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Fake News and the Capability Approach: How Disinformation Impairs Personal Health

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ABSTRACT: This paper examines the detrimental effects of fake news on individual well-being and explores measures that individuals and governments can adopt to mitigate these effects. While current discussions predominantly focus on the harm fake news causes to the political community, this paper shifts its attention to studying the harm inflicted on individual citizens who are exposed to and influenced by fake news. By drawing on Martha Nussbaum's capability theory, the paper evaluates the impact of fake news on individuals' well-being, particularly in relation to the development of personal health, which is a crucial capability for leading a fulfilling life. Having established that fake news poses a significant threat to this fundamental capability, the paper explores various approaches that individuals and governments can employ to minimize the detrimental effects of fake news on individual well-being.

KEY WORDS: Censorship, healthcare, Nussbaum, social media, well-being.

Many contemporary authors (McIntyre 2018, Farkas and Schou 2019) argue that we live in a post-truth society, in a world where emotions and unjustified beliefs trump over sound arguments and reasons grounded in science. The number of citizens and politicians who fail to cultivate proper epistemic norms is increasing. Taking the example of Brexit and the 2016 United States presidential election, post-truth politics has become an important part of political culture in many Western democracies (Cosentino 2020). Disinformation that imitates legitimate news sources

and spreads through polarized social media represents the backbone of post-truth politics in a democratic society, where many citizens ground their opinions on false information and irresponsibly exercise their political influence.

This paper discusses the harmful effects fake news can have on the well-being of individual citizens and analyzes some measures individuals and the government can implement to reduce fake news' detrimental effects. While the contemporary discussion focuses primarily on the harm fake news inflicts upon the political community, this paper turns its attention to studying the harm inflicted upon individual citizens who have been exposed to (and affected by) fake news. The paper assesses the impact of fake news on individuals' well-being using the theoretical background of Martha Nussbaum's (2000) capability theory. It analyzes how being subjected to (and affected by) fake news can endanger the development of physical and mental health, one of the most important capabilities needed for living a good life. Finally, having established that fake news seriously threatens this basic capability, the paper discusses various approaches individuals and the government can take to reduce the detrimental effects fake news can have on the individual's well-being. Its innovative contribution is thus threefold: (i) it repositions the debate by focusing on the harmful effects of fake news on the well-being of individuals, (ii) it applies the capability approach to analyze and study the damage inflicted upon individuals exposed to fake news, and (iii) it provides a novel non-paternalist justification of measures and policies used to fight the spread of disinformation.

The paper proceeds as follows. The first part briefly discusses what 'fake news' is, how and why it spreads, as well as why it represents one of the major challenges for contemporary political epistemology. It also summarizes the ongoing debate on the harm fake news can inflict upon well-functioning liberal democracies, which in turn indicates that there is a different kind of harm that remains underexplored—harm that fake news can inflict upon individuals. However, to analyze how something affects an individual's quality of life, we need a theory of human well-being. The second part introduces the capability approach and indicates that this outlook helps us assess the harmful effect fake news has on individuals' well-being, which we deem better than alternatives grounded in utility or resources. Nussbaum's capability theory is described as particularly useful because it goes so far as to provide a list of basic capabilities needed for living a decent human life. If fake news systematically endangers or impairs some of these capabilities, we

can rightly say that it inflicts harm and reduces the level of individuals' well-being. The third part of the paper focuses on physical health, an important capability from Nussbaum's list, and analyses how fake news (and disinformation in general) impairs this capability. The fourth part introduces a non-paternalist justification of measures and policies used to fight the spread of disinformation. The fifth part elaborates on two distinct approaches we can take to counter the consequences of harmful exposure to fake news. We can try to educate the citizens and improve their capacities to resist disinformation, thus reducing fake news' detrimental impact on citizens' well-being. Alternatively, we can censor the media and restrict the flow of (mis)information within a society, thus reducing the citizens' exposure to fake news. The paper proceeds to argue that both approaches are by themselves inadequate and that proper response needs to include measures based on both approaches combined.

1. Fake News

Fake news is typically regarded as false information that is purposely and intentionally created, disguised, and widely spread as a media report (Allcott and Gentzkow 2017, Rini 2017, Mcintyre 2018, Gelfert 2021). To be regarded as fake news, a piece of information must meet four criteria. First, information must be false (Rini 2017) or must reliably lead the hearer to a false conclusion (Gelfert 2021). However, although there are many false pieces of information in the public sphere, not all can be regarded as fake news. For example, the information that Thalidomine, a medication widely advertised and used for fighting anxiety and morning sickness, was safe for use by pregnant women was clearly false (Vergesson 2009) and resulted in the birth of more than ten thousand children with severe birth defects (Vergesson 2015). The Thalidomide scandal is nowadays, following a large criminal trial in Germany, regarded as an honest medical mistake (i.e., misinformation) and not as an instance of intentionally fabricated fake news (i.e., disinformation). The second criterion thus indicates that the information must be created and (at least initially) distributed with the intention to deceive or manipulate the hearer. Again, not all instances of disinformation can be considered as a case of fake news. For example, in the 1960s, the sugar industry funded research that misrepresented the risks of consuming sugar and emphasized the hazards of consuming fat to influence policymakers (Kearns, Schmidz, and Glantz 2016). The fabricated study was published in a medical journal, but the disinformation did not have the format of

