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THE INCREASING SURGE IN VACCINE HESITANCY AS A PARADIGM REFLECTING THE DECAYING RELATIONSHIP OF TRUST BETWEEN CITIZENS AND ÉLITES

Prof. Nereo Zamaro

Supervisor

Matr. 086922

Sara Corsello

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Preface

This dissertation was initiated in a time prior to the eruption of a global pandemic.
Nonetheless, I reckon that the various judgments and deductions reached as a result of my reasoning were, indeed, deeply inspired by the current and unparalleled course of events.

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Abstract

Vaccines appear to be widely deemed as one of the most significant achievements dominating the modern scientific era. Over the last three decades, increasing numbers of individuals in the Western world are refusing to vaccinate their children, and/or themselves, due to growing prejudice and perceived fears in relation to various vaccination practices.

The uniqueness at the basis of the aforementioned procedures is particularly striking.

More specifically, perceptions towards vaccinations involve a de facto obligatory requirement for which individuals ought to receive the injection of a medicine or a medicinal agent into their bodies, ultimately fomenting a vigorous trend of opposition against vaccines.

Having discussed this, a complex issue is bound to arise. Indeed, one may debate around the actions that the mainstream health professionals ought to adopt for the purpose of combating the growing sense of distrust surrounding the medical sphere and vaccines, in particular.

From this realization, the urgency to locate the main elements, causes and factors underpinning the emergence, and consequent evolution of the aforementioned surge in vaccine opposition is utterly comprehensible.

This dissertation will deepen on the aforementioned matters, arguing the presence of a strong link existing between the advent and diffusion of populistic feels and the emergence of the so-called “anti-vax movements”. The discussion will be shifted towards evaluations and reviews concerning the origins of the anti-vaccination phenomenon, as well as investigating the alleged reasons at the basis of the movement’s development and relative diffusion. Ultimately, an analysis regarding the repercussions in terms of public health and safety will be provided.

Introduction

It is generally agreed that vaccines are "one of the most efficient measures of preventative medicine, assuring protection from diseases and infections at the popular level" (Larson, Cooper, Eskola, Katz, & Ratzan, 2011). However, manifestations of anti-vaccination sentiments are dangerously rising among the public (Dunham, 2008). "Vaccine hesitancy" (Dubé, et al., 2013) can also be attributed to the negative uptake, which news and entertainment outlets tend to present in relation to vaccination, by further emphasizing the surrounding belief that vaccines are prone to cause higher risks than benefits to the health of those who receive them (Davies, Chapman, & Leask, 2002).

Moreover, the recent decline in vaccination seems to be associated with personal reasons, namely religious and/or philosophical convictions (Hussan, Ali, Ahmed, & Hussain, 2018).

In light of this, one may aver that the anti-vaccination phenomenon, whichever the causes may be, is significantly responsible for reversing decades of scientific progress, by heavily compromising the ultimate success of vaccine practices (Hussan, Ali, Ahmed, & Hussain, 2018).

Namely, a significant reduction in the numbers of pro-vaccines individuals has inevitably led to a consequent deterioration of the immunizations rates (Reilly, 2018).

Civil societies are enlarging their connections worldwide, and the easiness through which contacts are established between various communities at the global level is prominent.

This precarious situation does not assure safety and control; hence, political as well as social intervention is urged. Indeed, a lack of immunization translates to a higher probability of the transmission of pathogens, eventually resulting into the creation, strengthening and consequent diffusion of deadly viruses across nations and continents.

From these conjectures, the kind of question one may spontaneously ask oneself reflects the need to search for an ultimate cause, a plausible and presumable source existing at the very basis of this "epidemic of distrust" (Lalumera, 2018).

In this vein, I intend to argue that attitudes of distrust against vaccination are a mere reflection, a direct manifestation of the social and political status, which characterizes modernity (Davies W. , 2018). Indeed, my main thesis will revolve around the alleged associational nature between the drop in vaccinations and the relative (and, perhaps, consequent) affirmation of radicalized populist ideals.

Is there a link between the aforementioned phenomena? If yes, how could we verify our main argument?

This dissertation will investigate on the aforesaid matters by relying on secondary research and data sources, further deepening on the hypothesized associational factors that may help define a clearer framework of our current political and social condition.

Considering the above-mentioned reckoning, let us carry out a systematic and formal inquiry concerning the various sociopolitical features to assess attitudes regarding vaccinations.

Particularly, I intend to focus on how politically driven factors can affect individual decision-making on vaccination.

Firstly, it has been empirically verified that individual decision-making processes (in relation to vaccinations, and not only) are strongly affected by the frame of ideas and convictions which appear to be embedded within the social circle of interest (Merton, 1968).

Hence, echoing the "Theory of Reference Groups" by Merton, one may aver that the sort of risk perception, and relative understandings of the latter, demonstrates that the individual cognition of a given threat is easily overridden by the far stronger social ideologies dominating the reference groups in question, through which the corresponding members will evaluate and assess their own actions and performances.

Reference groups, thus, are prone to become the *individual's frame of reference and source for ordering his or her experiences, perceptions, cognition, and ideas of self* (Merton, 1968).

This perspective thereby explains why feelings of mistrust are apt to emerge in some, but not all, social contexts, where shared views of distrust may present themselves as proportionally more, or less strong. Apparently, this differential is further strengthened in particular contexts and between homogeneous groups, in which the positions of the latter are confirmed in a seemingly apodictic fashion (Coser, 1974).

In light of the above stated considerations, let us now proceed our analysis by briefly presenting the various methods through which our hypotheses will be put under examination.

Methods

My inquiry begins with a specific idea "about the way things are" (Babbie, 2010).

Imagining a diagram depicting the corresponding research project, my initial interest and supposition shall be viewed as "uncertain" for the time being, resembling a sort of question mark seeking clarification. The existing interest, as E. Babbie (2010) puts it, may lead to the formulation of an idea, which may be adjusted into a larger theory whose veracity shall be provided through some form of evidence. In this particular case, I will largely rely on empirical evidence provided by a variety of periodicals, websites, Facebook posts, and research studies at large.

In order to test our hypotheses we will refer to Weber's methodological project, the latter being designed to "merge" both the cultural and social sciences (Mehrgani, 2007).

More in detail, I intend to carry out my analysis by constructing a reasoning which stems from an analytical approach. Namely, the underlying idea focuses on the intention to gain further awareness concerning the *characteristic uniqueness* (Weber, 1947) of the reality in which we move, as to provide the formulation of a more detailed scrutiny regarding the Weberian "ideal types"- *conceptual models composed of the essential characteristics of social phenomena* (Babbie, 2010) - depicting, on the one hand, the anti-vaccination discourse, and the populist spirit on the other.

Primarily, each phenomenon will be defined in a separate fashion, as a result of a thorough investigation that will aim at identifying and interpreting individual events, peculiar traits and manifestations of the latter.

Henceforth, a detailed *interpretative understanding* of the populist reasoning, as well as the anti-vaccination meaning, will be delivered throughout the dissertation.

Drawing on our initial considerations, we will eventually reach our "final destination".

Namely, we will attempt to provide a detailed explanation, by demonstrating what conditions combined have been necessary to bring about the emergence of the phenomena under analysis, and shedding light on the alleged existence of an association between the "methodology of conduct" underpinning the aforesaid subjects of analysis – both phenomena being examined respectively in Chapters n°1 and n°2. In support of this assumption, an empirical example - inspired from the Italian sociopolitical situation - will be provided (see Chapter n°6).

From a mere practical account, I intend to translate the initial judgments with regard to the descriptive framework of the two identities under examination, into a single "ideal type" whose characteristic uniqueness may resemble a rigorous, and in turn reliable, methodological conduct, which may be identified in both the populist and the anti-vaccination scenarios (see Chapters n°3 and n°4).

Thus, by adhering to an analytical terminology, our understanding comes from the "thought ordering" of empirical reality. Specifically, in Weber's phraseology, what ought to be understood is a result of a "two-steps procedure": firstly, the direct and immediate realization of the intended, objective and apparent meaning of identities occurs (see Chapters n°1, 2 and 3).

Successively, the explanatory understanding may take place, for the purpose of further investigating the shared peculiarities and subjectiveness surrounding attitudes and behaviors, which supposedly lie at the heart of both the phenomena under examination (see Chapters n°4 and 5) (Eliaeson, 2000).

Moreover, as Weber puts it, in order to achieve a detailed and recorded set of information concerning the subject, we ought to utilize the "ideal types" (Weber, 1949) formulated in a prior instance.

More in detail, "ideal types" are regarded as methodological tools whose function, in an analytical context of analysis, reflects the need to ensure a relative accessibility to the understanding, generalizing and objectivity characterizing the scenario under examination (Weber, 1949).

Therefore, the utilization of "ideal types"- viewed as *hypothetical constructions* formulated *to alert us to some social phenomenon and to help us to make sense of it* (Giddens & Sutton, 2017) - will allow us to consider various sequences of events, as well as the courses of conduct within which the most striking aspects will be observed through the lenses of a qualitative inquiry, for the purpose of ensuring some sort of behavioral and intellectual association between the sociopolitical groups under examination. In essence, our aim will be to identify the common traits that are shared by both segments, in the attempt to assess the veracity of our initial considerations.

In addition, the aforesaid hypotheses will be supported by empirical evidence and data gathered thanks to a collection of studies of sociological and political nature.

However, it may be reasonable to specify the factual nature typifying the dissertation in question, meaning that the output shall constitute an original analysis whose validity is ensured by an assembly of secondary sources.

Having stated this, the studies to be analyzed for the purpose of this research essentially consist in a collection of social interactions, as well as discussions presenting varying features relative to political matters and willingness to accept medical treatment, particularly vaccines.

Specifically, vaccine refusal, or acceptance, will be measured - in different instances - in accordance with the political ideology, the degree of trust towards political and health institutions (further developed in Chapter n°5) and reliance to conspiratorial attitudes, which might be manifested by the subjects concerned (see Chapters n°1 and 2). For instance, the aim of the previously mentioned gathering of data is to verify the hypothesized argument for which commitment to cospirational values and ideas, that seem to be clashing with new and progressive attempts to innovate, does affect people's

propensity to hold faith in reliable and concrete scientific progress (Abalakina-Paap, Stephan, Craig, & Gregory, 1999).

Moreover, given that we will largely deal with anti-vax movements and populist instances, it is necessary to define a priori the concept of "social agitators", mirroring- as we will further on attempt to verify - populist and anti-vaccination themes.

Echoing Lowenthal and Guterman's work "Prophets of deceit" (1949), we shall outline the peculiar traits surrounding the concept of "social agitators", which will be further proposed and incorporated within the context of this dissertation.

With regard to this category, certain recurrent motifs, unifying patterns and *constants of agitation* are conceptualized by the authors as distinguished from propagandistic slogans, since *agitational themes directly reflect the audience's predispositions* (Lowenthal & Guterman, 1949).

The agitator is not apt to approach his audience "from the outside"; rather, he emerges as if he were to appear from its midst attempting to express its innermost, concealed and deep-seated thoughts.

The primary objective at play, as Lowenthal (1949) puts it, is to arise from inside the audience, *stirring up what lies dormant there*.

Moreover, what emerges as rather interesting refers to the themes being presented in a frolicsome fashion. Indeed, the agitator's statements are, as suggested by the authors, often flippant and unserious. *It is difficult to pin him down to anything and he gives the impression that he is deliberately playacting* (Lowenthal & Guterman, 1949). By avoiding to actively commit himself to the proposed claims, he seems to be trying to leave himself a *margin of uncertainty, a possibility of retreat in case any of his improvisations fall flat* (Lowenthal & Guterman, 1949).

Acting within a gray area *between the respectable and the forbidden* (Lowenthal & Guterman, 1949), he manifests his tendency and willingness to use any rhetorical device, *from jokes to doubletalk to wild extravagances* (Lowenthal & Guterman, 1949).

This manifested lack of seriousness is, however, concerned with very serious matters of political, scientific or economic nature.

Finally, there is a sort of *unconscious complicity or collaboration* (Lowenthal & Guterman, 1949) between him and the listeners. In the aforesaid "game of seduction", the predominant element is one of a psychological nature, reflecting the *deep conscious and unconscious involvement of both parties* (Lowenthal & Guterman, 1949). According to Lowenthal and Guterman's assertations (1949), similar relationships and modes of conduct are present in the great majority of themes concerning agitation.

Differently from the "reformer" or the "revolutionary", the agitator makes *no effort to trace social dissatisfaction to a clearly definable cause* (Lowenthal & Guterman, 1949).

Indeed, objectiveness, as suggested by the authors, is promptly abandoned in favor of the *subjective feeling of dissatisfaction* paired with the personal enemy held responsible for it (Lowenthal & Guterman, 1949).

With regard to the health care sphere, a series of vaccine refusal instances will be manifested and analyzed throughout the dissertation, resembling typical modes of conduct shared by the aforesaid "social agitators" (Motta, Callaghan, & Sylvester, 2018) (Lowenthal & Guterman, 1949).

Hence, let us introduce some of the various fears, sentences and convictions at the core of anti-vaccination groups, as well as attempting to typify the common traits at the heart of vaccine hesitant individuals.

In light of the previously mentioned considerations, scholars have attempted to identify common patterns among various vaccine hesitant groups.

Since these models are often the result of individual studies, and due to the complex interplay amongst multiple social, cultural, political and personal factors in vaccine decision, it is hard to have a clear picture displaying the range of possible attitudes about vaccination (Dubé, et al., 2013).

However, the feature that is shared by these models is the tendency to perceive attitudes on vaccination as an "imaginary continuum" ranging from "active demand" for vaccines to "complete refusal" of vaccination practices per se (Dubé, et al., 2013).

From a broader perspective, vaccine hesitant individuals are a "heterogeneous group in the middle of this continuum: vaccine hesitant individuals may refuse some vaccines, but agree to others; they may delay vaccines or accept vaccines according to the recommended schedule, but be unsure in doing so" (MacDonald, 2015).

Having briefly examined the phenomenon of vaccine hesitancy, let us delve into the various determinants underpinning decision-making vaccination both at the individual and collective level.

Firstly, with regard to the very origin of anti-vaccination sentiments – thus, interpreted from an emotional, as well as a behavioral perspective - we will reason that vaccination refusal is sometimes fueled by philosophical beliefs or moral convictions concerning health and immunity, including a preference for "natural" over "artificial" medicines (Dubé, et al., 2013).

Alternatively, dissent towards vaccines has also been manifested as a result of prominent religious beliefs (see Chapter n°1).

Namely, Orthodox Protestants in the Netherlands and the Amish in the United States are testament of this religiously-driven refusal of vaccination (Streefland, 2001). As we will further explore, opposition to vaccines based on religious motives originates from the very introduction of vaccination and can be explained, at least partially, by the idea that vaccines are not congruent with religious considerations regarding the "origin of illness, the need for preventive action and the search for a

cure" (Ruijs, et al., 2012). Successively, an additional determinant of vaccine hesitancy, or refusal, lies within the sphere of media and communication.

In accordance with the claims of S. Mnookin (2011), vaccination shall be conceptualized a "source of fear and a target for misinformation" fueling misinformed propaganda, and further asserting that media have *played a role in keeping vaccination scares alive, even in face of strong evidence of the safety and effectiveness of vaccines* (Mnookin, 2011).

Furthermore, an additional motivation underpinning vaccine refusal per se, can be translated in political terms in the expectation that, perhaps, populist attitudes may be converged with the disclosure of typical anti-vaccination's thoughts - the latter being enhanced by political agents, such as MPs, and political parties at large who attempt to endorse wider consensus at the popular level. (Martin, Niall, Gough, Chambers, & Jessop, 2019).

Indeed, from studies of vaccination decision-making it emerge that *risk perception is often closely linked with ideas of trust in health professionals, in government or in public health institutions and the interplay between these actors* (Streetfland, Chowdhury, & Ramos-Jimenez, 1999).

On this matter, Brownlie and Howson (2005) submit a consistent definition of trust viewed as "a complex relational practice happening within particular sociopolitical context" (Brownlie & Howson, 2005).

Finally, in-depth analyses of focus groups' data on trust and vaccination for measles, mumps and rubella, have led to the conclusion that *trust is not only based on knowledge, but also on a 'leap of faith' that could only be possible because parents have a relationship with health professionals based on familiarity* (Brownlie & Howson, 2005) (further developed in Chapter n°5: "Excursus on trust").

Conclusively, the fact according to which populism can also display traits that appear to be emphasizing the general attitude of ambivalence, fear and skepticism towards medical innovations and change per se (see Chapter n°7), is of paramount significance for the purpose of our analysis.

Chapter 1: Origin, development and psychology of anti-vaccination propagandists

1.1 Origin and development of anti-vaccination movements

Worriment, inquietude and dramatically inaccurate claims have been brought about by vaccinations since the time of their creation and related diffusion at the public level.

Prior to analyzing vaccines related attitudes, let us define the term "vaccination" in a proper fashion, by providing a medical definition of the latter, stating as follows: vaccination is an *injection of a killed microbe performed in order to stimulate the immune system against the microbe, thereby preventing disease. Vaccinations, or immunizations, work by stimulating the immune system, the natural disease-fighting system of the body. The healthy immune system is able to recognize invading bacteria and viruses and produce substances (antibodies) to destroy or disable them* (Shiel).

Immunization thereby aims at preparing the immune system from the occurrence of an infectious disease (Shiel).

Despite being recognized as having contributed to the reduction in mortality and morbidity of various infectious diseases, including the eradication of poliomyelitis in the Americas (CDC, 1999), vaccination appears as a rather contested solution, whose reputability has been questioned in various instances and at varying degrees.

Specifically, vaccine hesitant and/or vaccine refusal individuals argue against the implementation of vaccines as a valid and reliable practice for treating illnesses and preventing contagion. These groups are better known as "anti-vaccination" movements, whose main ideas cluster around the allegiance that vaccinations *do more harm than good* (Martin, Niall, Gough, Chambers, & Jessop, 2019). The typical reckoning of anti-vaccine activists is structured around the following arguments.

Firstly, vaccines are ineffectual, purposeless and contain toxic substances (and thereby unnatural); vaccines per se are prone to the emergence of illnesses – *numerous types of adverse effects, and the disease the vaccine is designed to prevent* (Jacobson, Targonski, & Poland, 2007); and ultimately, vaccinated people are blamed in so far as they 'shed' the vaccine, supposedly easing the transmission of the disease. Some also advocate for the protection of fundamental liberties at the individual level, claiming that *even if beneficial, vaccination should not be enforced because that violates freedom of choice* (Smith & Graham, 2017).

Various academic studies have tried to shed light on the nature, entity and psychology associated with the anti-vax movement, epitomizing a *distinct cultural entity – a form of 'denialism', with similarities to climate change denialism, evolution denialism (creationism, 'intelligent design') and Holocaust denialism* (Martin, Niall, Gough, Chambers, & Jessop, 2019).

An additional argument views 'Big Pharma' and the health practitioners as aiming to incentivize vaccination for the sole purpose of profiting from the production, distribution and selling of vaccines (Jolley & Douglas, 2014).

Ultimately, some argue that evidence for vaccinations, and against anti-vax beliefs, results from a conspiracy against them (Motta, Callaghan, & Sylvester, 2018). Hence, the main claim of this dissertation may reason along these lines, by asserting that *anti-vax beliefs are associated with populist political beliefs; both share a distrust of élites and experts* (Kennedy, 2019).

Moreover, one may claim that vaccine hesitancy is not a novel phenomenon (Wolfe, 2002).

Indeed, resistance and dissent against vaccines have been expressed throughout decades by various, and occasionally influential, individuals. For instance, it has been historically recorded that during the 18th century Reverend Edmund Massey who, while operating in England, had labeled vaccines as "diabolical operations" in his 1772 sermon- "The Dangerous and Sinful Practice of Inoculation" (Hussan, Ali, Ahmed, & Hussain, 2018).

He thus publicly denounced the alleged wickedness and evilness which designate vaccine related practices, by claiming that such injections represented a blasphemous, an artificial attempt to avoid God's punishments destined for those who have committed sins.

In this vein, similar religiously driven dissent had manifested itself through the words of Reverend John Williams in Massachusetts who had posed similarly harsh accusations against the establishment and diffusion of vaccines, the latter being decried as the "devil's work" (Hussan, Ali, Ahmed, & Hussain, 2018).

Notwithstanding that, theological reasons were not the sole arguments fueling vaccine refusal at the time; opposition was also manifested due to political and legal matters. More specifically, significant protests arose with the emanation of laws in the mid-19th century, which compelled parents to vaccinate their children.

Thus, anti-vaccine activists became extremely vocal and decided to form the so-called "Anti Vaccination League" (Wolfe, 2002) in London, which was aimed at enhancing the protection for liberties of the public against the coercing attitude of the British Parliament.

Ultimately, the League succeeded in its intent; the Parliament had indeed passed a law that nullified sanctions resulting from the lack of obedience towards the law, and thus allowing parents to retain their decisional freedom with regard to the possibility to vaccinate their children (Wolfe, 2002).

However, since their advent vaccines have been object of major discussions, which eventually lead to the accumulation of skepticism and dissent among the public. However, in order to fully understand the anti-vaxxer's mentality, it might be useful to proceed by delineating the most essential traits at the basis of the aforesaid beliefs.

1.2 Anti-vax movements and the utilization of propagandistic tools

Scholars such as Robert Wolfe and Lisa Sharp, have affirmed that the activities' performed by today's propagandists against immunization can be easily paired with those put forward by the late nineteenth century's anti-vaccination activists (Wolfe, 2002).

Namely, although methods of propagating and circulating information have dramatically changed throughout centuries, feelings of apprehension and uneasiness due to vaccines have barely adjusted since their advent. In recent years, vaccine refusal spirits were revitalized by the publication of a paper in the famously known medical magazine "The Lancet".

The author of the aforementioned article is a certain Andrew Wakefield, former British doctor and researcher who put forward the following claims. Above all, he strongly fueled the belief for which a connection between the MMR (measles, mumps and rubella) vaccination and the emergence of autism was indeed worthy of credence. Surely, soon after the dissemination of the aforementioned claims, several studies were undertaken for the purpose of refuting Wakefield's statements and the supposed existence of a correlation between the receiving of vaccine injections and the predisposition to "behavioral regression" and "pervasive developmental disorder in children" (Andrade, Sathyanarayana Rao, & Chittarajan, 2011).

Nonetheless, in spite of the insufficient data, the restricted - and highly selective - sample, the lack of accuracy and precision necessary for properly controlling the research, and the merely conjectural presumptions deduced through the study, Wakefield's paper received great consideration at the public level. Perhaps, the social process underpinning the persistent diffusion of Wakefield's inaccurate claims could be explained with reference to Merton's Reference Groups Theory, arguing that the public's views and perceptions are shaped, in part, *by their identification with, and comparison to, reference groups,* and further suggesting that *individuals adopt the values expressed by the majority of the members of their reference group* (Merton, 1968).

