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The Too Obvious, Uncontrolled Controlling Factors in the Spread of COVID-19 Infection: The Roles of School Openings and Public Media

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Abstract: The most striking difference between the first (March 2020) and second general lockdown periods (December 2020) in several West-European countries was the closing of secondary schools. In October 2020, an international study across 131 countries revealed the temporal association between introducing or lifting non-pharmaceutical interventions and the time-varying reproduction number (R) of SARS-CoV-2. The present commentary focusses on the role of national public media and national governmental and advisory institutions on the decision to close secondary schools and the mechanisms resulting in lifting these interventions. Also the potential, but often under-estimated role of school teachers in monitoring well-being as well as health safe-keeping among pupils and their direct relatives is discussed. Meanwhile, the rise of new Variants of Concern (originating from British, South-African and Brazilian populations, have raised the stakes of the debate on school re-openings, mainly because of their increased infectivity at all age groups. The present debate is reminiscent of Foucault's analysis as forwarded in Society Must Be Defended, but also offers a new viewpoint to re-evaluate the roles of scientific and public media in molding biopolitics in times of global crises.

Keywords: COVID-19 – SARS-CoV-2 – New Variants of Concern (VOC) - Lockdown interventions - Secondary school openings –Global crises and Foucault's Biopolitics.

1. Introduction

The spread of the new coronavirus SARS-CoV-2 discovered in Wuhan (Hubei Province, China) [1] at the end of 2019(hence called COVID-19), has caused a global pandemic without preceding match in modern history. The discovery as well as global spread of several new mutant strains of the virus, such as the Danish mink farm strain (since June 2020)[2], or the new British [3] and South-African strains of SARS-CoV-2 [4], all have added to the subsequent disruption of cultural and social life as well as the lockdown of national economies. Also the impact on education systems and psychic health of millions of young children has been reported to be or become tremendous, although it is quite early to measure the long-term effects of this pandemic.

Also, the full impact of these new SARS-CoV-2 strains (named 'Variants of Concern', VOC) on the epidemiology of the COVID-19 pandemic has not been grasped yet. However, there has been ample consensus among medical specialists that the new strains spread more easily thanks to a mutation (N501Y) in the core region of the spike protein necessary for attachment to the host cell [5]. Although these new strains are believed not to be deadlier, it is predicted that the enhanced spread may cause a larger percentage of the population to become infected. This prediction may have caused the severity of lockdown regulations in several European countries as well as another look on the contact measures regulating secondary schools.

One of the most striking difference between the first (March 2020) and second general lockdown periods (December 2020 onwards) in several West-European countries was the closing of secondary schools. The closing of secondary schools is called a non-pharmaceutical intervention, because it is not aiming at diseased persons but tries to avoid the spread of infections among healthy people. In October 2020, an international study across 131 countries of the temporal association between introducing or lifting non-pharmaceutical interventions and the time-varying reproduction number (R) of SARS-CoV-2 was published in *The Lancet Infectious Disease* [6].

How important have these presumed and/or possible infections at (secondary) schools been estimated in the public debate in the various European countries? For instance, thirty percent of the infectious contacts would take place within the range of social visits, the director declares of one of the national Institutes for Public Health of a European country [7]. The press-report doesn't explain where the remaining 70 percent come from. On the other hand, the number of fatal cases in nursing-homes have been shown to mount sky-high after a single infection, mostly because of the extreme vulnerability of this age group. The increased susceptibility of the new strains, called Variants of Concern (VOC), makes the unlucky predictions even more alarming. But these fatal numbers don't reflect the overall case fatality ration (CFR) in the population as a whole.

In previous contributions [8, 9], we stressed the inadequacy of classical models based on counting Susceptible (S), Infectious (I) and Recovered (Re) individuals, the so-called S-I-Re- based epidemic model [10], mainly because of the lack of sufficient knowledge about disease transmission in subadult (or pediatric) age groups, and, the complete absence hitherto of reliable evidence for herd immunity, as stated before [8]. In this paper, we will focus not only on the differences between the different national interventions ordained to contain the pandemic, the differences between the first, second and subsequent waves of the pandemic but especially on the role of secondary school closings and re-openings (see paragraph 3). Also the new variants of concern and the response of health institutes and public media will be discussed (see paragraph 2). Especially the evidence from scientific publications and new discoveries released by pharmaceutical companies are influencers that shouldn't become overlooked. Finally, the influence of these actors on the stealthily and silently reshaping of education systems and of the cultural and social fabrics of community life are critically discussed in the light of a new, critical reading of Foucault's (1926-1984) analysis on biopolitics and state sovereignity (see paragraph 5)..

