid-related manipulations during covid's evolution from endemic to pandemic. After a while, governments tried to cover up the lack of vaccination by using these manipulations by the media. This whole process was built on the biopolitics of immunization and eventually led to the strengthening of public opposition to vaccines. This article presents how the government's science communication strategy in Turkey has developed a collective resistance to vaccines through a case study. In addition, the article aims to show the underlying reasons for the anti-vaccination opposition that has been experienced in Turkey in the last two years and has grown stronger over time.

**Keywords:** Biopolitics, Vaccine Resistance, Disinformation, Reproductivity, Turkey

**Introduction**

The Global Pharmaceutical Industry (PHI) system and its created world drug market consider valuable knowledge produced by constructing the related facts through science and technology applications. The established pharmacy system expects ordinary people to take steps outside their emotional world. This situation has recently become an inextricable cycle for Science, Technology, and Society studies. While I titled this case study "The Case of Cultural Schizophrenia: Alleged Tampering with DNA Codes via Covid-19 Vaccines", my first focus is to show the point where the social construction of technology stumbles in Turkey. The second is to show that the case actors cannot spread beyond the network's sphere of influence. The development of anti-vaccine sentiment as a Cultural Schizophrenia in Turkey has been the core starting point of this article (Jablensky, A., & Sartorius, N. 1975).

In the analytical part, the actors covered in this case study will be vaccine developers, scientists and corporations, states and governments, and public and relevant social groups. In a network of many actors, agencies, and appropriate social groups, the process of transforming the vaccine into a commodity as a bio-technical invention is disinformed in various ways. Political interests and corporation advantages are discussed in this process, not truth or untruth. Therefore, the actors' transformations are related to how much the network is connected to the global scale and profit groups rather than the area they are involved in.

In the beginning, also I need to explain the types of information in this context; there are three types of data; both conventional and traditional media, which is calling as mainstream, and social media tools such as Instagram, Facebook, LinkedIn, and Twitter or other social platforms, interactions, and alternatives media channels. Also, I cannot say this news is “fake” or “untruth” in this case analysis. I stated that they have functions and missions for actors, agents, and relevant social groups in a set of actors. Likewise, the case analysis will show the expression of the corporation-based approach. In the context of Turkey, I need to accept that those media tools work collaboratively in the pandemic case. Therefore, all these media tools have been in the same networks to produce disinformation related to the covid-19 vaccine in Turkey.

Misinformation could be seen as a piece of false information, but it cannot cause harm, for example, an article containing outdated information but not realizing that. Disinformation is false and intentionally created to damage a person, a society, relevant group, organization, or country. For example, a competitor purposely posts incorrect information about your organization to discredit you or your organization. Mal information is based on reality, used to inflict damage on a person, relevant social group, organization, or country; for example, someone using a picture of a dead child refugee (Alan Kurdi case) to ignite hatred of a particular ethnic group they are against. In this case, I focus on disinformation about vaccine development and resistance to vaccination and its causes (Persily, Nathaniel, and Joshua A. Tucker, eds. 2020).

**Vaccine Policy Analysis**

The first phase of the case analysis will start with the problematization of vaccine disinformation in Turkey. Suppose I problematize the country's vaccine policy as a process progression system. In that case, I have to say that the government does not have enough time to carry out the vaccination schedule when the actors realize the seriousness of vaccination. This fact is the most critical effect of the disinformation system. The vaccine's becoming a market commodity at some point led to it being seen as an element of consumption in the fastest diffusion term of the virus in mid-2020. Thus, it was impossible for a society whose injured consciousness could not be affected by disinformation (Callon, 1986).

I argue the vaccine case by explaining the human mind's social reflection in this context. I will emphasize the reflexivity of the mind in the digital era. The prominent philosopher Daryush Shayegan discusses the peripherical conditions in social life. He argues that in his book like this,

*"We peripherical people live in a time of contradictions between different blocks of knowledge. We have fallen into a rift between incompatible worlds that repel each other and mutually disfigure each other. Taken with mind-opening and resentment, this two-sidedness may enrich us, improve our records of knowledge, and broaden the spectrum of sensitivity; however, when excluded from the critical field of knowledge, the same bias causes pause, maiming the gaze, and disfiguring world reality and spiritual images, just like a broken mirror".* (Shayegan, 1997).

