



Psychology of Risk and the COVID-19 Crisis

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How we think about risk and the future determines our current behavior.¹ Essentially, we predict the probability of bad outcomes to avoid and try (usually) to decide which path will yield the best outcomes. At the same time, we compute that if we gain something positive from a decision, will it be worth the probability (risk) of negative outcomes? We do these computations constantly. Furthermore, we attach an emotional valence to outcomes that will influence how much weight we give to positive and negative outcomes—and then determine the tradeoffs. We make these decisions fraught with uncertainty and difficulty. Be isolated during the pandemic or take the risk to travel to visit family? Wear an uncomfortable mask in public or decide not to because your

perceived risk of the coronavirus disease (COVID-19) is so small that it is just not worth it. Because how we determine risk also depends on our prior experience, we use Bayesian math to assess the degree of risk—if you do not know of anyone who has been infected with COVID-19 or if everyone you know who was infected had a mild case of it and recovered quickly, you may decide that a mask is a nuisance and there is no problem traveling to visit family. If, on the other hand, you lost a loved one to COVID-19, your perception of risk will lead you to always wear a mask in public and refrain from travel.

Tragically, too many people have decided once again that the risk of an invisible virus is minimal, and we should not disrupt our lives. The result is hundreds of thousands of potentially avoidable deaths (and we should have learned our lessons from the 1918 influenza pandemic).² This tragedy has been compounded by providing all too many people with the idea that wearing a mask impinges on one's freedom and not wearing it has become a symbol of tribal political identity. As we struggled and learned from the first big COVID-19 wave in the spring of 2020, it became clear by the summer that simple public health measures of social (really physical) distancing, wearing a mask, and per-

haps washing hands (and not washing groceries) were all necessary to mitigate the spread of the virus. It also became clear that the virus was airborne and that is why masks mitigated the risk. Hope is on the horizon with the rapid development of vaccines, but we will again face the collective problem of the psychology of risk—all too many people may refuse to be vaccinated because of a misunderstanding of individual freedom versus public health or because of the perception that the risks of some vague adverse effect from a vaccine is not worth the benefits of protection. As a result, even more people will get sick and die.

I hope that rationality and science can be used to persuade enough people to do the right thing: social distancing, wearing masks, hand washing, and vaccination. Then and only then will we get to the other side of this destructive pandemic.

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