However, during a successive phase, the logic that the measles, mumps and rubella vaccine may trigger autism was heavily questioned also thanks to the epidemiological studies, which were conducted and later published.

Hence, the posited link was strongly rejected by the scientific and medical community as a whole.

Consequently, some co-authors of the paper in question, who claimed that a misinterpretation of the collected data had taken place, brought about a short retraction.

Furthermore, an admission by The Lancet followed. Indeed, what was being claimed was that Wakefield et.al *had failed to disclose financial interests* (Hussan, Ali, Ahmed, & Hussain, 2018). That is to say, the authors committed to the composition of such study as litigants against vaccine manufacturers were financing them.

It thus immediately followed that "The Lancet" treated the article as anti-scientific by removing immediately and retracting it utterly in February 2010 (Hussan, Ali, Ahmed, & Hussain, 2018).

From these realizations, Wakefield et al. were accused of both *ethical violations* and *scientific misrepresentation* (Hussan, Ali, Ahmed, & Hussain, 2018).

The former accusation reflects the proven fact for which Wakefield, in tandem with his team, had conducted several investigations on children while lacking the required ethical clearances. Secondly, with regard to the latter accusation, the researchers involved had been held accountable for having reported that their sampling was consecutive when, in truthfulness, it was selective. For all the aforementioned reasons, Wakefield was eventually barred from practicing medicine in the United Kingdom, having "abused of his position of trust" and "brought the medical profession into disrepute" due to the studies he undertook (Hussan, Ali, Ahmed, & Hussain, 2018).

Despite the publicly held retractions, the false claims contained within the article in question had created much damage in a seemingly short period. Perceived fears of vaccination grew exponentially among the public. Systematically, growing numbers of parents were refusing to vaccinate their children, as they feared any potential health repercussion.

Dramatically inaccurate beliefs were rapidly disseminated across various countries via an extensive, and perhaps misleading, media coverage.

Produced damages were, at least partially, viewed as the product of a given perception (Merton, 1968)– as in judgments- resulting from human interactions within a specific social circle. Echoing, once again, Merton's Reference Group Theory, it may seem reasonable to allege that it is the process by which individuals gather and interpret information, which ultimately shapes and outlines the peculiar views and perceptions reached by the components that constitute the group or association under analysis (Dawson & Chatman, 2001).

If we attempt to transmit the aforesaid reasoning within the context of vaccine refusal and hesitancy, we may reckon that fallacious perceptions regarding the potential dangerousness of vaccines, may be further fomented by initial perceptions of social groups, in which the initial negative perceptions on vaccination are circulating consistently and repeatedly, perhaps being channeled by media and various communication channels (Andrade, Sathyanarayana Rao, & Chittarajan, 2011). Evidently, it was North America and Western Europe being the most harmed areas. Indeed, it was reported that in the United Kingdom, the MMR (measles, mumps and rubella) vaccination rate dropped from 92% in 1996 to 84% in 2002, and that in 2003, the percentage was equal to 61% in London (Murch, 2003). Such numbers reflected a discouraging truth: an epidemic was far from being eschewed.

Moreover, in the USA a 2% decline in vaccine approval was recorded (Reilly, 2018), adding up to the disheartening collection of vaccination rates following the controversial debate concerning the alleged autism-MMR (measles, mumps and rubella) vaccine link.

Needless to say, a series of measles outbreaks occurred across the Western world, virtually resulting into an epidemic of infectious and, above all, preventable diseases.

Let us now delve into some empirical evidence concerning this matter. For instance, in the United Kingdom, in 1998, numbers of infected patients rose from 56 to 446 in the same year, eventually leading to the first death recorded since 1992 (Asaria & MacMahon, 2006).

As a result, measles was announced to be endemic. Moreover, in Ireland 1500 cases were recorded in 2000, eventually leading to three measles-related deaths (Pepys, 2007).

France as well was affected by the epidemic, being harmed by outbreaks occurred in 2008, 2011 and 2013 (Antona, et al., 2013).

However, the most appalling case of such an outbreak was documented in the United States in 2014-2015 (Aleccia, 2015).

The eruption of measles seemed to have occurred first from the Disneyland Resort in Anaheim, California, resulting roughly in 125 infected individuals (Zipprich, Winter, Hacker, Xia, & Harriman, 2015). As a result, California elapsed the Senate Bill 277, a mandatory vaccination law 2015, prescribing any sort of exoneration from vaccines on the grounds of religious and/or personal reasons (Martinez & Watts, 2015).

1.3 Anti-vaccination movements at the time of the Online Revolution

The growing impact that the Internet has had on public health is a rather interesting fact.

The online trend of searching medical information and obtaining diagnosis through an online search is one that is destined to enlarge its scope (Kata, 2012).

The Web has rapidly developed to allow for the establishment of an electronic platform, which can be utilized for medical purposes, and increasing numbers of patients are prone to the utilization of online medical resources. Why so? It may be argued that the gradual, yet systematic, fruition of online medical resources discloses a much greater phenomenon, which in turn mirrors the alleged detachment of patients from the physical medical experience (Betsch, et al., 2012).

This may be especially evident with regard to the changing relationship between medical doctors and their patients. Indeed, according to a new Pew Research Center report *about half of Americans see professional misconduct as at least a moderately big problem, and many are skeptical that doctors are usually transparent about conflicts of interest or take responsibility for mistakes* (Pew Research Center, 2019).

On this matter, one may question the degree of accuracy and precision characterizing online-based information.

Additionally, the Web 2.0 has offered an effective opportunity allowing for the dissemination of the anti-vax message, thus resulting into the strengthening of the general climate of distrust and skepticisms that is put forward by these movements.

Thus, how reliable are the new online practices? Can they be a valid substitute of the traditional role of medical authorities? Can the Internet serve the purpose of empowering patients' individuality with regard to self-diagnose and self-treatment?

Will the Internet use enrich or, conversely, will it impoverish the shared meaning of the patient-physician relationship? Let us now try to analyze the aforementioned ideas.

One may argue that this sudden alteration with regard to the dynamics of the medical domain, as well as patient-physician interactions, has led to the establishment of new realities. On the one hand, few situations have produced beneficial results, while on the other hand some discouraging truths have emerged. More specifically, amongst the benefits we may prescribe the newly established forms of shared decision-making between patients and physicians (Dubé, et al., 2013).

Conversely, some limitation and further controversies have been brought about due to the Online Revolution in question.

Indeed, the diffusion of fallacious truths and erroneous information may eventually lead, amongst other things, to the solidification of inaccurate and misleading ideas, by fueling the vicious circle of misinformation. That is to say, several parents may decide not to vaccinate their children due to perceived fears of potential health repercussions.

Indeed, vaccine-related claims on the Internet are often times regarded as dramatically inaccurate by the medical authorities and experts involved.

Evidence shows that website and videos displaying vaccine refusal attitudes receive greater feedback from the public who seems to be inclined towards the conviction that vaccines are, indeed, harmful (Keelan, Pavri-Garcia, Tomlinson, & Wilson, 2007).

In this vein, an analysis of the Human Papillomavirus vaccine debate on Myspace blogs seems noteworthy. This particular study was undertaken in the USA and it was aimed at assessing the public's reaction to the vaccine. In order to do so, several Myspace blogs were searched and thoroughly analyzed with regard to various blog discussions on the Human Papillomavirus vaccination (Keelan, Pavri, Balakrishnan, & Wilson, 2010).

More specifically, the methods of assessment were the following: the search was based on the general depiction of the Human Papillomavirus immunization, the characterization of individual bloggers and finally, a detailed content analysis was developed in order to better identify the arguments proposed

by the bloggers concerned. Ultimately, evidence showed that exactly 43% of subjects regarded immunization in a negative fashion, by citing vaccine-critical organization and displaying inaccurate data as a way to provide some, however fallacious, evidence supporting their arguments (Keelan, Pavri, Balakrishnan, & Wilson, 2010).

Henceforth, it is quite clear that dissemination of fake information is a rather common practice for blog users, and that is also why blog analysis constitute an extremely valuable instrument for the purpose of bettering our understanding relative to vaccine attitudes as well as designing specific response to be addressed to those in need of actual information (Hussan, Ali, Ahmed, & Hussain, 2018). From this realization, one may suggest that public health officials ought to acquire familiarity with the aforedescribed mechanisms, in order to better address any form of distrust, fear, or concern, which may be perceived at the public level.

Another study that may be understood along the same lines is given by a review examining the anti-vaccination activists' behavior on the world wide web.

More specifically, the aforementioned study was undertaken in 2002 when, by inspecting the various themes and topics contained within the first 100 anti-vaccination sites resulting from a quick Google search for the words "vaccination" and "immunization", the following results emerged (Davies, Chapman, & Leask, 2002). The results manifested a clear and general inclination of the public towards anti-vaccination ideas, i.e. virtually, 43% of websites were against vaccine acceptance (Davies, Chapman, & Leask, 2002). In light of these considerations, we may conclude that -if we were to decline this situation in a more familiar context where parents seek for information concerning vaccination- it would follow that vaccine refusal tends to be heightened by the quantity of anti-vaccination content throughout the Internet (Witteman & Zikmund-Fisher, 2012).

From these realizations, it appears rather clear how strongly online materials may influence individual decision-making relative to vaccination.

In this regard, let us peruse the various strategies and "online tactics" which are ordinarily utilized by vocal anti-vax activists. To name a few, these maneuvers generally include misrepresentation of well-established scientific claims, bowdlerization of opposing beliefs, and consequent restriction against any form of criticism which may be put forward (Kata, 2012). Perhaps, one may conveniently agree on the deceiving manner through which actions are performed by hand of anti-vaccination movements (Davies, Chapman, & Leask, 2002).

Nonetheless, lack of accuracy relative to scientific and/or medical claims does not seem to discourage users and patients who, by contrast, are proven not to be immune to these dishonest and deceiving schemes. Indeed, research has pointed out that online users are rarely inclined to checking the relative accuracy of anti-vax contents online (Grant, et al., 2015).

As a result, individuals can be easily misled by false statements and, in turn, this may further convince them of the alleged harm caused by vaccination (Larson, et al., 2013).

Vaccine refusal platforms take great advantage from the perceived fears of the public (Kata, 2012). Indeed, one may argue that some influential groups might exploit popular suspicion for the sake of gaining consensus at the political level.

1.4 Anti-vaccination advocates as a reflection of social mistrust and science-rejection: fraud, viral misinformation and conspiracy theories

In an attempt to further investigate anti-vaxxer's sentiments, we shall begin by exploring some basic scientific claims, in tandem with clinical evidence at the core of vaccine practices.

In essence, vaccines are commonly regarded as a form of "primary prevention" against the insurgence of a preventable, and above all infectious disease (Hussan, Ali, Ahmed, & Hussain, 2018).

As we have initially seen, vaccine-related fears are easily triggered by a variety of factors, amongst which the viral circulation of inaccurate facts- that are neither employed in science, nor are they in conformity to its principles or methods- is of paramount importance when combating public misinformation- *false or inaccurate information, especially that which is deliberately intended to deceive* (Oxford Lexicon)- as opposed to the concept relative to valid and accurate information, the latter being operationalized as either *facts provided or learned about something or someone* or *what is conveyed or represented by a particular arrangement or sequence of things* (Lexico).

Specifically, by "misinformation", we regard its ability to *travel faster, deeper and more broadly through social media networks compared to accurate information* (International, 2020). Additionally, it appears that *individuals are more likely to believe false information after repeated exposure* (International, 2020).

For instance, it appears that it spite of growing evidence refuting the posited claim of mandatory vaccine policies being a rather unsafe and unnecessary practice, correcting misinformation is apt to generate a sort of "backfire effect" for which the actual outcome is exactly the opposite to the desired one. Why so? Apparently, one may understand the "fraudulent evidence" underpinning anti-vaxxer's concerns as strongly influenced by the general views of the public, whose opinions are automatically validated by the shared sense of collectiveness, and whose strength is defined by the social propensity to question "all that seems unknown" and rather complex to grasp (Jolley & Douglas, 2014).

However, social cohesion does not characterize anti-vaccination advocates.

Namely, researchers have often construed anti-vaxxers as a rather heterogenous segment, incorporating a wide range of different beliefs and who hold varying degrees of hesitancy about vaccination per se (Dubé, et al., 2013). Patterns of vaccination are, thus, varied.

Let us further explore this consideration. Relevant studies have emerged on this matter, and several models have been formulated as a result of integrating social, political, cultural and personal underpinnings, which seem to be altering decision-making processes on vaccination both at the individual and collective level, due to the presence of inherent features in the former scenario (Keane, et al., 2005), and contingent determinants of decision-making vaccination that emerge out of the latter study (Streetfland, Chowdhury, & Ramos-Jimenez, 1999).

Keane, et al. (2005), initiated a survey-based study in which parents were distinguished in four different categories, in accordance with a multivariate analysis utilized to group and classify the relative degree of vaccine confidentiality. Specifically, in this mailed survey of U.S. parents (undertaken in January 2001, with return response of 49%), it was recorded that *parental confidence in vaccination was very high*, despite some variations amongst the parents (Keane, et al., 2005). Namely, 90% of parents (*n=1820*) had declared to be *convinced of the beneficial effects of vaccination (Vaccine Believers), emotionally invested in their children and cautious about vaccination (Cautious), more skeptical of vaccines and less involved in child care (Relaxed), and distrustful of vaccines and vaccination policies (Unconvinced)* (Kestenbaum & Feemster, 2015).

These findings show that, if properly delivered and "customized", messages addressed to parents on vaccination, may increase its acceptance (Dubé, et al., 2013).

In a different study, a set of parents was taken into account within the context of multiple lower income countries, where subject had responded negatively with regard to vaccines.

More in detail, the parents refusing vaccination were categorized as follows: 1) *are willing to go to immunization centers, but are logistically unable to do so; 2) refuse to go based on inadequate services,* and *3) question the need for vaccination* (Streetfland, Chowdhury, & Ramos-Jimenez, 1999). The aforementioned findings suggests how the socio-economic context may affect patterns of acceptance and resistance to vaccination, by taking into analysis the results carried out by the "Social Science and Immunization Project" in Bangladesh, Ethiopia, India, Malawi, the Netherlands and the Philippines (Streetfland, Chowdhury, & Ramos-Jimenez, 1999).

1.5 Anti-vaccination's activists and conspiracy theories declined in the current scenario

The World Health Organization agrees on the supposed dangerousness that underlies "vaccine hesitant" individuals, who, having engaged in practices which are apt to spreading fear and misinformation about vaccines, have been recently declared as *one of the top 10 threats to global health* (WHO, 2019)[1].

As it was previously mentioned, anti-vaxxers are prone to utilize a variety of simple, yet effective, techniques aimed at increasing fear and dissent on vaccination at the popular level. The former concept reflects an emotional state apt to seclude and detach individuals from one another or alternatively, to enhance the awareness of vaccine hesitant groups, by emphasizing their distinctive condition of segregation and loneliness, and in turn, reinforcing the adhesion to the social circle of belongingness (Merton, 1968), which, in the case under analysis refers to the anti-vaccination movements at large.

Differently from the concept of fear, "dissent" entails a status of active mobilization, through which heated disagreement is expressed in a rather vocal fashion, as a result of the inherent attitudes typical of the anti-establishment's behavior, which is shared by social agitators within the political arena (Lowenthal & Guterman, 1949). Amongst these practices, the preferred strategy refers to the utilization of conspiracy theories- *as an explanation of an event by the causal agency of a small group of people acting in secret* (Keeley B. , 1999)- and the diffusion of similar narratives.

Indeed, one could aver that an empirical relationship exists between activists and conspiratorial thinking (Abalakina-Paap, Stephan, Craig, & Gregory, 1999).

How could we verify the veracity of this alleged connection? Let us peruse some evidence.

Anti-vaccine sentiments - as a view or an opinion that is expressed - may emerge as a collection of facts, opinions and perceptions originating from the Web, social media platforms and television programs, where current issues shape the ferocity of the perceived discontent.

The underlying motor which is able to foment public opposition against professional experts within the medical sphere, concerning vaccination as well as big pharmaceutical companies, is reflected by the widely diffused cospirational theories (Butler, 2020). On this matter, it may be relevant to provide empirical evidence shedding light on the supposed association between increasing insurance premiums and decreasing confidence secured by physicians at varying degrees.

Although medical malpractice is a widespread phenomenon and a source of accidents and suffering, it is also a substantial source of profit (Vitelli, 2012).

Indeed, the web abounds with associations that encourage patients to denounce the totality of complainants in order to obtain an economic advantage.

This practice is generally explained as follows: "if you think you may have suffered an episode of medical malpractice, even if you are not sure, you should still try the road of compensation" (Vitelli, 2012). Moreover, according to data gathered by the Italian National Association of Insurance Companies (*Associazione Nazionale fra le Imprese Assicuratrici*) better known as "Ania", an association of insurance companies, the trend in complaints against individual doctors from 2007 to 2008 decreased by 11.7 %: from 13,415 complaints in 2007 to 11,851 in 2008 (ANIA, 2010).

How is it that, in the face of an undoubted improvement in the quality standards offered by health care facilities, the rate of litigation between doctor and patient has increased dramatically? Let us examine this question.

The main cause of this paradox, according to C. Vitelli (2012), *is the increased expectation of success in health interventions linked to technological progress*, which leads the patient to demand more, and to justify much less than before any potential mistakes.

Arguably, the outcome of this immoderate degree of culpability that is attributed to physicians can be conceptualized as the onset of the so-called "defensive medicine" (Vitelli, 2012).

Namely, the effect of defensive medicine, causing excessive diagnostic investigations and an extension of therapies that is not always justified, is reflected in an *increase in the cost of health care, as well as in the costs of legal and insurance* (Vitelli, 2012).

Apparently, patients' desire for financial compensation is not the sole reason for bringing a case (ANIA, 2010). Among the most cited reasons: to prevent the same error from recurring; to ensure that the medical and paramedical staff or the organization as a whole become aware of their responsibilities; to know what really happened during the health intervention, (or how and why the damage occurred); punish the person or persons alleged to be responsible; be compensated for the damage and inconvenience suffered for subsequent treatment (ANIA, 2014).

Notwithstanding this, the red thread of an insufficient communication between doctor and patient binds all these motivations, as stated by C. Vitelli (2012).

Namely, C. Vitelli suggests that physicians may flounder to admit their malpractices, by attempting to conceal them, thus *creating a barrier of incommunicability and distrust between himself and the injured* (Vitelli, 2012). On the other hand, the injured patient is subjected to a series of therapies that may be scarcely elucidated or not at all, perhaps by someone who takes over the person responsible for the alleged error along the path of the disease (Vitelli, 2012).

The above-described state of affairs, as C. Vitelli (2012) puts it, generates hostility and frustration on the side of the patient, who no longer feels part of the treatment and passively suffers suspicion, malevolence and vexation.

Conversely, in the presence of a fluid and empathic relationship, of loyal and comprehensive explanations, of precise information on the nature of the error and on the possible strategies to reverse it, the patient would feel more nurtured, protected and confident, and she would be less likely to retaliate (Vitelli, 2012).

Conclusively, information, constant communication, the need to stick only to scientific principles of proven effectiveness in practice, and loyalty in admitting errors shall be regarded as essential.

According to C. Vitelli (2012), the aforesaid determinants are the sole objectives to be pursued in order to guarantee the reduction of health costs and the restoration of a mitigated atmosphere with regard to the patient-practitioner relationship, which will allow for the recovery of the indispensable confidence between a patient and the person supervising her life, her health and her future, doing so with the sole intent to treat the latter with respect, passion and competence (Vitelli, 2012).

Lastly, an additional concept that is worthy of mention concerns the role of the mass media with regard to the safeguarding of interactions between patients and physicians.

On the one hand, mass media excessively exalt the progress of medicine, by virtually sacralizing it, while on the other hand readily denouncing the so-called cases of "malpractice" with sensational services, *sometimes putting names and surnames in front-page photographs of doctors* (Vitelli, 2012). And this is done prior to the final conviction, soon after the complaint by the family members to the judicial authority, thus *creating a considerable damage to the image of the professional, if they are, as is often the case, innocent or even unrelated to the facts* (Vitelli, 2012).

In relation to this, the Italian case of Ilaria Capua emerges as particularly noteworthy. Ilaria Capua is a virologist of international renown whose career was heavily injured by a series of unfounded accusations that incriminated her for virus trafficking which was, supposedly, aimed at enriching herself by merchandizing the remedying vaccine (Garasic, 2019).

Apparently, as suggested by M. Garasic (2019), this adversarial inclination of the public against medical authorities is further enhanced by the network.

In the final analysis, the current state of affairs heightens tendencies of antagonism and enmity and it also increases the general climate of distrust towards the health organization (Vitelli, 2012).

Indeed, with reference to the current scenario, experts have expressed fears regarding the possibility that misinformation and scaremongering from the anti-vaxxers community might further complicate the eradication of the Covid-19 once a vaccine is produced and made available to the general public (Salzberg, 2020). Namely, there is reason to fear that, if a significant amount of people does refuse to receive vaccination, the totality of scientific and economic efforts produced as an attempt to combat the virus's diffusion might be compromised in a decisive fashion.

In accordance to empirical data (Tompkins, 2020), several individuals might decide to refuse vaccination due to a diffused conception viewing the Coronavirus outbreak in 2019-2020 as the product of a conspiracy.

Unsurprisingly, conspiracy theories abound with regard to vaccination.

Indeed, various Western democracies are affected by this "plague of misinformation" (Silver, 2019), the latter being reinvigorated by the popular "syndrome of distrust" (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004).

For instance, one post (dated on March 20th) on the vaccine-skeptic Facebook group *Oregonians for Healthcare Choice* reads as follows: "If you're still thinking it's coincidental that a pandemic erupted in the midst of a state by state sweep to remove your right to refuse vaccination, it's time to get your head out of the sand" (Tompkins, 2020).

This particular post expresses a disheartening truth that was further validated by a recent research by Emerson Polling, in which it emerged that *10% of Americans wouldn't get a coronavirus vaccine* (Kimball, 2020).

Attitudes of this kind have manifested themselves also in Italy, on the occasion of an announcement by the Secretary of the Democratic Party and Governor of Lazio Nicola Zingaretti, who, having implemented the mandatory vaccination against flu and anti-pneumococcal for over 65 and health professionals, triggered the reactions of anti-vaccination groups (Filippi, 2020).

In addition, one may submit that the political framework might offer some interesting points for the purpose of our discussion. Indeed, political support towards anti-vaccination instances seem to have complicated the public's perceptions on the current situation and its frightening evolution. Namely *Politico* suggested that vaccine refusal attitudes are often linked to populist political movements, manifested both on the right and left of the political spectrum (Thompson, Otterbein, & Ollstein, 2020). As it was initially speculated, it appears that vaccine skepticism is *part of a wider surge of anti-establishment anger around the world* (Thompson, Otterbein, & Ollstein, 2020), in which both politicians and civil societies contribute to the deterioration of the existing sociopolitical tissue.

