



# COVID-19, the Immune System, and Organic Disability

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## Abstract

Despite the availability of safe vaccines against SARS-CoV-2, some people will remain vulnerable because they will not be vaccinated. Who are these non-vaccinated people? We can distinguish two groups: (i) persons who cannot be vaccinated for clinical reasons and who, despite having been vaccinated, have not achieved immunity; (ii) persons who voluntarily refuse to get vaccinated. These groups have in common an immune system that will make them vulnerable to COVID-19. The reasons for their vulnerability and the ethical judgment they deserve are different; the solutions offered to them are also different. In the case of those who voluntarily avoid vaccination, States are not compromised to introduce new protective policies. In the case of people who remain involuntarily vulnerable, instead, the response should be articulated on the same rules and principles that inform the social model of disability because they will live with an organic disability.

**Keywords** COVID-19 · Immune system · Non-discrimination · Organic disability · SARS-CoV-2 · Vaccination

## Introduction

The outbreak of SARS-CoV-2 variants has demonstrated something that had already been suggested: no matter what we do, this virus will continue to circulate among us, even though vaccination rates are very high, since vaccines will not fully prevent contagion and transmission of new variants of the virus. Furthermore, the immunity protection from prior infections and vaccines seems to have lessened over time. Indeed, nearly two thirds of COVID-19 cases in the UK were reported by those surveyed as reinfections (Elliott et al. 2022).

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Since new variants will probably continue appearing in the future and natural immunity will not help us avoid infection, achieving herd immunity against COVID-19 will be extremely hard, if not impossible (Aschwanden 2021). Thus, a transition period will soon start that finally leads to an approach in which the concept of endemicity will play a key role in public health planning. Indeed, several governments all around the world have “unofficially” decreed that we must all now live with COVID-19 (Willicombe et al. 2022). As new variants will probably provoke milder diseases, this should make a big issue to most of the population.

However, we should keep in mind that there will be exceptions to this general rule. Some people will remain vulnerable to the COVID-19 because they will not have gained immunity through vaccination, whether intentionally or unintentionally. Indeed, the lack of vaccination remains the key factor to explain vulnerability. As several studies show, unvaccinated people constitute the most vulnerable group against the disease. According to the UK Health Security Agency’s daily report of December 29, 2021, 40.3% of hospitalized cases in London were unvaccinated. Similarly, data provided by the Washington State Department of Health in July 2022 show that unvaccinated 65+ year-old people are 3 times likely to be hospitalized with COVID-19 compared with 65+ year-old who have completed the primary series and 3.1 times more likely to die of COVID-19 compared with 65+ year-old who have completed the primary series (WSDH 2022).

Who are these non-vaccinated people? In fact, this is hard to say, since it is a quite heterogeneous kind or people: for instance, some of them are people who do not even believe in the existence of the virus, while some others are just afraid of the COVID-19 vaccines. Nevertheless, for the purposes of this paper, we can perfectly distinguish at least two groups: the first is composed of those who cannot be vaccinated for clinical reasons and those who, despite having been vaccinated with the full schedule, have not achieved adequate immunity; the second group comprises those people who voluntarily for any reason refuse to get vaccinated.

This differentiation of the unvaccinated into two groups is a necessary classification that allows us to understand the problem we are going to present, as well as to perceive the existence of deeper social problems (Minow 1990, 22). There are two situations, the voluntarily and the involuntarily unvaccinated, which must be differentiated in order to provide special treatment through reasonable accommodations to one of them. However, this is not intended to express any prejudice towards the other. People who are not vaccinated voluntarily are exercising a right based on their personal autonomy that is interpreted from ideological coordinates. Non-vaccinated persons voluntarily perform this interpretation as “situated persons.” This situation or position in the world has ethical significance since it influences our sense of what is right to be ethically bounded (Dorfman 2021, 1385).

In any case, these two groups of people have a common characteristic: an immune system that, lacking the necessary booster, will make them particularly vulnerable to COVID-19. However, it is obvious that the reasons for their vulnerability and the ethical judgment they deserve are very different. So, of course, the solutions that can be offered to them are also very different.

Thus, the lack of effective vaccination (that is, vaccination that provides immunization) will remain an important issue, since it is clear that at some point in the

future, most of the Western population will no longer be vulnerable to the SARS-CoV-2, but a relevant minority will probably suffer some severe consequences if they get infected. Worse off, those vulnerable people will be clearly divided between those who could perfectly protect themselves by getting vaccinated and those for whom vaccines will not be an option.

Thus, the question that we should be asking ourselves is pretty simple: how should society face the issues created by such a situation? How should we deal with a scenario in which people with a different immunity status will have to interact with each other? These are not easy questions at all, since they involve a lot of issues from different perspectives: public health, ethics, law, health care, etc.

In this paper, we argue that we cannot provide a unique answer. Instead, the answer depends on the circumstances of each category of individuals. In the case of those who voluntarily avoid vaccination, States are not compromised to introduce new protective policies, due to a quite simple reason: if those citizens are not willing to protect themselves, they could hardly ask the community to dedicate resources to such purpose. Moreover, the person who has not been vaccinated voluntarily becomes the archetype of a person who has been privileged by the system; it is the archetype of an autonomous and responsible individual whose privileges have come to an end because this exercise of personal autonomy and responsible choice is the object of rejection. Thus, States should just take care of them through their health care services if needed. However, if voluntarily unvaccinated people could benefit from measures adopted to protect other vulnerable citizens, this should not be prohibited at all. In fact, many of the accommodations that are made for the benefit of people who are involuntarily not immunized may end up benefiting other groups. So far, there is not a single country that has tried to avoid this scenario. However, it will be necessary to determine whether any differential treatment for the voluntarily unvaccinated constitutes a choice-based discrimination (Kricheli-Katz 2013, 670).