a traditional news report. To be considered fake news, disinformation must meet the third criterion—it has to mimic the format of traditional news, i.e., it must take a form of a news report in an attempt to attain credibility with the hearer. Although the earlier three criteria define the essence of fake news, technological development in the past twenty years has significantly changed what can be considered a news report (Tandoc and Vos 2016) and who can play an important role in creating and spreading the news (Robinson and DeShano 2011). The fourth criterion thus requires that the information and the way it is presented must have the potential to be widely distributed among the population, typically via social networks and instant messaging services. Fake news realizes this potential by being sensational and emotionally charged, thus inviting and motivating citizens to spread it in the public sphere (Zimdars and McLeod 2020, Vanacore 2021).

There are two dominant types of motivation for creating fake news. The first is a group of ideological motives: individuals and political organizations fabricate news stories to influence collective opinion-making and decision-making practices, thus promoting their ideological agenda or undermining the credibility of opinions different from their own. For example, the famous Pizzagate conspiracy theory was supported by fake news outlets (e.g., Your News Wire) spreading disinformation about alleged human trafficking and a fictitious child sex ring in several restaurants in the US (Lopez 2016). These fake news outlets mimicked the form of traditional news reports, and their stories were shared by hundreds of thousands of citizens before they were removed. Similarly, one fake news outlet tried to mimic BBC News (by using web-address, which included bbc-edition.com) and spread fake news, including anti-Islamic propaganda (Treharne and Papanikitas 2020). Although ideological motivation is often political (and closely related to political candidates and parties in the election process), it can include a range of ideological but not strictly political motives, including those related to religious worldviews and lifestyle choices. A second is a group of financial motives: individuals, companies, and even media outlets fabricate news stories to influence the type of products or services the citizens consume, thus acquiring additional profit from the citizens' market behavior. For example, the firearms industry in the US often uses NGOs (e.g., National Rifle Association) to support creating and spreading fake news about gun safety, thus trying to incite citizens to buy their products (Luo 2017). Similarly, there are many instances of

fake news about the unreliability of electric vehicles, which are, in turn, related to the oil industry (Nuccitelli 2018).

This paper focuses only on the harm inflicted upon individual well-being by disinformation, or to be even more precise, by fake news. Misinformation can also have detrimental effects and endanger the well-being of individuals, yet there is a major difference between the two. Namely, the harm inflicted by disinformation includes a form of intentional deception and manipulation. Those producing disinformation (although not always those who spread it) are aware that the information they provide is incorrect, incomplete, or placed in the wrong context but are nonetheless producing it to manipulate others and to achieve some (ideological or financial) goal. Although living in a state that neglects to correct for misinformation its citizens are exposed to might pose a threat to their individual (and collective) autonomy, there seems to be a relevant distinction between such a case and a case where the citizens are being intentionally manipulated. While both instances might harm your well-being, there seems to be a relevant distinction between having a lazy and irresponsible physician who makes a mistake and gives you incorrect medical information and a physician who intentionally gives you incorrect medical information for financial gain. While in both cases, your ability to make an autonomous decision about your health and the medical treatments you want to undertake is impaired, the latter case is a more direct (and more devastating) attack on your autonomy. Also, although both instances call for some kind of regulation (including sanctions) by the government, the appropriate response will be different. Having this in mind, we focus only on the harmful effects disinformation has on the individual's well-being and on the measures and policies the government should enact to prevent the spread of disinformation. Many arguments and recommendations from this paper seem like they could also be applied to the analysis of the harmful effects of misinformation and the appropriate steps to counter its spread, yet the relevant difference between the two demands that we address them separately.

To understand why fake news represents a danger to the individual's well-being and to properly assess the measures that can prevent it from spreading, we must first understand the factors that affect and facilitate the spread of fake news. These factors include strong emotions that fake news typically evokes, cognitive biases that hamper citizens' attempts to critically assess the reliability of the information, as well as highly personalized media (including social networks) that allow selective