We will deepen on this matter further on in the dissertation.

Moreover, social media platforms are currently abounding with Covid-19 content, and misinformation fiercely dominates the shared anti-vax material.

Particularly, Facebook groups that oppose mandatory vaccination have expressed their concern on the matter. Their feeds show a substantial amount of posts aimed at criticizing governmental efforts against the virus, such as social distancing campaigns et similia, neglecting the dangerousness that is characteristic of the virus, or worse, even claiming that the virus might not exist at all, and lastly, enhancing acceptance of conspiracy theories which were formerly discredited by the competent authorities (Butler, 2020). Let us expand on these beliefs.

For instance, on March 15 2020, *Californians for Vaccine Choice* have declared the following statements via social media platforms: "What is about to unfold over the next few weeks is a test to see how well we have assimilated the government's lessons in compliance, fear, and police state tactics; a test to see how quickly we'll march in lockstep with the government's dictates, no questions asked…" (Butler, 2020).

Conspiracy, hatred, misinformation and divisive sentiments are greatly enhanced by the rhetoric that is employed by anti-vaxxers in question. Evidently, the anti-vaccine advocacy is a growing force within the American political context, but not only (Salzberg, 2020).

Indeed, anti-vaccines' instances have been put forward by activists whose message managed to reach wide distances all around the globe (International, 2020).

From this realization, it may be interesting to draw a line of comparison between the current American situation and the Italian response of anti-vaxxers.

Having largely investigated on the American case, let us delve into the Italian scenario, where anti-vaxxers have, arguably, undertaken a lighter approach in the manifestation of their positions.

Indeed, when browsing Facebook these days, it is not uncommon to run into users who celebrate the alleged surrender, originating from the fear of the novel pandemic, and of those who oppose vaccines, by relying on anti-scientific theories.

Ironically, some have been hypothesizing the occurrence of a "mass conversion" to scientific theories on vaccination, were a vaccine for the Covid-19 to be found (Pozzi, 2020).

And yet, one may actually realize that the anti-vaccinists are far from gone.

As explained by the Regional Coordination for Freedom of Vaccination that is active in Veneto, anti-vax communities are perhaps less visible, but they do not miss the opportunity to express their views on the situation, by reinforcing the nagging, and at times obsessive, debate surrounding the virus (Pozzi, 2020). Precisely, the vaccine refusal's core message appears to be less visible, but still alive in some form: it seems as if it were merely reshaped and re-incorporated within a novel context, where conspiracy theories have emerged as a support of the anti-vaccination movements' ideological battles.

The prevailing belief reflects the conviction that the emerging and unwarranted scaremongering has been artfully "fitted" to specifically favor the interests of the few, while restricting the freedom of the general public simply to engage in the creation of the vaccine, thus "filling the pockets" of large pharmaceutical companies (Pozzi, 2020).

And this is done, possibly, at the expense of public health.

This emerges as a rather convenient thesis which resurfaces cyclically, and that is outlined through posts, articles and communicated, directly or indirectly, respectively through face-to-face discussions or, alternatively, via social media platforms (Butler, 2020).

In addition, among the many hoaxes that populate the Web in recent times, there are some hinting at the possibility that the Coronavirus was developed by pharmaceutical lobbies funded by Bill Gates (Pozzi, 2020).

On this matter, Judy Mikovits, a biochemist who fell into disgrace due to a study published, and then blatantly disowned, by the authoritative journal *Science*, constitutes the "people leader" within the category of skeptics and conspiracy theorists about the Coronavirus, stemming from those who contend that the 5G cellular signal is responsible for the reported easiness of transmission, to those who submit that the pandemic is a *conspiracy of the ruling classes*, having *Bill Gates in the lead* (Soave, 2020).

Specifically, a video was recently published online, the latter endorsing rather peculiar conspiracy theories on Coronavirus, which has been widely shared on social networks- especially in the United States- and exceeded 8 million views (Alba, 2020).

In the video, later removed from YouTube, but which continues to circulate in other copies, the biologist Judy Mikovits claims that the ongoing pandemic is the result of a secret plot by billionaires, including Bill Gates and pharmaceutical companies, with the aim of producing huge revenues and obtaining political powers (Post, 2020).

In addition, Mikovits openly accused Anthony Fauci, the director of the National Institute for Allergies and Infectious Diseases (NIAID) in the United States, claiming that in the past he had purposely blocked Mikovits's research, which was aimed to demonstrate alleged side effects relative to vaccine practices (Alba, 2020).

Moreover, The New York Times confirms that the fame won by Mikovits was sudden.

Before February she was practically not present on social networks, while in April hundreds of daily reports on her account spread on social networks. Her conspiracy theories on the pandemic were initially taken up by conservative news sites (Alba, 2020).

In particular, the YouTube video uploaded last week was a long clip named "Plandemic", arguing that the entire health emergency was, indeed, planned to benefit large companies and billionaires engaged in philanthropic activities (Post, 2020).

Mikki Willis, the producer of the video, had previously produced other controversial content with numerous falsehoods against candidates in the 2016 Democratic primary, such as Bernie Sanders and Hillary Clinton (Brito, 2020). In the nearly thirty-minute video, Mikovits claimed she had perused research studies to prove that "vaccines damage the immune system" (Alba, 2020). In her view, this alleged weakening would have made the population susceptible to various infectious diseases, such as Covid-19 (Soave, 2020).

In another passage of the video, Mikovits argued that "wearing a mask literally activates the virus" (Alba, 2020), without providing any scientific basis for this statement.

In recent days, some people have been spotted showing signs inspired by Mikovits' statements about masks, during demonstrations against restrictions to reduce infection (Post, 2020).

Consequently, one may aver that, in spite of the growing health emergency, the anti-vaccine ideologies have "resurfaced in other guise" reconfiguring and reincarnating themselves in accordance with the frame made available by the current health crisis, as opposed to the initial suppositions on the alleged reduction of anti-vaxxers beliefs (Jurkowitz & Mitchell, 2020).

However, by looking at the evidence proposed it may also be reckoned that the American case presents an anti-vax community whose features appear rather solid and embedded within the social, cultural and political tissue.

Conversely, with regard to the Italian situation, one may question the effective "resilience" and longevity underpinning the Italian anti-vax community.

In fact, according to the evidence collected in a recent study that was performed by Observa Science in Society, the anti-vaccine positions, although supported by a particularly active and "vocal" minority (as well as being "newsworthy" in the media), emerge as minorities within the Italian public opinion (Observa, 2017).

Instead, following the perspective proposed by Coser such minorities could be conceptualized as tribal, but not necessarily fragile.

On the contrary, similar organizations that are structured in a way which greatly resembles "sect-like" associations, are very robust and can withstand the worst of times (Coser, 1974).

Moreover, relevant to our discussion is the re-emergence of conspiracy thinking around the production of a vaccine which would be apt to eliminate Covid-19.

For instance, by further examining the Italian situation, it emerges that the Facebook bulletin board of Michele Ghiglianovich, Vice Mayor of Aviano in the province of Pordenone, is a long sequence of television fragments and interventions *with a strong conspiracy connotation* (D'Alessandro, 2020). Collaborator of the online magazine Polizialocale.com, he has publicly campaigned against vaccines in general and against the vaccine for Coronavirus in particular, when and if it will become available. Specifically, he claimed the following: "Don't get the vaccine when it comes out... they'll put everything in it to turn us into zombies" (D'Alessandro, 2020).

The aforesaid phrase, however, is associated with another user who shared a veined video hinting at various conspiracies relative to the "great maneuvers that pharmaceutical companies are putting in place" (D'Alessandro, 2020).

Notwithstanding this, the post of the deputy mayor in Aviano has sparked great controversy among citizens, in tandem with other rumors that are rising on social media and aiming to oppose the cure to Coronavirus. Moreover, former Five Star Movement's deputy Sara Cunial has displayed a similar attitude of protests and deep-rooted skepticism, as she has publicly expressed her dissent towards vaccines, the latter accompanied by the refusal of the new nets for telecommunications 5G (Five

Generation network), the phytopharmaceuticals, the Olympics, the application of confinement measures in Italy, and finally the experimentation of a vaccine against the Covid-19 (Vecchi, 2020). On Facebook the parliamentarian claims she wants to deepen the "link between the virus and vaccines" (Vecchi, 2020).

Especially considering the arrival of a coronavirus vaccine, J. D'Alessandro (2020) argues for the need to regard this situation as rather alarming.

On this matter, at the Laboratory of Data Science and Complexity of the Ca' Foscari in Venice, where they first identified the "echo chambers" on social networks- *online communities within which the most extreme theses always of the same sign end to prevail*- have submitted that the crisis of confidence in the institutions and accredited sources of information generates, among other things, phenomena such as conspiracy, which "never stops on a single argument but passes from one to the other seamlessly" (D'Alessandro, 2020).

Specifically, since the eruption of the "Flat Earth Theory"- the pseudo-scientific belief in a flat Earth being expressed by a variety of individuals and groups in the Modern era- also broke out in Italy, in March 2019. The giants of the Silicon Valley have run to repairs progressively blocking questionable content and dystopian misinformation, and have continued to do so in the era of Coronavirus (D'Alessandro, 2019). Platforms such as Google, and Facebook, and consequently also YouTube and Instagram, have put in place sections dedicated to the pandemic with official sources and a continuous verification of the content published by users.

But it is not an easy battle to win and it is repeated in many fields, including climate denial, vaccine skepticism et similia (D'Alessandro, 2020).

Furthermore, disheartening data is provided by the recent investigation undertaken by the Italian National Research Council (CNR), concerned with an analysis of the activities carried out by the Italians during the quarantine period (D'Alessandro, 2020).

As Antonio Tintori- who conducted the research- has revealed, although increasing attention to the reliability and authoritativeness of the sources would be desirable, at least until now, the attitude that we could define as 'conspiracy' pertains to the fact that roughly 35% of respondents entertain the belief for which the veracity of information is better preserved on the net, given that the news is apt to "enshroud the truth" to the public (D'Alessandro, 2020).

However, as A. Tintori puts it, an aggravating circumstance is present: the aggregate of online content is nothing compared to what is shared on chats, from WhatsApp that we have 33,8 million users, up to Facebook Messenger which has 22.6 million or Telegram which reaches 12.5 million citizens.

And on those channels, *there is no way to know what is going on* (D'Alessandro, 2020).

Meanwhile, in England, various individuals- in Liverpool, Birmingham and Melling in early April- have set fire to the towers of 5G or verbally attacked the technicians who lay the fiber optic cables, with the belief that behind the spread of the Covid-19 there are telecommunications technologies introduced, among other things, in Wuhan, where some people believe the Coronavirus was manufactured in laboratories (D'Alessandro, 2020).

In the face of this situation, however, multiple countries have started to dismantle the hoax, by attempting to underline how the Higher Institute of Health has publicly denied the supposed dangerousness represented by the 5G technologies (Fnomceo, 2020).

Having explored the most relevant theories and conspiracies on the Web, let us attempt to delve into the supposed "psychology" underlying these phenomena.

In particular, central to this discussion is the influential work by Davies - "Nervous States: How Feeling Took Over the World" (2018).

The basic thesis on which the vast mass of reflections is developed, is centered on the concept stating that "once the Cartesian separation between mind and body has ceased, the emotionality takes on a completely new meaning" (Davies W. , 2018).

Namely, one of the central themes addressed by Davies (2018) is the gradual, and perhaps consequent, exit of the expert (with the inevitable weakening of his mediation), the attenuation of the "rhetorical power of numbers" when they pass through the experts, and the parallel affirmation of "mass perception devices" such as the "constant surveys of needs", and the "gateway of emotionality" (of impressions).

The result yields an obvious risk of *manipulating consensus, of asserting populism, of overturning the knowledge that the data scientist increasingly subtracts from the sociologist, the political scientist, the economist, the psychologist* (Davies W. , 2018).

This is because it becomes no longer necessary to "observe", but rather to "quantify" reality, an easy-to-credit argument with the inevitable suspicion that the experts may be the expression of partisan interests (Davies W. , 2018).

To conclude, although visible and greatly amplified, when it comes to such relevant issues the role of media platform is significantly reduced as opposed to the institutional sources.

Hence, data presents a further indication of how crucially important it is for institutions to carry out policy decisions through effective communication, the latter not merely responding to emergencies, but rather cultivating a long- term relationship of trust (Observa, 2017).

In light of this, one may suggest that the best approach for mitigating the growing mistrust to which medical authorities are being subjected to is, simply put, to spread awareness amongst the public.

For this purpose, effective governmental interventions shall be brought about, i.e. helping patients to cultivate trust in health professionals and relevant authorities, providing them with essential information and clarifications on medical matters, demystifying the dramatically false claims solicited by the anti-vaccination propagandists, and ultimately introducing a solid jurisdiction aimed at producing legislation that strongly endorses vaccine practices via “ethically approved” vaccination policies (Giubilini, 2018).

Chapter 2: The essence and psyche of populist groups

2.1 The "epidemic of distrust"

Having outlined the origin, development and characteristics relative to vaccination ideologies and practices at the heart of the anti-vax "communities"- opinion groups distributed in structural communities within social media, where a *predominant number of anti-vaccine users are in one structural community, meaning there is frequent communication within the same opinion group and relative infrequent communication with the others* (Yuan & Crooks, 2018)- let us now delve into the main components, i.e. the underlying factors at the core of anti-vaccination propagandists. As it was briefly mentioned in the introduction, vaccine hesitancy determinants are varied and numerous.

One these elements, however, seems to retain a special position with reference to the anti-vaccination advocacy; namely, vaccine refusal involvement could be regarded as a direct reflection of a broader, and apparently growing, epidemic trend of distrust towards those who are in charge (Eurobarometer, 2018) (Gardani & Porcellato, 2019).

That is to say, we may currently be witnessing the rejuvenation of an anti-élite sentiment, which is strongly felt by the general public.

The latter are, indeed, in the process of heavily questioning "the élite", i.e. the privileged few who are generally selected in accordance to their expertise and their knowledge concerning a specific field. From a mere populist standpoint, however, the élites are conceptualized as the opponents, who are not just people with different priorities and values, rather they are viewed as "evil".

Consequently, compromise is impossible, as it 'corrupts' the purity (Mudde C. , 2004) (Canovan, 2000). However, with the advent of a new way of doing politics-i.e. populism- those "in power", namely the government and the bodies related to it, have become subject to harsh criticisms (Canovan, 2004). As opposed to "the élite", "the people" do not deal with important matters concerning socio-political condition of a given country (Canovan, 2005).

Arguably, they are rather shadowed by the proficiency and competence that only few can claim to possess. This potential, and questionable, competence gap between these two societal regions- intended as areas presenting distinctive traits and commonalities- may have resulted in some sort of "stigmatization" mechanism (Laclau, 2007).

In order to better understand this phenomenon, let us deepen on the concept of élite, investigating on its historical versus its modern interpretation. Our main assumption here, is to verify that certain populist groups are directly influencing people's views on medical as well as political authorities, in turn designing the ideal environment for the transmission of this "epidemic of distrust".

Societies are gradually, but inexorably, losing trust in the institutions causing a reversal of the of the relationship of trust between the general public and the élites, the latter being regarded as powerful individuals who hold a disproportionate amount of wealth, privilege, political power or crucial skills in a given society (Canovan, 2000).

Precisely, a *modern liberal society is a complex web of trust relations, held together by reports, accounts, records and testimonies* (Davies W. , 2018).

These systems often face political uncertainty and perils, and the constituents of these systems have been faced with such difficulties even prior to the establishment of the modern liberal society. In fact, the *template of modern expertise can be traced back to the second half of the 17th century, when scientists and merchants first established techniques for recording and sharing facts and figures* (Davies W. , 2018).

Such experts were embraced by governments, for purposes of tax collection and introductory public finance. However, strict "codes of conduct" had to be produced to ascertain that *officials and experts were not seeking personal gain or glory (for instance through exaggerating their scientific discoveries) and were bound by strict norms of honesty* (Davies W. , 2018).

Notwithstanding this, the "cultural homogeneity" and "social intimacy" of these chivalrous systems and nexuses has always induced reason for cautious distrust and skepticism, as claimed by W. Davies (2018). Specifically, with regard to the mid-17th century, the bodies tasked with handling public knowledge have always privileged white male graduates, living in global cities and university towns (Davies W. , 2018).

According to W. Davies's rationale, this does not necessarily undermine the veracity and validity concerning the knowledge produced.

However, the situation is apt to develop further complications when *homogeneity starts to appear to be a political identity* (Davies W. , 2018), with a set of analogous political objectives, referring, thus, to the concept of "élites".

Davies conceptualizes the "élite" as a *purportedly separate domain of power*, where *media, business, politics, law, academia are acting in unison* (Davies W. , 2018).

As we will further examine, it appears reasonable to claim that a *trend of declining trust* (Davies W. , 2018) has initiated, moving across the western world for years, or even decades, as attested by the abundance of survey evidence at our disposal (Eurobarometer, 2018).

The potential consequences resulting from a lack of trust within the sociopolitical fabric, soon became a heated topic of discourse amongst policymakers and business leaders during the 1990s and early 2000s.

As noted by W. Davies (2018), within the various discourses around the concept of mistrust and its consequent effects, nobody had envisaged that, "if trust sinks beneath a certain point, many people may come to view the entire spectacle of politics and public life as a sham" (Davies W. , 2018). According to W. Davies (2018), this condition does not manifest itself as a result of a generalized decline of trust, because solely *key public figures – notably politicians and journalists* – are those suffering from being *perceived as untrustworthy*.

In fact, it is those "personages" specifically encumbered with epitomizing societal contexts, *either as elected representatives or as professional reporters*, who have been bereaved of their credibility and trustworthiness (Davies W. , 2018).

In the final analysis, to further appreciate the crisis liberal democracy faces today – *whether we identify this primarily in terms of "populism" or "post-truth"* (Davies W. , 2018) – deploring the surging acrimony of the public does not suffice.

As suggested by W. Davies (2018), "we need also to consider some of the reasons why trust has been withdrawn". Namely, the "infrastructure of fact" (Davies W. , 2018) has been eroded *in part by a combination of technology and market forces* (Davies W. , 2018).

Notwithstanding this, Davies believes that "we must seriously reckon with the underlying truth of the populists' charge against the establishment today". In fact, it is often claimed that the rise of *insurgent political parties* and *demagogues* shall be viewed as the *source of liberalism's problems, rather than as a symptom* (Davies W. , 2018).

Scholars have traditionally regarded populism as a form of degeneration of democratic institutions (Mudde C. , 2004). Why so? Since its advent, populist parties have generated a great deal of controversy, becoming one of the major topics of discussion within the context of modern public debate. However, in order to assess the quality of its impact on society, it might be reasonable to provide a clear definition, describing populism and those traits which are most relevant to it. According to Cas Mudde, populism is best defined as "an ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, "the pure people" versus "the corrupt élite", and which argues that "politics should be an expression of the general will of the people" (Mudde C. , 2004).

From this definition, two crucial features of populism are emphasized.

It refers to a political ideology, which contains two opposites within itself - namely, elitism and pluralism, as stated by C. Mudde (2004).

The former encompasses the populist willingness to pursue a politics of morality (drawn by the general will of the people) against the supposed immorality characterizing the "corrupt élite" (Laclau, 2007).

Conversely, pluralism privileges the heterogeneity of peoples, fundamentally viewing society as a complex, yet fascinating, interplay of different groups and individuals sharing their own personal view of life (Mudde C. , 2004).

However, the primary threat which is posed by populism is the following. Considering that it does not enjoy the status of a unique and fully developed ideology, populism is often described as a "thin-centered" set of morals (Mudde C. , 2004).

Namely, populist parties wish to promote and transmit their doctrine which is, arguably, rather poor and easily credited (Mudde C. , 2004).

Indeed, the core concept of populism is merely "the people" or, as suggested by C. Mudde (2004), "the general will" that is expressed by the latter. Without any consideration of the institutional mechanisms that are designed by law to make the expression of that "general will" follow the right steps to result valid, legitimate, and effective for the people required to behave in compliance with desires, needs and intents shared by the greater part of society.

These seemingly procedural traits are not just details. Thus, the particularity of populism is that it contains no particularity, and no uniquely applicable definition (Mudde C. , 2004).

In Mudde's view, everything appears rather banal; the core of populist discourses is restricted to a narrow range of concepts, which take their identity and are shaped by the single key principle representing people's general will that is strongly upheld by the populist ideology. Hence, populism, given the scarcity and weakness defining its convictions, can be easily combined with a series of doctrines in a heterogeneous fashion (Mudde C. , 2004).

Moreover, essential to the populist discourse is the clear-cut normative contraposition between the following categories: "the élite" and "the people" (Canovan, 1981).

Essentially, what is claimed here is that the former category represents a mere reflection of all the negatives in society such as corruption, evil and selfish conduct while the latter is defined as a collective entity whose performances are, by definition, virtuous as opposed to the alleged profligacy and delinquency characterizing "the élite" (Mudde C. , 2004).

The sort of distinction explained above reflects a deep-rooted desire of the populist parties to exacerbate divisions within society, taking advantage of the fears, concerns and complaints that are most commonly expressed by the individuals who are part of this rhetorical tool which is defined and limited solely to a specific segment of the existing group of people, rather than the totality of individuals (Canovan, 2004). It seems reasonable to maintain that sociopolitical divisions may enhance the emergence of a conflicting and unfavorable condition at the popular level (Fieschi & Heywood, 2006).

Indeed, the confidence that people reserve towards public institutions is severely damaged as a result of the increasing polarization- a common political phenomenon intended as both a state and a process, and defined as follows: "polarization as a state refers to the extent to which opinions on an issue are opposed in relation to some theoretical maximum, while polarization as a process refers to the increase in such opposition over time" (DiMaggio, Evans, & Bryson, 1996)- that is brought about by political leaders and parties at large (Canovan, 2000).

The culmination of this popular tendency of resistance against those holding a powerful position – namely, those being part of "the élite"- is manifested by the growing sense of hostility and propensity to question medical expertise and scientific advances per se (Dubé, et al., 2013).

Therefore, vaccines are viewed as dangerous rather than beneficial (Kestenbaum & Feemster, 2015). Evidently, this feeling of resentment has been exploited by major political parties who aimed at collecting the greater amount of consensus among the voters in question (Casula & Toth, 2018).

And voters, feeling deprived of their voice within the political arena have longed this sort of political representation where individuals, voters themselves are, arguably, involved in the decision-making process in a much more direct fashion. The people gaining powerful position and making relevant decisions in accordance with the general will of the public.

2.2 Expanding on populist theories

Having discussed the meaning and current interpretation of the populist phenomenon, two further ideas may be explored. The former of which concerns the possibility that populism may be referred to as an independent doctrine, while the second perception investigates the modern interpretation as well as the ambiguity surrounding the concept relative to "the people", the key element underpinning populist ideals.

