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Blindness: behaviour in an epidemic†

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†To the oculist Dr Li Wenliang, among the first to report a new virus in China.

ABSTRACT

In 'Blindness' José Saramago transports us into a society in which an unexpected epidemic of blindness spreads quickly, disseminating chaos between citizens and institutions. This new reality acts as a magnifying glass highlighting the weaknesses and (few) forces of individuals and community. From this masterpiece we can learn many insights useful to understand the SARS-CoV-2 pandemic.

In an epidemic of an unexpected disease people seem blind, even if they are not affected by blindness, as it happened instead in José Saramago's masterpiece.

When a new disease caused by an invisible pathogen emerges, when there is uncertainty about contagiousness, mortality, immunity and even more when there are no vaccinations nor medicines to prevent or treat the invisible enemy, we feel as suddenly sightless. When people with no symptoms can infect, it is 'Blindness'.

At the end of December 2019, a new pneumonia was described in Wuhan, Hubei province, China.[2] In January 2020, a new coronavirus was isolated and identified as the causative agent of the Chinese pneumonia.[3] Until mid-February all the world was looking towards China and its solitary fight against the virus called SARS-CoV-2.

Suddenly, on 21 February, a cluster of locally acquired 16 confirmed cases of Coronavirus disease 2019 (COVID-19) were reported in the North of Italy. The invisible virus was no longer distant but had raided our daily lives.

The unexpected arrival in Italy of COVID-19 recalls the beginning of 'Blindness': in an imaginary city an unexplained epidemic of blindness occurs, gradually affecting everyone. Nobody was aware of the existence of this illness, knew how it spreads and how to protect against it.

The lack of certain answers about the contagiousness, the lethality and the existence of effective treatments are common to both the imagined etiological agent causing blindness in the novel and SARS-CoV-2.

When it becomes evident that a disease is highly contagious and there are no weapons against it (no vaccine, no effective therapy) the only option available is try to limit its spread, as the Venetians have done since the 14th century quarantining ships arrived from places affected by plague at an island called Lazzaretto.

In similar conditions political and health directions struggle to change rules as evidence moves on in order to protect citizens from the contagion and health systems from collapse. But, on the other hand, they do not want to hit economy too much nor scare the population, fearing side effects of their measures at least as much as the illness.

In 'Blindness' government attempts to contain the contagion and keep order via increasingly repressive measures that turn out to be inept. The first measure taken is to quarantine all the blind people in an asylum that rapidly becomes overcrowded, there living conditions and morale degrade horrifically.

However, there is a profound difference between the SARS-CoV-2 pandemic and the epidemic of blindness: knowledge. The book is entirely focused on the investigation of the effects of contagion in individuals, in their interpersonal relationships and within the community while scientific evidence just never comes out. Sick people were not cured nor studied but just abandoned to their destiny and surviving became their only objective.

Medical science is an impotent spectator in Saramago's piece: the doctor (for a narrative twist of fate, an oculist) himself goes blind and although he maintains his vow and tries to take care of the sick people around him, his medical knowledge proves to be insufficient.

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Conversely, many data have been published so far making COVID-19 less frightening. Now we know much more about this disease than a month ago. In particular, we know that (i) the virus has zoonotic origin,[4] (ii) person-to-person via droplets is the main route of transmission,[5] (iii) asymptomatic people can transmit the virus,[6] (iv) the contagiousness begins ∼2 days before the onset of symptoms and the median duration of viral shedding is 12 days,[7] (v) the 80% of affected people are asymptomatic or with mild symptoms[8] (vi) the fatality rate ranges from 1 to 2%, and the majority of people who died are old and with comorbidity,[9] SARS-CoV-2 lives on surfaces at most ∼3 days and for a few hours as aerosol.[10]

Unfortunately, if on the one hand science moves quickly, on the other it does not always manage to communicate its findings effectively. This can result in a communicative void that, in the social media era, can easily be filled by fake news (i.e. conspiracy theory about the origin of the virus). Furthermore, a delay in some information could contribute to transmit the disease (i.e. how much time virus lives on surfaces or the role of asymptomatic carriers).

Scientific knowledge is crucial to take measures in order to fight the spread of the virus. In the last month, the Italian Government and the Health Authorities have progressively introduced a series of increasingly restrictive measures to try to contain the epidemic: from the closure of schools, passing through the limitation of movements on the national territory up to the total lockdown with the closure of the non-essential activities.

But even in presence of a fearful disease, citizens' compliance to the restrictive measures is not granted. A few examples from Italian recent experience: peoples run to the trains when the limitation of movements was announced or the rush to the supermarkets after that the lockdown was announced. These behaviours driven by the fear of the side effects of the epidemic (fear of remaining alone, scarcity of some products) generated overcrowded situation ideal for the spreading of the virus.

The novel highlights how the virus, with the fears and the deprivations it can bring, can lead back to a primitive stage, to blindness not of the eyes but of the spirit.

If the doctor in the novel pointed out: that humankind is made half of indifference and half malice,[1] looking at the Italian situation we can say to be made of half self-interest and half biases.

Predicting human responses and protecting citizens from their own counterproductive behaviour can be a very effective tool to illuminate the way that brings out from the epidemic.

Social and behavioural sciences can be of great help in this. Here some insights from studies in these branches useful in SARS-CoV-2 epidemics.

Altruistic behaviour, so acting for society goals instead of individual ones, in general is more likely to happen the more communication is clear and frequent, sense of community strong and there is punishment for the one who break the rules, both in terms of social disappointment and monetary ones.[11]

Handwashing is more frequent when people are indirectly reminded to do it, for example placing hand sanitizers in highlight.[11]

Isolation has less severe psychological consequences, and so people are more likely to comply to, if people are organized for it and if it has a predefined duration.[12]

Knowledge is the tool that can make the difference between blindness and seeing and, as evidence outside the book teach us,[13] bad times can also bring out the best from people, maybe with a push to turn into 'blind that see'.

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