Unfortunately, in a world where scientific knowledge production and communication are technologically constructed, it is undeniable that the human body is considered an “ordinary object” apart from its freedom and emotions and is considered outside of science. The main reason for this crisis of trust is the manipulation of collective memory with the social changes that have taken place in the last forty years and the establishment of unreliability in science as a social code. The collective memory, which was rapidly divided into fractions due to the evolution of scientific knowledge communication after the 1980s, revealed its fragile structure in the first socio-global crisis, such as the Covid-19 pandemic. Therefore, I started with a quote from Daryush Shayegan, who argues about the fragility of memory and the blocks of knowledge.

**Interessement Phase**

Before the STS studies, Habermas argued that the public sphere is seen as a domain of social life where public opinion can be formed (Habermas, 1991). Although the social world inhabited is seen as the last step of a process in which people's choices are created in the public sphere, everything should be considered just the beginning. In this pandemic, people showed the limits of humanity and the imagination of constructed reality and confirmed the disinformation of unreality. Therefore, the argumentation of Habermas becomes irrelevant to the core problem of people’s vaccination in this case. Thus, the interessement phase starts with problematization occurs (Callon, 1986). The most critical part is the scientific studies related to newly developed vaccines and their acceptance by the public. This process means the drug market is the venue for correlations between relevant social groups and other antagonists such as corporations and governments.

According to Nguyen, "An informational network from which relevant voices have been excluded by omission" (Nguyen, 2020). Turkish citizens encountered much unrealistic news during the pandemic period in which they had been faced with various levels of restrictions since March 2020. The underlying reason for all that news; There has been "unreal" news that many media outlets posted on social media to get more attention from people staying at home during the lockdown. All those companies would like to raise their attention rate in daily use.

These movements degenerated people's trust in scientific studies and prevented the vaccine campaign from moving smoothly. For example, many older people in Turkey started to deny the vaccine process even though they have the priority right to access the vaccine. Therefore, I have to say those conspiracy theories have found so much particular space in people's minds even though these people have qualifications and education. However, technology companies have eliminated this disinformation process created by the system itself by developing many new regulations. For example, Twitter has developed a system marking many discourses related to covid-19. As part of these measures, former U.S. president Trump has often been pointed out for his tweets. Facebook also has developed the covid-19 page and rules and introduced the warning mechanism for everything shared on social media. The company started to delete several pages created by the anti-vaccine lobbies worldwide.

**Enrollment Phase**

The vaccine and DNA relations occur on the scene in the enrollment phase. Still, there is a global strategy behind these headlines in international journals and social media platforms. Their works and shares on those platforms explicitly demonstrate the connection between vaccine development and disinformation to create interactions for media outlets. Since the Covid vaccine was developed based on mRNA, manipulating the collective memory could only be achieved with more specific elements related to the human body. Therefore, the media argued that Alleged Tampering with DNA Codes via Covid-19 Vaccines created a severe perception trend in collective memory and unexpectedly increased the number of interactions in the media. Almost all such news came from press newspapers outside of Turkey. In general, this type of news is shaped by disseminating non-scientific information about the molecular contents of vaccines and causes the formation of stereotypes that become extremely difficult to change in collective memory. As a participant-observer, I noticed the same situation during the pandemic term in Turkey. Mainstream media outlets and platforms were adapting themselves for the surviving mode. This approach created the spontaneous circulation of DNA disinformation in social media tools. The aim of the surviving mode condition is related to their attention rate and artificially created personal data. Courtesy of this trafficking, the mainstream media became a data collector in a couple of days. Thus, I can say that all the processes aimed to realize the marketing strategies of these media platforms. Also, this strategy is supported by the global pharmaceutical industry.