exposure and the creation of filter bubbles. First, the content and the tone fake news typically use often evoke strong emotions such as fear, disgust, hatred, or shock. People affected by these emotions are far more likely to distribute the information that evoked the emotion in question than the people who have received a piece of information that did not cause strong emotional responses (Berger and Milkman 2012). This is particularly true when the disinformation in question regards human health. For example, fake news about the Zika virus was far more likely to be shared and distributed on social media than verified news coming from reliable sources (Sommariva et al. 2018). Second, citizens' reasoning is affected by several cognitive biases that hinder their ability to evaluate the truth of the information and the reliability of the news sources. One of them is confirmation bias which refers to the inclination to actively search for information that confirms pre-existing beliefs and assumptions. Additionally, this bias also includes the citizens' inclination to interpret the new information in accordance with their pre-existing beliefs and preferences. For instance, sympathizers of the Republican Party are far more likely to believe that Barack Obama was not born in the US, while the supporters of the Democratic Party are more likely to endorse that the Bush administration was responsible for September 11 attacks (Helm and Nasu 2021). Disconfirmation bias regards citizens' inclination to disproportionally scrutinize information that is incompatible with their pre-existing beliefs and preferences. For instance, citizens who already have a stance regarding some contested issues (e.g., death sentence, abortion, gay-lesbian adoptions) are more likely to doubt the news reports that challenge their views and are more likely to actively search for information that will discredit the news report in question (Edwards and Smith 1996). These cognitive biases motivate selective exposure, a well-known phenomenon whereby citizens look for information that supports their pre-existing beliefs. Citizens even tend to modify their environment to avoid or reduce cognitive dissonance by reading only the newspapers that suit them ideologically and that endorse the same worldview or by associating predominantly with like-minded people with whom they share many similar values and beliefs. This behavior is supported by the final (third) factor that facilitates the spread of fake news. Namely, fake news spreads through search engines and social media, where complex algorithms filter the content and provide information that is in line with individuals' existing views (based on earlier search entries or on individuals' behavior on social networks) (Kiri Gunn 2021). Finally, social networks allow and facilitate

the creation of echo chambers, epistemic structures in which dissenting opinions are actively rejected or censored (Pariser 2014, Nguyen 2020). Understanding these three factors that affect and facilitate the spread of fake news is crucial for properly assessing the harm fake news can inflict upon individuals, as well as for creating efficient measures for preventing the spread of fake news. For example, as indicated later in the paper, selective exposure fueled by confirmation and disconfirmation bias renders some measures (e.g., reactive educative measures focused on debunking disinformation), when used alone and unaided by other types of remedies, inadequate for this demanding task.

Contemporary discussions in political epistemology have thoroughly analyzed the harmful effects fake news can have on collective decision-making procedures, as well as on the political community in general (Helm and Nasu 2021, Bernecker et al. 2021, Olan et al. 2022). Discussing the consequences fake news has on society, Étienne Brown (2021) usefully distinguishes between four groups of harmful effects. First, fake news undermines democratic procedures' ability to produce correct, efficient, or just political outcomes. To properly discharge its epistemic value, collective deliberation requires well-informed citizens whose judgments and preferences are not manipulated. Fake news clearly undermines these prerequisites. For example, the Brexit debate was overwhelmed with various instances of disinformation presented as traditional news reports. This prevented many citizens from forming well-informed and autonomous political judgments and thus prevented them from voting in an epistemically responsible manner in a referendum (Marshall and Drieschova 2018). Since the epistemic theory of democracy (Estlund 2008, Cerovac 2020) argues that democratic legitimacy rests (at least in part) on democratic procedures' ability to produce correct outcomes, this also implies that (at least for epistemic democrats) fake news undermines not only the epistemic value but also the legitimacy of democratic decision-making procedures. Second, fake news is often used as fuel for growing political antagonism and group polarization. It is often spread in adverse epistemic structures such as epistemic bubbles and can facilitate their transformation into even more detrimental echo chambers (Nguyen 2020, Rhodes 2022). Partisans can thus create and spread fake news to discredit their political opponents and to label them as "lying liars" (Franken 2004) or as people "suffering from mental disorder" (Savage 2005, as cited in Talisse 2009). These false beliefs (about political opponents' epistemic reliability) further reinforce echo chambers and hinder the introduction of new informa-

tion that could debunk fake news. Additionally, political polarization fueled by misinformation (including fake news) decreases civic trust, motivates harmful antagonism between racial, political, and religious groups, and destabilizes democratic regimes (McCoy and Somer 2019, Cerovac 2019). Third, fake news often motivates citizens to act in ways that cause unjustified harm to others. For example, disinformation about COVID-19 vaccines has discouraged a significant number of people from taking the vaccine, thus facilitating the spread of the virus and causing unjust harm to others (Tasnim et al. 2019). Fourth, fake news undermines collective autonomy and group sovereignty by averting the political community from pursuing its own political aims. Namely, fake news can prevent the members of a democratic society from finding the best means to realize their political aims. For example, if citizens care about the environment and want to support clean and sustainable policies, yet their understanding of environmentally friendly policies is misled by fake news, they might end up endorsing means that are not conducive to the political ends they want to achieve. Fake news thus undermines a democratic community's ability to act following its own values and reasons (Brown 2021).