Let us now proceed with our analysis by focusing our attention on the first topic under examination. To start, we should emphasize the presence of various topics which are worthy of discussion.

Namely, can we define populism as an autonomous, self-explanatory and self-determining theory? Moreover, if the latter statement is accurate, how can we distinguish it from any other political attitude that may be compared to it? Finally, which are, if any, the distinctive features characterizing the populist party by definition?

Let us try to delve into these issues.

When dealing with populism today, its immediate version is reflected by the so-called "New Populism" i.e. a "*collection of movements, broadly on the right of the political spectrum, that have emerged in many established liberal democracies, challenging existing parties and mainstream policies"* (Canovan, 2004).

Belligerent and adversarial by their very nature, these particular parties show themselves as the demarcation of the truest and most well-funded source of power.

More specifically, the concept of the elusive "people" is strongly upheld by the parties who stress the importance of displaying interests, fears, concerns and disparate opinions coming from the public. Henceforth, populist parties' main intent is that of displaying themselves as the purest, most lawful expression of "the general will" (Urbinati, 2013).

Consequently, individuals are offered the opportunity, however illusory, to perceive themselves as the true "protagonists" within the political arena (Canovan, 2005).

As contended by Canovan (2004), each party inherently possesses the tendency to adapt itself to the setting, climate and surroundings perceived in a given community.

Indeed, Canovan (2004) assures that the sort of values, ideas and morals being advocated and strongly upheld by the vocal populist parties vary depending on the local context concerned.

Notwithstanding this, what is common practice within the populist sphere of action is the radical desire to denounce political injustices, for which the blame is to be placed entirely on the mainstream political actors conducting professional politics, which opposes itself to that of populism (Canovan, 2000). Moreover, amongst the various claims that are suggested by propagandists of the populist ideals, the major discourse revolves around the fact that populism is, or at least aspires to be, the purest expression, i.e. not biased by any particular concern rooted not in the people but in some vested set of interests, of the voice of the people (Mudde C. , 2004).

Populist groups, and political agitators in particular, propose themselves as the people's political extension, aiming to be their direct form of representation within the sociopolitical sphere (Lowenthal & Guterman, 1949).

The populist intention to convey the public message is well-proven by the frequent utilization of harsh, undiplomatic, and unpolished language as opposed to the proper and competent language that may seem more adapt for imparting a political message aiming at some institutional recognition (Lowenthal & Guterman, 1949).

Having outlined some additional features of populism, one may rightly interrogate oneself with regard to the following subjects.

What are, if existing, the common ground features defining populism as a cohesive whole? Are the essential, core elements aforementioned sufficient material to aver that populism is, indeed, an independently reasonable theory that is capable to stand on its own, without the support of additional theories?

On this matter, scholars have suggested that we may need to identify such "common ground" within the socioeconomic domain- *intended as the social standing of an individual or group that is often measured as a combination of education, income and occupation,* whose examinations are apt to reveal *inequities in access to resources*, plus *issues related to privilege, power and control* (APA)- rather than the mere political one. Namely, essential to the populist discourse is the rhetorical appeal to "the people".

The latter undoubtedly epitomizes the most authentic nature, the purest substance of populist advocates. Having emphasized the significance of this key term, let us explore the -rather elusive- meaning and current interpretation of "the people".

2.3 The People

The notion of "people" is extremely variable in its significance, offering numerous prospects for interpretation (Taggart, 2000).

Its fluctuating and varied meanings are bound to yield some confusion.

Perhaps, the best way to approach our analysis is to avoid conceiving "the people" as a complex amalgam of various discourses, ranging from political to social and cultural senses (Urbinati, 2013). Rather, it is desirable to try to limit these interpretative ambiguities by focusing solely on the analysis of the etymological origins.

The term "people" derives from the Latin word "populus" which, in turn, contains three underlying meanings related to it. The first basic interpretation refers to the people as sovereign; the second emphasizes the concept of people as nations, while the third focuses on the view representing "the common people" who are in constant opposition with the powerful élite – i.e. the ordinary people versus the privileged few (Urbinati, 2013).

However, Urbinati (2013) asserts that this interpretative choice yields the realization that blurred distinctions amongst the various meanings of "people" are a true reflection of conflicts, issues and dilemmas shaping the inner fabric of our democratic institutions.

In this vein, by responding to the populist assertion, declaring people as the ultimate recipients of legitimate political authority, we may readily notice that various complications are bound to arise. To mention some, on what grounds can one claim people's sovereignty?

Moreover, how can one identify the nature of this, supposed, legitimate authority?

Most importantly, what does "the people" refer to in terms of political dominance and sovereignty?

Indeed, it is exactly this underlying ambiguity, this duality of interpretation surrounding "the people" which is extremely conducive to the emergence of the aforementioned doubts and inquiries.

More specifically, "the people" as sovereigns imply two apparently different concepts.

On the one hand, "the people" refers to a collectivity of individuals, a community that is tied together by virtue of shared social mores, cultural traditions, or political intents (Urbinati, 2013).
Conversely, on the other hand "the people" can also be interpreted as single individuals, completely unrelated to one another, sharing virtually no common features or interests (Urbinati, 2013).
Now, supposing that we can formulate a joint idea of "the people" incorporating both interpretations within itself, some degree of vagueness and uncertainty remains.
Namely, can we identify some empirical examples showing evidence of "the people's" existence as we have conceived it? Are referendums a valid case scenario involving the exercise of sovereign power by the people?
In this vein, we should perhaps conclude that people's power is a controversial matter, belonging to a separate set of politics. It encompasses a series of fluid political actions- mass demonstrations, popular referendums- in which popular authorization is crucial, yet it is difficult to categorize by institutionalizing it as the unique component of the political arena (Panizza, 2005).

2.4 Populists and anti-elitists

Having researched the populist conception of "the people", let us now explore the relation between populist attitudes and conspiratorial beliefs.
Following the path undertaken by Bruno C. Silva, Federico Vegetti, and Levente Littvay who had jointly decided to test the alleged existence of a connection between these two components, I intend to investigate on these associations.
Unsurprisingly, populism, conspiratorial and anti-elitist reasoning seem to be sharing some sort of causal relation with each other. Scholars have claimed that the élites are judged negatively by populist activists (Canovan, 1981).
Put narratively, the élites are regarded as "one homogeneous corrupt group that works against the "general will" of the people … as some shadowy forces that continued to hold illegitimate powers to undermine the voice of the people" (Mudde & Kaltwasser, 2012).
Similarly, as Sutton and Douglas (2014) affirm, perceived distrust at the public level is a component of paramount importance with regard to cospirational reasoning.
The popular, and populist, ideal for which the governmental authorities, and, arguably, medical professionals, can display malicious intentions, deceiving the institutional ethics, avoiding to act by virtue of their people's best interest and presenting false claims in regard to important official explanations, has been a central topic of discussion amongst scholars and researchers (Bale, 2007).
In this vein, populist leaders are eager to exploit this sort of popular disbelief for the purpose of collecting greater consensus (Lowenthal & Guterman, 1949).

Political candidates are viewed- in populist terms- as mere adversaries: they are often depicted as enemies to the integrity of a given social reality, discredited as serious political leaders by emphasizing their alleged connections to an élite conspiracy and to self-maintenance in some power position. Additionally, fake conspiracy beliefs around a given event, or political candidate may be brought about by populist leaders.

For instance, the Italian situation offers some case scenarios of the like.

Namely, the Italian League, as well as any other radical right-wing political party, is inclined to utilize the phenomenon of immigration as a propagandistic tool, by claiming that immigrant, groups arriving to Italy are bound to "steal our jobs, ravaging and dismantling our standing institutions" (Albertazzi, 2007). Furthermore, spurious data is often presented as a way to strengthen a given conspiratorial pseudo-reasoning (Silva, Vegetti, & Littvay, 2017).

A similar example may be identified within the American scenario, where current US President Donald Trump had claimed that Barack Obama's birth certificate was fraudulent, and thus, former US President Obama could not have been entitled to be considered as a legitimate American citizen (Guess, Nyhan, & Reifler, 2018). Notwithstanding the numerous instances of political conspiracy presented above, the issue under examination is not backed up by any theoretical support.

That is to say that there is a significant lack of theories and empirical evidence verifying the existence of this supposed relation between anti-elitist conspiracy and populist propaganda.

Thus, the following question is bound to arise: supposing there is any, which is the supporting structure and the basis that is shared by the two reasonings? In what way can populist advocates be drawn to believe such conspiratorial theories? Which would be the essential core features capturing the attention of populist thinkers? Let us delve into the concept of élites.

2.5 The privileged few

As it was formerly mentioned, populism is identified as holding two recognizable traits- on the one hand, the appeal to "the people" is greatly emphasized, and on the other hand, "the élite" is heavily contested (Mudde & Kaltwasser, 2012).

While the former category entails a collection of virtuous, honest and hard-working individuals who ought to gain back their sovereign power from the evil, dishonest, and sluggish élites- depicted as "parasites" (Smith A. , 1776) who, contrary to the general will of the people, have seized power to pursue their own egoistic interests at the expense of the public (Canovan, 2005). It is a classical "we" versus "them" scenario (Mudde & Kaltwasser, 2012).

It is "the ordinary people" versus "those up there", the former being the epitome of purity and the latter being the apotheosis of immorality and corruption (Mudde C. , 2004).

Furthermore, as the authors Mudde and Kaltwasser remind us, *the division between people and élites in populist discourse is primarily moral* (Mudde & Kaltwasser, 2012).

Hence, drawing on Hawkins statement (Hawkins K. , 2010), the populist contraposition between good and evil may also be regarded as a *Manichean* discourse. Having largely discussed the three main components characterizing populist attitudes, we may now turn onto the actual research study undertaken on this matter. Namely, how -and why- are conspiracy theories so attractive to populist activists?

2.6 Populist reaction to conspiracy theories explained

Conspiracy theories are made up of rather simple narratives turned into complex discourses by their logical, convincing structure and rhetorical style (Silva, Vegetti, & Littvay, 2017).

They indeed reflect seemingly uncomplicated scenarios, which are easily appreciated by the observers in question. This particular structure of conspiratorial theories allows for the public's utter comprehension of the latter. This is done exactly through the act of simplifying complex, and often disconnected, situations as a way to minimize the complexity and intricacy surrounding certain social or political incidents (Bale, 2007).

From a broader perspective, the language adopted by agitator enunciates the subject and content of his writings or discourses *as if they referred to specific and genuine issues arising from current social problems* (Lowenthal & Guterman, 1949).

He wishes to appear as a *bona fide advocate of social chang*e (Lowenthal & Guterman, 1949), while he actually attempts to machinate and alter the audience's perception echoing the "malaise" (Lowenthal & Guterman, 1949). From this realization, the agitator *crystallizes and hardens these feelings and distorts the objective situation* (Lowenthal & Guterman, 1949).

Specifically, subjects of discontent for the audience are prone to generate vague, inarticulate and distrustful assumptions that become fixated as the stereotype of the "perpetual dupery"; its sense of reliance is aimed to bolster the idea that it is the object of a permanent conspiracy; its sense of rejection is conceptualized by the image of the "forbidden fruits"; its disenchantment is externalized into the utter disavowal of values and ideals; and its disquiet is both inhibited and eulogized into the *perpetual expectation of apocalyptic doom* (Lowenthal & Guterman, 1949). In this context, the élites -according to the populist conspiratorial thinking- are depicted as the sole recipient of power and political authority. The validity of the aforementioned assumption is further reinforced by the belief that élites are inclined to working "in great secrecy", being prone to deceiving and circumventing the masses for their own benefit (Clarke S. , 2002).

The delicate particularity of conspiracy theories is that they are inherently induced to go down a vicious circle in which every potential attempt to deny the truthfulness of a given accusation may be turned into further confirmation for the élites' iniquitousness (Keeley B. L., 1999).

The above-examined elements- the creation of undisclosed schemes at the political level and the great suspicion resulting from any alternative version of the narrative- have yielded some scholars to regard conspiracy theories as an emerging form of *collective paranoia* (Hofstadter, 1996).

In this vein, academics have tried to underline the various traits, which may potentially connect conspiracy theories to their supposed devotee.

On this matter, some relevant factors have been identified.

Namely, features such as *authoritarianism* (Abalakina-Paap, Stephan, Craig, & Gregory, 1999) *feelings of powerlessness, low interpersonal trust, anomie* (Goertzel, 1994), *uncertainty* (Jostmann, 2013), *a tendency to believe in paranormal or supernatural forces* (Brotherton, French, & Pickering, 2013) *and, most importantly for our discussion, a preference for Manichean discourses, which reduces events to a struggle between the good and the evil* (Oliver & Wood, 2014).

The crucial aspect here is that a great majority of the aforementioned factors are actually associated with populist reasoning as well as conspiratorial thinking.

Hence, in accordance to Hawkins' writings (2010), there is some actual ground for speculation concerning the alleged connection between these two tendencies (Hawkins K. , 2010).

Moreover, the phenomena in question emerge as sociopolitical in nature, thus resulting into another element of comparison. Indeed, one may suggest that the assumption of truthfulness concerning conspiracy theories is rooted in some kind of political discourse framing the conspiratorial thinking (Brotherton, French, & Pickering, 2013).

In other words, one may imagine conspiracy theories as part of a broader set of beliefs, the latter composed of a series of self-reinforcing, linked and coherent assertions (Converse, 1964).

This kind of structure may well resemble a political ideology (Goertzel, 1994).

From these considerations, scholars have identified a *common factor,* a shared ingredient that is able to prevail in the acceptance of individual theories (Jost, 2006).

Namely, the "deceptive officialdom"- the deep-rooted conviction that élites, hence authorities of any kind, are likely to be engaged in illegal and mysterious practices aimed at deceiving the public- is of serious concern (Wood, Douglas, & Sutton, 2012).

On this matter, N. Bobbio's writings emerge as particularly noteworthy.

Specifically, in Bobbio's observations and analyses of democracy (1980), we find a valuable contribution to the understanding of the core political structure shaping the inner fabric of democracy, by depicting its limits as well as its possibilities.

As N. Bobbio puts it, one of the clichés designating all the old and new discourses about democracy is that the latter constitutes the "visible power" government (Bobbio, 1980).

Democratic governments, as N. Bobbio writes (1980), are commonly viewed as the ideal model of *public government in public*. Indeed, the fact that all decisions and acts performed by the rulers should be known to the “sovereign people” has always been considered as one of the cornerstones of the democratic regime, defined as the *direct government of the people*, being supervised and exemplified by the people (Bobbio, 1980).

Alongside and in addition to the theme of representation, the theory of democratic government has developed another topic, which is closely linked to that of the “visible power” , i.e. the theme of *decentralization as a reassessment of the political relevance of the periphery with respect to the center* (Bobbio, 1980). Indeed, as interpreted by N. Bobbio (1949), the ideal of local government is a notion inspired by the principle that “power is all the more visible the closer it is”.

The publicity of the government of a municipality is more direct, and it is so precisely because the visibility of the administrators and their decisions is greater (Bobbio, 1980).

Essentially, the political relationship, that is the relationship between ruler and governed, is portrayed -by N. Bobbio (1949)- as an “exchange relationship”, in which the ruler lends protection in exchange for obedience. But, “so prudent is the protection just as blind is obedience” (Bobbio, 1980).

Moreover, in the context of political writers who, with their theories of reason of state, accompany the formation of the modern state, one of the recurring themes is the discourse of the "arcane imperii" (whose literal rending is “arcane empires”) (Clapmar, 1644).

This is a particularly wide-ranging issue on which I shall confine myself to a few quick remarks that are useful for the purpose of this discussion.

The aim of the “arcane imperii” is twofold: to preserve the state as such, and to preserve the existing form of government (that is, to prevent a monarchy from degenerating into an aristocracy, an aristocracy into a democracy, and so on, according to the nature of the various "mutations", illustrated by Aristotle in the fifth book of Politics) (Clapmar, 1644).

In light of the aforesaid considerations, it appears that two further phenomena emerge within the aforesaid category: the *phenomenon of occult power* and that of the *power that occults*, which “hides, by hiding” (Bobbio, 1980). The former includes the classic theme of “state secrecy” (de Seysse, 1519), while the latter includes the equally classic theme of licit and useful lies (licit because useful) dating back to Plato’s *Republic*. In the final analysis, *invisible power and invisible counter-power are two sides of the same coin* (Bobbio, 1980).

The history of every autocratic regime and the history of the conspiracy are two parallel stories that relate to each other.

As N. Bobbio (1980) suggests, where there is a "secret power" there is, as its natural product, the same "secret anti-power" in the form of conspiracies, plots, coups, plotted in the ambulatory of the imperial palace, or seditions, revolts or rebellions, prepared in places inaccessible to the public, far from the eyes of the inhabitants of the palace, as the prince acts as far away as possible from the eyes of the common (Machiavelli, 1531) (Bobbio, 1980).

Having considered Bobbio's classical themes on "Democracy and the invisible powers", it may seem that this perspective inexorably leads to the establishment of additional connective elements between populism and conspiracy reasoning (Abalakina-Paap, Stephan, Craig, & Gregory, 1999).

Following the suggestion of Mark Fenster (Fenster, 1999), belief in conspiracy theories propagates itself similarly, as populist consensus escalates in response to a veiled degree of popular skepticism against élites as a whole.

Popular inclination towards feelings of exclusion, distrust and withdrawal from the political arena easily breeds into the creation of a perfect environment for populist conspiracy thinking.

Populist parties are, thus, the optimal environment for the establishment of "conspiracist" (Vossen, 2010) discourses; as such, parties often regard their opponents as evil and deceiving bureaucrats. Thus, having established that the viewpoint adopted by both conspiracy schemes and populist activities is rather similar, the posited link between the above-mentioned phenomena emerges, perhaps, as rather solid (Silva, Vegetti, & Littvay, 2017).

This is especially true in reference to the health care domain, where growing distrust in physicians has yielded some serious health concerns (Pew Research Center, 2019).

Before proceeding with our analysis, it is important to note that physicians are viewed as a constitutive part of intellectual élites. This appears rather logical, and it is naturally perceived as reasonable, because of the significant position that is occupied by doctors within any given reality.

In other words, medical professionals undoubtedly represent a "select group" of individuals, whose professional education, specialized function and experience is likely to emerge as constructive, as well as a cornerstone for society as a whole, and therefore they are bound to be treated with the greatest authority and influence (Miller, 2017). Conversely, they may be promptly held accountable and blamed for a given medical mistreatment (Vitelli, 2012).

2.7 From theory to practice

Because of the growing populist consensus, political scientists have submitted scales- *a type of composite measure composed of several items that have a logical or empirical structure among them. Examples of scales include Bogardus social distance, Gutterman, Likert, and Thurstone scales* (Babbie, 2010)- to measure populist attitudes influencing their political orientation.

For instance, Hawkins et al. (2012) generated 4 items for the measurement of popular adherence to populism: 1)*"Politics is a struggle between good and evil", 2)"The politicians in Congress need to follow the will of the people", 3)"The power of a few special interests prevents our country from making progress", and 4)"The people, not the politicians, should make the most important policy decisions"* (Hawkins et al., 2018*).*

The aim of these measurements is "to capture key elements of populism, especially a Manichean view of politics, a notion of a reified popular will, and a belief in a conspiring élite" (Hawkins, Riding, & Mudde, 2012).

Having listed the aforementioned items, the study undertaken by Silva, Littvay and Vegente has incorporated respectively, the items number 4, 3 and 2.

In addition to this, the authors have included an extra set of items aimed at measuring the relative degree of "anti-elitism" (Silva, Vegetti, & Littvay, 2017).

Furthermore, a fifteen-items scale was also utilized to assess the relative degree of adherence to conspiracies at a public level. Being introduced by Brotherton et al. (2013), the measures concerned are the following: *government malfeasance, malevolent global conspiracies, extraterrestrial cover-up, personal well-being, and control of information.*

Lastly, a systematic oversight of the relative level of trust in institutions is being supervised through the addition of a specific measurement, i.e. "control of trust", the latter being measured in accordance with the following indicators: *confidence in politicians, Congress, and political parties, on a scale from zero (none at all) to 10 (complete trust)* (Silva, Vegetti, & Littvay, 2017).

Having gathered data from an online survey through Amazon's Mechanical Turk, the latter measuring variables of political, sociological and psychological nature, it was eventually found that the results were a partial confirmation of the initial hypothesized associations.

Namely, the strongest connections seem particularly evident with *malevolent global conspiracies and control of information* (Allison, 2001). Henceforth, in the scenario displayed above, élites are defined as *greedy actors who do evil, secret deeds for the sake of more resources or power* (Silva, Vegetti, & Littvay, 2017). Thus, even if only partially, populist and conspiratorial behaviors share the common view of élites as morally blameworthy (Silva, Vegetti, & Littvay, 2017).

However, a certain degree of rationality is saved in some circumstances.

In a second study, populism and conspiracy theories' relative connectedness is measured taking into account the single individual components of populism and conspiracy beliefs.

While the former is being measured through a three-dimensional populist attitudes scale constructed by Castanho Silva et al (2013), which highlights the following main three concepts: people-centrism,

anti-elitism, and a Manichaean view of politics, with the latter being analyzed through the utilization of a battery proposed by Bruder et al. (2013).

It is composed of five items, *which factor together into a single latent variable* (Bruno Castanho Silva et al., 2018). Having collected resulting data from a second Amazon Mechanical Turk sample (April 2015), it was confirmed that conspiratorial beliefs are associated with both the following aspects of populist attitudes: *individuals with conspiratorial worldviews tend to both glorify common people's values, and to dislike political élites* (Silva, Vegetti, & Littvay, 2017).

Hence, it appears that a clear preference of the public is expressed in favor of the glorification of the ordinary people's interests, needs and wishes, while suspiciously looking at the élites' activities.

Chapter 3: The art of persuasion

3.1 From populist thinking to conspiracy beliefs and to vaccine refusal

Having verified the existence of a partial, yet strong, connection between populist behaviors and conspiratorial reasoning (Silva, Vegetti, & Littvay, 2017), let us now draw some hypotheses concerning a potential association with a third variable, namely anti-vax attitudes.

In the first section, the discussion clustered around the anti-vaccination agitators' tendency to construct false claims, misconceptions and myths aimed at endorsing the claim for which vaccines are cause of harm rather than benefit (Hussan, Ali, Ahmed, & Hussain, 2018).

Surely, these sorts of schemes are blameworthy as they are intended to establish a tense, distrustful and suspicious atmosphere within which society becomes more prone to questioning the professional stance and competence of medical practitioners (Dubé, et al., 2013).

In fact, physicians are often victim of harsh criticisms due to people's skepticism and reluctance with regard to medical specialists' and their supposedly corrupted intentions (Lalumera, 2018).