In the case of people who remain involuntarily vulnerable, instead, the response should be totally different: it should be articulated on the same rules and principles that inform the social model of disability, which is a human rights-based model, as we will show in depth in this article (Drum 2009). This is because people who are involuntarily vulnerable to the virus are, indeed, persons with disabilities: unless States intervene, they will be unable to enjoy full and effective participation in society on an equal footing with other citizens, even though they do everything possible to preserve their health. Going to a doctor's office or an emergency room, going to a hotel or restaurant, attending school or university, using public transport, or even going to a mass event (from a concert to a demonstration) will become for them dangerous situations, unless the other attendees take certain precautions. All these people will live, in short, with a form of disability linked to a hitherto little analyzed modality: an organic disability. This modality stems from a deficiency in their immune system. These circumstances are, in our opinion, quite similar to the scenario that people facing any of the already acknowledged disabilities (physical, intellectual, etc.) must deal with in their day-to-day life. Consequently, in the first part of this article, we argue that people who cannot be vaccinated due to clinical reasons or those who have not obtained efficient immunity after vaccination, that is,

people who could not reach immunity through vaccination, show a disability. More precisely, an organic disability affecting the functioning of the organism as such.

Under such circumstances, we consider that they should be subject to the protection provided by the International Convention on the Rights of Persons with Disabilities (CRPD), approved by the United Nations (UN) in 2006. This is a normative framework that, according to article 1, obliges signatory States to “promote, protect and ensure the full and equal enjoyment of all human rights and fundamental freedoms by all persons with disabilities, and to promote respect for their inherent dignity”.

We are aware that introducing this debate might have serious consequences in the way we deal with disability. Indeed, the situation faced by those who cannot get immunized against COVID-19 is far from new. Indeed, people with chronic diseases affecting their immune system have always been part of our societies. However, until now, they have not received adequate regulatory treatment and have suffered the consequences in the form of unequal opportunities. In the USA alone, 3% of adults take immunosuppressive drugs, “that makes at least 7 million immunocompromised people (...) without even including the millions more who have diseases that also hamper immunity, such as AIDS and at least 450 genetic disorders” (Yong 2022). While people with physical, sensory, or intellectual disabilities are protected to a greater or lesser extent, the same is not true for those whose immune systems are compromised for genetic reasons (lupus, rheumatoid arthritis, etc.) or other reasons (organ transplant, HIV, etc.). As Yong recalls, “In the past, immunocompromised people lived with their higher risk of infection, but COVID represents a new threat that, for many, has further jeopardized their ability to be part of the world.”

Until now, we had not paid attention to the specific rights that people with a chronic illness should have. Perhaps the dilemma of difference has worked against them because, instead of paying attention to them, we have decided to ignore them or to be neutral, trying to be integral by giving them a similar treatment than that to the rest of the individuals. This may have also generated structural discrimination. COVID-19 has probably introduced an opportunity to improve this scenario once and for ever. In this new scenario, immunocompromised people will be at the center, being the recipients of reasonable accommodations once that universal design has not been possibly achieved. Thus, even though we will mainly concentrate on the organic disability created by SARS-CoV-2, our conclusions will surely open the gate to further discussions about organic disability in the future. One such discussion might be whether people with a chronic illness (such as people with a weakened immune system or people with HIV) should be included within the category of people with disabilities. If so, we would demonstrate that this is a flexible and fluid category. If, on the other hand, they should have an express recognition of their situation through the adoption, for example, of legislation that includes the rights of individuals with chronic diseases, the scenario would be different. Nonetheless, even if no new rights were created, it would serve to highlight the situation in which these people find themselves and to demand improvements in their situation. The dilemma of difference, as we can see, is once again evident (Minow 1990, 20).

Having considered these issues, in the second part of our contribution, we discuss the practical issues, that is, the concrete measures that the recognition of an organic

disability should involve. This is not an easy task, since, in this case, the barriers to access come from the behaviors developed by other people, which are considerably reinforced by the institutional attitudes adopted and by a regulatory situation that fails to prevent these barriers from succeeding. We are talking about contexts that allow some people to endanger the health of third parties in simple ways such as avoiding being tested or wearing masks, not respecting limited capacity, etc. These individuals often have a psychological barrier that prevents them from recognizing the conflict between self-interest and others' welfare, leading them to believe that they are acting in a more ethical manner than they are (Dorfman 2021, 1385). Thus, they are endangering vulnerable people involuntarily. This is all occurring either due to the lack of a regulation or due to the inactivity of the authorities in charge of implementing it and ensuring its application. Thus, we have some good options to introduce promising changes in this scenario.

Based on these premises, we finally state that the only way to ensure a full life for people affected by the organic disability we are describing is, first of all, by researching possible treatments capable of successfully dealing with the disease. This could be addressed by developing new, more effective vaccines, or vaccines that can be offered to groups that right now do not have access to them (such as people who will probably suffer from serious side effects if they get vaccinated with the products currently available). Or maybe, through the creation of effective treatments able to face the COVID-19 disease efficiently. This part of the solution will require designing and launching new clinical trials in which these unvaccinated people will be among the participants, and specific considerations must be given to the assessment of the application for authorization of that clinical trial. International regulatory standards require that the participation of vulnerable groups be duly justified to prevent their exploitation. In this way, it must be demonstrated that this participation is necessary to obtain the relevant scientific information to develop the new vaccines or therapeutic treatments.

Meanwhile, if reaching these new treatments is not possible, our proposal is that it would be appropriate to delimit areas in which reasonable safety measures are respected to protect those persons with this organic disability. Access to these areas or goods shall be *exclusive*, when they are rival in consumption, or *preferential*, when they are non-rival in consumption, for persons with this organic disability. Only once their right has been assured, those who have not wanted to be immunized could have access. This will ultimately make it necessary to introduce a system of certification of this form of disability by the health authorities. Since this might involve some data protection issues and open the debate about the disability con, we will dedicate a section to illustrate these issues.

## Organic Disability as a Form of Disability

Let us then start by analyzing the question of the organic disability. Should people who remain unwillingly vulnerable to the virus be treated similarly to people facing such disability? The answer to this question must be clearly affirmative. As we have just noted, these people suffer from the lack of immunological capacity to cope

successfully with a SARS-CoV-2 infection, that is, the type of immunity gained through vaccination or provoked by the reaction to the disease. Immunity is therefore a scenario in which a physical or biochemical change occurs in cells, tissues, or organs of the body. Those who cannot gain immunity do not benefit from such changes. This is why we are talking about organic disability.