The well-developed approach described in the previous paragraph focuses on the harmful effects fake news can have on political communities. This comes as no surprise because the focus on the harm inflicted upon others (and the political community in general) helps avoid the paternalist objection in the later stages of the argument when the focus shifts to the regulation of the spread of fake news. The approach demonstrates that we can have good reasons to regulate the spread of fake news even if we completely disregard the harm inflicted upon those who have been exposed to (and affected by) disinformation. Namely, if being subjected to a particular type of fake news reliably leads citizens to inflict harm on others (by voting for unjust or inefficient policies, by refusing to act in a way that reliably minimizes the harm we can unintentionally inflict on others, or by destabilizing the political community), there might be a non-paternalist justification of policies preventing the spread of disinformation. However, the earlier approach fails to properly account for numerous instances where fake news harmfully affects the well-being of the very citizens who have been exposed to and affected by fake news.

Analyzing the harmful influence fake news has on individual well-being calls for a theory of human well-being. We first have to establish what is required for living a good (or at least decent) human life in order to address how fake news harms individual well-being. While there are

many competing theories, we believe Martha Nussbaum's capability theory is best suited to help us address these issues.

2. The Capability Approach

The capability approach is a normative framework used to evaluate the well-being of individuals. However, by assessing the impact on the individual's well-being, it can also be indirectly used to assess the quality of policies and laws, as well as to inspire and guide social change (Robeyns 2017). It is traditionally characterized as a form of objective-list approach to human well-being since it entails that there are objectively valuable things that individuals need to lead a good and fulfilling life, regardless of their subjective preferences or desires. The approach asserts that a wide list of meaningful capabilities (what one can do and be), along with the freedom to live a life that one finds valuable, forms the essence of human well-being (Robeyns 2007, Sen 2009). Putting a strong emphasis on human beings as active agents who endorse different aims, values, and ideas, the approach respects the fact of reasonable pluralism and refuses to specify what good human life looks like (Alkire 2008). In order to be able to provide policy recommendations while simultaneously accommodating individual freedom as one of its core principles, the approach introduces a useful distinction between functionings and capabilities.

Functionings are activities and states a person has achieved. For example, activities such as hiking or playing an instrument, as well as states such as being well-nourished or being married, are all considered functionings. Different people value different functionings—some might reason that a good human life consists of pious meditation, while others might think that the quality of life depends on the number of wild parties one has attended or the number of mountain peaks one has visited. Capabilities are functionings that people can achieve if they so choose. They represent real (or substantial) freedoms to select and practice functionings that one finds valuable and conducive to a good life (Sen 2009). For example, in contemporary democratic societies, virtually all adult citizens have the capability to vote in the elections, yet only some choose to turn that capability into functioning (and actually go to the polling station to cast their ballot). Unlike many objective-list theories (e.g., liberal perfectionism), the capability approach respects pluralism and individual freedom by arguing that the liberal government should promote and protect citizens' important human capabilities and not any particular set of functionings (Alkire 2008). This is how the capability

approach promotes human well-being while simultaneously resisting the call to specify a set of functionings that form a good human life.

The capability approach has several important advantages over the other two dominant approaches to human well-being. We argue that some of these advantages become evident when we try to tackle the harm inflicted by disinformation and fake news.

The resource-based approach focuses on the distribution of available resources. This includes one's income and wealth, but also non-monetary resources such as access to quality education and healthcare, relevant rights and liberties, as well as social bases of self-respect (Rawls 2001). This approach is grounded in liberal tradition and promotes state neutrality regarding different conceptions of the good. Resources (and especially monetary resources) are thus important because they allow each citizen to pursue a different set of aims and values. However, citizens often require different quantities of resources to be able to achieve similar levels of well-being (Sen 2009, Robeyns 2017). For example, a person with disabilities will lack the capability to access facilities that are not adapted to be used for people with disabilities and might also lack many other related capabilities. Additionally, to achieve some functionings, a person with disabilities will have to use far more resources than a non-disabled person. Therefore, if the state addresses individual well-being by focusing only on the distribution of resources, it will fail to grasp it correctly because individuals have an unequal capability for turning resources into functionings they find valuable. The resource-based approach typically fails to properly grasp the harm caused by fake news. Namely, disinformation often thwarts one's attempt to turn resources into functionings one finds valuable. For example, a sick person might have a medicine needed for curing a disease affecting her but might be unwilling to use the medicine because of harmful disinformation regarding the safety of the medicine in question. In this case, a person lacks the capability to use the available resources (i.e., medicine) to achieve the desired end (i.e., to be cured). This appears to be a serious worry, and it remains to be inadequately addressed by the resource-based approach.

Welfare-based approach asserts that one's well-being consists of a subjective state of happiness. We evaluate the quality of an individual's life by assessing how that particular individual feels and how he perceives his level of well-being. This approach endorses the intuitive idea that a person is best suited for assessing the quality of her own life and proceeds to argue that well-being is nothing more than pleasure and happiness (Feldman 2004) or satisfaction with the life we have (Sumner 1996).