This is especially true when considering the way in which anti-vax websites are constructed as opposed to pro-vaccination sites (Grant, et al., 2015). Let us better understand the way vaccination persuasion is either avoided or endorsed by the above-mentioned groups.

With this purpose, we will take into consideration a particular qualitative study undertaken by the Vaccination Research Group at the Department of English of the Virginia Tech University (Blacksburg, VA, USA). The study in question has analyzed both pro-vaccine as well as vaccine-skeptical websites in order to draw the relevant comparisons.

Before diving into the results, let us examine the methods utilized by the authors of such study. Differently from previous studies on this matter, the analysis in which the Vaccination Research Group has engaged has adopted a fully qualitative approach.

Namely, the website selection does not emerge as a mere result of a keyword search; websites (2 for each side of the spectrum) were selected in accordance with the specific relevance assigned to each individual website, as well as the corresponding ideological position of the latter. Specifically, in the study concerned the sites which were carefully selected and evaluated are the following: the US Department of Health and Human Services (HHS) vaccine website Vaccines.gov, the Children's Hospital of Philadelphia (CHOP) Vaccine Education Center (VEC), National Vaccine Information Center (NVIC), and SANE Vax, Inc, respectively (Grant, et al., 2015).

For the purpose of data collection, the qualitative method of "thick description" was opted for as a way to examine web pages' contextual and structural features with greater detail.

In this vein, five categories for analysis-*information about the websites' owners, the visual and textual content of websites, user experience, hyperlinking, and social interactivity within the website* (Grant, et al., 2015)- were constructed in order to maintain the consistency level amongst the four different webpages. Each of these categories reflect a specific rhetorical element that is in turn applied to the online environment.

These rhetorical elements are necessary requirements for the "art of persuasion" (Grant, et al., 2015), which is greatly exercised by the anti-vax propagandists as a way to deliver their message more effectively. Taking into account the Aristotelian doctrine of persuasion, the latter specifies that there are three different modes of persuasion, which are relevant to the discussion-*i.e. ethos, pathos and logos.* The first mode of persuasion, *Ethos*, describes the character and features defining the relative degree of persuasiveness that the speaker in question may hold.

The second, *Pathos*, refers to the way the speaker tries to establish a connection with the audience. Lastly, *Logos* deals with the type of information shared with the public as a means of persuasion. The authors of the study have incorporated these three features of persuasive discourse, which were then reflected onto the previously mentioned categories of website rhetorical efficacy. Indeed, *Logos* refers to the totality of information and overall visuals, which are present within a given page; *Ethos* reflects the website's holding in tandem with the various hypertextual links provided therein; and lastly, *Pathos* encapsulates the extent of interactivity that is experienced amongst users at the social level (Grant, et al. 2015).

3.2 Results and Discussion

Having outlined the methods utilized in the study, let us now delve into the relative conclusions and consequent deliberations.

In light of the analysis in question, pro-vaccine websites emerge as rather weak, lacking virtually any persuasiveness (Grant, et al., 2015).

Grant et al. suggest that, by taking into consideration Vaccine.gov and Children's Hospital of Philadelphia Vaccine Education Center (VEC), the sites endorsing vaccination are lacking in the implementation of many advantages offered by the Web 2.0. Namely, the aforementioned pair of pro-vaccine websites are mainly focused on delivering relevant and accurate information deriving from well-established scientific facts, and while doing so, no additional attempts are made to establish a connection with the users, however restricted and minimal that may be (Grant, et al., 2015).

As opposed to anti-vaccination web pages, where interaction and sharing of one's personal experiences is a common practice, pro-vaccine sites are less inclined to reciprocal exchanging of

information, as well as fears, doubts and concerns around vaccination practices (Vaccines.gov., 2015) (Center, 2015).

Indeed, although pro-vaccine websites do make a partial use of media, the latter is not properly incorporated within the site as it merely reinforces its "information-driven" purposes (Lawrence, Hausman, & Dannenberg, 2014).

The reason for which one may claim that unidirectionality of information -and its transmission- is rather problematic is the following.

As stated by E. Lalumera (2018), growing media usage by the public is undeniable; hence, the need for alternative means of knowledge transmission emerges as utterly comprehensible.

Users should be able to establish a connection with physicians and scientists in order to allow for the development and strengthening of a potential relationship of affiliation, familiarity and above all, trust (Lalumera, 2018). Physicians should, thus, attempt to eliminate, or at least limit unnecessary boundaries which are distancing the two parties.

Involvement, discussion and engagement at the popular level is a requirement for the social community (Lalumera, 2018). In effect, "Vaccine.gov" and the "Children's Hospital of Philadelphia Vaccine Education Center" (VEC), by refusing to incorporate additional reciprocal and bilaterally driven features, may emerge as if they were merely trying to reinforce their sole and undiscussed authoritative position with respect to vaccination (Grant, et al., 2015). As a result, users are more inclined to view pro-vaccine sites under a negative light by fostering an image of physicians and academics who lack empathy and interest to bond with the users, helping them overcome their medical concerns.

Interactivity online suddenly becomes even more crucial when considering a Pew Research's Health Online 2013 poll, stating that *72% of Internet users surveyed looked for health information online and 35% opted to self-diagnose with Web-based information rather than visit a clinician* (Fox & Duggan, 2013).

Henceforth, by looking at the aforementioned statistics it emerges that the public seeks for social online platforms within which users are able to interact with one another, sharing personal experiences with vaccination and trying to weight benefits against potential risks (Lawrence, Hausman, & Dannenberg, 2014).

The lack of a similar communicative synergy on "Vaccine.gov" and the "Children's Hospital of Philadelphia Vaccine Education Center" (VEC) may consequently reinforce one's negative worldview around vaccination, as the sole platforms where their experiences may actually be heard is through the vaccine-skeptical websites (Grant, et al., 2015).

Having largely discussed around the weaknesses, which may be responsible for limiting the efficacy of pro-vaccine pages, let us now turn onto the vaccine skeptical websites and their format.

One of the first elements of concern accounts for the lack of accuracy and reliability of the information displayed in both the "National Vaccine Information Center" (NVIC) and the "Safe, affordable, necessary and effective vaccines and vaccination practices" (SANE Vax).

The latter, indeed, have shown evidence of misinformation as scientific claims are often analyzed incorrectly (Grant, et al., 2015).

As suggested by Grant et al., the primary objective is that of catching the attention of as many vaccine hesitant individuals as possible, by fostering a view of alternative medicine that is produced on the grounds of an "unconventional" perception of science. The latter is, as Grant et al. (2015) claim, characterized by a corpus of medical information whose credibility hinges upon the various personal experiences that are shared among the users in the web page.

Patients seeking clarification are, thus, easily "deceived" by the apparent objectiveness of the information provided by the anti-vax sites, as users may manage to placate their vaccine related fears through joint discussions as well as by simplifying scientific claims as to which many patients feel estranged (Kata, 2012).

Chapter 4: Populist and anti-vaccination *Ideal types* set side by side

4.1 Comparing the populist *modus operandi* with the vaccine refusal mindset

Unsurprisingly enough, the underpinnings of vaccine skeptical individuals seem to share some similarities with the populist logic (Martin, Niall, Gough, Chambers, & Jessop, 2019).

How so? Let us further explore this enquiry.

Generally, various analyses of the populist discourse tend to stress the notion of plurality- namely, social agents intrinsically defining the populist mindset as an amalgam of heterogeneous claims (Canovan, 1981).

Populism alone is void of any further value or significance; it is constructed by the demands posed by the public (Mudde C. , 2004). These sorts of requests are of various kinds and, although aiming at different objectives, they all share one common feature: the incapacity of being heard and properly fulfilled by the authorities concerned. Indeed, a generalized sentiment of skepticism and disillusion emerges as prominent amongst supporters of populist parties.

Furthermore, as it was notably stated by Laclau (2007), popular demands are inexorably addressed to those who are failing to incorporate these claims in a more institutional fashion and thus, this lack of action- due to unwillingness to act or incapacity to implement any solution at the institutional level- often leads to the development of an *antagonistic frontier* with "those in charge", refusing to satisfy a given set of requests (Laclau, 2007).

As a result of this, reciprocal antagonism and overall sense of negativity emerge as significant elements of the varied populist ethos. More specifically, as Laclau (2007) rightfully described: […] *populism involves the division of the social scene into two camps. This division […] presupposes the presence of some privileged signifiers which condense in themselves the signification of a whole antagonistic camp (the 'regime', the 'oligarchy', 'the dominant groups', and so on, for the enemy; the 'people', the 'nation', the 'silent majority', and so on, for the oppressed underdog – these signifiers acquire this articulating role accordingly, obviously, to a contextual history*).

In other words, populist reasoning hinges upon this inherent social division, the "we" versus "them" discussed in the earlier section of the dissertation, and it seeks to dismantle the established hegemonic order by means of replacing the failing, unresponsive one with a novel, efficient political order which promises to be satisfying "all the unsatisfied requests" (Canovan, 2000).

The question here is the following: what makes the populist logic so attractive to the public? On this matter, K. Weich's (1995) reasoning on the concept of "sensemaking" emerges as worthy of credence for the purpose of our analysis.

As Weich (1995) suggests, the concept of "sensemaking" is no misnomer, as it literally refers to the act of *making sense*, clarifying and illustrating a given circumstance (Weich, 1995).

Social agents, who are intended as active and intelligible, *construct sensible* and *sensable* events (Huber & Daft, 1987), by "structuring the unknown" (Waterman, 1990).

More in particular when individuals enclose stimuli within a given "frame of reference"- intended as a *generalized point of view that directs interpretations* (Cantril, 1944)- it capacitates them to "comprehend, understand, explain, attribute, extrapolate and predict" (Starbuck & Milliken, 1988).

In fact, social agents are prone to experience "sensemaking" as a *recurring cycle comprised of a sequence of events occurring over time* (Louis, 1980), which initiates as individuals commence with the development of *conscious or unconscious anticipations and assumptions* (Louis, 1980), the latter serving as a prediction relative to forthcoming episodes.

However, individuals can endure occurrences that may be at variance with the expected predictions, and this supposed divergence requires further elucidation, which is achieved by developing an interpretation of the various discrepancies (Weich, 1995).

On this matter, "sensemaking" shall include the *construction and bracketing of text-like cues that are interpreted, as well as the revision of those interpretations on the basis of actions and their consequences* (Weich, 1995).

Namely, it seems that individuals are placed within an environment where "they attend to cues, interpret the meaning of such cues, and then externalize these interpretations via concrete activities", until meaning is ascertained through association of cues with "well-learned and/or developing cognitive structures" (Howard, Baden-Fuller, & Porac, 1989).

In the final analysis, the establishment of a collective agreement concerning beliefs emerges as responsible for the attribution of validity and legitimacy to the beliefs in question (Weich, 1995).

In this context, it appears that the mechanisms through which the populist message is delivered, is so effectively produced as the diffusion of anti-vaccination ideas is.

Namely, the act of simplifying a certain political, social or medical fact by making it intelligible to the disillusioned, scared and confused public is a common practice for both groups.

Indeed, the populist logic carries an inherent anti-intellectualist vocation in so far as it rejects linguistic styles and postures that are distant from those that the people share and practice in their everyday life. *Intellectualism* or *Indirect language* thus emerges as antithetical with regard to the opposing "popular" or "direct" style of expression (Mudde & Kaltwasser, 2012).

In this vein, populist propagandists have aimed at reducing the alleged divergence between the *populus* and the *élite,* deciding to articulate their discourse as to allow for the understanding of a wider segment of the population (Urbinati, 2013).

For this purpose, they idea was, and is, that of substituting the formal and orderly "language of institutions and political procedures" with the direct, explicit and far less ceremonial "terminology of the masses" (Laclau, 2007). The primary objective here is that of acquiring votes and consensus in a simple, direct and straightforward fashion by making the people feel more involved politically. Although the general intent of populist parties- that is constructed in line with the notion of a greater political participation- does not merely emerge as part of a vicious corrupt and dishonest plan, it may be so only at first glance. Indeed, it is well established that populist leaders, agitators et similia, are inclined to spreading and diffusing information that are not properly checked by the authorities concerned, and that are selected specifically for the purpose of reinforcing a certain propagandistic message (Lowenthal & Guterman, 1949).

Let us further investigate on the latter statement, i.e. the phenomenon of selective exposure to misinformation. In order to do so, it may be useful to examine the case reporting evidence from the consumption of fake news during the 2016 U.S. presidential campaign.

More specifically, the relevant study from which we may extract useful information corresponds to a particular research, which was initiated by Andrew Guess (Department of Politics, Princeton University), Brendan Nyman (Department of Government, Dartmouth College) and Jason Reifler (Department of Politics, University of Exeter).

The aforementioned scholars joined forces in order to establish whether the warnings about the so-called online "echo chambers"- a partisan and selected *environment in which a person encounters only beliefs or opinions that coincide with their own, so that their existing views are reinforced and alternative ideas are not considered* (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020)- may have been excessive or even hyperbolic with regard to the possibility that these tendencies are causing selective exposure to specific politically compatible matters on social media platforms.

Indeed, "fake news" diffusion is a particularly current subject of discourse both in the American (Guess, Nyhan, & Reifler, 2018) as well as in the European context (Tremolada, 2018).

Indeed, studies estimate that *approximately 1 in 4 Americans visited a fake news website from October 7-November 14, 2016* (Guess, Nyhan and Reifler 2018).

The interest of this particular research lies in the growing pervasiveness of social media usage among the public, which has yielded a consequent concern relative to the creation of broad "echo chambers" and "filter bubbles"- the latter is specifically outlined as a situation in which an *Internet user encounters only information and opinions that conform to and reinforce their own beliefs, caused by algorithms that personalize an individual's online experience* (Guess, Nyhan, & Reifler, 2018).

Hence, however limited and restricted it may be, the risk of *information polarization,* as Guess et al. (2018) suggest, ought to be taken into consideration, nonetheless.

Indeed, relevant evidence in political science and psychology has revealed that erroneous judgments and perceptions are driven by the specific political orientation and civic identity defining a given individual (Flynn, Nyhan and Reifler 2017).

Notwithstanding this, how do people consume and perceive false information? Do the latter have the inherent capacity to reinforce preexisting beliefs concerning a specific political worldview? And, if the above stated hypothesis is true, to what extent are social media platforms a major component intensifying the selective exposure to misperceptions?

Finally, does selective exposure threaten the efficacy of fact-checking activities?

Let us evaluate these inquiries in a proper fashion.

First of all, it ought to be noted that the data gathered by this particular study provides useful insights on the vast production of fake news websites - mainly pro-Trump in their orientation - and their related consumption which has peaked, intelligibly, during the time of electoral campaigns in the United States. In that particular time of heated political debates and discussions at the popular level, substantial evidence was recorded in relation to the question of selective exposure, showing a correspondence between the conservative orientation and the relative, and perhaps consequent, propensity to consume and absorb fraudulent news on the web.

In other words, these results have contributed to the increasing concern reflecting the severity of the "filter bubble" and "echo chamber" reality, by displaying that the latter are broadly widespread, but also quite restricted to a limited number of individuals which corresponds solely to 10% of the public (Guess, Nyhan, & Reifler, 2018).

Finally, it has been proven empirically that social media usage, namely Facebook and similar social media formats- have played a crucial role in disseminating fictitious and selective information to the public, or better said, to the users (Guess, Nyhan, & Reifler, 2018).

As it was shown by Guess et al. (2018), social media are powerful tools that are especially responsible for creating an environment where an effortless access to fake news is easily achieved.

Additionally, fact-checking acts are often neglected and not effectively applied by individual users who fail to observe the veracity of certain information while surfing the Internet (Babbie, 2010).

On this matter, Babbie's advice in regard to searching the web, by addressing the major issues inherent to this practice, as well as suggesting feasible ways to avoid potential hazards, seems worthy of mention. Specifically, what is relevant to our discourse is the users' capacity to evaluate the quality of Internet materials in a proper fashion.

Namely, Babbie provides us with an overview of the most common questions and relative suggestions for the purpose of evaluating the data displayed on websites. Firstly, "who or what is the author of the website?". Specifically, in the face of the "democratic beauty" (Babbie, 2010) inherent to the web, the latter eliciting its accessibility to a widespread public in tandem with a lack of censorship, one ought to identify if the author of the website concerned is either an organization, or alternatively an individual.

Secondly, "is the site advocating a particular point of view?" (Babbie, 2010).

Namely, users should be aware and wary of the risk of encountering a website whose degree objectivity is rather weak.

Thirdly, "does the website give accurate and complete references?" (Babbie, 2010).

As Babbie puts is, proper and accurate clarifications are of paramount importance.

Furthermore, "are the data up to date?" (Babbie, 2010). This is a crucial passage as users ought to ascertain that the collected data are timely for their purposes (Babbie, 2010).

Moreover, "are the data official?" (Babbie, 2010), i.e. perusing data at official government research sites, such as the National Center for Health Statistics, the Bureau of the Census etc., is desirable. Additionally, "is it a university research site?" (Babbie, 2010).

Similarly to government research agencies, university research centers and institutes are reliable sources of information, as suggested by Babbie. Lastly, "do the data seem consistent with data from other sites?" (Babbie, 2010). Indeed, verifying data via "cross-check analyses"- *an analysis that involves an examination of more than one case, either a variable-oriented,* involving the *description and explanation of a particular variable, or case-oriented analysis,* aiming to *understand a particular case or several cases by looking closely at the details of each* (Babbie, 2010)- is paramount.

Along these lines, a recent study by Cinelli et al. (2020) provides further confirmation of the online users' tendency to hand-pick information coherent with their own worldviews, while neglecting those notions which are not in accordance with their own belief system.

More specifically, in order to explore this scenario, an *operational definition of echo chambers* was elaborated in tandem with a *massive comparative analysis on more than 1B pieces of contents produced by 1M users on four social media platforms: Facebook, Twitter, Reddit, and Gab* (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020).

Furthermore, this study emerges as particularly relevant as it surmised collected data relative to users' preferences about contended subjects – stemming from vaccines to abortion – and *reconstruct their interaction networks by analyzing different features, such as shared links domain, followed pages, follower relationship and commented posts* (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020).

This advanced method is useful for quantifying the alleged existence of echo chambers in correspondence with two main dimensions: *(i) homophily in the interaction networks, and (ii) bias in the information diffusion toward likely-minded peers* (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020).

Amongst the results, distinctive variance across social media can be identified: on the one hand Facebook and Twitter are heavily influenced by echo chambers in all the inspected datasets, while Reddit and Gab do not share this peculiarity.

Let us delve into the various empirical datasets, with a specific focus on the learnings concerning *Vaccines* and *Science and Conspiracy*, proposed by Cinelli et al. (2020).

Namely, the former category was analyzed via the downloading of posts extracted from specific Facebook pages, later distinguished into two groups, namely conspiracy news and science news. Specifically, researchers considered *75.172 posts by 73 pages categorized in Science and Conspiracy that involve N = 183.378 active users (at least 1 like and 1 comments) that co-commented 208.079,76 times,* and the *largest connected component of the co-commenting network has G = 181.960 nodes and E = 20.807.491 links* (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020).

The dataset reflecting vaccine attitudes on social media, was formulated via a three steps procedure: firstly, pages containing the keywords “vaccine”, “vaccines”, or “vaccination” were researched online.

Subsequently, untreated data was erased from specious pages.

Lastly, the totality of the *posts and comments from selected pages were downloaded and pages were manually classified in Pro-Vax and Anti-Vax groups* (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020).

Henceforth, an amount equal to 94.776 posts emerges, by *243 pages categorized in ProVax (145) and Anti-Vax (98) that involve 221. 758 active users (at least 1 like and 1 comment) that co-commented 46.198.446 time,* and the *largest connected components of the co-commenting network have N = 220.275 nodes and E = 46.193.632 links* (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020). From these considerations, one may reasonably argue for the existence of a supposed linkage, a connection between the *modus operandi* that is typical of vaccine-skeptical websites, and the populist theory of selective exposure to misinformation explained above.

4.2 Vaccine hesitancy and Populist attitudes review from a geopolitical standpoint

However, additional elements establishing robust nearness between the two phenomena can be identified quite easily.

It is generally agreed that patient's refusal to vaccinate themselves and their children is posing significant threats to the immunization process for which vaccines are widely utilized (Andrade, Sathyanarayana Rao, & Chittarajan, 2011).

Although the sort of evidence which we were able to acquire is merely unscientific and anecdotal, the hypothesized thesis that was formulated initially - laying out a correspondence between the rise of populist consensus and the growing vaccine hesitant and/or skeptical attitudes - emerges as rather solid (Kennedy, 2019).

Indeed, on the one hand we have investigated the common tendencies that both populist and anti-vaccination attitudes share with regard to the mutual inclination toward the employment of conspiratorial thinking, production and consumption of fraudulent news and lack of fact-checking procedures (Motta, Callaghan, & Sylvester, 2018).

On the other hand, having scrutinized the alleged existence of a linkage between the two scenarios in question, let us expand on this matter by exploring the possibility of a solid association on the grounds of geopolitical matters.

For this purpose, the national-level data analysis by J. Kennedy may appear fruitful (Kennedy, 2019). In the paper concerned, popular consensus to populism is measured as the number of people who voted for populist parties at the European Parliament elections in 2014.

Similarly, vaccine hesitancy is operationalized as the percentage of people who, when interviewed, had declared that vaccines are not essential requisites for the health and overall welfare of an individual, but rather maintained that vaccination is unsafe as well as unnecessary (Kennedy, 2019).

More specifically, results show the existence of a *highly significant positive association between the percentage of people in a country who voted for populist parties and who believe that vaccines are not important (R =0.7923, P = 0.007) and effective (R = 0.7222, P = 0.0035)* (Kennedy, 2019).

Conclusively, as averred by J. Kennedy (2019), popular reluctance to vaccines and populist mindset are, indeed, motivated by analogous dynamics, namely an acute wariness against professionals and established authorities- both of medical and institutional, or civic, expertise.

It may emerge as evident, thus, that this situation calls for a joint action of both political institution and medical experts who are burdened with the responsibility and duty to spread awareness, communicating solely on the basis of official, well-established scientific claims and responding to patients' fears and concerns relative to vaccination (Kennedy, 2019).

However, we will further evaluate the proper actions to be undertaken by those in charge later on in the discussion.

4.3 Pandemics as eliciting change in socio-political orientations

Preliminary findings by K. Blickle of the Federal Reserve of New York, have shed light on the existence of correlations between deaths in the years successive to the Spanish flu pandemic, and *subsequent support for right-wing extremists blaming minorities and foreigners for the pandemic and economic hardships that followed* (Blickle, 2020).

In particular, this study was aimed at contributing to the literature analyzing the potential socio-economic and political effects resulting from the recent spread of the Covid-19 pandemic (Atkeson, 2020). For this purpose, tangible elements of analysis such as *(i) city spending on amenities*, in tandem with *(ii) voting for extremist parties in Germany between 1925 and 1933* (Blickle, 2020) are examined, as they epitomize discrepancies between municipalities, the latter reflecting varying political preferences held by inhabitants.