2. EPIDEMIOLOGICAL ROLE OF NEW VARIANTS OF CONCERN (VOC) AND ASYMPTOMATIC SARS-COV-2 RESERVES AMONG YOUNG ADULTS

In an Australian educational setting (New South-Wales), early during the first wave of the pandemic (from January 25 to April 10, 2020), the transmission of COVID-19 was studied in pediatric cases (children) and staff of early childhood education and care (ECEC) institutes [11]. Based on a relatively small number of cases and their contacts, it was concluded that "children and (their) teachers did not contribute significantly to COVID-19 transmission via attendance in educational settings" [11]. Moreover, it was suggested that these findings could become informative for 'modelling' and for influencing 'public health policy regarding school closures' for governments and education systems worldwide during the COVID-19 pandemic. However, no clear evidence was presented that the transmission of COVID-19 in a densely populated area (in contrast with NSW, with an estimated population density [June 2020] of approximately 10 inhabitants /km 2) would yield the same results. Also the effects of school openings and closings on the increase and decrease of the pandemic in the total population was not estimated. In densely populated countries or regions (Belgium: 375/km 2; The Netherlands: 416/km 2; Lombardy [Northern-Italy]: 419/km 2; London area: 5701/km 2; Paris area [Île-de-France]: 20300 /km 2), the growth of the successive waves of the pandemic and the number of fatalities have been without comparison in the previous century.

In another study published in *the Lancet*, the temporal association of introducing and lifting non-pharmaceutical interventions with the time-varying reproduction number (R) of the pandemic has been modelled across 131 countries [6]. The reproduction number (R) basically represents the population-averaged number of infections caused by one infected person. When R drops below the value of 1, the spread of the pandemic decreases, when R > 1 the pandemic grows again. The interpretation of the multinational comparison [6], on overall yielded the result that school closures and other interventions (such as the ban on gatherings) were associated with a reduced transmission of SARS-CoV-2 (lowered R), but only after 1-3 weeks period (whereas the delayed effect of lifting the interventions was shorter than the delayed effect of imposing them). The most clear-cut effects on reducing R (if not the only significant effects) were observed following the relaxation of school closure and lifting bans on public gatherings of more than 10 people [6].

Meanwhile, from November 2020 onwards, a novel SARS-CoV-2 variant has emerged in southeast England, named VOC 202012/01 [12], as well as other novel SARS-CoV-2 variants such as lineage 501Y-V2 (from South Africa), and the lineage B.1.1.28 (from Brazil)[3, 4, 13]. Not only the new

British variant has been estimated to be 56 % more transmissible (67 % in other reports), also the VOCs from South-Africa and Brazil are reported to generate a higher reproduction number than the original SARS-CoV-2 virus, and therefore sustaining the pandemic. It is suggested that this increased infectivity is mainly due to the N501Y mutation in the spike (S) protein gene, but also the P681H mutation adjacent to the furin cleavage site [12], responsible for infection and transmission, is regarded equally important [14]. Moreover, the deletion of two amino acids in the spike protein has caused a lot of false negative results in certain diagnostic tests (the so called S-gene drop-out failures).

In the latter study [12], the authors modelled four possible mechanisms for the observed dynamics associated with the new British VOC, namely (A) increased infectiousness (within all age groups); (B) immune escape (individuals susceptible to reinfection); (C) increased susceptibility among children and (D) shorter generation time. The model data presented (although before peer-review) showed that the A-model showed the best parsimonious fit of the data, the C-model the worst. Nevertheless, an increase of the susceptibility among children is suggested to generate a marked increase in cases in children too, possibly accompanied by reductions across young and middle-aged adults [12], data in supplement to the paper). Also, the limited cross-protection between the old and new variants of COVID-19 would entail a high reinfection rate, but so far field data are lacking to corroborate this effect. Finally, the authors estimate that "control measures of a similar stringency to the national lockdown implemented in England in November 2020" are unlikely to reduce the effective R number to less than 1, "unless primary schools, secondary schools, and universities are also closed" [12].(Fig. 1)