However, people engage in various activities, projects, and relationships not only because they produce happiness and life-satisfaction, but also because they find them intrinsically valuable (Grewal et al. 2006). Additionally, people who live in deprived conditions tend to develop preferences considering the options they have available. These adaptive preferences are a product of an individual's (often manipulated) perception of the options one has. They help us explain why a person living in almost unbearable deprivation might incorrectly think her life is good and thus motivate us to question the validity of the happiness-based approach (Sen 2009). The discussion on adaptive preferences helps us understand the shortcomings of the happiness-based approach when assessing the harmful effects of fake news. Namely, being systematically exposed to fake news (and other forms of disinformation) shapes one's beliefs and one's perception of the available options. A person living in substantial poverty might thus be manipulated to think that this is appropriate for someone of her social status or might be deceived to focus her attention on some irrelevant issues in order to keep a positive standing towards the conditions of deprivation she lives in (Colburn 2011). Again, because of fake news and thus produced adaptive preferences, a person living in terrible conditions might be satisfied with her life. The happiness-based approach thus seems to be unable to properly grasp the harm fake news can have on individual well-being.

The capability approach can avoid these objections by arguing that individual well-being consists in having the capability to freely and autonomously choose between various valuable functionings. This approach can thus provide policy recommendations since the government has a duty to provide and secure relevant capabilities to all its citizens. But how do we determine the list of relevant capabilities, those that the government should protect and promote? Advocates of the capability approach disagree on the exact methodology, with some opting for more democratic and some for more expert-driven processes. Amartya Sen (2009), on the one hand, argues that the list of relevant capabilities should be created through an open-ended democratic process. This process should involve public deliberation characterized by active participation from individuals and communities, where different arguments, reasons, and evidence put forth by individuals and groups help to arrive at a reasoned consensus or social choice. There is no predetermined list of relevant capabilities—it is constructed using dynamic dialogue and inclusive deliberation, allowing different societies and communities to prioritize capabilities based on their specific contexts and values.

Martha Nussbaum (2011), on the other hand, endorses a capability theory where the list is developed by experts who engage in theoretical and philosophical deliberation. Unlike Sen, who tries to avoid enlisting and specifying the capabilities needed for human well-being, Nussbaum is eager to provide a list of ten central capabilities that individuals should have in order to live a flourishing life. This specificity helps to ensure that important aspects of human well-being are not overlooked and provides a clear framework for evaluating social and political institutions (Crocker 2008). Our paper follows Nussbaum's theory for pragmatic reasons—it gives us a detailed list of relevant capabilities, and we can easily assess and evaluate the effect fake news has on individual well-being by investigating its effects on the development and exercise of relevant capabilities. Additionally, the theory aspires to achieve public justification of the list of relevant capabilities, considering various reasonable worldviews that exist within a democratic society.

Discussing Nussbaum's capability list goes beyond the scope of this paper. However, to illustrate how the capability approach can help us understand and tackle the harm fake news inflicts upon individual well-being, it will be useful to briefly review the list. It starts with capabilities related to life, health, and bodily integrity, including the capability to live a satisfying life into old age, the capability to live in good health and to avoid ills that seriously reduce the quality of life, and the ability to be free of attack and abuse. The list continues with capabilities related to imagination and thought, including the capability to receive a good education and the capability to freely express political and religious views, and the capabilities related to human emotions, including the capability to become attached to other things and people. Two most important (architectonic) capabilities on Nussbaum's list are related to the practical reason (and thus include the capability to critically think about the world and to make autonomous judgments and decisions) and affiliation (including the capability to associate with others on just terms). The list concludes with capabilities related to control over one's environment, including the capability to both own property and to participate in the political decision-making process, but also with capabilities related to play and meaningful relationships with other species and nature (Nussbaum 2000). The capabilities on the list are intentionally vague, so different political communities can use different sets of policies and measures to protect and promote these capabilities, considering their cultural and historical differences. The protection and improvement of

capabilities from the list can thus be taken as a guideline for policymaking, although different sets of policies can aspire to achieve these aims.

In the interest of brevity, here we focus only on bodily health, one of the capabilities from Nussbaum's list, and demonstrate that disinformation tends to severely hamper its proper exercise. It is not our intention to show that fake news endangers citizens functioning of being healthy and receiving appropriate medical treatments when necessary. That aspiration would clearly be paternalistic. However, we intend to demonstrate that fake news endangers citizens' capability to be of good bodily health. Of course, it is not our intention to show that disinformation is the sole culprit in undermining this important capability—it represents just one of the elements that negatively impact our capability to be of good bodily health. We hold that a similar argument can be made for fake news' harmful influence on any capability from the list, yet we focus on bodily health for the sake of brevity.

3. Bodily Health and Fake News

Health is one of the fundamental capabilities on Nussbaum's list and represents the grounds for realizing many other relevant capabilities. Although Nussbaum (2000) does not qualify it as architectonic, the absence of this capability can be seen as a corrosive disadvantage (Wolff and de Shalit 2007), one that is likely to spread its harmful effects to other areas of life. Addressing how disinformation affects bodily health is thus of paramount importance.

