THE RISKS AND DANGERS OF COVID-19: A SOCIOLOGICAL PERSPECTIVE

These days the Covid-19 talk is all about risk - risks of contracting the virus, risk to lives, risks to livelihoods, risks of a second peak, risks to the economy and so on. It may come as a surprise that, taking a historical perspective, understanding the future in terms of risk happened comparatively recently. It dates from the late 17th to early 18th centuries and the introduction of insurance to protect merchants against the consequences of future commercial loss. Nowadays, we have become accustomed to experts from a wide variety of disciplines telling of the likely advantages and disadvantages of taking one course of action rather than another – whether it is the wearing of masks or the opening of pubs and restaurants. Assurances by policy makers that they are following the best available evidence and the most advanced techniques in predictive modelling are supposed to convince us that it is their risk assessments that are the most reliable instruments for determining how we should lead our lives in these difficult times. Yet, what remains largely ignored in the current debates is the analysis of risk as a concept, carried out by such notable social theorists, as Mary Douglas, Ulrich Beck and Niklas Luhmann. If we are going to see risks everywhere and claim to be able to find ways or avoiding or minimizing them, should we not give some serious thought the problematic nature of very notion of risk, which these theorists have identified?

To begin with, there is an inherent linguistic problem with terms such as 'risk', 'risky', 'riskiness'. In English 'risk' terms are used interchangeably with other words denoting the possibility of loss, notably 'hazard' 'danger' or 'threat'. This indiscriminate use of the term masks a distinction between two different ideas. The first is the very specific use of 'risk' in relation to future or past losses *arising from decisions*. What distinguishes this from the looser use of the term is that 'risk', in this sense, is used only if one can identify a decision without which a loss could not have occurred. An obvious, recent example would be 'the risk' of deciding to end lock-down at a time the virus was still prevalent in the community and later evaluating whether that risk was worth taking by calculating any increases in the number of Covid-related deaths and hospitalizations. By contrast, the wider, more diffuse use of the term, 'risk', refers simply to the chance of some misfortune occurring. This would cover all natural disasters, such earthquakes and lightning strikes or, where Covid-19 is involved, of the virus establishing itself in environments where it could transmit to human beings. The social theorists working in this field have tended to refer to these events as 'dangers' in order to distinguish them from losses that are seen as attributable to and avoidable through decision-making – categorized as 'risks'. This risk/danger distinction is one that will be used throughout this article.

For example, we might , be reassured when we hear airline representatives claim that all possible safety measures have been taken to considerably reduce *the risk* of catching the virus when flying. Risks may well be seen to have diminished through the airlines' decisions, but what of *dangers,* those possible future losses which are not amenable to the airlines' safety measures? These could include the risk of fellow passengers travelling when feeling unwell or the risk of weakening of a person's immune system from jet-lag on long-haul flights. Both of these are beyond the reach of the airlines' decisions , yet, passengers, who disregard the knowledge that some people are reluctant to cancel holidays, if they feel unwell, or that sleep loss can lower the immune system, could well be seen as *taking a risky decision* in choosing to travel . We can conclude from this that, however clear-cut we try to make the distinction between 'risks' and 'dangers', the classification of events as one or the other depends, not on the type of event from which the loss results, but on whether or not one can identify a decision without which that specific loss would not have occurred. This is a matter of interpretation, and interpretations will differ according to the stand-point of the observer. In this

sense, therefore, risks and dangers do not mutually exclude one another. One person's risk may become another person's danger. In our particular example, what the airlines feel justified in treating as dangers, may be seen as risks for passengers deciding whether or not to fly.

The inexorable trend in recent times has been for losses that were previously considered as dangers to be interpreted as risks. Research on risk communications has tracked the massive increase in the number and range of future occurrences that society sees as risky, that is, alterable through decision-making. This in its turn, has put enormous pressure on governments, scientists and investment analysts and social workers (to name just a few), to accept the responsibility of predicting where future losses may occur and taking steps to avoid or reduce them. Consequently, politicians have become particularly adept at claiming that that those losses which occur were the consequence of (unavoidable) dangers, while taking credit for those which were avoided by treating them as risks, identifying their own decisions as the crucial factor in their avoidance. Falls in Covid-19 cases are typically seen by governments as the direct result of their policies, while increases are the consequence of people acting irresponsibly by disregarding regulations and guidance and, as such, as dangers over which the government has no control.

Accompanying this growth in risk communications has been the widespread belief that estimating risks can be made more accurate and more convincing by applying mathematical formulae. It would be no exaggeration to state that every new generation of scientists inherits the belief that the future is calculable, if not in absolute terms, then at least in terms of probability. Needless to say, Journalists and politicians need no convincing of the persuasive power of figures and statistics. As a result, when Covid-19 arrived on the scene, the public was immediately swamped by a tsunami of numbers, whether comparisons with other countries' handling of the Covid crisis, estimations of the proportion of deaths in different ethnic groups or assessments number of metres required for safe e social distancing. In general terms, wherever risks are identified, they soon become quantified. However, what has become abundantly clear from the inexorable rolling out of numbers about the pandemic is that, if you want to discover the meaning and implications of all these calculations you need to rely on interpretations and interpretations differ widely.