This is a category that has not been recognized in the CRPD. In fact, it contains new issues, since chronic diseases have never been included as disabilities. This is mainly related to the complex relationship between disability and disease, as a consequence to the tendency to medicalize. The tension lies in the fact that the medical model focuses on impairment, which is a “medically defined condition of a person’s body/mind,” and the social model focuses on disability, which is “the socially constructed disadvantage based upon impairment.” The paradigm of a person with disability is one who is healthy, leaving aside the recognition of impairment, which is crucial to include those with chronic illness in the definition of an individual with disability (Minow 1990, 23). The inclusion of this group is what Iris Marion Young calls “the next step toward equal opportunities for people with disabilities” (Young 2000, 173), but we are yet to know if this step will be taken.

Of course, we concede that the concept of organic disability could be considered quite a wide concept. Indeed, it encompasses many types of diseases: some may be localized in one organ and others may be systemic; some may be communicable, and others may not; some are hereditary, and others are caused by external or environmental factors. The inefficient response by the immunity system constitutes a health condition in which biomarkers characteristic of inflammation or damaged tissue can be observed and measured. Thus, it must be considered a kind of organic disability, that is, a health condition that makes those facing it to find severe difficulties to live a normal life.

What are the consequences of this conclusion? From a legal point of view, they are quite clear: organic disability is implicitly covered by the CRPD, as expressed in the recent case law of the Court of Justice of the European Union, and by the American and British legislations. We analyze all these regulations in the next sections.

### **Organic Disability in the Convention on the Rights of Persons with Disabilities**

The CRPD is an international treaty aimed at protecting people with disabilities (Szmukler 2017). It is based on the philosophy of the social model of disability, both to define the phenomenon and to describe the problems and design the solutions and obligations (Mégret 2008). The social model approaches disability by considering the influence of environmental factors on the equal enjoyment of rights by persons with disabilities (Batavia and Schriener 2001). From this perspective, disability is a concept that results from the interaction between people with impairments (physical, sensory, intellectual, mental, or organic) and barriers due to attitude and environment that prevent their full and effective participation in society, on an equal basis with others. Therefore, disability should not be considered an individual problem but as a phenomenon integrated by social factors. It is not only individual limitations that are at the root of the phenomenon, or rather, the limitations of society

to provide appropriate services to adequately ensure that the needs of people with disabilities are considered within the social organization (Smart 2009). In the case of SARS-CoV-2, it is difficult to deny that people who have not developed immunity to the virus because they cannot be vaccinated for clinical reasons, or because, despite having been vaccinated, they have not been able to achieve adequate immunity, may find their social interaction severely limited if the people around them (and they themselves) do not adopt a series of measures aimed at preventing contagion. Obviously, this will not be possible without State intervention to establish rules that meet the interests of people living with this disability. This State intervention should not be done through affirmative action rules, which are not seen as neutral (Minow 1990, 71), but anti-discrimination law, since it is not a matter of specifying rights to a minority group but of generalizing access to a right (Dorfman 2019, 1060).

Under such circumstances, the social model of disability considers that the State must respond to this phenomenon based on rights (Stein 2007). This model entails ensuring that all persons with disability enjoy all declared rights and recognized freedoms on an equal basis, so that no one suffers unjustified discriminatory treatment on the grounds of disability. Some groups of people, especially those in vulnerable situations, tend to be seen as objects rather than subjects of rights and the legal protections associated with the rule of law are either not enforced or are severely limited. A rights-based response involves abandoning the tendency to perceive certain groups of people more as problems, or as a burden, than in terms of their rights. In the case of COVID-19, this effect can be particularly damaging, since so many people suffer from pandemic fatigue to one degree or another. From this pandemic, fatigue may arise an attitudinal barrier due to a lack of empathy towards people with this type of organic disability. Their interest in returning to a more normal life may result in a certain animosity towards non-immunized people, regardless of whether the lack of immunity is due to a clinical issue or personal choice.

Pandemic fatigue, animosity towards non-immunized persons and the difficulty in differentiating between those who have chosen not to be immunized and those who have not been able to do so can lead to “choice-based discrimination.” This type of discrimination “is based on traits that are perceived by many to be, at least to some degree, voluntary and within the power of the people who hold them” (Kricheli-Katz 2013, 670). It is a type of discrimination based on prejudices, stereotypes, against the person who has the trait that is perceived to be controllable. This is why it is so important to differentiate between the two groups of non-immunized persons and to adequately justify both the restrictions imposed on the non-immunized and the measures taken to ensure that the involuntarily non-immunized persons can access their rights.

Choice-based discrimination shows that we tend to justify differential treatment towards those people who we consider responsible for their situation. As a consequence, a paradoxical situation arises in a liberal society. In these societies, choice, individualism, and autonomy are core moral values that are praised and promoted, but:

if we believe that an undesirable situation is avoidable and that the choices the victim has made led to the unfortunate result, then we are more likely to



view the victim as responsible, judge her, reject her, and treat her negatively. However, if we believe that an undesirable situation is not controllable, then we are more likely not to judge the victim, but rather to feel sympathy for her and assist her (...) we tend to morally judge victims when they avoid influencing negative situations and overcoming constraints (Kricheli-Katz 2013, 672).

Voluntarily unvaccinated persons would be in the first group described in the quote, while those involuntarily unvaccinated would be in the second. The problem with this second group is that it is an invisible disability. This may raise “public suspicion of the ‘disability,’ that is, the cultural anxiety that individuals fake disabilities to take advantage of rights, accommodations, or benefits” (Dorfman 2019, 1052). We will return to this issue later. In the case of voluntarily unvaccinated individuals, we will see whether the differential treatment afforded to them can overcome the proportionality test that the courts usually require in order not to consider it discriminatory.

Under such circumstances, the different kinds of discrimination that people with this organic disability must face are varied. Direct discrimination, first, occurs when a provision, criterion, or practice takes into account one of the protected traits or characteristics (or the prohibited grounds of discrimination) to treat persons possessing those traits less favorably than others in a comparable situation. This discrimination would occur, for instance, if people who are involuntarily not vaccinated were rejected for that reason from a job, without considering the possibility of making reasonable accommodations, such as remote working from home. According to the CRPD, failing to provide reasonable accommodation constitutes discrimination.