From the various models it appears that, concomitantly with growing numbers of infected people, also the numbers of hospital admissions, ICU beds occupancies and fatalities are growing exponentially. This alarming scenario may still occur despite the lower case fatality ratios (CFR) [1] in children and young adults. Although the effects of false negative test results (see above) and asymptomatic cases are difficult to catch in numbers, the models presented [12] show that increased transmissibility of VOC 202012/01 in itself is a sufficient parameter to capture the exponential growth of all indicators of this pandemic. Not captured in the various models, however, and less well understood is how children and young adults intermingle with the other age groups and fuel the continuation of the pandemic.

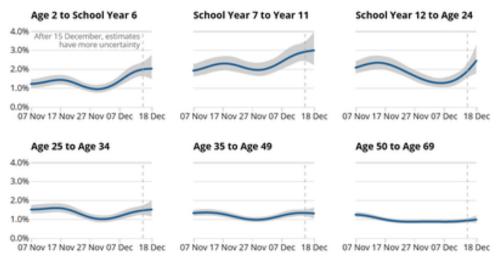


Fig1. Age-dependent Infection rate of COVID-19 in England(Data 24 December 2020; age cropped 2-69): Data indicating that the COVID-19 infection rates in the last two months of 2020 in England, were most elevated in pupils (in particular in Secondary Education: School Year 7 to Year 11)

(© 2020, UK Office for National Statistics)

3. SECONDARY SCHOOL CLOSINGS, RE-OPENINGS AND THE ROLE OF THE TEACHERS

With the knowledge of new, more transmissible VOC's (see paragraph 2), the discussion of school closings/ (re-)openings returned to the forefront of public media and political debates. However, at this very moment (second half of January 2021), other means that possibly promote the international distribution of the SARS-CoV-2 and the new VOC's aren't still completely banned, such as

international flights and business travels, even not a strict prohibition of leisure travels (although strongly advised against). And, although the epidemiological effects of the growing number of contaminations with these VOC's aren't yet visible in hospital/ICU admission numbers (mid-term January 2021) in several countries outside the initial regions of origin (UK, South-Africa, Brazil), it is suggested that these epidemiological effects will resurge as the tip of an iceberg phenomenon in the forthcoming months, if drastic measures aren't taken [15].

Also, although during the second wave of the COVID-19 pandemic, the role of school closings and re-openings had been amply discussed and documented in international studies (see above), the national policies of the European member states towards secondary school closings was very disparate. One of the first countries that imposed a complete lockdown of secondary schools was the Czech Republic (early October 2020) [16], following the high incidence of severely ill and hospitalized people during the late summer (tail of the first or possible beginning of a second pandemic wave) [17]. Also in France, a second lockdown was imposed in October 2020, but French secondary schools remained open in the second halve of 2020. On 15 December, the French government relaxed the national lockdown, which had included a nation-wide curfew: people no longer needed to fill out a form "to say why they were leaving their homes". However, bars, restaurants, theaters, cinemas, ski resort lifts, et cetera, all remained shut, whereas nurseries and schools stayed open in France during the second pandemic wave. In the Netherlands, a new lockdown was imposed from 15 December 2020 till 19 January 2021, proclaiming that all so-called nonessential shops, cinemas, hairdressers, gyms and schools should be closed. However, pupils from the exam classes (final years of secondary school education), pupils in practice-training and others were exempted from this rule. During the first pandemic wave, the nation-wide lockdown almost had resulted in a complete absence of traffic jams on the Dutch motorway network. During the second wave, motorway traffic was still substantially present, whereas in a 'normal' situation in the Netherlands, the education-linked commuter traffic has been estimated around one million displacements daily [18]. In Belgium, the mid-term (begin November 2020) holidays were extended from one to two weeks but then schools re-opened in December. Other differences included the mandatory use of face masks in French and Belgian secondary schools starting early in the second wave, whereas the Netherlands, after lengthy debates, the outbreak management team (OMT) and government finally adopted the rule of mandatory face masks, starting from the mid-term holidays (end of October 2020).

