

## Herd culture and herd immunity

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**Abstract** *Although communicable diseases affect our bodies, they occur in a society that interprets and gives them meaning. Herd immunity provides the body protection; however, long-term protection requires shifts in the way people interpret and respond to disease, cultural transformation that enables the development of the knowledge, habits and skills that make herd immunity feasible and sustainable. Herd culture allows individuals to protect themselves and restrict their liberty in order to protect others; it is a form of exercising positive liberty and a necessary complement to herd immunity in a democratic society.*

**Key words** *Herd immunity, Herd culture, COVID-19, Liberty, Cultural change*

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Two posters are pasted side by side over the thick bulletproof glass doors at the entrance to a bank in the north of Brazil. One, recently put up and brightly colored, advises no entry without a face mask. By its side, an older poster says no entry with a covered face, cap or motorcycle helmet... What should one do?

### The social view of disease

Although human diseases affect our bodies, they occur in a society that interprets and assigns them meaning, and the acts of the individuals who make up a society can either cause or prevent disease. To understand the dynamics between these two dimensions, scholars have sought to differentiate between disease as experienced by the body and disease as interpreted by individuals and other members of society<sup>1</sup>.

That is why in the social sciences we talk about three distinct situations: being sick, feeling sick and being considered sick. The first, which we call *disease*, is when a person is physiologically affected. It refers to a condition that reduces physical capacities and/or life expectancy, which can be asymptomatic and is independent of the subjective experience of the patient and social conventions<sup>2</sup>. The second, which we call *illness*, occurs when the person recognizes and subjectively interprets a malady and seeks medical attention<sup>3</sup>. The third category is *sickness*, which refers to the manner in which a disease and illness a person has is recognized and interpreted by society, leading to social acceptance of the condition, which allows the patient to be recognized as sick by other people, such as the patient's family or head of personnel at work<sup>4</sup>. Although these three dimensions – medical, subjective and social – may coincide at the same moment in time, each one can also exist autonomously, isolated and independent from the others<sup>5</sup>.

Although a large part of anthropological studies have assigned a negative connotation to illness, considering that the popular interpretation of disease may be a distortion of scientific reality and that sickness can result in patient stigmatization – as in the case of leprosy for example – I believe that illness and sickness can also play an important role in disease prevention and should be portrayed positively<sup>6</sup>. The incorporation of the concepts of illness and sickness as ways of living with disease is a lever that can act as a complement to vaccination in achieving herd immunity.

Protection against communicable diseases requires individual immunity. However, to achieve

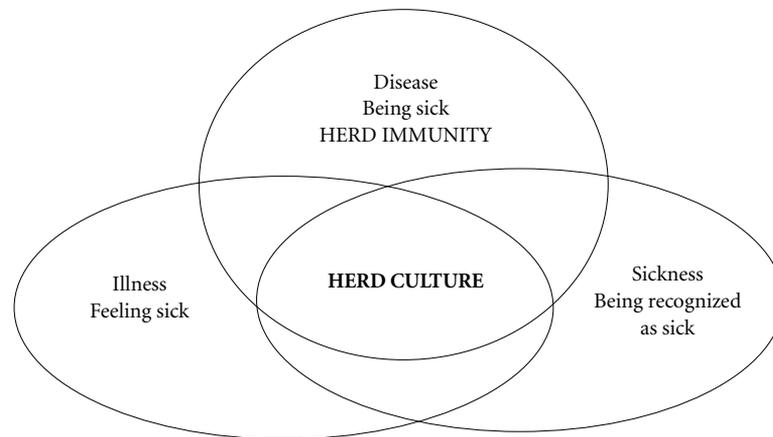
sustainable individual immunity it is necessary to protect society by developing the necessary knowledge, habits and skills to enable individuals to respond appropriately and protect themselves. This means that scientific knowledge needs to be incorporated into everyday life and popular culture. Studies show that non-pharmaceutical interventions implemented in 2020 made an important contribution to the containment of the COVID-19 pandemic in the months before the introduction of vaccines<sup>7</sup>. Furthermore, mathematical forecasting models show that “vaccination alone is insufficient to contain the outbreak”<sup>8</sup> (p. 793). Therefore, while achieving herd immunity is imperative, it is also important to develop a “herd culture” that leads society to protect itself (Graph 1).