They will also have to face indirect discrimination that occurs when the application of a provision, criterion, or practice formulated in neutral terms with respect to protected traits or characteristics (or prohibited grounds of discrimination) places persons possessing those traits at a particular disadvantage vis-à-vis others in a comparable situation (Minow 1990, 9). In the case of indirect discrimination, it is found that the provision, criterion, or practice disadvantages one group of persons to a greater extent than another. This type of discrimination occurs because there has not been differentiation, as recognized by the European Court of Human Rights (ECHR) in the *Thlimmenos* case, or the Court of Justice of the European Union (CJEU) in the *Bilka* case. It originates because a regulation has not extended its beneficial effects to all the subjects it should have included and has not considered the specificities of some subjects that it should have foreseen (Cobrerros Mendazona 2007). The incorporation of this type of discrimination constitutes a key element for achieving effective, material, or substantial equality, overcoming a historical inequality that can be described as structural (Young 2001).

This structural discrimination occurs when one or more power systems lower the status of certain social groups and prevent that status from changing. This allows discrimination to be studied not only from the similarity or difference in treatment but also from the perspective of power over or supremacy exercised by the dominant social group over a dominated group (MacKinnon 1991).

Lastly, discrimination by association occurs when a person or group to which they belong is subjected to discriminatory treatment due to their relationship with another



for the reason or reason of protected traits or characteristics (or prohibited grounds of discrimination) placing them at a particular disadvantage vis-à-vis others in a comparable situation. Both the CJEU, in the *Coleman* case, and the ECHR, in the *Molla Sali* case, have used this type of discrimination.

These different types of discrimination are precisely what a rights-based approach seeks to avoid. Hence, again, the importance of extending the concept of disability to this case: the organic disability. To this purpose, it is absolutely clear that the adoption of the social model of disability involves a broad concept of disability (Elliott et al. 2009), which includes all situations characterized by the limitation or impossibility of adequately exercising a bodily function or a part of the body; or the incapacity to adequately perceive reality, emotions, or judgments; or the impossibility to participate in society, as a consequence of an impairment, or to construct a social environment, or the interaction of both. The broad concept of disability includes both (i) people who have a disability because of a physical, sensory, intellectual, mental, or organic impairment, and (ii) people that society considers have a disability and, therefore, attributes to them one of these impairments.

The attribution of a limitation is especially important in this case because people with this organic disability could do the same things as everybody else if there is a universal design or, if not possible to get it, a reasonable accommodation. But, in most of the situations, they may be overprotected, affecting their full inclusion in society. They have not been able to get vaccinated or have not developed sufficient immunity and are therefore more exposed to the virus. However, they can access the same goods and services on equal terms as other people if a series of reasonable accommodations are adopted. In this sense, there is a popular misconception about how immunocompromised people live just because they are not secluded or live in a bubble. Keeping this in mind, we shall consider the interaction between people with disabilities and the social barriers (institutional, normative, and attitudinal) that prevent their full and effective participation in society, on an equal basis with other people both when determining whether we are facing a disability scenario and when deciding on the measures to be adopted. There are several examples that can be used to illustrate the situation in which involuntarily non-immunized people may find themselves in the future. One of them is that of transplant recipients, since society still perceives them as people with disabilities or does not take their needs into account, which hinders their full inclusion and generates situations of indirect discrimination due to non-differentiation (Nour et al. 2015). Another example is that of people with HIV when they are excluded from jobs, or some services are not offered to them because they are seen as a *social danger* (Pererira 2010). A final example is that of people on dialysis with chronic kidney disease being excluded from planes because they are not allowed to check in the cycler, with which they perform peritoneal dialysis, as hand luggage (Ramiro and Ramírez 2021).

### **The Protection of Persons with Disabilities in Recent Case Law of the Court of Justice of the European Union**

As previously noted, although the European Union (EU) is signatory to the CRPD and all EU Member States have adopted the social model of disability,

not all of them have a broad concept of persons with disabilities. Therefore, an assessment based on barema tables is required (Waddington et al. 2018). For this purpose, in its concluding observations addressed to some European States, the UN Committee on the Rights of Persons with Disabilities has repeatedly expressed its concerns about definitions of disability for the purposes of acquiring benefits, and about the processes of disability assessment (CRPD 2012, 2016a, b, 2017, 2014).

The interpretation that organic disability is a form of disability has also been supported by the case law of the CJEU, whose sentences are mandatory in all Member States of the EU. This court has opted for a broad conception of the idea of disability, which includes people with a chronic illness, and it could also be extended to long-COVID. The CJEU articulated a decision consistent with the CRPD because, like all the international treaties concluded by the EU, it is an integral part of EU law. The CJEU judgment of 11 April 2013, case (C-335/11), known as the *Danmark* case (also known as *Ring* case), points out that the concept of persons with a disability must include persons with a chronic illness (Favalli and Ferri 2016). The ruling stated that:

the concept of ‘disability’ (...) must be interpreted as covering a condition caused by an illness medically diagnosed as curable or incurable, where that illness entails a limitation, arising in particular from physical, mental or psychological ailments which, in interaction with various barriers, may prevent the full and effective participation of the person concerned in professional life on an equal footing with other workers, and where that limitation is of long duration.

This interpretation has been confirmed by the same CJEU in the judgment of 18 December 2014 (case C-354/13), known as the *Daouidi* case, stating that:

the concept of ‘disability’ must be understood as referring to a limitation, resulting in particular from long-term physical, mental or psychological ailments, which, in interaction with various barriers, is liable to prevent the full and effective participation of the person concerned in professional life on an equal footing with other workers (...). This concept of ‘disability’ must be understood in the sense that it encompasses not only the impossibility of exercising a professional activity, but also a difficulty in exercising it.

These judgments distinguished between short-term ailments, which are not to be regarded as a disability, and long-term impairments, which can be regarded as disabilities when subject to various barriers and exogenous factors (Waddington 2013). The key to determining whether a disability exists should not be, therefore, the specific cause that generates it, but the difficulty to prevent the full and effective participation of the person in society. Again, it seems more than justified to consider that the absence of an immune system capable of ensuring an effective defence against COVID-19 falls within this scenario when subjected to various barriers and exogenous factors.

## The Americans with Disabilities Act and the Equality Act

The opposite situation to that in Europe is that of the USA and the UK, which have adopted a broad concept of persons with disabilities. In these two countries, there should be no discussion as to whether involuntarily immunocompromised persons are individuals with disabilities. The Americans with Disabilities Act (ADA) recognizes as person with a disability both a person with a physical or mental impairment, a person with a record of such impairment, and a person to whom one of those impairments is attributed that substantially limits one or more important life activities. The impairment, therefore, does not have to be real (attributed, as regard) but can even be wrongly attributed, which could show the existence of an attitudinal barrier. In this case, the impairment cannot be transitory (an actual or expected duration of 6 months or less) and minor.