Germany is considered a large European player and during the second wave some called it a 'success story', because of the favorably low numbers of fatal cases. But also in Germany schools were 'prioritized' over other aspects of daily life, that indeed were subject to a nation-wide lockdown. Due to the rising number of infections, however, from 16 December onwards schools were also closed [19]. Meanwhile, the German federal government decided to impose the use of medical-grade face masks (FFP2 version) in all public spaces, including while shopping and using public transportation, starting from 25 January 2021 [20]. It is suggested that this decision was influenced by the data from a paper published in the influential US journal PNAS, suggesting a profound reduction of the daily growth rate of reported infections by around 47 % due to the use of face masks [21].

In several countries, the role of (primary and secondary) school openings in the spread of the pandemic remained obscure, especially during the second wave, mainly due to the fact that contact-tracing of pupils was stopped because of the high frequency of contact events, the large numbers of pupils with positive (PCR) test results and the limited capacity of contact-tracing officials. In the UK, it was shown in modeling studies that increasing the contact-tracing from 59 % to 87 % of the symptomatic people, might prevent a rebound of the epidemic in the UK [22]. For instance, in the Netherlands, school teachers were not deployed to trace the children's social contacts, also because such activity doesn't belong to their official duties. Concomitantly to their confidentiality position, teachers often have access to very valuable information on the behavior and well-being of the children, the pupils behavior during leisure time and the family relations. This suggests that the participation of the teachers in monitoring the pupil's well-being, as well as health safe-keeping at secondary schools has been under-estimated. In some cases, school boards instructed their teachers not to talk with the press about increasing numbers of infections among children, but in other cases the boards decided to keep their (primary) schools closed in spite of national decisions to re-open them. What this corona-crisis has revealed is that an authoritative, centralized control of the national

education systems conflicts with the roles of educative systems in public health keeping, which roles apparently are much more important than they were esteemed in the pre-COVID-19 era. A plea for a better integration of the participative roles of teachers from the teachers group themselves, as well as a re-evaluation of the public importance of this professional group, is regarded a valuable alternative for the judgmental and often negative reactions heard in public media.

So far, we haven't discussed the educational, psychological and social impacts of these measures on the well-being, health and cognitive-development and skills of the children and young adolescents, as well as on the role of these heavily affected pediatric groups in the social cohesion of our societies. The main reason why these educational, developmental and socio-economic factors are not fully explored in this mini-review is not that they are less important. On the contrary, one should say, but (A) they are immensely important for the long-term demographic and socio-economic development of our societies, and to some degree also for the short-term cohesion and acceptance of collective measures. And (B) they have little direct effect on the behavior of the coronavirus and on the spread of the pandemic, although refusal to comply with the measures may jeopardize their mitigating effects.

There is little doubt that the lock-down measures have a profound, mostly negative impact on all these socio-economic [23] and psychological factors [24], as well as on factors reflecting the quality of the national education systems [25]. Regarding the latter effects on the quality of education systems, on the positive side, beneficial effects of the corona-crisis are invoked to formulate innovative (if not disruptive) trends in the education sector, mainly due to the facilitating role of telematics in online learning [24]. In national polls organized among teachers and other bottom-up professional organizations, there is more focus on quality loss, due to less effective contact education during online sessions [26].

However, the lockdown regulations, school and university closings, bans on public gatherings, etcetera, have an unprecedented impact on psychological development of the young generations(Fig. 2), as well as on the socio-economic development of society as a whole. It reminds us of the following quote: "a society that criminates its youth is doomed to follow a sure path to self-destruction". However, before to proceed with hyperbolic schemes of the proverbial clash of the generations – like these associated with previous eras, when young men were called up for war and where so many lives were lost –, I think it is necessary to re-evaluate the philosophical framework that describes how governments act as a regulator of demographic developments (see paragraph 5. Biopolitics and the choice of talk show programmers…).