For most of the 20th century, physicians, doctors, and other medical experts have been considered the only relevant sources of reliable medical information. Of course, medical disinformation was present at that time as well, yet there were no wide-reaching channels for disseminating disinformation, so it remained contained and circulated only within smaller social groups (Waisbord 2020). Nowadays, the Internet has become one of the key sources of medical information. In 2013, 72 percent of adults in the US used the Internet to search for medical information (Fox and Duggan 2013), and that percentage keeps increasing. Additionally, research shows that the Internet is often used as the only source of medical information (Swire-Thompson and Lazer 2019), making those using it particularly prone to disinformation. This raises serious concerns because information on the Internet is often incorrect and harmful. For example, recent research on medical information about

cancer demonstrated that out of the 200 most popular articles shared on social media, over 32 percent contained misinformation, with 30 percent containing harmful information (Johnson et al. 2021). Social media, along with the algorithms targeting internet users with individually tailored news and advertisements, enable situations in which some citizens are systematically exposed to harmful information. Additionally, even citizens who have been exposed to both true and false information are affected by disinformation since they will regularly decrease their level of confidence in reliable sources of information (Ecker et al. 2022).

Disinformation about the safety of vaccines is probably one of the best examples of harmful information intentionally created to manipulate the hearer. In 1998 medical journal *The Lancet* published a paper by Andrew Wakefield and other authors who claimed that the vaccine for measles, mumps, and rubella causes autism spectrum disorders (Wakefield et al. 1998). The scientific community promptly reacted and expressed serious doubts regarding the validity of the results, and the journal retracted the article with 10 out of 12 authors publishing an erratum a few years later, thus retracting their original interpretation of the research results (Murch et al. 2004). Finally, *The Sunday Times* reporter Brian Deer discovered that Wakefield was in a conflict of interest since his research was partially funded by law firms preparing a lawsuit against MMR manufacturers (Deer 2004). Nonetheless, the flawed and retracted paper was used (and is still being used) by news websites and distributed on social media, affecting citizens' behavior and contributing to the spread of these diseases. Several measles epidemics have been reported in the US in 2019, and the disease has reappeared in a few European countries, where it was originally considered extinct (Hotzer 2019). Social media exacerbates the problem by enabling conditions for selective exposure to information, thus simultaneously reinforcing the beliefs of those who were already skeptical towards vaccines and enabling such users to easily distribute the disinformation to others (Burki 2019).

The COVID-19 pandemic represents a contemporary example that shows us how harmful fake news can be to the health of individuals who have been exposed to false information. Disinformation on the origin of the virus has greatly shaped the individual use of preventive measures. For example, those who believed that the virus was created by pharmaceutical companies were far less prone to use hand sanitizers and face masks, as well as to get vaccinated against the virus (Romer and Jamieson 2020, Maertens et al. 2020). Additionally, citizens who are exposed to

disinformation on the safety of COVID-19 vaccines are less likely to get vaccinated (Lee et al. 2022), and this is even more pronounced when citizens exposed to disinformation are already affected by some other medical conditions (Rohan 2022).

These examples clearly illustrate the detrimental effect fake news has on individual bodily health. Citizens who are exposed to disinformation are more prone to reject proper cancer treatments and opt for alternatives that have no proven benefit and sometimes even cause direct harm (along with the harm of leaving the disease unattended and not receiving the proper treatment). Similarly, citizens who are affected by disinformation are more likely to reject being vaccinated and are thus more prone to die or suffer serious harmful effects from the disease in question. It is important to emphasize that we argue that fake news negatively affects not only bodily health as a functioning but also as a capability. Imagine a well-informed citizen who lives in a well-ordered society where quality healthcare is widely available, who deliberates on valid information and decides that health is not something she cares about and thus devotes her attention to other functionings she finds more valuable. Provided that this decision was made by a well-informed and autonomous individual, the capability approach would not characterize that citizen's poor health as a drawback to her well-being. Namely, that citizen would have the capability of bodily health but would simply decide not to turn it into functioning. Forcing her to develop the functioning of being healthy for the sake of her own well-being would clearly be paternalistic and would be rejected by the capability approach. However, fake news (and disinformation in general) impedes not only citizens' functionings but also their important capabilities. Since fake news represents false information that is intentionally created to manipulate the hearer and intentionally masked to resemble reliable news sources, it impedes citizens' capabilities by undermining their autonomy and by precluding them from forming their own decisions on valid and relevant information. Citizens affected by fake news are manipulated, and their capacity to use the existing methods to protect their health (e.g., cancer treatments, face masks, and vaccines) is hindered. Therefore, when citizens are unable to rely on reliable medical information when making decisions about their health, their capability for bodily health is endangered.

To sum up: To have the capability for bodily health, we need to have access to correct and epistemically reliable information regarding the dangers to our health, the possible preventive measures, and the ef-

fective remedial treatments. When our deliberation is grounded upon false and manipulative information (i.e., disinformation), we lack the capability for bodily health, and our well-being is thus severely reduced.