Organic disability is included in this conception of disability since the ADA itself indicates that major life activities include the major bodily functions of the immune system, cell growth, or the digestive, neurological, circulatory, or endocrine systems. On the other hand, the determination of whether a physical or mental impairment substantially limits one or more important life activities should be done without considering the effect of improvement of mitigation measures, such as medication, another therapeutic measure, or reasonable accommodations. This is the case of persons with HIV (Gostin et al. 1999).

According to the United States' Supreme Court in *Bragdon v. Abbott*, people with asymptomatic HIV meet the definition of people with disability because HIV infection is an impairment per se for purposes of the ADA and substantially limits one or more major life activities (Mayer 2000). Under this definition of disability, even people with long-COVID could also be considered persons with disability entitled to the ADA protections if COVID-19 substantially limits one or more major life activities, or they are regarded as having such impairment (whether substantially limiting or not) (Stephenson 2021).

In the UK, the Equality Act should also recognize that organic disability is protected since, first, it establishes that both people with HIV, from the moment of diagnosis, regardless of whether they are non-asymptomatic, like people who are assumed to have HIV, are considered disabled. People with cancer, secondly, are also recognized as people with disabilities. In both cases, it is considered that there is a physical or mental impairment that has a substantial long-term adverse effect on the ability to carry out normal activities of daily live. This means that it is illegal to discriminate against people with HIV or cancer in access to work, education, renting a home, or providing a good or service. In addition, they are recognized the right to reasonable accommodation that is not a disproportionate burden. Physical or mental impairment may have been diagnosed and affect a person's ability to carry out those everyday tasks. As could be the case of a person with HIV who has developed Kaposi's sarcoma, which is a type of cancer that defines AIDS. But physical or mental impairment may have been diagnosed and not affect a person's ability to carry out those daily tasks, even though society continues to attribute the inability to carry them out to these people. This is the reason why many people with HIV or cancer may be discriminated against

in their access to work, education, and certain goods and services (Robinson et al. 2021).

## **Building Up a Future with People who do Not Share the Same Immunological Skills — The Practical Implications**

We have merely concluded that there is plenty of room to consider organic disability as the kind of disability that provides some essential rights to all those who hold it. This involves some important consequences in the case of COVID-19. As previously mentioned, in the future, there will probably be two groups that will continue to face problems related to immunity against the virus. The first will consist of people who have not wanted to be vaccinated, which is not currently mandatory in most of the EU Member States. The second, on the other hand, will cover all those who have not been able to acquire immunity because their vaccination process has not provided it or because they have not even been able to complete it for reasons related to their state of health or because there is no vaccine available. All these groups will share the same condition — a limitation to lead a full social life — but will have important differences related to the origin of their problem and the ability to remedy it. Some of them will not be immune to the virus by choice, while some other will remain vulnerable even though they have done their best to acquire it.

This difference is extremely relevant in terms of the exigencies they may pose to the community. In this section, we will expose which are the differences between both groups, starting by those who cannot be successfully immunized through vaccination.

### **Involuntarily Vulnerable People and the Implications of Recognizing the Lack of Immunological Protection as an Organic Disability**

In previous sections, we have showed that there are good reasons to consider that people who have not developed immunological protection against COVID-19 for reasons others than their refusal to vaccination have a disability within the meaning of the CRPD and the European, or the American and British case-law and regulations. What would be the consequences of such conclusion? In our view, the generic answer to this question is simple: this recognition would imply the need for intervention by the State to protect those people by eliminating or, at least, mitigating the institutional, normative, and attitudinal barriers that prevent these people from having an adequate participation in social life. As we show in depth in the following sections, States must adopt policies to protect immunocompromised people, including mask mandates, vaccination requirements, flexible working options, remote education, and some other reasonable accommodations.

Since those people suffer from a kind of disability (organic disability), States should play an active role in order to ensure that their social life remains normal. Normalization means, then, that people with disabilities should be offered ways of life and conditions of existence as close as possible to the usual circumstances of the

society to which they belong, while at the same time being able to take advantage of them as much as possible for their development and maximum level of autonomy. If this is not possible for all people, we should begin to discuss what accommodations might be more reasonable and how we should distribute the burdens proportionally. We must recall that when the universal design of a good or service is not possible, then reasonable accommodations, which allow a person with a disability to enjoy his or her rights on equal terms, will be required but these accommodations cannot be a disproportionate burden, so that the satisfaction of the right is always subject to that analysis.

Universal accessibility measures, which are *ex ante* measures applied to groups, and reasonable accommodation measures, which are *ex nunc* measures applied to individual cases, would be giving greater depth to the principle of equality by transforming a concept of formal equality by one of substantive equality. As stated by the Committee on the Rights of Persons with Disabilities:

Equalization of opportunities, as a general principle of the Convention under article 3, marks a significant development from a formal model of equality to a substantive model of equality. Formal equality seeks to combat direct discrimination by treating persons in a similar situation similarly. It may help to combat negative stereotyping and prejudices, but it cannot offer solutions for the “dilemma of difference”, as it does not consider and embrace differences among human beings. Substantive equality, by contrast, also seeks to address structural and indirect discrimination and takes into account power relations. It acknowledges that the “dilemma of difference” entails both ignoring and acknowledging differences among human beings in order to achieve equality (CRPD 2018).

In the case of COVID-19, equity means that we should do everything possible so that these people can access the same places, areas, goods, and services that are available to anyone. Namely, it involves ensuring that nobody suffers from a condition that they cannot fight on their own.