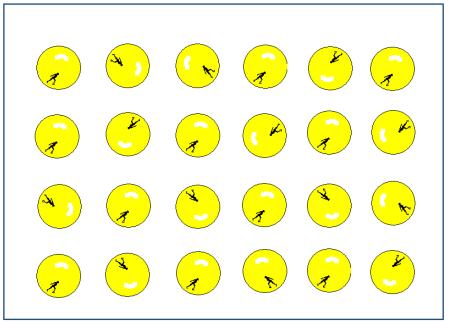


Fig2. Impression of 24/7 lockdown regulations and psychological development in young adults (© 2021, Biological Publishing A&O)

4. ROLES OF PUBLIC MEDIA AND NATIONAL DECISION-MAKING IN CONTAINING THE COVID-19 PANDEMIC

According to Tom Clark, editor of the British magazine *Prospect*, in an interview with the TV channel EuroNews on 27 January 2021, two main reasons for the very high death toll of COVID-19 in the UK are found in the roles of 'The science' (scientific advisors) and the (governmental) 'Decision-making' [27]. Clark doesn't explicitly mention the role of the press and public media, although he obviously participates in the circle of influencers designated as press and/or public media. The high death rate per capita (during the first year of the pandemic) in the UK is one of the highest in the world, only superseded by some 'rare' examples like Belgium. "In mid-January, a randomly chosen Briton is now 35 times more likely to have died of Covid-19 than a random Australian (...). The lethal danger in Britain is 249-fold that in New Zealand, and 369 times that in China where the virus emerged..." [27]. In a streamer to the essay, it is exclaimed that "the final total could turn out to match Britain's 125,000 losses in the Battle of the Somme" [27], referring to the biggest military massacre fought in WW 1.

The role of ''The science" or of the scientific advisors, was mainly the idea of 'herd immunity': "misappropriated from (previous) vaccine programmes, the term 'herd immunity' was inapplicable to the management of a virus with a significant mortality rate..." [27], like another science commentary had warned already at the beginning of the first wave of the Covid-19 pandemic [8]. According to Clark and co-authors [27], the origins of the 'herd immunity' and other dangerous ideas remain murky, "couched in terms of contain, 'delay' and 'mitigate'- to 'squash that sombrero' of infections' – in the Prime Minister's words of 12 March". But in a 13th March TV interview with Patrick Vallance, the Government Chief Scientific Advisor (GCSA), Vallance revealed the underlying thinking, namely "to allow enough of us, who are going to get mild illness, to become immune to this, to help with the whole-population response, which will protect everybody" (fide Clark, et al., 2021,[27]). "Around 60 per cent exposure might, as he (Vallance) suggested, achieve such herd immunity", although after a while some members of the Scientific Advisory Group for Emergencies (SAGE) "claim they do not remember it being discussed" [27]. Also following Clark et al. (2021), SAGE adviser Neil Ferguson told members of parliament (MPs) "that first wave deaths could have been halved by locking down a week earlier – that is 20,000 lives" [27].

Similar declarations were formulated by the Dutch government in press reports and during subsequent parliamentary sessions (15-17 March 2020) and reverberated in Dutch media, by so-called leading scientists at Dutch universities, et cetera. However, in the UK, after some hesitative, second thoughts, few actors seemed to remember these discussions [27], like Clark sharply mentions.

Clark's critical essay [27] mentions several other examples of governmental, misguided decision-making, like the decision to ease the contact-tracing when infection numbers were still rising, and the dissuasive advices not to use face masks in the UK, a decision echoed in the USA and also in the Netherlands, at least until the end of October 2020. However, what's important in Clark's analysis, to our opinion, is that the criticisms are explicitly directed towards the scientific advisors and the government, but not to the press and public media who spread and documented these messages. Of course, we wouldn't go as far as to deny the role of the press as the fourth power of politics (after the trias politica), or to misinterpret the press' power to suppress [28]. Instead, in the last paragraph we will adhere to the role of science and public (and social) media in Michel Foucault's [29] interpretation of state sovereignity as opposed to biopolitics, applied to the COVID-19 pandemic (and taking benefit and referring to the critical analysis of this Foucauldian theme by Elisa Fiaccadori, [30]).

5. BIOPOLITICS AND THE CHOICE OF TALK SHOW PROGRAMMERS IN TIMES OF COVID-19

The several national and international emergency measures in order to contain the pandemic have generated a very convincing reason to re-read the Foucault studies on 'sovereign power' and 'biopolitics', as presented during the famous lectures of Foucault at the Collègue de France (between 1970 and 1984). The numerous commentaries that have been published in recent years, mostly after Foucault's work becoming available in English translation, especially the very interesting analysis of Fiaccadori [30], have somehow obscured the matter, but the world crisis generated by COVID-19 may form an interesting case for further investigation and clarification.