Invariably, those who latch onto the figures select from them and re-interpret their selections in subjective ways in fit with their pre-existing beliefs and values. This has brought to the fore experts with specialist knowledge of mathematical processes, and in particular in the use and misuse of statistics (such as the contributors to Radio 4's '*More or Less*'). They warn us about the unreliability of many of the political claims and eye-catching, headline-producing calculations. Predictions about Covid-19, they tell us, need to be treated with considerable caution: much is still unknown about the virus; the R number is only a rough estimate; models of future developments are only as reliable as the data that goes into them; data on deaths, spread in the community and predictive models on future infection rates are not to be trusted. If you put in garbage, garbage comes out the other end. Yet even these prudent warnings hardly begin to expose just how problematic the concept of risk is itself. In fact, they may work in entirely the opposite direction, by adding credibility to the aspiration of accurate risk calculations, giving the impression that it is possible directly to observe reality and then to transform the observed facts into reliable predictions. If only the 'right' numbers are crunched in the right way, the right conclusions will emerge. Educating people about the ins and outs of risk calculations without raising any questions about the concept of risk is likely to encourage the delusion that the future is somehow controllable or at least reduceable to a formula of probabilities.

As mentioned at the start of this article, sociological accounts of risk already exist which point in a very different direction. First of all, they call into question the assumption that there are clever

people amongst us with the skills and knowledge to predict the future or, at least, to reduce it to a short-list of identifiable scenarios. This is not to say that their predictions can never turn out to be right, but rather that these experts owe their authority to pronounce on the future and the high value that is given to these pronouncements to the evolution in society of a concept of risk which has made their existence possible in the first place.

Crucial to this sociological way of conceptualizing risk is a recognition of the problems that *time* presents to our understanding of the world. Starting with the unquestionable truism - everything that happens happens in the present - it has to be the case that time, as a totality which includes the past and the future, appears differently for each new present. This means that in each present there is a past and a future specific to that particular present. With the benefit of hindsight, we assess risk in terms of whether or not a loss has occurred. When we look back in the present at a present that now belongs to the past, it may be difficult to understand why we were so cautious or why we made such a risky decision. Looking towards the future, another present will emerge in which we will almost certainly come to a different evaluation of the risk situation that we are experiencing in the present present. Yet it is not only the future that changes with each new present, but also the past. Seen from a societal perspective, events pass as soon as they come into being. They become the past, and for each new present there is a new past. In the present, replays of the past occur, that is references to the past, where the meaning of past events is identified, so that we can both recognize them as replays and see how they fit into present understandings. The factual nature of the events does not change, but their meaning changes (for example, the acceptability of erecting statues to beneficent slave-dealers). Since assessments of risk shifts over time, it is difficult to see how there can there be a solid foundation of meaning on which to establish risks or to construct one's attempt to apply to the future lessons learnt from the past so as to avoid risk. How can there be an objective vantage point for determining a correct evaluation? Part of the riskiness of risk lies in the fact that the way it is evaluated varies with time.

An alternative way of conceptualizing the present is as an inevitable restriction on our understanding, on our ability to link the past to the future. We are always having to make decisions without the required information. Put the other way round, only in the highly unlikely event of the past being identical to the future will we have the necessary conditions for accurate risk assessments - a lesson that the UK government learned when it mistakenly decided treat Covid-19 as similar to past 'flu epidemics. At the time this seemed to be a rational way of acting, but we now know how catastrophic it proved for many old people in care homes.

One obvious response to this criticism would be to refute any suggestion that responsible scientists today would ever dream of claiming total foresight. What they would argue, rather, is that the future does becomes visible through the medium of probability, that is as more or less probable or more of less improbable. By deploying probabilities in this way, experts can claim to offer a consensual basis for making calculations and sound information on which decisions can be founded. However, while reference to probabilities may serve retrospectively as a political justification for choosing one policy rather than another, their value as indictors of future risks is of limited value for those actually making decisions. The knowledge that the probability of coming into contact with a person infected with the virus is 1 in 1500 does not tell a 70 year old, weighing up the risks of visiting a supermarket, whether it is safe to do so. He or she either will or will not encounter an infected person and no statistical analysis can predict this. Nor will it tell him or her how many times they can safely risk shopping before being exposed to the virus. It may be over 1500 or it may even be one. Similarly, stating that there is a 30-40% probability of a second wave of the pandemic in the winter months is socially of little value. The second wave either will happen or it will not and only the future will tell whether, at the time the calculation was made, it was more or less probable. This is simply a

restatement of the concerns we expressed earlier that, even if probability calculations are meticulously carried out, they are founded on all available information existing at the time and, as such no more immune from the limitations imposed by a continually shifting present or by having to choose between rival interpretations of the same information.

All of this points to the need to make sense of the way that today's society deploys risk communications. It seems clear that the belief in the dependence of society's future on decision making has increased to the extent that it dominates ideas about the future. Technology and the specialization of scientific knowledge have played their part in colonizing nature and boosting both a faith in control through decisions and the anxieties that accompany it. The experience of the Coronavirus crisis has brought home just to what extent the ethic of ensuring the avoidance of disaster is morally imposed on everyone – one should not just think of oneself, but of the old, the vulnerable and the future well-being of the nation.

Increasingly, risk communications serve the function of 'binding time', of making it appear not only that the future can be made visible through the medium of probability, but also that this future is, at least to some degree, controllable in the present by drawing on the past in such a way that concerted action taken now will steer us into safe waters. It is in this context that a cascading dynamic between risks and dangers can unfold. The decision to reduce the risk to the health of the population creates a danger to the economy. For decision-makers, and particularly for governments, this generates untold expectations and untold pressures. With only interpretations of the past to guide them and armed only with legislation and economic measures – both of which are constrained in what they can achieve - politics has little choice but to give the impression that risks can be identified as facts and that its role is to call upon scientists to do the calculations and then to act as if their advice could be relied upon to avoid not only the identified risks but also future dangers, as yet unseen.

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My other blog on science, politics and Covid-19 is available at https://research.reading.ac.uk/research-blog/covid-19-the-paradox-of-scientific-advice-which-is-not-scientific/

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