This, however, requires an important regulatory effort that might bring some sacrifices in our day-to-day life, but circumstances make it indispensable. In general, society is willing to allow that in the process of building a just community, vulnerable people have first access to or are granted certain advantages (Dorfman 2020, 595). It is important to highlight that if States do not modify legal norms and analyze the way in which our regulations fail to protect disabled people, some different types of discrimination will be institutionalized. There will be discrimination “based on status, identity-defining power and decision-making,” which enforces “structures of subordination and systematically disadvantageous outcomes for certain groups (...).” These are diffuse social processes — regardless of the intentionality or will of individuals — which are:

reproduced institutionally insofar as they cross or are projected in all dimensions of existence, both in the public and social sphere as well as in the private domestic sphere and are intertwined in turn with social variables of greater relevance (...). Unveiling the processes of discrimination in the public sphere

and gaining a more precise knowledge of the conditioning factors of decision-making allows us to interpret the notion of opportunities in terms of personal capacity, recognition or guarantee of autonomy and decision-making power and thus overcome the very limits of the notion of opportunity by attributing to it a meaning more consistent with the demands of the principle of equal dignity (Añón Roig 2013).

All those people who have not been able to immunize themselves even though they have done everything possible to reach this goal meet the requirements that have traditionally been used to identify a disadvantaged social group: they do maintain an affinity with other people through which they identify themselves. An identity that allows other people who are not part of the group identify them; they have a particular sense of history, understanding of social relationships and personal possibilities; and their way of reasoning or their shared values are partially or totally constituted through the identity of the group. A social group identifies their members not by a set of shared attributes but by a sense of identity (Young 1989).

Moreover, this structural discrimination is linked to its intersectionality because we are dealing with causes at the micro level of individual experience that reflect systems of privilege and oppression at the macro level (Bowleg 2012). Intersectionality shows that social identities are not independent and one-dimensional, but multiple and interconnected, and that these multiple social identities at the individual level intersect with structural factors. One cause (health, disability) is not capable of explaining the discriminatory treatment experienced by unwillingly unvaccinated people.

The structural discrimination materializes mainly through the indirect discrimination that we referred to earlier. Let us remember that it is a type of discrimination that is difficult to identify because there is no intention to discriminate through a legal norm, but rather it occurs once it is applied. It is in the application of the legal norm when it is verified that statistically it will affect with greater intensity those people who, due to their health condition or due to their disability, will not be able to enjoy the same equal opportunities. Indirect discrimination occurs without an express intention of the legislator to dispense differentiated treatment. However, indirect discrimination is not innocent, since behind these neutral norms, there are a series of stereotypes and a structural assumption that must be eliminated to achieve greater substantial equity (Cuenca Gómez 2015).

Thus, a new regulatory framework that ensures that involuntarily unvaccinated are not discriminated in any possible way is urgently needed. How could this be implemented in our future life? Most probably by not rushing back to our past life, that is, the life before the appearance of SARS-CoV-2, for one reason: in that scenario, the form of disability we are analyzing, based on an immunological problem in the face of a virus, was much less prevalent than it is now. Now the circumstances are very different, and we must think about the implementation of different responses, or rather, the preservation of some of the ones we have already implemented. The restored freedoms for “the many” cannot mean more dangers for “the few” because immunocompromised people cannot be forced to reintegrate into society with no regard for their risk.

In this situation, there would be a competition between the interests of immunocompromised persons and those of the general population. The solution must be to adopt measures that maximize equality of opportunity (Dorfman 2021, 1383). In this way, measures that impose the use of masks in certain areas can be justified so that immunocompromised persons can have equal access to them. A public health crisis, such as the one we are currently experiencing, requires, firstly, the adoption of regulatory solutions that interfere more strongly with individual autonomy; secondly, that the new frame of reference be relational rather than individualistic (Baylis et al. 2008, 198). Trust, solidarity, and reciprocity are therefore key elements in this reinterpretation (Kotalik 2005, 431). The individualistic approach does not allow visualizing the interconnectedness between people during a pandemic. Therefore, rights need to be “reconceived as a language for describing and remarking relationship patterns. Rights can be understood as communally recognized rituals for securing attention in a continuing struggle over boundaries between people” (Minow 1990, 383).

On the other hand, it must be the State who acts, since people are subject to psychological barriers known as “bounded ethically.” This is a cognitive process by which people overestimate their ability to be impartial and to assess the nature and consequence of their actions. They are, thus, limited in recognizing a conflict of interest between their own and the others’ welfare. This leads them to believe that they are acting more ethically than they actually are. As Dorfman (2021, 1385–1386) points out, “The clouding of the ethicality leads to immoral behavior that is not driven by malice and is routinely performed by ‘good people’”.

To better understand what we mean, it may be useful to recall that during the pandemic, we have made efforts to build safe spaces. To this end, we have introduced measures such as the mandatory use of facemasks, the reduction of capacity in entertainment venues, and the restriction of opening hours. In some countries, such as France, the use of immunity certificates has even been imposed, in an attempt to reduce the risk of virus transmission in specific places. As soon as SARS-CoV-2 become endemic, seasonal, such as the flu or the respiratory syncytial virus, and new policies are implemented, non-immunized persons will be exposed to increasing risks, such as entertainment venues with full seating capacity, public facilities where masks will not be required, public transportation without masks or distance, etc. Each of these spaces will harbor serious dangers for these people, no matter how hard they try to protect themselves. In our opinion, the most logical thing to do would be to try to find a balance between the needs of people living with the organic disability we are talking about and the interests of society as a whole, without introducing disproportionate burdens for most of the population. To omit any protective measures would be as unfair as to maintain them in their current state, as if most people had the disability. It is a matter of satisfying the rights of persons with disabilities without unduly limiting the freedoms of others. Of course, concrete measures to ensure that discrimination does not really happen in practice will depend on the accommodations that a society is willing to make and the availability of resources to fund them. The key question is to determine whether the population is willing to accept wearing the mask when they are near immunocompromised people. That is, if, as it happens when we are in a queue, we are willing to sacrifice



ourselves for the sake of people who deserve this favorable treatment because they are weaker.

Public health policies are not at odds with the protection of individual freedoms, as the former should be as minimally invasive as possible (Viens et al. 2009), such as establishing protected micro-spaces within larger spaces. To give some concrete examples, it could mean making it compulsory to wear masks or to reduce the capacity of some train carriages, or some buses (specific timetables); or to allow some bars or restaurants to require their customers to have a certificate of immunity (or a certificate vaccination when sterilizing vaccines will be ready) to access certain specially protected areas (and the conditions for holding such a certificate would have to be very clearly defined, so as to really minimize the risks); or to allow companies organizing leisure events to introduce separate areas with special measures.