In this context, Germany is recognized as being truly representative of this investigation, by being typified as the main locus of scrutiny, given the suffering endured as a result of a substantial amount of influenza deaths, the availability of comprehensive documentation on disease mortality, municipal expenditures, voting preferences, and the subsequent surge in extremist voting during the 1920s and 1930s (Brainerd & Siegler, 2003). Indeed, substantial findings were documented (Blickle, 2020).

Specifically, central to our discourse is the existence of an ethically relevant correlation with regard to influenza deaths of 1918 and a surge in the number of votes secured by right-wing extremists, such as the *National Socialist Workers Party*, in the course of the crucial elections held in 1932 and 1933 (Blickle, 2020).

Namely, as conceptualized by Blickle's investigation, *one standard deviation increase in the proportion of the population killed by influenza was associated with an up to 3% increase in the share of the vote won by the national socialist party* (Blickle, 2020).

Furthermore, the correlation between influenza fatality and the vote share collected by right-wing extremists emerges as reinvigorated in regions characterized by *historically blamed minorities, particularly Jews, for medieval plagues* (Voigtländer & Voth, 2012).

Perhaps, since the disease had injured young people in a rather disproportionate fashion, this sizeable modification in demographics may have altered regional attitudes dominating at the time (Blickle, 2020). Apparently, the disease may have bolstered a hatred of "others", having conceptualized the disease as an external threat, originating from abroad (Voigtländer & Voth, 2012).

The aforesaid claim is supported by Cohn's work or Voigtländer and Voth's investigations, as showing that an increase in foreigner/minority hate is prone to occur during some severe historical plagues (Cohn, 2012) (Voigtländer & Voth, 2012).

In light of this, it may be argued that *regions more affected by the pandemic may have gravitated towards political parties aligned with anti-minority sentiment* (Blickle, 2020).

In the final analysis, one may contend that, although the above displayed results are specific for influenza as opposed to other types of diseases or causes of death, they generate a novel and substantial contribution for a discussion on the effects of pandemics, by attributing greater significance to the alleged alterations within the sociopolitical domain, occurring as a result of disease transmission that yields fear, hatred and resentment at the societal level (Cohn, 2012).

Chapter 5: Trust crisis as a source for the depiction of our current social reality

Having illustrated the existence of a supposed association regarding the *forma mentis*- or better said, the mindset affecting the collectivity- and *modus operandi* at the heart of both phenomena under examination, it appears rather evident that the social, and diffused, distrust shall be regarded as the element at the core of the generalized surge in the opposition to vaccination and the corresponding rise in populism, i.e. namely, the utilization of conspiracy theories against respectively, the big pharmaceutical companies and health institutions, and the political élites in power (Martin, Niall, Gough, Chambers, & Jessop, 2019). The dynamics at play are closely intertwined, and the tools used to spread these messages, although different in terms of content, are fueled by the same distorted perception of trust, as an inherent component underlying conspiracies and anti-establishment positions (Davies, Chapman, & Leask, 2002).

5.1 Excursus on the Theory of Trust and The Syndrome of Distrust

It may now be appropriate to deepen on the concept of trust per se, exploring its relative functions and its main locus of existence and integration within a given sociopolitical framework. Notwithstanding this, I realize the notion of "trust" emerges as a highly sophisticated mosaic of interpretations, for it entails various meanings, theories and applications.

From this realization, I shall confine myself to dealing with the issue of trust in connection with the attempt to illustrate the existence of an association between distrust and sociopolitical decay.

As a matter of fact, any society's future envisages an area of complexity paired with a great degree of uncertainty and ambiguity.

Thorough examinations of individuals' everyday life reveal *trust as an irreducibly social foundation of interaction in the lifeworld* (Weigert A. J., 1981) (Weigert A. J., 1983).

In light of this, trust emerges as a detached, dispassionate social reality which is "not reducible to individualistic psychological factors" (Lewis & Smith, 1980) (Kasperson & Golding, 2005).

This comprehensive and integrated curving adjoins *theoretical robustness and scope to the construct of trust as a social a priori for all levels of social interaction*, whether *deeply interpersonal or globally transnational in character* (Lewis & Weigert, 1981).

Namely, the aforesaid conceptualization of trust as a "realist social a priori" endures relevant changes and alteration throughout emerging sociohistorical eras, such as a worldly-wise, ecumenic and cultured postmodern society, within which concerted actions may bestow pragmatist instances, and whereby trust is realized "among contemporaries who know each other as strangers" (Weigert A. , 2012). With the emergence of postmodern societies, favorable circumstances and new challenges to trust at the interpersonal, organizational and cultural levels, have emerged (Lane, 2001).

In this context, Seligman (1997) submits that "the role of trust in social relations is becoming more essential in modern societies", due to the increased freedom and growing "role ambiguity". Namely, trust is becoming *difficult to achieve precisely at a time when it is most urgently needed* (Seligman, 1997).

Thus, the pursuit for revived modalities of trust continues apace.

Under normal conditions, however, trust intervenes by reducing complexity and alleviating uncertainty, by taking some aspects of the future for granted and "bracketing" them (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004).

Trust is a resource revealing its crucial significance with regard to managing expectations and actions involved in a given social environment comprising free, active and rational agents and their relative performances.

However, in conditions of increasing social complexity individuals have operationalized ways of reducing uncertainty and fear (Sztompka, 1993).

More specifically, if we assume that "risk is unavoidable" - as it is a *byproduct resulting from interactions, which are also unavoidable* (Sztompka, 1993) - the remaining solution involves the idea of "giving and/or withdrawing" trust, the latter being conceived as a "leap of faith" or rather a "bet" on future contingent actions of others (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004).

Several implications may be extracted from the above-mentioned formula (Sztompka, 1993).

First, as averred by Luhmann, trust solely refers to human actions per se, as opposed to hope which dominates our attitudes towards events beyond human control (Luhmann, 1968).

Conversely, trust reflects a genuine response to human conduct that is potentially subject to our control as we may influence the others (Luhmann, 1968).

Furthermore, trust is often viewed as a bet, or better said, it deals with an expectation, an active and heartfelt commitment that is undertaken with a certain degree of probability, holding the belief that a given action will be, to a certain measurable extent, beneficial to the partners involved (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004).

Henceforth, according to P. Sztompka, trust is not merely an act of passive, detached estimation of beneficial outcomes. To sum up, trust is not a fate-related discourse, rather it directly stems from a treatise on agency. In any given society, trust is typically vested in one (or various) social functions and objects, occurring consistently at all levels (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004). As stated by P. Sztompka, if confidence decays, some other mechanisms are apt to emerge as functional substitutes for trust, satisfying the societal demands for orderliness, predictability, efficiency and fairness.

The very first reaction may be “Providentialism”, i.e. the transition from the discourse of agency to that of fate leads to the invocation of supernatural and metaphysical forces which are seen as “anchors” of some spurious certainty (Sztompka, 1993).

Socially speaking, however, this diffused sense of predeterminism is likely to bring about passivity accompanied by social stagnation (Sztompka, 1993).

A second perverse substitute for trust may happen to be corruption, the latter providing some misleading perception of orderliness and/or predictability to some kind of social exchange (Sztompka, 1993). A third mechanism refers to the profusion of growth on vigilance, meaning that individuals may start to “take into private hands” the supervision of others via the spreading of protective measures. Moreover, in a growing climate of distrust “ghettoization” (Sztompka, 1993) is apt to emerge and find its way through the society’s intrinsic framework.

For instance, with respect to the Communist era, Soviet domination had managed to produce a fairly strong stereotype depicting the state as some kind of “alien, imposed and hostile entity” (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004). At the time, the idea of nation and state reflected two mutually opposed concepts. While the former defined a cultural, linguistic or religious community rooted in sacred traditions, the latter was referred to as an “oppressive machinery of foreign domination” (Sztompka, 1993).

During the post war period, this strongly embedded archetype has produced a double effect. On the one hand, the phenomenon of “ghettoization” resulted in the affirmation and further idealization of the “private” sphere: most of the *people have retreated into the familial sphere, where they cherished and cultivated national traditions while silently complaining about the regime* (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004). At the same time, a strong negation of the “public” had crystallized within the social framework in question. Indeed, any deeper associations with the political domain was seen as “polluting, stigmatizing and even akin to treason” (Sztompka, 1993).

This shared feeling of anti-establishment eventually lead to the emergence of an alternative society, practicing “nonpolitical politics” within a “parallel polis” (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004).

Indeed, these “ghettos of horizontal trust” (Sztompka, 1993) were established to compensate functionally for the lack of vertical trust from institutions. Moreover, as this culture of distrust supposedly continues to develop, people start to dream of a “father figure”, a strong autocratic leader who would “purge with an iron hand” all distrustful persons, organizations and institutions, and who would restore (by force) the “resemblance of order, predictability and continuity” constituting social life per se (Sztompka, Eyerman, Alexander, Giesen, & Smelser, 2004). The sixth and last functional substitute is defined as the phenomenon of “externalization” of trust (Sztompka, 1993).

Namely, as discussed by Sztompka (1993), people start resorting to foreign societies, by confiding and depositing trust in their leaders (often idealized blindly, due to selective bias generated by media, accompanied by the lack of access to explicit opposing evidence) and institutions.

In a generalized climate of distrust, a vicious self-fulfilling mechanism starts to operate: to trust those who are deemed untrustworthy may be regarded as quite preposterous.

It is more rational, as inferred by P. Sztompka (1993), to be distrustful in a climate devoid of trust.

Paradoxically, he adds, those who manifest trust will not only "lose in the game", but will also be socially stigmatized for stupidity, naivety, credulity and simple-mindedness. Cynicism, egoism, opportunism, evasion of laws and successful attempts of outwitting the system turn into "virtues", yielding even deeper erosion of trust (Sztompka, 1993).

The question we may now pose ourselves is: how to break this vicious, self-enhancing sequence and how to reverse it?

The road towards the recovery of trust is certainly not an easy one, and the only viable policy is achieved periphrastically (Sztompka, 1993). More specifically, restoration of trust may be brought about by consistent governmental policies battling on the following fronts (Sztompka, 1993). First and foremost, consistency and irreversibility of pro-democratic policies must be safeguarded via a clear blueprint or logic. Namely, hesitation, ad hoc reversals, slowdowns on the democratic course must be averted, eliminating the atmosphere of a perennial and open-ended trial and error together with the idea of a "grand political experiment" (Sztompka, 1993), providing politicians with effortless pretexts for their failures, which shall be relinquished also. Furthermore, the rule of law, constitutionalism and judicial control is key.

When applying legislation, *there must not be place for voluntarism, arbitrariness, ad hoc action or opportunistic stretching and modification of laws* (Sztompka, 1993).

Precisely, the immutable principles of the Constitution must define the foundations of social and political organizations. Laws ought to be binding for all citizens irrespective of their status. Moreover, transparency and visibility with regard to governmental actions, policies and institutions is of paramount importance (Sztompka, 1993).

The generalized political demeanor must, as P. Sztompka (1993) puts it, "exude trust and show professionalism, seriousness, competence, truthfulness, concern for others and readiness to help". Hence, extensive training, meticulous screening and highly selective recruitment to all positions enjoying high social visibility are *prerequisites for generalized, institutional and positional trust* (Sztompka, 1993). Last but not least, Sztompka suggest that consistent decentralization of power, delegating competences to local authorities and providing local units with autonomy and self-rule may emerge as extremely effective.

Indeed, only when people feel that some public issues truly hinge upon them, will they cultivate public answerability and adherence to institutions (Sztompka, 1993). Conclusively, as Sztompka puts it, it appears quite evident that the crisis of trust will not be regulated without a strong political will and determination, acting as a silent and invisible force which penetrates into the inner structure of politics and society.

5.2 "Trust the people and reject the system"

Along the lines of Sartori's works- in tandem with much of the available literature on right-wing populism- populist parties are essentially labeled as "anti-system" (Betz, 1994).

As Sartori (1976) logically points out, an "anti-system" party is one that opposes the standing institutions and government. However, it seems noteworthy to mention that the populist "degree of antagonism" (Sartori, 1976) varies in accordance with the oscillating belief of the élites' maleficence. Despite the fact that these parties cover a wide range of attitudes –stemming from *alienation and total refusal to protest*- the populist common core lies within their *"de-legitimizing"* impact, which is strongly reflected in the shared attempt to undermine and destabilize the current socio-political establishment (Sartori, 1976).

A given political system is bound to confront a crisis of its legitimacy –or better said, a *legitimacy crisis* (Habermas, 1975)- when it is being significantly impaired in its base support by the existing societal fabric.

In the face of the aforesaid assumptions, one may justly inquire around the possible causes underpinning this deep-rooted populist distrust. More specifically, what is *trust?* How could the latter be declined in the current social fabric? In addition, what are the consequences of the continuing erosion of trust at the public level? And most importantly, to what extent is populism actively engaged in the establishment of an atmosphere of suspicion and misbelief?

In studies of contemporary politics, trust is increasingly perceived as holding great significance in the sociopolitical domain (Geurkink, Zaslove, Sluiter, & Jacobs, 2019).

Trust, indeed, plays a pivotal role by ensuring unity and cohesiveness among social and political communities, and thus, it minimizes grievous and agonizing hostilities.

Conversely, a lack of trust in institutions has been blamed for both voter apathy and populist mobilization (Geurkink, Zaslove, Sluiter, & Jacobs, 2019).

It has also become widely agreed upon that while generalized trust leads to a variety of social and individual benefits, declining levels of confidence yield, correspondingly, a loosening of the social fabric (Granovetter, 1973) (Fine G. A., 1991).

In accordance with recent political studies, it appears that there are two kinds of trust which are worthy of mention. Namely, one type is the product of Hardin's notion in accordance to which we can only trust someone if we have reason to ponder that they will act for the purpose of achieving our best interest -or 'as our agent'-on a specific matter, on the basis of the establishment of idiosyncratic, private and direct contacts arising from personal experiences.

The latter is also known as "personal trust" (Hardin, 1991) (Hardin, 1996). Oppositely, the other type of trust reflects the collective behavior within a larger society, in which trust is supposedly placed in the hands of the institutions.

The latter, however, are viewed as pursuing malevolent intents, and refusing to act on behalf of particular interests (Fieschi & Heywood, 2006). This assumptions rests on the deeply held populist belief for which institutions - hence, the élites- will not manage to act as "our agent", by lacking to peruse the most favorable solutions for the public (Rothstein, 2000).

Notwithstanding this, individuals ought to deposit their trust in institutions precisely because they may be drawn to believe that, although the institutional outcome may not be utterly in their favor, the process per se is bound to be impartial (Rothstein, 2000).

Thus, it is the very nature of governmental proceedings that essentially act as a "legitimizing device" (Sartori, 1976) with regard to the collective trust being placed within the various institutions. In a democratic framework, indeed, power is legitimately assigned to government officials as a result of a popular preference that is expressed through elections (Sartori, 1976).

Nonetheless, as administrations increasingly precipitate in corruption scandals, fewer electoral participation is bound to be recorded as a result of a growing rate of abstention and a corresponding decline in public support towards institutions (Betz, 1994).

Fluctuating levels of inter-personal trust within the framework of today's communities are, thus, threatening the stability of Western democracies, where political mobilizations, protests and civil disobedience are prone to soar (Fieschi & Heywood, 2006).

Indeed, among populism's fundamental structural traits, popular mobilization against the political and intellectual élites emerges as the most relevant trait to discuss.

Namely, the traditional "appeal to the people" (Canovan, 2005) not only implies a direct, simple and straightforward mode of expression, but it also includes a specific "populist mood". Its peculiarity is reflected by the inclusion of an emotional element within the populist way of doing politics - namely, populist politics, as Canovan puts it, *has the revivalist flavor of a movement, powered by the enthusiasm that draws normally unpolitical people into the political arena* (Canovan, 2000).

Moreover, this additional fervent constituent is likely to heighten the populist ambition to bring about a "great renewal" (Canovan, 2000), a re-establishment of the previously corrupted polity, i.e. the political community, by bringing the electorate, including the normally unpolitical people, into the political arena through enthusiasm and sense of unity.

Additionally, accompanying this mood is the popular proclivity towards a "charismatic leader" (Canovan, 1981), whose temperament epitomizes the personification of politics as a typical reaction to an anti-establishment ideology.

5.3 Distrust, fear and refusal to vaccinate: the core issues

Having illustrated the causes and consequences of a generalized mistrust at the political level, let us now investigate on the relative underpinnings of vaccine hesitancy, among which a diffused lack of trust, in tandem with a distorted risk perception, may emerge as one of the most fundamental elements at the core of the anti-vaxxer's reasoning.

As we have previously analyzed, trust from the public is crucial for the upholding of a political system that is assistive, durable and operative as well as for the maintenance of a strong and established sense of affiliation underpinning the patient-physician relationship. *It is correlated with patient satisfaction (which is arguably beneficial for health outcomes), and it boosts and maintains compliance with prevention policies* (Lalumera, 2018).

Conversely, distrust in the health care domain generates suspicion and oscillation in judgment, the urge to ask for a second opinion about diagnosis, and to seek 'alternative' medical approaches, namely by pursuing alternative vaccine schedules or to refuse vaccination in its entirety (Gray, 1997). In order to fully comprehend the perspective of vaccine hesitant individuals (comprising anti-vaxxers), we shall outline the features which qualify anti-vaccination's worldviews as a case of public distrust – or of decline in trust – towards health care systems.

Primarily, in accordance with the World Health Organizations: "A health system consists of all organizations, people and actions whose primary intent is to promote, restore or maintain health. This includes efforts to influence determinants of health as well as more direct health-improving activities…" (WHO, 2007).

Henceforth, the diversity of actors behind health care provisions may suggest that health care per se is a vast collection of institutions, comprising a variety of actors and stakeholders, i.e. governments, medical insurance companies, policy makers, medicine agencies, health practitioners (i.e. doctors, nurses), general and local managers of hospitals, patients, and the public (Lalumera, 2018). Additionally, market partners appear as occupying a relevant position within the health care context.

Namely, various relations that facilitate coordination and cooperation can be observed with regard to the aforesaid stakeholders at play.

For instance, pharmaceutical companies and technological industries that are committed to the provision of clinical and diagnostic equipment, finance the development of new commodities and merchandise them to health care providers, *from government to industry agreements (e.g. on the price of vaccines for nationwide prevention campaigns), to the bottom level of individual clinician's persuasion by representatives)* (Field & Lo, 2009).

These particular interactions have proven to hold great relevance in reference to the ability of health systems to achieve their objectives and, above all, function properly.

Evidently, as contended by E. Lalumera, synergic communication is at the heart of a well-established and functioning interplay between patients and health care providers.

Indeed, the patient-practitioner propinquity is the most popularly considered by researchers, among the aforesaid collaborative affiliations involved in a health care system (Strauss, 2000) (Katz, 1984) (Pellegrino, 1988). For instance, scholars have investigated the contending roles of paternalism and autonomy in fabricating and constructing the desired affinity.

Respectively, autonomy is explained as connected to the liberal ideal, originally attributed to Kant and Mill, and whose evolution has been extracted by other philosophical stances, stating that "one should live one's life according to one's values, desires, and preferences" (Buss, 2016). More in detail, the principle of autonomy is applied to the patient-practitioner relation as *a right to be informed* (informed consent) and *to choose one's treatment*, whenever the situation allows for it (Beauchamp & Childress, 2001).

Paternalism, on the other hand, refers to the belief that a compassionate, perceptive and conversant partner who protects and cherishes us, (commonly held as the state, but in this context the health practitioner is the main subject), and in virtue of such caring s/he is *entitled to make decisions on our behalf* (Dworkin, 2005). Notwithstanding this, it is often claimed that "old-times paternalism" of the medical field has been gradually, yet systematically consumed by patients' autonomy in the last century (Nys, 2007) (O'Neill, 2002).

Having discussed the underpinnings of the patient-practitioner relation and its application within the medical field, it may be noteworthy to explore the motives of the recent crisis of public trust in health care, which are various and diverse from a geopolitical and social standpoint.

Despite the vast diversity of social distrust's determinants, we shall mention some issues that emerge as invariant. Firstly, public trust in health care has been gradually eroded by the intensity of media coverage concerning scandalous medical errors, alleged secret motives of Pharma and related partners, and bribery of administrators and professionals (O'Neill, 2002).

Secondly, it may be argued that people are progressively encountering great difficulty with regard to their, often limited, access to care. Specifically, the growing expenses related to medical interventions, which in turn originate from research and technology's expenditures, economic crisis at the global level, aging populations and the reforms enacted by various national health systems in order to cope with such circumstances, are the core determinants limiting access to care (Lalumera, 2018). As a consequence, it appears that since public's expectations are rarely met, societies start feeding onto the belief that *financial gain or money saving is what the system actually cares for* (Cribb, 2008). Lastly, if observed from a broader perspective, we may realize that in high-income countries a weakening in *deference to authority* and *trust in experts in all fields* has occurred, and its damaging effects on medical and health care experts appear as veritable and conclusive (Whyte & Crease, 2010).

Indeed, as stated by Whyte and Crease, deficiencies in scientific communication and the social configuration of various panels of experts are amongst the motives of such decay.

Conclusively, as E. Lalumera puts it, trust in health care systems "ought to be restored not merely because it is (partially) lost – as not every lost relation is worth restoring *qua* lost – but because trust is an instrumental good for health care systems, and arguably also for society in general" (Lalumera, 2018). Let us further review these claims.

As averred by L. Gilson, trust is an auxiliary tool for health care systems, since it is conducive to the accomplishment of some of their "goals" – principally, but not solely, prevention policies, such as immunization practices hinging upon voluntary cooperation from the public - as trust ameliorates social competence, efficiency and cooperation (Gilson, 2006).

Broadly speaking, as health care systems – *especially national, publicly funded ones* – require such a large degree of state-citizen interaction in order to survive, declining trust will inevitably damage public trust *in the state itself* (Gilson, 2006) (Fukuyama, 1995).

However, in order to reconstitute and rehabilitate trust from the public, health care professionals in tandem with social scientists and philosophers, ought to clearly define the core meaning surrounding the idea of trust per se, by analyzing the ways it can be dropped, earned and secured, by framing *specifically targeted strategies addressed to the public* (Hall, 2006).

5.4 Experts and trust: a discussion declined in the current scenario

In just over a decade the world has experienced two negative shocks of epochal dimensions. The first was the effect of a virus that had developed in the world of finance, the second of a virus that lurks in our lungs (Alesina & Giavazzi, 2020).