### Our place in nature

With its arrogance, contemporary culture has despised nature and understated our fragile condition and tininess as living beings on this planet. In this cultural context, the threats posed by viruses, parasites and bacteria had become a distant concern addressed only by the film industry for financial gain. The Covid-19 pandemic is a brutal reminder that we are part of nature. It has made us realize just how much we depend on nature and, in just a few short months, shattered the arrogance that has been bred into our culture for decades. The pandemic put an end to the illusion that we can control the world, an idea that assumes that antibiotics and insecticides maintain complete control over viruses, parasites, bacteria and fungi.

COVID-19 also put an end to the representation of the future of society. In the space of a week, the future ceased to be what it was going to be. Plans, trips, vacations, business... everything changed. We believed we could control the future and, all of a sudden, tomorrow became uncertain. The certainty of calendars and schedules turned into confusion. Airline and cruise reservations, sporting calendars, and international conventions were decimated. The pandemic laid bare our reliance on nature.

Contemporary society was highly confident that it could tame communicable diseases. And for good reason, considering the advances that have been made in recent decades. The traditional methods of quarantine, vaccination and vector control had worked in the past. Reductions in malaria, yellow fever, schistosomiasis, leishmaniasis, Chagas disease, onchocerciasis and leprosy



**Graph 1.** Herd culture and herd immunity.

Source: Authors.

are proof enough. Although these diseases are still present in the contemporary world, they have been confined to faraway places, to poor countries in Africa, Asia and Latin America, or to poor regions and rural areas within these countries far from the urban world. The persistence of these diseases is put down to failures of society and neglect, for they are scientifically and technologically controllable and treatable<sup>9</sup>. The confidence in prevention and control resides in scientific and professional knowledge. However, for prevention and control to become a reality, shifts in awareness, habits and social organization are required. This was illustrated in 2003 by the SARS epidemic in Asia, between 2014 and 2016 by Ebola in west Africa, and by Zika in South America between 2015 and 2016. And the same has happened with endemic dengue fever and Chagas disease. Real advances cannot be made while safe water storage practices and adequate housing are not incorporated into the culture<sup>10</sup>. Disease should be seen as illness and society should deal with disease and illness as sickness.

The philosophers of nineteenth-century Germany pondered the relationship between nature and history, maintaining that the realm of necessity was found in nature. History had brought liberty, for it had allowed human beings to transcend the limits imposed by nature. We have built this liberty with culture, knowledge, habits and skills, which have enabled us to build reservoirs and channel water for irrigation and consump-

tion in faraway places, control fertility with contraceptives, and take to the skies. Culture allows us to free ourselves from the shackles of nature.

### Illness as positive liberty

Cultivating a culture is by no means a simple and easy process. It requires a shift in worldviews and behavior and challenges the notion of individual liberty in a democratic society. When after an unknown period of time the virus emerged in humans in China and began to spread, as the disease attacked people's bodies, neither doctors nor patients knew how to protect themselves, because a diagnostic test had yet to be developed and contention measures were clouded with uncertainty. After confirming the form of virus transmission, guidance was disseminated recommending social or physical distancing, hand washing, no face touching, and the use of face masks, all based on the best available evidence<sup>11</sup>. Many people stayed at home and adopted these measures, while others failed to comply, seeing the measures as an attack on individual freedom. This triggered street protests against coronavirus measures in various cities around the world and widespread dissemination of disinformation about risks and the epidemiological situation<sup>12</sup>.

However, knowledge about the disease and protection against Covid-19 had already made its way into the collective consciousness. Who could have predicted that the handshake would

disappear as a greeting and show of friendship and be replaced by fist bumping, which although light, was rather a gesture of battle or repudiation than a friendly acceptance of the other. Hand washing ceased to be a practice suggested after going to the bathroom, becoming a consistent requirement in any setting. Staying away from others became “distant intimacy”, and the bodily warmth of the hug and kiss became threatening and dangerous.

