



Toby Ord, *The Precipice: Existential Risk and the Future of Humanity*, Bloomsbury, 2020

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Accepted: 29 March 2021 / Published online: 15 April 2021
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In the face of threats such as climate change, global pandemics and unaligned artificial intelligence, more and more philosophers and scientists have recently started to address the issue of existential risks. One of the most highly anticipated contributions to this field of study is Toby Ord's *The Precipice: Existential Risk and the Future of Humanity*.

In this new book, Ord combines philosophical considerations with evidence from other scientific disciplines to investigate several pressing questions surrounding existential risks, such as: Which existential risks does humanity currently face? How large are these risks? How will they develop in the future? And how should we address them? Although *The Precipice* cannot cover all aspects of these questions in sufficient depth, it provides a great number of informative and insightful discussions. By being accessible to non-experts it may also contribute to increasing public awareness of existential risks and to promoting preventive measures that, in Ord's view, are long overdue.

Part I of the book consists of two chapters. In Chapter 1, Ord provides the reader with a broad overview of the history of humanity. From the beginnings of our species roughly 200,000 years ago on the African continent, he takes us all the way to our present era, which he calls "the Precipice". This metaphor is due to what Ord claims to be the high probability that humanity will soon fall victim to an existential catastrophe. In later parts of the book he estimates that this probability is 1/6, i.e., there is a 16,67% chance that we will fall from the edge of the precipice along which we are walking.

In Chapter 2, Ord defines the concepts that lie at the heart of the book: existential risk and existential catastrophe. Existential risks are risks that threaten the long-term potential of humanity, either by terminating its existence (e.g., a giant asteroid hitting Earth) or by undermining future progress (e.g., a fascist regime permanently undermining social reforms). An existential catastrophe simply is the realization of an existential risk. Ord argues that existential risks are highly relevant from the standpoint of various moral theories. Yet,

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humanity has so far largely neglected these risks. To provide but one vivid example, Ord points out that the international institution responsible for the prohibition of bioweapons (the Biological Weapons Convention) works with a lower annual budget than the average McDonald's restaurant.

In Part II of his book, Ord examines three types of risks. Chapter 3 deals with natural risks, Chapter 4 with anthropogenic risks, and Chapter 5 with future risks.

Natural risks include phenomena such as asteroids, supervolcanic eruptions, and stellar explosions. According to Ord, these risks currently do not pose major threats to us. This is supported, among others, by the observation that for all of *Homo sapiens'* 2000 centuries of existence it has never fallen victim to an existential catastrophe. We have also made quite some progress in dealing with risks of this kind. For example, astronomers have been largely successful in identifying near-Earth asteroids and in examining the likelihood of these asteroids hitting the Earth in the near future.

In contrast, anthropogenic risks and future risks are claimed to be much more worrisome. These categories include, for example, climate change (~1 in 1000 risk of existential catastrophe in the next 100 years), unaligned artificial intelligence (~1 in 10 risk of existential catastrophe in the next 100 years), and engineered pandemics (~1 in 30 risk of existential catastrophe in the next 100 years). According to Ord, humanity is much less well prepared to address these kinds of risks. For example, for all the money that has been poured into developing artificial intelligence only a small fraction of it is dedicated to making such intelligence safe for humans.

Part III of Ord's book deals with what lies ahead of us. It estimates the total existential risk in the next century and discusses how we should move on. In Chapter 6, Ord uses data from the previous chapters to calculate the total probability of existential risk that humanity is faced with in the next 100 years. As mentioned above, he ends up with a figure of 1 in 6.

Chapter 7 discusses a long-term strategy for the future of humanity. Ord suggests that our first priority should be to minimize existential risks. Once that is achieved, we can try to refine our moral compass and figure out how to move on from there. This period is called the "long reflection".

In Chapter 8, Ord addresses humanity's vast long-term potential. He suggests that with effective measures implemented, our species could survive for trillions of years, spread to different stars, and live guided by sophisticated ethical stances.

Our above summary should serve to illustrate that *The Precipice* is an incredibly wide-ranging and ambitious book. Putting forward an account of the history of humanity, examining existential risks belonging to several categories, and explaining why these risks normatively matter and how we should respond to them are tasks that could each fill a book on their own. It is thus no wonder that from an academic perspective, some of Ord's arguments invite critical remarks. In the following, we will mention two of the issues that, in our view, would have particularly benefitted from closer examination.

First, Ord seems to be quite optimistic about how the future of humanity will unfold in the absence of existential catastrophes. He suggests that in case we play our cards right we will achieve a highly utopian way of living. However, one may doubt that human nature is such that social and technological progress will result in such an immense amount of flourishing. We might just get stuck in constant ups and downs without any ground-breaking long-term positive developments. Or, even worse, while managing threats on the scale of existential risks, humanity might still slowly deteriorate due to decadent values, misguided politics, etc.

Second, Ord's quantifications of existential risks are based on thin databases and involve large uncertainties. For example, it seems to us that there has been too little research on and too little experience with risks such as engineered pandemics and unaligned artificial intelligence

to estimate even only rough probabilities. The numbers Ord ends up with hence should be taken with a grain of salt. This also includes his overall assessment (the 1 in 6 chance of existential risk that humanity is faced with in the next 100 years) which is more aptly understood as a tool to grab attention than the result of precise mathematics based on sufficient data.

That said, the above comments should not distract from the fact that Ord wrote an impressive book on a highly relevant yet still under-explored topic. *The Precipice* skilfully integrates findings from different disciplines such as anthropology, statistics, physics, and philosophy. Many of its arguments are not only plausible but are also presented in a way that motivates action — just as Ord seems to have intended. Finally, while footnotes and annexes provide additional information for those who like to dig deeper, this is an instance of a philosophy book that is truly accessible to non-experts as well.

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