Thus, one may claim that citizens may, perhaps, feel entitled to question institutions, experts and scientists involved by inquiring as follows: "what have the «experts» done to predict, avoid and assist politics overcome these crises?". Apparently, the aforesaid question shall be regarded as legitimate and deserving to be answered, as to prevent surging skepticism towards scientific advancements from continuing to produce phenomena such as the anti-vaccination movements (Pozzi, 2020), an American president who advises people to drink bleach (Jacobs, 2020) and politicians who today, in the midst of a very serious crisis, propose to bring Italy out of the European Union as to manage the current, and future eventual crises alone with a «new lira» (Giuliani, 2020).

After the 2008 crisis, economists received fierce criticism for not understanding how to mitigate the crisis plaguing the financial system. In truth, some had understood it very well. Specifically, figures such as Raghuram Rajan of the University of Chicago, then chief economist of the International Monetary Fund, or Robert Shiller of the University of Yale, who for this research in 2013 received the Nobel, and many other, less notable figures did perceive the underlying economic threats and mechanisms at play.

However, they were regrettably neglected by politicians and the public opinion (Alesina & Giavazzi, 2020). Fortunately, after the failure of Lehman Brothers, economists reacted quickly to prevent the crisis from turning into a second Great Depression. Ben Bernanke, then head of the Federal Reserve Board, Mario Draghi, then president of the European Central Bank, Olivier Blanchard, who succeeded Rajan as chief economist of the International Monetary Fund, Mervin King, governor of the Bank of England, truly salvaged the global economic scenario (Alesina & Giavazzi, 2020).

Today we read and hear from famous virologists and epidemiologists who research on viruses such as Covid-19, arising from contacts between animals and man, and who accentuate the "predictability factor" relative to the occurrence of the pandemic, stating that "it was to be expected sooner or later" (Alesina & Giavazzi, 2020).

What lessons should we learn from this? Do we wish to jettison and eject science? Perhaps not.

As Alesina and Giavazzi submit, without the progress in understanding how an economy works, from the books of Keynes and through Franco Modigliani, Milton Friedman and many others, the crisis of 2008 would have turned into a new Great Depression. Similarly, without the development of virology and medical science, the Covid-19 could have elicited greater harm than the Spanish flu of 1918, when the number of deaths was estimated at between 20 and 100 million (Alesina & Giavazzi, 2020).

On this matter, it may be important to distinguish between «scientists» and «experts».

Scientists work in laboratories, carrying out experiments, developing medicines and vaccines. Conversely, economists and social scientists "try to understand" (Alesina & Giavazzi, 2020).

For instance, they examine which policies are most effective to reduce extreme poverty with field research (these are those for which the last Nobel Prize for Economics has been awarded) (Alesina & Giavazzi, 2020). As the physicist G. Tonelli writes, “It is important that scientists speak to the public: we do need them” (Tonelli, 2020).

Their relevance is epitomized by their commitment to explaining and ascertaining that each result derives from hypotheses, that simulations, such as those made by epidemiologists, derive from statistical models, and that the hypotheses of the models must be clarified.

Above all, it shall be explained that the results of the simulations have a margin of error (Tonelli, 2020). Henceforth, the figure of the «expert» is a useful communicator, that is, a person who does not engage in active research, but is able to translate the results in a language comprehensible to the public (Alesina & Giavazzi, 2020).

For instance David Quammen, the author of *Spillover: Animal Infections and the Next Human Pandemic* (Quemman, 2012) , may be testament of this predicament.

Thus, that of the expert is a valuable function, but solely if, just as the scientist, the expert clarifies the limits of the results she divulges (Tonelli, 2020).

Unfortunately, however, the expert, especially if she is an «ex-scientist», doctor or economist, whose research activity dates back to a few decades ago, she may intervene, on TV or in the newspapers, without showing any doubt, sure that her opinion is right (Alesina & Giavazzi, 2020).

In the case of Coronavirus-related issues, these “experts” have often disoriented the public. Moreover, in Italy an additional type of expert is revealed: the «spin doctor».

“Spin doctors” are not precisely experts in the sense of the above, rather they are “jokers” (Alesina & Giavazzi, 2020), often engaged in spaces such as talk shows et similia.

Spin doctors instead, are often available, they can talk about anything, from politics to astrophysics, through economics and virology (Alesina & Giavazzi, 2020).

Having said that, the difference between a scientist, an expert and a spin doctor shall always be clear to everyone.

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Chapter 6: The Italian case

6.1 Anti-vaccination movements: an overview of the Italian situation

In the course of the last few years, periodic childhood vaccination has become an essential subject of discourse within the Italian political scene (Casula & Toth, 2018).

More specifically, a direct reference shall be made with regard to the Lorenzin decree (decree law no.73/2017), which widened the amount of mandatory vaccination and consequently fomented numerous divisions among public opinion and political parties (Montanari, Zaami, Cocchiara, La Torre, & Marinelli, 2018). Above all, the aforesaid decree encountered vigorous opposition by the League and the Five Star Movement (M5S)- the two formerly governing parties in Italy.

The latter is commonly defined as a populist party, while the former is of extreme right orientation. However, the interactions between the extreme right and populist discourses in Italy are quite common and shall be addressed (Casula & Toth, 2018).

This is especially true with regard to vaccination policies.

Indeed, both the former coalition partners have shown interest in modifying the Lorenzin decree at the time of its introduction (Montanari, Zaami, Cocchiara, La Torre, & Marinelli, 2018).

Significant disagreement, however, remained with regard to the procedures to be adopted.

On the one hand, the League has repeatedly affirmed its worldview for which no compulsory vaccination should be imposed, as parents ought to make autonomous decisions for their children with regard to medical interventions and practices such as vaccination.

On the other hand, the Five Star Movement's position on the matter emerges as rather weak and ambivalent. Namely, the statements released by the Five Star Movement prior to the 2018 elections, appeared as a rather drastic assimilation to instances presented by the Italian "no-vax" movements (Casula & Toth, 2018).

Shortly after the election period, however, several exponents of the aforesaid movement started to submit discreet and prudent judgments with reference to vaccine regulation in Italy, claiming that greater flexibility ought to be employed in the implementation of vaccine policies, although childhood vaccination per se, they argue, is not to be criticized.

6.2 Deepening on public health policies on vaccination in Italy

Childhood vaccination emerges as one of the most effective preventative measures to achieve immunization against infectious diseases (Bloom, Canning, & Weston, 2005).

Nonetheless, in recent years the Italian society has witnessed a significant reduction in vaccination coverage due to growing mistrust, fears and concern towards the potential risks caused by vaccine injections (Giambi, et al., 2018).

Let us further explore this matter.

Following the indications provided by the World Health Organization (Andre, et al., 2008), it follows that the aim of vaccine interventions is that of achieving "herd immunity", i.e. *the resistance to the spread of a contagious disease within a population that results if a sufficiently high proportion of individuals are immune to the disease, especially through vaccination in a given population* (Fine P. , Herd Immunity: History, Theory, Practice, 1993) (Fine, Eames, & Heymann, 2011). The latter is usually reached when at least 95% of the population is vaccinated, and thus immune to a certain infectious disease (Andre, et al., 2008). Notwithstanding this, the degree of vaccine coverage within the Italian society has barely reached the aforesaid percentage, consequently leading to serious health complications (Giambi, et al., 2018).

For instance, in 2016, the vaccine coverage pertaining to the so called "hexavalent vaccines"- comprising a series of vaccines such as anti-polio, anti-diphtheria, anti-pertussis, etc.- was recorded at 93,4% level on a national average basis (Epicentro, 2018).

Moreover, the percentage for MMR vaccination (measles, mumps and rubella) reflected a serious decline equal to 87% of vaccine coverage, in tandem with a mere 46% for chicken pox vaccination, once again, on a national average (ECDC, 2018).

From this data, it was suggested that the main cause underpinning this scenario is the decline in childhood vaccination coverage recorded over the course of the last few years (Salute, 2018).

What does this situation entail? A legislation, apparently.

A direct, efficient and solid government intervention was, and perhaps still is, of utmost importance for our society (Montanari, Zaami, Cocchiara, La Torre, & Marinelli, 2018).

6.3 The Lorenzin Decree: an analysis

Having observed the appalling decline in vaccine interventions, in May 2017, under the impulse of the Italian Minister of Health, the Gentiloni government favored the implementation of a decree law "containing urgent provision on vaccination prevention" , which finally increased the amount of mandatory vaccination for children (Montanari, Zaami, Cocchiara, La Torre, & Marinelli, 2018). More in detail, the four compulsory vaccination coming into effect through the decree are the following. Vaccines against *poliomyelitis, tetanus, diphtheria,* and *hepatitis B,* to which eight additional vaccination were implemented as "mandatory*"*- namely, those against *pertussis, Hemophilus Influenzae type B, measles, rubella, mumps, chickenpox, meningococcal B* and *meningococcal C* (Casula & Toth, 2018). In case of failed compliance to the aforesaid regulations, the government had prescribed several penalties, among which the exclusion of unvaccinated children

from preschool education and the imposition of pecuniary sanctions to those neglecting the provisions.

6.7 The League's position on the decree law no.73/2017

The League has maintained its negative view on the vaccination decree since the implementation of the latter. Indeed, during the course of various parliamentary debates, the League has manifested its opposition to the decree claiming that the latter was responsible for infringing Article 32 of the Italian Constitution, i.e. a legal safeguard for children (Casula & Toth, 2018). The main argument which is provided here, reflects the League's preference to adopt the strategy already implemented in another Italian region, namely Veneto, in which no vaccination appears to be compulsory due to the belief according to which the most desirable way to ensure popular adherence to vaccination is mere persuasion, rather than authoritative imposition (Montanari, Zaami, Cocchiara, La Torre, & Marinelli, 2018).

6.8 The Five Star Movement's worldview on vaccination: an ambivalent story

Differently from the League, the Five Star Movement has failed to reach a firm stance on vaccination. Indeed, as it was previously mentioned, the initial approach which the Five Star Movement's activists have adopted went along the lines of the anti-vaccination movements (Casula & Toth, 2018).

In principle, it is reasonable to argue that the Five Star Movement has knowingly manifested its paradoxical worldviews regarding vaccination: on the one hand, it proposes moderate solution towards the achievement of immunization while on the other, it tolerates and even endorses anti-vaccination positions.

Despite the fact that few attempts have been made to seek clarification on this matter, a considerable amount of disorientation remains around the general position upheld by the Five Star Movement (Casula & Toth, 2018).

Namely, the leader of the movement Luigi Di Maio has released various public statements for the purpose of defining the official position upheld by the movement toward the issue concerned: he, indeed, stated that the Five Star Movement does not oppose immunization per se, rather it criticizes the introduction of a vaccine mandate, which should, arguably, be brought about solely in cases of epidemics, being a "tool of last resort" for government officials (Casula & Toth, 2018).

To cite a few instances where both the Five Star Movement and the League have given credence to the rising influence of anti-vax movements, we shall mention the various headline campaigns such as *Siamo* – its corresponding translation in English being "We are for Freedom of Care"- which, having inspired the creation of the *Trento billboard* (De Montis, 2019), it insisted *ordinary citizens rather than "experts" should be making medical decisions* (Broder, 2019).

Following these claims, both the Five Star Movement and the League have supported the possibility of allowing the entry of unvaccinated children in schools, regardless of the consequences and risks which this decision may entail.

Chapter 7: A consistent equivocation

7.1 Vaccine refusal and parents' ambivalence

Having largely discussed the populist phenomenon in relation to the increasing popular concern towards vaccination, one may submit that the impact resulting from vaccine refusal is rather crucial with regard to young children who shall, arguably, remain under the obligation to respect their parent's decisions regarding various medical treatments, amongst which vaccination is confidently rejected by several parents (Giubilini, 2018).

Surely, parenthood often implies an innate, inborn and spontaneous urge to ensure that the child in question is being cared for (Winslade, 2014).

Generally speaking, one may rightly agree that parents do consider their children's preferences.

As claimed by W. Winslade, in terms of state laws, it appears rather clear that parents are given virtually exclusive authority to make crucial medical considerations regarding their child's body and welfare. Specifically, vaccine refusal is a particularly controversial subject from which great suffering and health complications may arise due to parents' presumptuous rejection of vaccine interventions on their child (Dubé, et al., 2013).

Furthermore, research has shown the substantial degree of ambivalence and incoherence which dominates the general health management and control that is exercised by parents embracing anti-vaccination's ideologies (Reich 2020). Indeed, according to J. Reich (2020), families who assuredly refuse vaccination and similar treatments often peruse pediatric care.

Let us now translate this latter statement into a proper hypothesis-like formulation.

In order to do so, we shall highlight the variables at play. Precisely, those involved and interviewed were 34 parents between 2007 and 2014, who lived in Colorado (29 mothers and five fathers) and who contested experts' recommendations on vaccines for their children, either by refusing every type of vaccination or by consenting solely to some specific vaccines of their preference.

Hypothesis n°1: Parents who inexorably repudiate vaccines and other forms of medical intervention often pursue pediatric care (Reich 2020).

From these presumptions, we will extensively delve into the, rather ambivalent, strategies that are being utilized by these families in order to administer, regulate and oversee their children's welfare in medical and pharmaceutical terms. Ultimately, an additional point to be covered may come to mind.

Hypothesis n°2: It is time to reconsider the rights of children and adolescents to challenge their parents' legal authority or, at least, to recognize that children have a right not solely to voice their

preferences, but also to assent, if not consent, to such significant medical-based decisions (Winslade 2014).

7.2 Expanding on Hypothesis n°2

On this view, I will attempt to endorse the argument supporting the moral rights of a child- whose age supposedly ranges in between 0-9- or, even more so, an adolescent- aged 10-18- to consent to, or refuse medical treatment (Winslade, 2014).

Indeed, as a matter of respect, both the parents and the physician's ought to show consideration for their children by regarding them as persons, treating them in a self-effacing fashion and giving them due regard for the preferred interventions of a competent child, in tandem with the reasons that support them (Winslade, 2014). Indeed, in most Western countries the law traditionally, and conventionally, presumes that parents exercise parental duties in accordance with the child's best interest (Jonas, 2007), as to ensure the preservation of the proper social functioning, especially in terms of health care management and decisions.

In some circumstances, however, Winslade (2014) argues that adolescents, at least those displaying a sufficient "level of maturity" – the latter being ascertained by proper institutional organs and competent, ad hoc judicial committees, as stated by Winslade - should have the right to refuse medical treatment over the objection of their parents and the recommendation of their physicians.

Most importantly, Winslade (2014) contends that minors should not be presumed to be neither competent nor incompetent. In this vein, parents and physicians may discuss the adolescent's medical needs to help them appreciate treatment options, but ultimately, the decision of a mature minor should neither be usurped nor ignored (Winslade, 2014). Namely, the basic right for personal autonomy of underage patients, in tandem with the right to integrity of bodies and minds, shall not be utterly disregarded by the legal rights of parents (Beauchamp & Childress, 2001).

7.3 Expanding on Hypothesis n°1

Evidence shows that parental healthcare strategies *exist within individual, interactional, and institutional contexts that shape decision-making* (Reich, 2020).

Parents tend to respond to medical recommendations in various ways; in some cases, they accept medical treatments and internalize the latter to the point they deem them as "theirs", and for some parents, medical opinions, although ought for, are rather irrelevant as they perceive themselves as the sole and unquestionable administrators of their children's care (Buchanan & Brock, 1990).

Hence, it emerges that parents are generally inclined to manage their children's health in a way that is the product of individual assessments and medical opinions for which the parents may tend to claim partial ownership, if they agree with the latter (Checkland, 2001).

In this context, parents have systematically displayed great ambivalence regarding the feasibility of pharmaceutical intervention (Reich, 2020).

More generally, J. Reich contends (2020) that narratives of shifting attitudes on pharmaceutical treatments were especially voiced by parents with reference to the vaccine refusal, in tandem with parents' acceptance to pharmaceutical interventions.

This inherent ambivalence is, indeed, at variance with the fact that parents do accept prescriptions offered by physicians, despite their profound reluctance to "cede their control" to experts, who apparently do not enjoy much popularity amongst the subjects in question (Reich, 2020).

In this vein, sociologists have shifted their focus on the "changing notions of the body", which have led to a greater consumption and demand, predisposing to enhancement and optimization, inducing significant changes in economic terms (Clarke, et al. 2003).

Priorities have changed at the societal level, and different processes and mechanisms have been brought about in the medical domain (Conrad, 2005).

A deeper understanding of these current narratives may be desirable and rather informative for health providers, as well as for those seeking to ameliorate the vaccine acceptance rate among the public. This is true for a variety of reasons.

Apparently, parents' strategies emerge as illogical, confused, ambivalent, and thus easily rejected by physicians. Notwithstanding this, attempting to understand how these decisions are intertwined and linked with one another, is of paramount importance for the purpose of building solid treatment relationships with parents "across and despite their ambivalences" (Reich, 2020).

In this vein, it is equally relevant to encourage public health advocates to spread awareness on the fact that vaccines *are not distinct from other pharmaceuticals products, but on a continuum of pharmaceuticals offered to manage children's bodies* (Reich, 2020).

Too often, indeed, are vaccine being perceived as fundamentally different medical operations, given the vast series of beneficial effects which are produced by the latter (Bloom, Canning, & Weston, 2005). In addition, due to this generally held conviction, the public is easily triggered by the fear of vaccines being excessively linked to the growing *pharmaceuticalization* process, the latter defined as the "process by which social, behavioral, or bodily conditions are treated, or deemed to be in need of treatment/intervention, with pharmaceuticals by doctors, patients or both" (Abraham, 2010) (Conrad, 2005).

Lastly, recognizing the fact that parents aim to remain autonomous -at least partially- while managing their children's' health, may be of great benefit for health care providers seeking to establish a trustful affiliation with their patients.

Chapter 8: Current issues and further considerations

8.1 Covid-19 and shifting attitudes on vaccines' significance

The previously mentioned shifting behavior, which may be typified as typical of vaccine skeptical groups, can be recorded when referring to the novel phenomenon of the Coronavirus, also known as Covid-19. Namely, the spread of this particular virus has led to catastrophic consequences in terms of social, economic and sanitary damages.

Starting its transmission within the Chinese territory, specifically within the Wuhan province, the virus has quickly reached a significant amount of countries, which were hit by this catastrophe to varying degrees.

The severity of the situation has, nonetheless, been conducive to the constitution of an atmosphere of terror, panic and intimidation among the public and the institution who were, and still are, forced to cope with this rather unfamiliar situation.

The measures adopted as an attempt to contain and mitigate the spread of Covid-19 have been rather drastic. The shared aspiration has been, and once again still is, to achieve the viability of a vaccine allowing the actual consumption of the latter by the general public.

One may refer to this as a "common hope"; a truly and mutually felt desire to find an effective treatment able to terminate the spreading of this illness. This may be so because of the great, unprecedented level of distress, fear and anxiety, which was, and perhaps still is, perceived at the social level by many. One may infer that virtually no one would dare opposing to the mere potentiality of acquiring vaccination against the highly contagious and, sometimes fatal, virus Covid-19, which has been circulating and spreading worldwide at an incredibly rapid pace.

Unfortunately, it is premature to try to collect data, initiate surveys and research for the purpose of further investigating the social impact of Coronavirus; however, the empirical perceptions are quite clear. Concern, fear and inquietude fill our lives on a daily basis.

A great deal of capacity and trustworthiness has been rightly ascribed to those societies who, having been affected by the virus, had to experience an unprecedented national lockdown.

However, the popular response was fairly positive.

One may suggest that individuals can be easily triggered when it comes to precarious situations of the like.

As a result, individual efforts have been made, and are being made, in order to contribute to the mitigation of this pandemic. Indeed, the term "pandemic" per se is likely to prompt feelings of discomfort, anxiety and uneasiness to those living in the aforesaid situation.

Henceforth, it is auspicable, although merely conjectural, that whenever a specific objective becomes a common desire or need, individuals are more prone to lay aside their anti-establishment, conspiratorial and extremist behaviors for the purpose of terminating a situation of great dismay affecting the public as a whole.

More specifically, during the pandemic outbreak the desired objective to be reached should solely be that of limiting the damage which is likely to occur at both the social, economic and sanitary level, and with that being inferred, few may still be eager to promote anti-vaccination theories, while vaccines are so heartily yearned by those in need to protect themselves against the fatal consequences of a virulent disease.

Experiences do shape people's ideas and, however subjectively true, it is equally veracious that precarious and tragic situations do play an impact on one's worldviews.

In the final analysis, the unprecedented Coronavirus outbreak may have well established, at least partially, that fear puts us all on the same level, dealing with similar difficulties and contemplating the same, positive outcome.

Concluding statements: discussion and evaluation of feasible solutions to mitigate the vaccine controversy at the popular level

In light of the aforesaid considerations, we may finally draw our conclusive statements.

Trivially, the thesis's essential core is encapsulated by the claim asserting the existence of a linkage between populist political orientations and vaccine related attitudes.

Several indicators verifying this connection have been identified, in tandem with multiple studies reporting data as a confirmation to the hypothesized thesis.

Hence, we may quite confidently aver that "vaccine skepticism grows in line with the rise of populism" (Kennedy, 2019). In particular, vaccine reluctance - for children especially- has risen across Europe, as it was rightly documented by the aforementioned study of the European Journal of Public Health by J. Kennedy (2019), which also suggests that public health professionals ought to actively monitor populist claims on vaccination as to interpret the latter in terms of an alternative indicator of vaccine hesitancy. Furthermore, studies have shown that those countries who have experienced a surge in the amount of infectious diseases spreading across the continent, are also those countries where populist driven governments have reached powerful positions (Kennedy, 2019).

To name a few, the Italian, English and American situations are of prominent significance, as it was previously explained.

However, even if taken individually, the two phenomena seem to share multiple features.

As it was reported through various analyses, both populist parties and anti-vax movements are prone to exploit the sensibility of the public, by triggering the "fear factor" and fomenting instinctual aptitudes, which often fail to be supported by rationality (Mudde C. , 2004).

Evidently, when individuals are put in this sensitive position, they are inclined to give credence to claims that are likely to be fraudulent, as they tend to be the direct product of conspiratorial, anti-elitist and disillusioned worldviews (Butler, 2020).

In this vein, populist reasoning and vaccine hesitancy go along the same lines.

Why so? Simply put, the profound distrust is, in both scenarios, the underlying motor of their actions and claims (Martin, Niall, Gough, Chambers, & Jessop, 2019).

More specifically, while big pharmaceutical companies may be the major concern and the biggest enemy for anti-vax communities, with regard to populist activists it is the governmental bodies and institutions who trigger the hatred and profound mistrust underpinning the populist schemes. Moreover, an additional element of comparison that was subjected to our analysis refers to the inherent ambivalence and "equivocation" (Weich, 1995), underpinning both the populist discourse and the claims produced by the anti-vaccination groups.

Indeed, incoherent, ambiguous and often fraudulent assertions are put forward via social media platforms especially, the latter being able to disguise the truthfulness of a given claim by modifying its content or adjusting it, as to stimulate a vigorous reaction by the public opinion (Cinelli, De Francisci Morales, Galeazzi, Quattrociocchi, & Starnini, 2020).