Covid-19 obliged science to create new medical responses for treatment and vaccines. The speed of progress has been astonishing, but even before the vaccines arrived changes in behaviors were underway to prevent, live with and overcome the disease.

The terraces of bars and restaurants, previously stigmatized as smoking areas, became the only place to sit, with customers competing for a seat irrespective of the cigarette smoke. Despite the initial unfamiliarity and resistance, mask wearing has become a habit, and the times when westerners found it strange that people walked the streets of Tokyo wearing face masks are now just a distant memory. We have all got used to them and it is those not wearing a mask who stand out now in groups and photos. A culture of illness has been created and people have changed of their own free will in an exercise of positive liberty.

### The limits of negative liberty

When in 1958 Isaiah Berlin presented the two concepts of positive and negative liberty at an inaugural lecture at the University of Oxford, he caused surprise among his colleagues. Berlin maintains that only restrictions imposed by other people affect our freedom. Restrictions imposed by nature do not count. Negative liberty is therefore the absence of coercion by others, when one overcomes the restrictions imposed by others. In contrast, positive liberty is when restrictions are self-imposed in an exercise of responsibility with the other<sup>13</sup>.

Herd culture implies community resilience, by which a collective resists adversity, reinventing itself and creating mechanisms that allow it to progress and recover from disasters<sup>14</sup>. Moreover, herd culture is essentially founded on positive liberty.

However, cultivating herd culture in a democratic society is by no means easy and the persistent rejection of quarantines, mask wearing or vaccines poses dilemmas of liberty for democra-

tic society that are not experienced under China's dictatorial regime<sup>15</sup>. Despite vaccination having mass public acceptance and provoking widespread joy and hope; despite people who have been vaccinated being triumphantly applauded in health centers; and despite the selfies sent to friends as if getting vaccinated was a major feat, the threat continues.

Heads of state, physicians, nurses and common people have opposed vaccination. Albeit small, their numbers are symbolic. They do so with or without providing an argument, but always exercising individual liberty. Although this an individual liberty that should be respected, it is an option that may put other people at risk because COVID-19 is a communicable disease. Almost two centuries ago in his essay *On Liberty*, J.S. Mills maintained that an authority should not interfere when a person's conduct affects only himself<sup>16</sup>. However, liberty should have limits, that is, when it causes harm to others. That is the path followed by contemporary society to tackle smoking: smoking is not banned but people are banned from smoking in public spaces. Similarly, people can drink as much as they want but are banned from drinking and driving. These measures protect others.

The case of communicable diseases is more complex and risky as there is potential for widespread harm. Even so, it is not feasible in a democratic society to force those who are reluctant about the vaccine to get vaccinated. This implies not being able to vaccinate the whole population or perhaps the number of people necessary to achieve herd immunity<sup>17</sup>. What is possible however is to prevent the unvaccinated from participating in social events and gatherings, going to work, hospitals or public places of entertainment. A cultural construction of sickness is therefore produced, where the vaccinated and unvaccinated are treated differently. This implies segregation, placing us in the field of negative liberty.

### Herd culture

Cultivating herd culture allows positive liberty. Raising awareness about the disease and disseminating general habits and practices is the pathway to long-term sustainable control of COVID-19, when the disease becomes endemic and “excess” deaths represented by the epidemic are superseded<sup>18</sup>.

The pace of change has been quick. In 2019 and the beginning of 2020 COVID-19 was just an infection that existed in bodies. Its existence

was unknown until the virus was identified and became a disease. The world then became aware of COVID-19 and, after initial dumbfoundment, interpreted the disease and reacted with great fear, knowing what had to be done. Not with pharmaceutical interventions, but rather simple habits and practices: hand washing, no face touching, physical distancing and mask wearing... and the population adopted these measures, and the disease became an illness.

The challenge now is to make it a sickness, so that disease control can be sustained over time. Certainly, “We should not simply put our faith in the immunity of our herd”<sup>19</sup> (p. 811), because this works exclusively within the dimension of disease and is restricted by the limited duration of protection offered by vaccines. That is why we need a herd culture, because it combines individual behaviors and the organization of society and expands the duration of protection. Herd culture is a necessary complement to herd immunity.

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