These are just examples of what we could do. Of course, the importance of such measures will depend very much on what risk analysis and practice show us. Nor should a space inhabited by persons at risk (floors with immunocompromised patients in a hospital, residences for the elderly or dependent persons, unvaccinated children, etc.) be the same as others in which they are only a minority who, moreover, are not obliged to stay in them. There are many combinations that will have to be studied gradually.

In any case, the same solutions should not be adopted when we talk about spaces where there is limited seating capacity as compared to others where this is not the case. In the first case, the services and goods are rival in consumption; in the second one, they are not rival in consumption. The most logical thing would be that, if there are no capacity problems, any person could access the space by adopting the safety criteria established for this purpose, whether it be an immunity certificate, masks, both, and any other type of measure. If, on the other hand, we are talking about limited seating capacity (train carriage, for example), it would be logical to give preference or exclusive access to people with the disability analyzed here and, where appropriate, their companions.

In addition, there may be situations of suspicion towards people with this type of disability, which is organic and therefore invisible among the general population. Disability affects people with disabilities and may mean that they do not have access to their recognized rights (Dorfman 2020, 602).

### **What about those who are Not Willing to Get Vaccinated?**

The case of voluntarily unvaccinated people is even more complex to analyze from a legal point of view. Indeed, deciding whether a person who meets such condition can demand from public administrations the same measures as another person who has not been able to benefit from vaccines, even if he or she was willing to be inoculated is extremely problematic. In this case, we need to discuss if people who do not have an adequate immunization system against COVID-19, simply because they have not wanted to be vaccinated, are entitled to the same protection regime that we would provide to those who have not been able to obtain immunization for other reasons. Perhaps a State should not absolutely disregard the rights of people who refuse

to be vaccinated, but perhaps their rights should not necessarily be the same as those of people who have not been able to be immunized. Moreover, it is reasonable to think that the rights of the latter should take precedence.

It is necessary to clarify that people who refuse to be vaccinated based on ideological reasons should not be recognized as persons with disabilities. In fact, they are the archetype of individuals who have already benefited from the privileges of the legal system that has allowed them not to do so despite the risk to public health. The discussion arises, in any case, because when their position is rejected in society, their privileges run out. Their exercise of autonomy and decision are rejected by the bulk of society. This would produce an inverse situation, since society values positively the fact that a person makes an autonomous and responsible decision. This would justify a differentiated treatment towards persons who has freely chosen a certain life plan, equating their situation to that of obese people or smokers. As pointed out in choice-based discrimination, in those cases in which individuals are blamed for decisions they have made, less benevolent treatment is provided.

One discussion that must be raised is whether or not the differentiated treatment constitutes choice-based discrimination. As we know, the proportionality judgment by the courts is made up of three judgments: appropriateness, necessity, and proportionality in the strict sense. The key will be to determine what is to be protected by provision, criterion, or practice. As noted at the beginning of this paper, unvaccinated persons are more likely to require health care because COVID-19 will have more severe symptoms. This will involve the use of health care resources that, as we have seen throughout this pandemic, are finite and that people who cannot be vaccinated may need. The action of the voluntarily unvaccinated is an action that therefore affects third parties. A concrete example is the establishment of criteria for access to Evusheld, a combination of two monoclonal antibodies that prevents the appearance of COVID-19. Another similar situation would be to require unvaccinated persons to wear a mask in those spaces shared with persons with the organic disability under analysis (Raz and Dorfman 2021).

In second place, we need to consider that our societies recognize conscientious objection rights for some of their citizens in certain situations, but people who have not been voluntarily vaccinated cannot be considered conscientious objectors since in their case, there is no conflict between two norms of different normative systems (Clarke et al. 2017). This analysis would fit if, on the one hand, there was a legal norm that imposed vaccination and, on the other hand, a norm based on religious, moral, or philosophical convictions that imposed a behavior in the opposite direction indicating health and disease should not be controlled by vaccination, or that governments should not coerce citizens into receiving medical interventions. Except in some very specific sectors (healthcare, education, police and armed forces personnel), the trend is not towards legal obligation.

The refusal of medical treatment is not an unusual matter in democratic societies. Freedom of choice, once all the necessary information has been provided so that the recipient understands the pros and cons, is a key element in clinical ethics. We must recognize that people who have not been vaccinated, being able to do so, are making use of their freedom of choice and imposing a cost that is assumed by society because unvaccinated people are more likely to need specialized medical care. Health resources

are finite, so they would be consuming resources that could be necessary to care for people with an organic disability such as the one exposed here or people with other health conditions not related to COVID-19.

It is not a totally new situation since there are other examples in which the same factors appear: freedom of choice and social cost. The normative answers that we can find are varied and, perhaps, not always coherent. We accept that Jehovah's Witness may undergo surgery without blood transfusions, even if this entails a cost overrun for the public coffers (Bock 2012; Padilla et al. 2013); and we also accept that people with a hearing disability refuse cochlear transplants and we pay for the means (translators) to create a more inclusive society (Hladek 2002; Nunes 2001). In other cases, freedom of choice and social costs are handled differently, such as smoking or seat belts in cars. Tobacco consumption is not prohibited, but the people who can buy it, the areas where it can be done, and the appearance of the product are restricted, and there are also disincentive campaigns. The use of seat belts in the car is not left to personal choice. These alternative scenarios are due to a simple fact: the choice of one normative response or another will depend on what degree of State intervention we are willing to tolerate, how incisive we want public health policies to be. It is, if we are allowed, the old discussion about legal paternalism (Scoccia 2018).

In the case of people who voluntarily do not want to be vaccinated, we have already stated that their rights would not be covered by the recognition of a type of disability. This is because they do not meet the requirements that have traditionally been used to identify a disadvantaged social group, as we have previously explained. People who voluntarily do not get vaccinated do not have a history of discrimination that is projected on their current situation, and they are not in a social situation of material inequality. Therefore, there are no reasons to consider that a State should introduce special protective measures towards them. In short, the only obligation that will remain standing is to provide them with medical care. A different question would arise in the field of morality, where the following approach can be made: "How, now, I show up to care for patients whose choices directly endangered my other patients – how could I care for the unvaccinated and the immunocompromised side by side?" (Garfinkel 2022).