Consensus and cooperation are key components in this process, as we have observed.

On the one hand, anti-vax websites are dotted with fictitious facts, which fail to be sustained by any scientific base (Andrade, Sathyanarayana Rao, & Chittarajan, 2011).

Similarly, populist propaganda relies on the promise of implementing measures that are not far from being labelled as "utopian" (Lowenthal & Guterman, 1949).

Both political groups seem to be aiming at people's irrational and unmediated inclinations (Abalakina-Paap, Stephan, Craig, & Gregory, 1999). Indeed, neither rationality nor science underpin either populist or anti-vaxxers' sentiments. The latter are, at least partially, the mere product of a populist concern, which is devoid of any scientific foundation (Blickle, 2020).

This emerges as logical and reasonable in relation to the fact that the eruption of a global pandemic seems to have decisively mitigated "populist driven" vaccine refusal claims, as the collective risk perception may be apt to substitute the populist "anti-establishment" desire.

Henceforth, is it audacious to hypothesize the "death of populism" as a result of the Covid-19 pandemic? Although similar considerations may be prematurely elicited, we can confidently affirm, as Cas Mudde writes (2020), that the Coronavirus will not "kill populism", given that populist-oriented governments around the world have not been able to display a homogeneous and unified approach for the purpose of addressing this health crisis.

According to Mudde, the Coronavirus emergency will affect the governing populist parties in a rather moderate fashion, meaning that *some will win, some will lose, and some will stay the same* (Mudde C. , 2020).

Notwithstanding this, let us attempt to provide some useful evaluations with regard to the feasible solutions required as to prevent any further outbreak of politicized anti-vaccine hysteria, with a specific focus on the current health crisis elicited by the Coronavirus.

Arguably, the astonishing diffusion of the novel Coronavirus has quieted the situation by extinguishing, in part, oppositions against vaccination.

Indeed, as it was previously discussed, the general perception of this virus may have modified people's priorities and needs in a potentially definitive fashion. Nonetheless, we do not hold any sort of warranty over the fact that this phenomenon might have not brought about changes and consequences of a mere temporary nature.

Indeed, I recognize that in order to produce correct information on Covid-19, the collaboration of multiple disciplines is paramount, and it shall entail the participation of virologists, epidemiologists, health managers, physical and mathematical modelers, economists, evaluators of public interventions, as well as statisticians (Allevi & Zuliani, 2020).

Hence, as Allevi and Zuliani (2020) recommend, a real "interdisciplinary intention" in tandem with a strong "inter-institutional collaboration" is needed at the center and on the territory.

In this vein, it may be important to evaluate possible solutions apt to tackle the shifting attitude characterizing vaccine hesitant individuals.

As illustrated above, in order to achieve a better understanding of the vaccine hesitancy phenomenon, we ought to place it in a context of "changing scientific, cultural, and medico-legal and media environments" (Dubé, et al., 2013).

Indeed, the first step towards addressing the "vaccine confidence gap" (Larson, Cooper, Eskola, Katz, & Ratzan, 2011) is to try to contextualize it within our current situation.

Specifically, reviews of the different approaches for collecting data on the epidemic from SARS-Cov-2 until April 2020 has yielded the identification of four different ways of operating, the latter being presented by G. Alleva and A. Zuliani (2020).

The first strategy consists of a massive campaign of tests conducted regardless of the presence of symptoms, and without following a sample drawing.

The essential aim is to identify those who are infected (Allevi & Zuliani, 2020) .

It was adopted by South Korea, Hong Kong, United Arab Emirates, Australia, Iceland and also by Germany, as well as in Italy, by the Veneto Region (Allevi & Zuliani, 2020).

The second strategy involves diagnostic tests on a probabilistic sample oriented to the "estimation of variables of interest with fixed levels of precision" and including the "participation of asymptomatic people" (Allevi & Zuliani, 2020). Indeed, the project of the Helmholtz Center for Research on Infections in Germany for the detection of specific antibodies of Covid-19 out of 100,000 people (Hackenbroch, 2020) is testament of this strategy.

Additionally, a similar approach is registered in Romania which reported to a random sample of 10,500 people from Bucharest, tested under the supervision of the Matei Bals Institute of Infectious Diseases in Bucharest (Romania-insider.co., 2020).

Finally, it is the case of two locations in Canberra, where testing was conducted by the Australian Capital Territory (ABC, 2020).

The third strategy is an "extended web survey with voluntary participation" (Allevi & Zuliani, 2020).

As noted by Allevi & Zuliani (2020), the aforesaid strategy has been tested in Israel on about 60,000 people who have provided information on age, gender, address, general health status, particular symptoms related to Covid-19 and possible states of isolation.

The main purpose, as stated by Allevi and Zuliani (2020), is to compare testing and instances of contagion with individuals presenting different socioeconomic characteristics.

Finally, a further possible strategy is to use plant and formats, properly integrated to gather information on the epidemic, of pre-existing surveys.

This is the proposal of the Centre for European Policy Studies, originally presented by Daniel Gros (2020), for the use of the large European panel sample on income and living conditions, also known as EU-SILC (Gros, 2020).

More specifically, Dewatripont et al.(2020) advised using the EU-SILC panel for two surveys: the former verifying the presence of infection, while the latter corroborating immunization (Dewatripont, Goldman, Muraille, & Platteau, 2020).

In a similar vein, the International Labor Organization has urged the National Statistical Institutes to introduce a module for assessing the impact of Covid-19 in their work surveys, possibly removing sections with lower priority (ILO, 2020).

In the final analysis, it appears that countries have adopted multiples approaches in a simultaneous fashion, and have resolutely integrated data from different sources: specific sample surveys, administrative data and information collected through mobile phones and via the web (Allevi & Zuliani, 2020).

By analyzing the matter from a broader perspective, we may realize that because of the growing interest in vaccine reluctance, different plans of action have been formulated for the purpose of enhancing vaccine acceptance.

Experts have suggested a series of useful strategies, including greater clarity and transparency of vaccine related programs developed at the institutional level, insisting on spreading awareness among the public with regard to the circulation of erroneous and anti-scientific claims regarding vaccination, and thus, also providing health professionals and medical authorities with proper indications to cope with a concerned public (Dubé, et al., 2013).

Additionally, following the suggestion of Larson and his collaborators, *"additional emphasis should be placed on listening to the concerns and understanding the perceptions of the public to inform risk communication and to incorporate public perspectives in planning vaccine policies and programs"* (Larson, Cooper, Eskola, Katz, & Ratzan, 2011).

Ultimately, it seems reasonable to conclude with an underlying appeal to the vaccine community.

The latter should, indeed, demand greater rigor and additional effort for the purpose of further investigating the social, psychological, and political underpinnings which are responsible for affecting the level of public confidence towards vaccines.

With research, it comes awareness, and with awareness, it comes trust.

A trustful public is key for a functioning and engaged democracy, where political ideologies do not represent a threat to the common welfare of society, but rather an added value.

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Riassunto

Appare piuttosto indubbio che i vaccini siano una delle misure più efficaci della medicina preventiva, in quanto garantiscono protezione dalle malattie ed infezioni a livello collettivo. Tuttavia, le manifestazioni di sentimenti contrari alla vaccinazione sembrano essere pericolosamente in aumento tra il pubblico. La diffidenza nei confronti dei vaccini può essere attribuita anche all'accezione negativa proposta dai notiziari e i centri di intrattenimento, sottolineando ulteriormente la

convinzione diffusa che i vaccini siano inclini a causare rischi più elevati rispetto ai benefici per la salute di coloro che li ricevono. Inoltre, il recente calo della vaccinazione sembra essere dovuto a motivi personali, vale a dire convinzioni religiose e/o filosofiche. Alla luce di questo, si può supporre che il fenomeno anti-vaccinazione, qualsiasi siano le cause, appaia significativamente colpevole di aver invertito decenni di progresso scientifico, compromettendo pesantemente il successo finale delle pratiche vaccinali. In questo senso, ho voluto argomentare che i sentimenti di sfiducia e di opposizione contro la vaccinazione sono un mero riflesso, una chiara manifestazione, dello status sociale e politico che caratterizza la modernità.

In effetti, la mia tesi principale verterà sulla presunta natura associativa tra il calo delle vaccinazioni e la relativa affermazione di ideali populisti radicalizzati.

Questa dissertazione esaminerà la questione, approfondendo ulteriormente i possibili fattori comuni e qualitativi, i quali potrebbero contribuire a definire un quadro più chiaro relativo alla condizione politica e sociale attuale. Alla luce delle considerazioni sopra esposte, procediamo ora con la nostra analisi presentando brevemente i vari metodi attraverso i quali le nostre ipotesi saranno esaminate. Ci riferiremo, dunque, al progetto metodologico di Weber, quest'ultimo concepito per “fondere le scienze culturali e sociali “(Mehrgani 2007).

Più in dettaglio, intendo effettuare la mia analisi costruendo un ragionamento che nasce da un approccio analitico. Ovvero, l'idea di fondo si concentrerà sull'intenzione di acquisire ulteriore consapevolezza circa l'unicità caratteristica della realtà in cui ci muoviamo, in modo da fornire la formulazione di un esame più dettagliato per quanto riguarda i tipi ideali raffiguranti, da un lato, il discorso anti-vaccinazione e, dall'altro, lo spirito populista.

In primo luogo, ogni fenomeno sarà definito in modo separato, come risultato di un'indagine approfondita che mirerà a identificare ed interpretare i singoli eventi. Infine, sulla base delle considerazioni iniziali, raggiungeremo la nostra destinazione finale: tenteremo cioè di fornire una spiegazione causale che faccia luce sulla presunta esistenza di una correlazione tra la metodologia di condotta a sostegno di entrambi i suddetti argomenti di analisi. A sostegno di questa ipotesi, verranno infine forniti vari esempi di natura empirica, ispirati alla situazione sociopolitica italiana, in particolare.

I primi capitoli della mia tesi tentano di evidenziare come le pratiche vaccinali abbiano provocato preoccupazioni, inquietudini e come queste ultime abbiamo generato affermazioni drammaticamente imprecise, sin dal momento della loro creazione e della relativa diffusione a livello pubblico. Dunque, si afferma che l'esitare del pubblico rispetto ai vaccini non riguardi un fenomeno inedito. In effetti, la resistenza e il dissenso contro i vaccini sono stati espressi nel corso dei decenni da vari individui, tra cui alcuni personaggi influenti i quali denunciarono pubblicamente la loro avversione

contro i vaccini, definendo questi ultimi come pratiche “innaturali e blasfeme”. Cito, ad esempio, il reverendo Edmund Massey il quale, mentre operava in Inghilterra, aveva etichettato i vaccini come "operazioni diaboliche" nel suo sermone del 1772 - "La pratica pericolosa e peccaminosa dell'inoculazione".

In questo senso, un simile dissenso religioso si era manifestato attraverso le parole del reverendo John Williams nel Massachusetts che aveva presentato accuse altrettanto dure contro l'istituzione e la diffusione dei vaccini, quest'ultimo declamato come "opera del diavolo".

Nonostante ciò, le ragioni teologiche non erano gli unici argomenti che alimentavano il rifiuto del vaccino all'epoca; l'opposizione si manifestava anche a causa di questioni politiche e giuridiche. Più precisamente, a metà del XIX secolo, si sono levate significative proteste con l'emanazione di leggi che obbligavano i genitori a vaccinare i figli.

Gli attivisti anti-vaccino divennero così estremamente vocali e decisero di formare la cosiddetta "Anti Vaccination League" di Londra, che mirava a rafforzare la protezione delle libertà del pubblico contro l'atteggiamento coercitivo del parlamento britannico.

In definitiva, la Lega riuscì nel suo intento; il Parlamento aveva effettivamente approvato una legge che annullava le sanzioni derivanti dalla mancanza di obbedienza alla legge, consentendo così ai genitori di mantenere la loro libertà decisionale per quanto riguarda la possibilità di vaccinare i loro figli. Inoltre, studiosi come Robert Wolfe e Lisa Sharp, hanno affermato che le attività svolte dagli odierni propagandisti contro l'immunizzazione possono essere facilmente abbinate a quelle proposte dagli attivisti anti-vaccinazione della fine del diciannovesimo secolo.

Sebbene i metodi di diffusione delle informazioni siano cambiati radicalmente nel corso dei secoli, i sentimenti di apprensione e di disagio causati dai vaccini sono perlopiù invariati rispetto al loro primo avvento. Negli ultimi anni, gli spiriti di rifiuto del vaccino sono stati rivitalizzati dalla pubblicazione di un articolo sulla famosa rivista medica "The Lancet". L'autore del suddetto articolo è un certo Andrew Wakefield, ex medico e ricercatore britannico che ha avanzato le seguenti idee. In particolare, egli ha fortemente alimentato la convinzione per la quale una connessione tra la vaccinazione MMR e l'emergenza dell'autismo era davvero degna di credito.

Tuttavia, durante una fase successiva, la logica secondo la quale il vaccino MMR possa scatenare l'autismo è stata pesantemente messa in discussione anche grazie agli studi epidemiologici, che sono stati condotti e successivamente pubblicati. Di conseguenza, la comunità scientifica e medica nel suo insieme ha respinto con forza il legame ipotizzato. Inoltre, alcuni dei coautori dell'articolo in questione, i quali sostenevano che fosse avvenuta un'errata interpretazione dei dati raccolti, pubblicarono una breve ritrattazione. A questo, seguì un'ammissione di The Lancet. In effetti, si sosteneva che Wakefield et.al non avesse divulgato gli interessi finanziari. Vale a dire che gli autori

impegnati nella composizione di tale studio godevano di finanziamenti dalle parti in causa contro i produttori di vaccini.

Ne conseguì, dunque, che *The Lancet* dichiarò l'articolo come antiscientifico, rimuovendolo immediatamente e ritirandolo nel febbraio 2010. Da queste realizzazioni, Wakefield et al. furono accusati di "violazioni etiche e di falsa rappresentazione scientifica" (Andrade 2011). Nonostante le smentite pubbliche, le false affermazioni contenute nell'articolo in questione avevano causato molti danni in un periodo apparentemente breve. I timori percepiti aumentarono esponenzialmente tra il pubblico. In modo sistematico, infatti, un numero crescente di genitori si rifiutava di vaccinare i propri figli, poiché temeva potenziali ripercussioni sulla salute. Le credenze drammaticamente imprecise si diffusero in maniera rapida tra i vari paesi.

Dopo aver delineato l'origine e lo sviluppo delle pratiche di vaccinazione, approfondiamo le componenti principali, ovvero, i fattori alla base dei propagandisti anti-vaccinazione.

Come accennato brevemente nell'introduzione, gli elementi alla base dell'astensione dal vaccino sono vari e numerosi. Uno fra questi, tuttavia, sembra mantenere una posizione speciale in riferimento alla difesa contro la vaccinazione; in particolare, l'inclinazione al rifiuto delle vaccinazioni potrebbe essere considerata come un riflesso diretto di una più ampia tendenza epidemica di sfiducia verso le istituzioni al potere.

In altre parole, attualmente stiamo assistendo al rinvigorimento di un sentimento anti-élite, fortemente sentito dall'opinione pubblica. Quest'ultima appare, infatti, incline ad una messa in discussione "dell'élite", ossia i pochi privilegiati che sono generalmente selezionati in base alle loro competenze in merito ad un settore specifico. Il nostro presupposto principale è quello di verificare che il populismo stia effettivamente influenzando l'opinione pubblica circa le autorità mediche e politiche, a sua volta fomentando questa "epidemia di sfiducia". Le istituzioni stanno gradualmente, ma inesorabilmente, perdendo credibilità agli occhi della società, provocando un'inversione del rapporto di fiducia tra il grande pubblico e le élite, considerate come coalizioni formate da individui potenti, le quali detengono una quantità sproporzionata di ricchezza, privilegi, potere politico o abilità cruciali in una data società.

La prima categoria comprende un insieme di individui virtuosi, onesti e laboriosi che dovrebbero riconquistare il loro potere sovrano dalle élite malvagie e disoneste che, contrariamente alla volontà generale del popolo, hanno preso il potere al fine di perseguire i propri interessi egoistici a spese del pubblico.

È "il popolo comune" contro "quelli lassù", il primo è l'apoteosi della purezza ed il secondo è la rappresentazione dell'immoralità e della corruzione.

Inoltre, come ci ricordano gli autori Mudde e Kaltwasser, la divisione tra le persone e le élite nel discorso populista è principalmente etico. Quindi, basandosi sulle dichiarazioni di Hawkins, la contrapposizione populista tra il bene e il male può anche essere considerata come un discorso di stampo manicheo, la cui tendenza si ritrova all'interno dei discorsi populisti e complottisti. Risulta dunque esatta l'interpretazione che vede la mancanza di fiducia come "motore" primario alla base della formazione di tali concezioni, permettendone la diffusione a livello generale. La fiducia, infatti, svolge un ruolo fondamentale garantendo la coesione tra le comunità sociali e politiche e, quindi, essa riduce al minimo l'avvento di ostilità dolorose e strazianti. Al contrario, la mancanza di fiducia nelle istituzioni è stata accusata di aver provocato sentimenti di forte apatia tra gli elettori, producendo come conseguenza un incremento delle mobilitazioni populiste.

È stato inoltre ampiamente riconosciuto che, mentre la fiducia generalizzata porta a una varietà di prestazioni sociali e individuali, un calo dei livelli di fiducia minaccia di generare un allentamento del tessuto sociopolitico. Più specificamente, mentre le grandi aziende farmaceutiche possono essere la maggiore preoccupazione e il più grande nemico per i gruppi "anti-vax", per quanto riguarda gli attivisti populisti sono gli organi e le istituzioni governative che scatenano l'odio e la profonda sfiducia alla base dei piani di tali movimenti politici.

Inoltre, un ulteriore elemento di confronto che è stato sottoposto alla nostra analisi si riferisce all'intrinseca ambivalenza che risiede alla base sia del discorso populista che delle rivendicazioni prodotte dai gruppi anti-vaccinazione. In effetti, affermazioni incoerenti, ambigue e spesso fraudolente vengono avanzate soprattutto attraverso le piattaforme dei social media, in grado di mascherare la veridicità di una determinata affermazione modificandone il contenuto o adattandola in modo da stimolare una vigorosa reazione da parte dell'opinione pubblica nel suo insieme. Non a caso i siti web anti-vax sono punteggiati da notizie e dati fittizi, i quali non godono di alcun sostegno a livello scientifico.

Allo stesso modo, la propaganda populista si basa sulla promessa di attuare misure che non sono lontane dall'essere etichettate come "utopistiche". Entrambi i gruppi politici desiderano mirare alle inclinazioni irrazionali e non mediate degli individui.

Infatti, né la razionalità né la scienza sostengono i sentimenti populisti anti-vax.

Sembra, dunque, che questi ultimi siano il semplice prodotto di un timore di natura popolare, il quale appare privo di qualsiasi fondamento scientifico.

Questo emerge come logico e ragionevole in relazione al fatto che l'eruzione di una pandemia globale sembra aver decisamente mitigato le affermazioni di rifiuto del vaccino "guidato dal populismo", in quanto la percezione collettiva del rischio è idonea a sostituire il desiderio populista "anti-establishment". Anche se considerazioni simili possono essere prematuramente suscitate, possiamo

affermare con fiducia che, in linea con il pensiero di Cas Mudde, il Coronavirus non potrà "uccidere il populismo", considerando che i governi di stampo populista presenti sulla scena mondiale non sono stati in grado di mostrare un approccio omogeneo ed unificato allo scopo di affrontare questa crisi sanitaria. A detta di Mudde, l'emergenza Coronavirus interesserà i partiti populisti governanti in modo piuttosto moderato, il che significa che alcuni vinceranno, altri perderanno, e altri ancora rimarranno gli stessi.

Nonostante ciò, cerchiamo di fornire alcune valutazioni utili riguardo le possibili soluzioni necessarie per prevenire ulteriori scoppi di isteria politica anti-vaccino.

In effetti, la sorprendente diffusione del Coronavirus sembra aver calmato la situazione, estinguendo, in parte, le opposizioni contro la vaccinazione.

Infatti, come già discusso, la percezione generale di questo virus sembra aver alterato le priorità e le esigenze dei singoli in modo potenzialmente definitivo.

Tuttavia, non abbiamo alcun tipo di garanzia sul fatto che questo fenomeno possa aver portato a cambiamenti e conseguenze di natura meramente contingente e temporanea.

In questo senso, può essere importante valutare le possibili soluzioni per affrontare l'atteggiamento mutevole che caratterizza gli individui esitanti al vaccino. Come illustrato in precedenza, per raggiungere una migliore comprensione del fenomeno dell'esitazione vaccinale, dovremmo collocarlo in un contesto di "mutevoli ambienti scientifici, culturali, medico-legali e mediatici". In effetti, il primo passo per affrontare il "gap di fiducia verso il vaccino", è cercare di contestualizzare quest'ultimo all'interno della situazione appena antecedente all'eruzione della pandemia da Covid-19. Nell'eventualità, seppur lontana, di una nuova inclinazione alla riluttanza nel vaccinarsi, sono stati formulati diversi piani d'azione allo scopo di migliorare l'accettazione dello stesso come pratica necessaria ed inevitabile ai fini di preservare l'umanità di fronte allo scatenarsi di una nuova malattia infettiva e, talvolta, fatale. Gli esperti hanno suggerito una serie di strategie utili, tra cui una maggiore chiarezza e trasparenza dei programmi correlati al vaccino sviluppati a livello istituzionale, insistendo sulla diffusione di consapevolezza tra il pubblico in merito alla circolazione di affermazioni errate ed antiscientifiche in materia di vaccinazione, e quindi anche fornire agli operatori sanitari ed alle autorità mediche indicazioni adeguate a far fronte ad un pubblico preoccupato.

Inoltre, seguendo il suggerimento di Larson e dei suoi collaboratori, "si dovrebbe porre un ulteriore accento sull'ascolto delle preoccupazioni e sulla comprensione delle percezioni dei pazienti, in modo da migliorare la qualità dell'informazione riguardo eventuali rischi e benefici, ed infine integrare le istanze pubbliche nella pianificazione delle politiche e dei programmi sui vaccini" (Larson, Cooper, Eskola, Katz, & Ratzan, 2011). In definitiva, sembra ragionevole concludere con un appello alla comunità scientifica. Quest'ultima dovrebbe, infatti, esigere un maggiore rigore e uno sforzo

supplementare al fine di approfondire un’analisi intorno alle basi sociali, psicologiche e politiche, in grado di influenzare il livello di fiducia dell'opinione pubblica nei confronti dei vaccini.
Con la ricerca, arriva la consapevolezza e, con essa, arriva la fiducia.
Inoltre, un pubblico che nutre questa fiducia è la chiave per una democrazia funzionante e impegnata, dove le ideologie politiche non rappresentano una minaccia per il benessere comune della società, ma un valore aggiunto per essa.