4. A Non-Paternalist Argument for State Intervention

Contemporary discussion puts a strong emphasis on the harmful effects fake news inflicts upon the political community. Therefore, when issues regarding the regulation of the spread of fake news come into focus, paternalist considerations are easily avoided. Since the spread of fake news has harmful results for the whole political community, and not only for those individuals affected by disinformation, there might also be good (non-paternalist) reasons to restrict the spread of fake news, even at a price of partially limiting some individual liberties (Olan et al. 2022). The government could thus try to justify policies that educate the citizens and make them fitter to recognize fake news when they see them, as well as policies that introduce some form of labeling or even moderate censorship on the grounds of preventing harm that could be inflicted upon innocent others. For example, since voting in the elections represents an exercise of power over others (Mill 1977b, see also Cerovac 2016 and 2022), when citizens form their political opinions in epistemically unfavorable conditions and thus end up supporting unjust, inefficient, or incorrect political decisions, they are inflicting harm upon other citizens. But how can the government avoid falling into paternalism when it tries to provide justification for similar policies while simultaneously appealing to the harm fake news inflicts upon the well-being of individuals who have been affected by (and who are now spreading) fake news?

The capability approach holds that the government should actively promote and protect citizens' capabilities. It avoids paternalist objection by appealing to the distinction between capabilities and functionings. While it would clearly be paternalistic to force citizens to endorse a healthy lifestyle, securing material and social conditions that enable everyone who freely and autonomously decides to uphold a healthy lifestyle to live in such a way seems to avoid the paternalist trap (Nussbaum 2011). However, to be able to make decisions freely and autonomously, citizens must be in favorable epistemic conditions, those that preclude systematic manipulation. Namely, if one is intentionally and regularly deceived and manipulated about some issue, one's opinions and preferences regarding that issue will be 'mentally contaminated' and thus no

longer autonomous (Moles 2007). Since that person will no longer be able to autonomously decide whether she wants to realize a particular functioning, she will lack the capability related to that functioning. Just as a person lacks the capability to get vaccinated when the vaccine is unavailable (e.g., when the government fails to acquire it), so too a person lacks the same capability when she lacks the information required for an autonomous decision about vaccination (e.g., when the government fails to provide such information). To actively promote and protect citizens' capabilities, the government should secure an epistemic environment that impedes manipulation.

An antipaternalist argument for securing and protecting a favorable epistemic environment can be grounded in Mill's famous bridge example (Mill 1977a). British philosopher invites us to imagine a bridge that has been damaged and will collapse if someone tries to cross it. When a stranger approaches the bridge with the intention to cross it, a public officer or anyone else is allowed to (in fact, has a duty to) inform the stranger of the danger and, if there is no time to warn the stranger about the danger, seize the stranger and stop him from crossing the bridge. Mill (1977a: 294) argues that such action would not be an "infringement of his liberty; for liberty consists in doing what one desires, and he does not desire to fall into the river." Action must be both harmful for the individual, and we should reasonably believe he lacks some relevant information or is in a state of (temporarily or permanently) diminished intellectual capacities to legitimately exercise coercion over an individual whose actions affect no one but himself. The first condition alone (i.e., the fact that the action is harmful for the agent) is not enough to justify coercive action. The second condition alone (i.e., our reasonable belief that the agent lacks some relevant information) also fails to provide adequate justification for coercion. "People often act while lacking some relevant information, and it is the potential serious harm of their actions that justifies coercion in some cases" (Cerovac 2022: 178). The paper addresses the effects fake news has on citizens' health precisely because disinformation regarding health can have a devastating effect on citizens' well-being and constitute serious harm.

The capability approach, as argued earlier, does not call for the government securing any set of functionings, yet it argues that the government should protect and promote citizens' important capabilities. To promote capabilities, the government must secure adequate information and a favorable epistemic environment in which citizens can exercise their navigational agency (Claassen 2018) and freely and autonomously

decide which capabilities they wish to turn into functionings. This implies that the government is not only allowed to but also has a duty to fight fake news and other forms of disinformation that are used to manipulate the citizens. However, since the justification of policies regulating the spread of fake news is grounded in citizens' autonomy, the government must be watchful not to overstate its role. The final part of this paper discusses the advantages and disadvantages of a few approaches that government can take to protect citizens' capabilities by regulating the spread of disinformation.

4. Regulating the Spread of Fake News

Government policies that aim to hinder the spread of fake news can be divided into two wide groups: policies aspiring to educate and train citizens to be able to recognize fake news, thus reducing the number of citizens spreading the disinformation, and policies aiming to regulate the channels through which fake news spreads, thus reducing the number of citizens affected by disinformation. While the former approach seems less restrictive, it might also be less efficient, while the latter might produce better short-term results, yet it relies on more restrictive measures. We proceed to argue that the government needs to carefully implement policies from both groups to promote citizens' important capabilities while simultaneously protecting their freedom and autonomy.