In Foucault's The History of Sexuality [31], the notion of 'biopolitics' - a term originally coined by Swiss political scientist Rudolph Kjellen in 1911 – has to be conceived as one of the two poles of 'biopower', the other being 'discipline', effectuated by the disciplinary institutions (military, police and penal systems) [31]. The 'biopower' cannot be applied to 'man-as-a-body' (also called 'bare life' or zoë) but is a way to control and regulate the life of people as a population. According to Foucault, biopower takes as its object the "entire domain of human life", but it does so in a "capillary, preventive fashion, dealing with a multiplicity of aleatory and often unpredictable phenomena" [31]. Sovereign power, on the other hand, was shown to have lost its strength after the Medieval ages of the absolute monarchs and especially so in our late modern society, since modern sciences have influenced all phenomena of life. When 'life' begins to be "included in the mechanisms and calculations of State power", this signal marks the decisive event of modernity [32, 33]. When the central power of the (Roman Catholic) Church had weaned the rulers of the modern states, modern sciences would replace their authority and would have cured almost all problems of morbidity, poverty and illnesses. Quod non! The resurgence of state killing in the XXth century in a society dominated by technologies poses the problem of the persistence of sovereign power [31]. Foucault specifically refers to the Nazi state, but also to the Soviet regime. Foucault's provocative answer to this unresolved question of sovereign power was the 'racial dimension', giving the (Nazi) state the "right to kill with impunity by creating a caesura between what must live and what must die" [31]. In Foucault's interpretation of the 'race', there is not necessarily an ethnic, genetic or biological meaning to which 'racism' can be pinned [30]. Any group defining mechanism (caesura) can be used within society to separate one group as an enemy to the group that is defined as 'a group of equals'. This argument was elaborated in the work of Giorgio Agamben [34], who took renewed interest in Foucault's work, and who analyzed and also linked the notion of an 'internal caesura' of the people to the use of the 'movement' notion (referring to National Socialism) by the Nazi philosopher Carl Schmitt in 1933.

However, in many Western democracies, the convergence of sovereign power and modern explicitations of biopower as forwarded by Agamben, and criticized by Fiaccadori [30], has revealed its weak spot during the corona-crisis. Difficult decisions, such as who will be treated at ICU's or who will be vaccinated first, are reminiscent of state interventions that we'd rather wish not to be remembered about. But the paradox of sovereignity (Agamben), or the paradox of biopower (Fiaccadori) is difficult to disentangle following Foucault's analysis alone, Fiaccadori thinks. What is missed here, and what the COVID-19 pandemic has brought into the full light is the mechanism of making exceptions based on selection and exclusion of relevant information by the decision-makers. This mechanism is unveiled when comparing decisions made by one government compared to another. But not only governments are following the so-called 'hidden logic' or 'topology' (Fiaccadori, 2015) of this modern form of excluding the unwanted information, the same selective process is at hand when news programmers select their candidates to substantiate the discussions of choice. In Foucault's argument, the new experts create an endless circle of a new biopower, referring to the scientific experts "that are answerable to nobody", just like "the absolute monarch" of the past was answerable to nobody (following the declining influence of a central religious institution): "The Biopower of man requires man himself to administer these sophisticated technologies, where one group of experts or professionals can completely subjugate another producing new human subjects (and new experts) through their expertise at manipulating social phenomena (...)"[35].

Due to the pandemic, numerous entertainment productions and cultural events and broadcasting productions were cancelled, giving more room to the broadcasting of talk shows and actuality programs [36]. Many virologists previously unknown to the general public became members of the category of toasted, national celebrities. Ironic jokes about the rising numbers of self-declared virologists circulated on social media. The conclusion that virologists of various countries and various convictions were hopelessly divided among each other - and even more when selected from other medical disciplines -, was a conclusion heard in several public media. However, it is difficult to ascertain its validity, unless a representative referendum is hold during an international virology conference, where all opinions could be heard and counted, which in times of a viral pandemic would in fact be impossible. Also national governments are confronted with this disagreement among the scientific experts, a fortiori as exemplified in the varying vaccination campaigns seen in Israel, Europe and their Anglo-Saxon government partners. At a governmental level, mechanisms of

