Coronavirus quarantine violators highlight humanity's skewed perception of its mortality, public's inability to assess risk

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Until January 2020, anthropogenic climate change was the most clear and present danger facing human civilisation. We were told we had to act soon and we had to act collectively to avoid the worst effects of increasing global temperatures, and by all accounts, we still have to.

All the concerns around decision-making at different levels, from individual to intergovernmental, that have fuelled the climate change debate have been brought into sharper focus by the unfolding coronavirus pandemic.

The questions are similar, but the timeline is much more compressed and consequences potentially catastrophic. Consequently, the need to establish paradigms of sound decision-making has scarcely ever been as urgent as it is today.

The World Health Organisation guidelines on what is expected of individuals are pretty clear, however, they are not straightforward to adhere to. For instance, it is almost impossible to not touch your face or keep away from surfaces that might have been touched by others.

Hence, we had more the more severe, but easier to implement measure of quarantine. The severity of the quarantine was sequentially increased from being initially restricted to high-risk cases to a generalised lockdown. The increase in severity of the measures has at least partly driven by the inability or unwillingness of individuals to adhere by the less severe ones.

From the UK to Germany to India, law enforcement agencies are being empowered to make sure that people comply with lockdowns. France has its army policing the streets of Paris and this might very soon be a reality for the big cities in India.
But while their presence will be a deterrent, it will not completely eliminate the possibility of individuals violating the lockdown. In this context, it is imperative to carefully assess the incentives and trade-offs that underlie the choices that individuals make. Why is it that even in the face of a demonstrable threat, people have not taken adequate precautions: violated quarantine, traveled long-distance, even partied.

Before we get into the nitty-gritty of the decisions that individuals have to make it is important to concede that the present crisis challenges ingrained habits and the road ahead is going to be very difficult. As a species that evolved to survive the African savanna, we tend to seek comfort in groups. This instinct serves us well in times of danger. But congregating in groups is exactly what we have been asked to limit the spread of the virus.

In addition to the force of habit, the choice boils down to the individual perception of the (opportunity) cost of being locked indoors. For instance, if none of my friends have to go to the office, more people can join my party, increasing its payoff and consequently increasing the cost of maintaining quarantine.

On the other hand, the cost of partying is the increase in the probability of the individual getting infected with a deadly virus due to attending a party. But before we pontificate on the obviousness of choosing to avoid a party in these times, consider that on average 10 people die every day on the railway tracks of Mumbai's suburban railway.

Our subjective perception of evaluating the probability of our own mortality is not very well tuned, leading to many flawed decisions.

It is, therefore, very important to identify the ways in which our assumptions about costs can go wrong. Consider the following situation: person A is in a cave, A's decision to leave the case depends on whether there is a tiger outside the cave. There are two possible kinds of errors that A can make: (1) assume that there is a tiger outside the cave when there isn't one (2) assume that there is no tiger when there is one.

A reasonable argument can be made that type 2 error is far more dangerous. And therefore it is very likely that we evolved to avoid making the type 2 error, erring more on the side of being cautious than cavalier.

However, it is equally likely that in their tendency to commit type 2 errors, humans are distributed over a spectrum ranging from extreme paranoia to extreme risk-taking. This is why even under normal everyday circumstances we observe disparate responses to the same situation. The same trait that makes someone a successful entrepreneur makes them take more risky decisions in times like these.

In addition to the extreme risk-takers, there is also the fact that modern civilisation has created an environment in which type 2 errors are not as risky as they would have been in times gone by. This is not to critique the advances that we have made in modern medicine, engineering, and governance structures, it is merely to point out that by reducing the cost of errors we have made people more likely to make errors even in times when the cost is likely to be very high.
And while this is more true in the richer countries, the well off in the global south have not been immune to these changes. In the past few days, there were exhortations by the ones in the know to their near and dear ones to buy basic food items. But in times of Amazon pantry and BigBasket, it is so difficult for people to imagine food shortages, that many ignored the advice, only to find themselves in a perilous situation in the ensuing lockdown.

It seems that paradoxically, the progress of human civilisation might have created an environment that endangered its further progress.

In additional to errors in estimation of personal costs, it is also obvious that the impact of the decisions made by individuals is not limited to the decision-makers themselves. If a person increases their risk of infection, they might join the chain of infection, becoming a potential vector that increases the probability of others being infected.

This (negative) externality whereby the choices of an individual affect others; complicates decision even more as the social cost of an action, say organising a party, is much higher than its personal cost. The standard prediction in such a scenario would be that people will over-engage in such activities.

Climate activists have been pointing out a similar problem, where individuals consume more fossil fuel than is socially optimal as the cost they pay individually does not reflect the cost their decision imposes on the entire society.

When it comes to complying with quarantine and lockdown measures, the deck is seemingly stacked against us (i) we need to do things that go against our basic instincts (ii) our ability to gauge the cost of an activity in terms of probability of mortality seems to be very limited(iii) even if we can take personal costs into consideration, our decisions will impose costs on society that are difficult to estimate.

How do we address these problems in our decision-making? Possibly the best way forward is to at least in the current scenario: (a) try to consciously move toward the paranoid end of the scale (b) try to maximise considerations of social costs of your actions by thinking of people around you who your actions might immediately impact.

The choices we make will determine the impact that COVID-19 will have on our society. In a country like India, there is going to be a very large number of people whose choices will be much starker: starvation versus risk of infection and for many others who have no home to lock themselves in. The least the rest of us can do is to make sure we make responsible decisions.