Policies and measures aimed at educating and training citizens can again be categorized as reactive and preventive. While the former tries to debunk the disinformation that has already spread within society, the latter aims at improving citizens' epistemic capacities so they can detect disinformation themselves. A reactive approach is quite simple and cost-efficient. A specialized publicly funded agency analyzes disinformation that exists within the political community, identifies harmful disinformation that spreads rapidly, and publicly debunks this harmful information, typically by exposing both its falsehood and its manipulative nature. The hope is that having gained access to the relevant evidence, the manipulated citizens will be able to recognize the disinformation and abandon their other beliefs grounded in debunked disinformation. Unfortunately, this approach fails to achieve its aim. First, it is increasingly difficult to identify citizens who have been exposed to fake news, and it is even harder to formulate a dissemination strategy that can reliably deliver debunking information to the right hearer. In fact, research suggests that the

citizens who are most liable to fake news are also the ones who are most difficult to reach with evidence that debunks disinformation (Waisbord 2020). This is exacerbated by confirmation bias, i.e., people's tendency to focus on information that confirms their existing beliefs and ideas. Second, when debunking information reaches the right citizens, there is no guarantee that the citizens will change their opinions and beliefs in the light of new evidence. People often take their beliefs very personally (i.e., as a part of their identity, even when such beliefs are grounded in disinformation) and are unwilling to change them (Ecker 2022). Again, this is exacerbated by disconfirmation bias, i.e., people's tendency to reject evidence that might threaten their existing beliefs and ideas. Third, even those citizens who acknowledge the debunking information and declaratively abandon the disinformation in question are still affected by disinformation. Its harmful influence remains even when it has been debunked. For example, parents who have at one time endorsed harmful disinformation regarding vaccines and autism grounded in Wakefield's research and at a later time endorsed the claim that the research results were fabricated are still inclined to be skeptical about vaccines and tend not to vaccinate their children (Lee et al. 2022). Although the reactive approach provides some useful tools, it fails to properly grasp (and to successfully resolve) the problem with disinformation.

The preventive approach aims to improve citizens' knowledge and critical capacities, making them more resilient to fake news. The overarching idea is that the truer beliefs an individual has in her belief system (and the better their coherence and understanding are), the less chance disinformation has to fit her belief system. Additionally, if the citizens are trained to critically evaluate the content and the sources of information in the public sphere, they will be less likely to succumb to disinformation (De Blasis 2019). Although policies in this approach have shown limited success (Maertens et al. 2021), some worries remain unanswered. First, when they lack knowledge regarding the source of information, the citizens tend to treat the information as true (Rapp 2016). Additionally, citizens often forget when and how they encounter the information in question, and they tend to incorrectly relate false information to reliable sources (Brown 2021). Second, the existing algorithms on social media can overwhelm an individual with disinformation, and while that person might not declaratively endorse any of the disinformation in question, the sheer quantity of disinformation will still exercise a harmful influence on the individual's reasoning (Menczer and Hills 2020, Ecker 2022).

Again, although the preventive approach has some success in fighting the spread of fake news, it lacks the capability to tackle difficulties related to epistemic biases and digital algorithms.

Policies and measures that call for government regulation might be able to address the remaining worries. These might aim to regulate the platforms where disinformation spreads or to regulate the spread itself by censoring and prosecuting those who create fake news. The government can direct its attention to social media and digital algorithms that determine the highly customized content that will be delivered to each user. These algorithms strengthen political polarization and contribute to the creation of epistemic bubbles and echo chambers, but they also allow creators of disinformation to target a specific audience and customize their manipulative methods to achieve optimal results. While most social networks demand transparency with paid advertisements, the algorithms they use have remained secret for over a decade. Scholars advocating for this approach argue that a successful way of regulating social media recommendation algorithms requires some form of government intervention (Vidal Bustamante 2022). However, regulating the algorithms will not completely remove channels for distributing fake news. Closed digital spaces like WhatsApp groups will continue to facilitate the distribution of disinformation (Brown 2021).

Finally, the government can actively prosecute individuals, companies, and partisan associations who create and distribute fake news. For example, radio show host and prominent conspiracy theorist Alex Jones was recently fined 965 million USD for generating and spreading fake news about the Sandy Hook Elementary School mass shooting (*Le Monde* 2022). Prosecuting those who create harmful disinformation should substantively impede the spread of fake news. However, this approach calls for long-lasting judicial processes, and there is a worry that it might be costly and inefficient (Eddy and Scott 2017). Additionally, the inappropriate application of this approach might diminish citizens' freedom and autonomy instead of protecting them. Some scholars thus argue that the perceived dangers of fake news, combined with strict regulation by the state, might be more harmful than fake news' actual effects (Jungherr and Schroeder 2021).

All approaches discussed here have some advantages and disadvantages, and none of them can resolve the problem by itself. However, they contain measures and policies that can be combined and jointly used, and only by integrating elements of various approaches can the government successfully prevent the spread of fake news, thus protecting

and improving citizens' important capabilities. Finding the appropriate list of measures and policies that borrow from all the abovementioned approaches is a demanding interdisciplinary task that should, among other things, be adopted in coherence with the country's public political culture. The capability approach can be a useful tool to assess the harm inflicted by fake news and to weigh between different (more or less intrusive) measures and policies that aspire to prevent the spread of disinformation.[1]

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