**Mobilization Phase**

The mobilization phase occurs; at this point, society continues to operate through the various control devices that the system itself has produced within the existing media order. In this case, there are two prominent factors here called “Epistemic Bubbles” and “Echo Chambers” (Nguyen, 2020). Also, I agree with the positions and missions of these elements in the vaccine disinformation networks. Looking at those concepts, an "Echo Chamber" is a social structure from which other relevant voices have been actively discredited. An epistemic bubble merely omits contrary views, and an echo chamber actively brings its members to distrust outsiders (Nguyen, 2016). Other voices are not heard; other agents are actively undermined in echo chambers. Therefore, the vaccine exploration term will actively use these concepts to keep fresh the vaccine market. I mentioned before; that these concepts were directly related to mainstream media's surviving position during the pandemic. Therefore, this condition is directly related to Labor Economics because the capitalist conjuncture proposes controlling the financial instruments on the imbalanced market conditions. From an economic meta-perspective, the vaccine should also be seen as an international drug commodity courtesy of the pandemic. When the world pharmaceutical industry system created the optimum order numbers, the vaccine became ready for disinformation and social media interactions. One of the mediums for disinformation was Alleged Tampering with DNA Codes via Covid-19 Vaccines. It is still a marketing strategy for the newly developed mRNA vaccine. The pandemic conditions in many countries created their labor economics in the international commodity context. Therefore, the vaccine has to be taken interactions and open to disinformative tools to develop its resisting societies. Generally, this dichotomy is a critical tool for creating a survival model for vaccine trades. The vaccine developers cannot profit from a new drug without the interactions. However, not forget that the business is not a free market because the governments have already agreements to control these Echo Chambers (Nguyen, 2020).

**Social Reaction to Vaccination**

Up to now, I have shown the actors who have taken their positions on vaccine development and the marketing process. At the moment, I need to analyze these positions to understand why societies react to vaccination. Therefore, I am using the Actor-Network Theory to emphasize and replace those actors practically.

Consequently, it is the main aim of Actor-Network Theory for scientists to identify objects, machines, people, and their interests within and through those networks with such applications (Latour, 1986). Elements within those networks, both human and material, are defined by each component within the network in its own space. At this point, each actor becomes an "actant." Semiologically, "actant" would be seen as any subject or object that will be a component of power, nonetheless of its form, essence, and kind. Per actant used in scientific knowledge, production will be associated with another actant (Latour, 1986). Hence, it is assured that scientific knowledge is incorporated with the justification process and the knowledge produced before it.

In this case, scientific knowledge related to the mRNA vaccine can be deciphered through the relationship of an actant of ANT with another actant in the same network. Over, when ANT is taken from this point of view, the network's dimension increases the power. The more allies are included and associated in a network, the harder it is for others seen as opponents to decipher the actors within that network. Thus, no matter what claim or purpose is in question, the realization of the proving processes may become impossible. In this case, humans and society extended their correlations with the drug dealers even though those dealers agree with the governments. Thus, decentralized power becomes only an actor without a binding effect on society. This experimental process caused delays in vaccine production and market developments.

The actor-network theory explains how material-semiotic networks come together to act as a whole; the clusters of actors involved in creating meaning are both material and semiotic (Web-3). According to this phrase, the vaccine must be seen as a material with “surviving” objects and their importance in society. The purpose is directly related to its semiotics also mythical roots. I need to ask why the vaccine is connected to the past when the pandemic started. ANT offers a socio-technical assemblage to analyze the vaccine exploration period with all components, such as mass production and controllable selling. In this case, the vaccine must create a transforming economy because the pharmaceutical industry spends billions of dollars and must be returned to these corporates. In this case, do not forget that Professor Ugur Sahin also denied sharing the patent and formulation of the covid-19 vaccine and never joined these groups even though The U.S. President demanded from him.

According to medical scientists, the vaccine is a critical exploration for the future of humanity because people must survive, and social life and directly capitalist economic contingencies continue. However, in the critical perspective, to disapprove of the process, all vital things on the desks create manipulative components to keep their survival. The covid vaccine realized the same evolution process during the exploration period. In this context, the political system has already distributed roles to all actors, agents, medical and commercial chambers, pharma or drug giants, and relevant social groups and societies. Therefore, the disinformation-based content impressively shows its maneuverability to the vaccine deniers. This period should be accepted as a core for vaccine marketing from ANT's perspective.