Of course, this does not mean that these unvaccinated persons could not access resources intended for persons with organic disability when these resources were not limited. Or, even, when, being limited, there were some available. This could be the case, for example, of areas to which access could be preferential but not exclusive to involuntarily immunocompromised person. Instead, in areas where they could become rivals in consumption, access should be limited to people who show organic disability. This will ultimately make it necessary to introduce a system of certification for this form of disability by the health authorities. Since this might involve some data protection issues, we will address this issue in the next section.

## **Certificates of Disability as Necessary Means? The Issues Ahead**

As we have just pointed out, if circumstances make it necessary to reserve some spaces exclusively for people who show organic disability, then we will have to create a system of certificates that allows these people to demonstrate their status

quickly. This, of course, may be possible when we are talking about spaces where the number of slots is clearly limited, such as a separate part of a football stadium. If access using a certificate of disability is not enforced, people who do not need to be specially protected could randomly occupy these spaces, depriving those who really need them and their accompanying persons of possibilities to enjoy them.

The problem is that setting up such a certification system is somewhat complicated, for several reasons. The first is that it is not easy to know which people should be entitled to them. In general, we are talking about those who have not been able to be vaccinated or who have not been efficiently protected by vaccines. In the case of the former, there would be no choice but to rely on a health certificate that would recognize their organic disability. What we should discuss is what such condition should provide the certification. Obviously, the physical risk implicit in the vaccine should enable it. But should we include in this kind of impossibility to vaccinate those who have an irrational but invincible fear? It is not easy to give an answer to this question. If so, we would have to determine whether it should be their physician or a specialist in psychiatry who would attest to this. It is also not easy to determine who has not been able to protect himself efficiently. For this, complicated tests are necessary, which have to measure not only antibodies but also cellular immunity. Only if the latter is absent can we speak of organic disability. If we do not measure this factor, we would therefore be acting on a limited knowledge of people's conditions.

Similarly, the problem of disability condition arises. It has been pointed out in various circles that when disability is not visible, suspicion increases among the general population towards people who benefit from exclusive or preferential access to certain goods and services. The suspicion is due to the fact that, in general, disability has not traditionally included people with a chronic disease (Dorfman 2020, 568). This has led to the marginalization of people with invisible disabilities, as in the case we are now studying. A fair society must have criteria for the distribution of goods and services that are valuable and scarce. Without these accommodations, the enjoyment of rights by these people will be hindered. This requires establishing both who deserves access and how to ensure that no one takes illegitimate advantage of their status.

On the other hand, it should be borne in mind that the use of certificates relating to an organic disability would imply the processing of sensitive personal data. One must always keep in mind that information about people who possess these types of vulnerabilities would be of enormous value to many companies. Not all of them would use it in a way that would benefit those people, of course. Furthermore, leaks constitute a serious threat that should be adequately addressed. In the case of COVID-19 certificates, "the rapid scaling of the COVID-19 test and trace system without appropriate governance and organizational safeguards has resulted in the leak of eight million datasets as of the end of January 2021" (Gstrein et al. 2021). This should not happen again in the case of certificates of organic disability.

These issues involve multiple legal connotations. To begin with, it is necessary to consider whether it would be necessary to create databases to store the information that would allow the identification of people with disabilities. In the case of the immunity certificates that have been used so far, this has been the case. In a future

in which the purpose of these certificates will no longer be to allow access to places that would otherwise be off-limits to most citizens, but to access specifically protected places, it is possible to think of simpler mechanisms. A certificate containing in itself all the necessary information, i.e., that which would allow the bearer to be identified as a disabled person, could be sufficient. This would avoid the creation of specific databases that would have to be accessed by the person controlling access. It would be sufficient for the organic disability condition to appear in a clinical record, for example.

The obvious alternative would be to promote just the opposite: an access certificate that minimizes the bearer's data (probably only his or her photograph) linked to a database via a QR code or similar. This would minimize data processing at the point of access, but at the cost of generating these specific databases. Whatever system is used, the processing of personal data should be reduced to a minimum. For example, there would be no need to reflect whether the disability was due to an inability to administer the vaccine or to be immunized. It would also be logical for access control to scrupulously respect the principle of data minimization. Under no circumstances should there be any storage of data. In places where only one of the attendees has to prove that he or she is disabled (a separate room in a restaurant, for example), it is obvious that the personal data of the other attendees should not be processed.

## As a Corollary

Everything we have said in this article can be summarized in a few relatively simple ideas: the consideration of the lack of adequate immunological response as a form of (organic) disability should lead us to introduce in our societies measures aimed at avoiding discrimination against people who have it. This requires differentiating between those people who can be legally recognized as persons with disabilities and those who cannot. The State must implement normative, institutional, and educational measures because the fight against discrimination on the grounds of disability obliges us to eliminate from our legal system and our society all those norms and all those social practices which, based on the real or imagined, visible or invisible disability of a person, discriminate against them directly, indirectly or by association, and placing them in disadvantageous situations. Failure to do so could mean that States are in breach of the CRPD. Disability is an odious and irrational criterion if it is used generically and indiscriminately to limit people's rights, to justify certain social practices or to legitimize legal norms and institutions. Similarly, not taking disability into account when adopting legal norms, or developing public policies, would also affect equal opportunities. Hence, it is necessary to fight for the new scenario we are building to be effectively inclusive. At the same time, the State must respond to the existence of a group of people who, making use of their freedom of choice, have not been vaccinated.

We are aware that the idea we propose suffers from numerous issues when it comes to putting it into practice. How — for example — do we know whether a person has such a disability and for what reason? It is not easy because it will affect

rights such as the protection of particularly sensitive personal data such as health data. The fundamental issue is probably not this, but rather how we, if possible, offer spaces for social participation on equal terms to all those who have this kind of disability and how we should treat those people who voluntarily do not get vaccinated because it is not a legal obligation and, therefore, they are making use of their individual rights. How can we know for sure to what extremes we can go? This, we fear, will be a question to be determined in practice. Surely, we will have to make greater efforts when we are talking about access to necessary resources, such as healthcare, and lesser efforts when it is leisure, or certain forms of leisure, that are at stake. Nor does regulating an activity offered by public institutions seem to be the same as regulating an activity offered by private initiatives.

In short, there are many sides to this idea that we are now presenting. Let us not explore them all. It would be too complex for a text that only intends, for the moment, to initiate a debate. Obviously, further reflections will be most welcome.

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## Declarations

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