selection, influencing and silencing of unwanted viewpoints are not made public, and therefore, hardif not impossible - to prove. The seemingly paradoxical lack of information is similar to lack of
transparency following the undisclosed negotiations with pharmaceutical companies in order to
generate and implement vaccination strategies. A cataclysmic discrepancy between vaccination
campaigns in the industrial and third world countries would form a global illustration of the
quintessence of biopolitics, if the financial return mechanism isn't considered. However, despite the
lack of information with regard to these practical forms of biopolitics (and based on multi-billion
public funding mechanisms), the differences between countries regarding the decisions made or
avoided (in order to contain the pandemic), are obvious and document the importance of the selection
process in biopolitics.

A very interesting question is whether public and also social media can be regarded as neutral agents in the generation of the idea of divisiveness (see above)? Following the adage of objectivity and neutrality, public media in democratic countries tend to give a voice to polarizing viewpoints, in order to clarify the differences between the main actors. Not only this strategy reinforces the bipolar appearance of a complex problem. It also creates a shift of power, because of the selection mechanism applied by public media. The selectivity chosen by public media, and often amplified by influencers on social media, is reflected - although not in a publicly transparent manner - by the selections used by governmental decision-makers. This forms an interesting contrast with the viewpoint of Jean-François Lyotard (1924-1998), formulated at the summit of postmodern philosophy, linguistics and epistemology: in this viewpoint the scientific discourse requires the isolation of the denotative discourse from other forms of argumentation [37]. However, in times of global crisis, when not only scientific discourses from different breads, disciplines or even ideological motivations disagree, but also social media ignite a panacea of disparate convictions, the Lyotard-like isolation of a purely scientific, denotative discourse seems a solar system away from the present constellation. The widespread believe that science editors and programmers of public media are in the best position to direct the selection, prioritization and silencing of all forms of scientific information at hand is a dangerous misconception. It not only augments the polarization of the public debate, due to the effects on governmental decision-making it also reinforces the convergence of state biopolitics and sovereignity (see also [31]).

6. CONCLUSION

We started this commentary with the title "The Too Obvious, Uncontrolled Controlling Factors in the spread of COVID-19: (...)". In hindsight, it may appear: these factors are possibly obvious (for some) and, at the same time, not obvious at all? An analogy may turn up, namely of an object (e.g. the proverbial elephant) that is too close for observation and therefore evades a proper evaluation following the various positions one may take according to the object.

Another example, given by a government leader on a national television program, announcing the relaxation of the restrictive measures previously taken to prevent the third wave of COVID-19: "Our decision is based on facts, not on opinions or viewpoints!". Then a list of restrictions follows, some of them being relaxed, others still remain in force. For different European countries, a similar strategy is followed, with one of the main parameters influencing the pandemic being the pace of national vaccination campaigns, the one-or-two doses discussion (regarding the Pfizer/Moderna and Astra Zeneca vaccines), the degree of vaccination and willingness of the population to comply with vaccination programs. The models would have taken benefit from contact tracing after relaxation of the first lockdown period during summer 2020, but, as the state health officials declare, it is difficult to disentangle the different effects of the various restriction relaxations, in order words it may be called 'expectation management' (or management by expectation), rather than actual 'facts foretold'. The discrepancy of discourse between the government leader, "relying on facts only", and the discourse of the health care statistician, "relying on expectation management", is not an obvious distinction for the general public. The discrepancy between different experts and especially the differences in policies between the different states, the different roll-outs of vaccination campaigns, all made explicit that this pandemic has caused a cataclysm that no expert and no government on Earth was really prepared for. If the notion of 'failed state' might apply to circumstances like these, all

states would be entitled to carry that name. Of course, all instances may claim to have their lessons learned. What the crisis also reveals, however, is that our philosophical analysis of the behavior, the day-to-day working and accountability of national states (and of supranational conglomerates as well) needs a serious re-thinking: not only the role of science experts and governments, but also the role of public media has to be re-examined with regard to the selection, direction and management of information regarding life-saving strategies (called 'biopolitics' by Foucault and followers, see paragraph 5). Most obvious however, are the differences in vaccination policies observed in Israel, the Anglo-Saxon countries, and the other regions of the world, but an examination with the depth and scrutiny required for such an operation, would extend far beyond the scope of this paper.

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