Another critical issue is the dynamic nature of this pandemic process. Since this structure is not heading towards closing yet, the political order assigns different roles to the actors with new orders. Renewing or completely changing these roles over time helps ensure the vaccine's continuity, keeping the disinformation on the vaccination alive. In Turkey, citizens see the same process and are aware of the vaccine's active policy. For example, the local governor's office started calling people who refused to get the vaccine during the pandemic period in Turkey. That should be seen as another provocative marketing tool for vaccine deniers by the local authorities.

On the other hand, this policy application requires opening all commercial units in the daily economy. In this case, the government used all elements related to vaccine promotion to cover economic conditions, but they perceived these elements as state apparatuses. Therefore, these apparatuses became actants in the government’s hand.

Society has skills and know-how that feed technology because society depends on the continuity and reconstruction of its traditions and criticism. These traditions guide us to understand the place of humans in community and the world (Habermas, 2012). It could be seen as parallel with the STS studies from technology's perspective of knowledge production. However, the vaccine is not only a scientific product but also a commodity to gain advantages for a country under global competitive conjunctures. People in Turkey have lost themselves when exposed to such intense media attacks in daily life (Lefebvre, 2014). I can say that all governments have taken joint steps in implementing this vaccine system in cooperation has caused a crisis of trust for their citizens. These reports degenerated people's trust in scientific studies and prevented the vaccine campaign from moving smoothly. For example, many older people in Turkey started to deny the vaccine process even though they have the priority right to access the vaccine. Therefore, I have to say those conspiracy theories -directly actors and agents- have found much space in people's minds even though these people have qualifications and education. However, technology companies have eliminated this disinformation process created by the political system by developing many new regulations.

The distance between actors such as vaccine developers, scientists and companies, states and their governments, and the public and related social groups have caused blockages in the network that makes up the system in various ways. This situation has created the actant processes of the actors and created favorable conditions for disinformation that progresses uncontrollably. The desire to develop impartiality among actors has unexpectedly led to the actant of out-of-control actors. Therefore, the disinformation that started to bloom during the vaccine development process led to the interruption of the vaccination process after the vaccine was developed and the failure of vaccination due to the resistance generated by the public. The network formed by all these different actors could not regenerate itself, remained a government apparatus, and caused the ineffectiveness of independent groups, which should have been the system's main strength (Latour, 1986).

**Conclusion**

As a result, both the social construction of technology and the actant processes of the actors were trying to be controlled, resulting in unexpected consequences. After Turkey's first lockdown, Turkish citizens still consider getting the vaccine for older people. Many reports argue that the disinformation system in Turkey has been connected to personal relations. However, those people are still trying to produce new disinformation news about the vaccine.

In the Vaccine Policy Analysis section, when the actors understood the seriousness of the vaccine, the government did not have enough time to implement the vaccine schedule; therefore, frequent communication with the public could not be established. In the interessement phase, scientific studies on newly developed vaccines and how the public perceives this process are emphasized. In this process, cooperation between pharmaceutical companies and governments has come to the fore. Since the Covid vaccine was developed based on mRNA, manipulating the collective memory was only possible with more specific elements related to the human body in the enrollment phase. Therefore, the media created the system's manipulation devices, arguing that the Allegation of Changes in DNA Codes through covid-19 Vaccines would create a severe perception trend in the collective memory and unexpectedly increase the number of interactions in the media. In the mobilization stage, society has been forced to relate to various control device systems produced by the system within the current media order. That's why he meets two structures called "Epistemic Bubbles" and "Echo Chambers." Finally, the development of the community's resistance to vaccination and vaccines was analyzed. This process has been built on the interrelationships of all previously discussed processes. All the actors here tried to underline their place in the communication setup with the desire to be active. They continued to manipulate the system through the benefits these positions provided them.

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