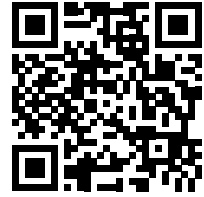


Turnaround: pivotal moments of nations in crisis



Jared Diamond

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Abstract: In this talk, Jared Diamond posits that COVID can give us the possibility to learn to cooperate with each other in order to overcome both the crisis that the pandemic brings and the already existing global crises of natural resource depletion, social inequality, and climate change. The professor gives examples of how in other historical moments humanity has managed to come together to solve some problem, and that he is a cautious optimist that we will be able to come together again.

Keywords: COVID, global crises, social inequality, climate change



DIOGO COSTA: Welcome Professor Jared Diamond.

Jared Diamond is a best-selling author of multiple books. His 1997 “Guns, Germs, and Steel,” is one of the most influential nonfiction books of our time. The book won a Pulitzer Prize. It has influenced researchers, journalists, presidents, and prime ministers. His latest book, “Upheaval, how Nations Cope with Crisis and Change” takes a similar sweeping view of history. Although it was published in 2019, it reads like a book written for our pandemic times. Jared studied Physiology at Harvard and Cambridge and became a leading expert on gallbladder. He’s also an ornithologist, anthropologist, sociologist, evolutionary biologist, and environmental historian, with a working knowledge of archaeology, genetics and the epidemiology of human diseases, as well as professor of geography at UCLA. In this time of upheavals, Jared’s work gives us hope. Contrary to what many think, his works are never deterministic about the future. Rather, they provides us with explanations. Explanations of what happened in the past, explanations that give us power, power to change to make things different in the future, to create possible futures. That is why Mr. Diamond does not describe himself as a pessimist, but rather as a cautious optimist. The world according to Jared is not hopeless, although our future happiness is not assured. We’re going to have to work on it, but we can work on it. Jared Diamond teaches that we can achieve a better future, a future that we can imagine, a future that we can build, a future that is possible. Ladies and gentlemen, Mr. Jared Diamond.



JARED DIAMOND: Good afternoon, good afternoon, good evening. It's a pleasure for me to be with you. I'm Jared Diamond. I'm an American. I'm a Californian. I'm from the city of Los Angeles. I'm sitting here in my wife's study in West Los Angeles near my university, the University of California, which is closed like most American universities. At the moment, the sky over my house is clear, but until recently the sky over my house has been gray from the forest fires that are raging throughout California. In short, this is the time of upheaval. It's a pleasure for me to be with you. I wish that I were actually in Brazil. I had a wonderful visit to Brazil, but now, for reasons you can understand because of COVID, I'm speaking to you indirectly from my wife's study. Countries, Brazil and the United States and the whole world is in a state of upheaval now because of COVID.

What future is awaiting us? On all grounds, amidst all this upheaval for hope, there's no doubt that COVID is a tragedy. It places us in imminent danger. How might COVID cause our world to change for the better? Your first reaction might be that it's an obscene idea to suggest that COVID might change the world for the better when it kills people, and I personally understand that because my wife and I have lost five of our closest friends, friends of 50 and 60 years, in the last few months. So I understand the tragedy of COVID. But nevertheless, it might cause our world to change for the better. What innovations could we adopt that might give us a better world and not a worse world? There's no doubt that COVID is a new sort of crisis. It's an epidemic. You may say, but there have been previous epidemics.

Let's compare COVID with the big previous epidemics of the past. When you think of epidemic, perhaps your first association for big epidemics that kill lots of people is to the Black Death of Europe in the Middle Ages. The Black Death, bubonic plague that spread from Central Asia into Europe, killing an estimated 1/3 of Europe's population. But paradoxically, a century later, Black Death had brought benefits to Europe by changing Europe's economy. That is one terrible epidemic before COVID.

An even bigger epidemic before COVID were the epidemics that Europeans brought to the new world. When they crossed the Atlantic following Christopher Columbus in 1492 and began to spread throughout the new world, Europeans brought with them European diseases such as smallpox, measles and tuberculosis, diseases to which Europeans had had long exposure. To which Europeans had developed some genetic resistance and some acquired immune resistance. But Native Americans had no experience of smallpox or measles or tuberculosis, and so Native Americans had no immunity, genetic or acquired resistance to these diseases and were killed in large numbers.

For example, when Cortez made his first attack on the Aztec Empire, Mexico, one of the two biggest governments of the New World, Cortez and his 600 Spaniards were thrown out of the Aztec capital of Tenochtitlan, retreated towards the coast and it appeared that Cortez was about to be wiped out. But just at that time, a Spanish ship from Cuba arrived in Mexico and on that ship was one slave who had smallpox and that slave spread smallpox to Native Americans. Smallpox spread throughout the Aztec empire, killing half of all the Aztecs, killing the Aztec emperor. But Europeans, the Spaniards, having been exposed to smallpox from childhood, were spared and so it was demoralizing for the Aztecs this disease killing them, but not killing Europeans. The result was that half of the Aztecs died and Cortez on his second attempt conquered the Aztec empire. But smallpox spread from Mexico through Central America into South America, along the Andes to Peru and Bolivia, into the Inca Empire, killing much of the population of the Inca Empire and killing the Inca Emperor, provoking a civil war between two sons of the Inca Emperor.

Precisely at the time of that civil war, another Spanish conquistador, Pizarro, arrived on the coast of Peru with 169 Spaniards. But thanks to smallpox, Pizarro encountered a weakened Inca empire torn by civil war and Pizarro succeeded in capturing the Inca Emperor, executing the Emperor and then taking over the most powerful state of South America. These are examples of how European diseases changed history. These diseases, smallpox and measles, that change history, different from COVID in several aspects, they were not spread worldwide, nor was the Black Death spread worldwide.

They were not new diseases. They were old diseases, diseases that had affected Europeans and Asians for thousands of years, and so some peoples, European and Asian people who already exposed and partly protected against these diseases. But Native Americans were not. How does COVID then differ from the Black Death and smallpox and measles? There are two obvious differences. One is the speed of spread. COVID is spreading with jet planes. Smallpox and measles spread across the Atlantic with slow moving boats and then with horses. COVID spreads with jet planes and so COVID has spread worldwide within, a couple of months of its appearance in China. So the speed of spread that's something new with COVID. Another difference about COVID is that nobody is immune to COVID. It's a new disease. There are no people in the world who've been exposed to COVID. Nobody has genetic immunity to it. Nobody had antibody immunity to it. Unlike the case of smallpox and measles, when they arrived in the new world, being brought by Europeans who already had some immunity, in the case of COVID, every country of the world is at risk to it. No country is immune to COVID. No country can solve its COVID problem by itself because it will just get reinfected. Suppose Brazil succeeded in eliminating COVID within Brazil. Would that protect Brazil?

No, of course not, because there's COVID in other countries of the world and Brazil would just get reinfected. That has in fact happened with many countries: New Zealand, Australia, Vietnam, New Zealand instituted a lockdown. Australia instituted a lockdown. Transmission of COVID within New Zealand and within Australia stopped, but nevertheless there were jet planes coming to New Zealand and Australia, bringing and returning New Zealanders and Australians who've been trapped overseas. Those jet planes brought COVID back to New Zealand and Australia and those countries got reinfected. Similarly, Vietnam stopped transmission of COVID within Vietnam, but international travel returning Vietnamese reinfected Vietnam. This then illustrates that no country will be safe against COVID until every country in the world is safe against COVID. For the first time in world history, we are faced with an acknowledged global crisis. A crisis that we acknowledge is affecting everybody and so demands a global solution. When I say that COVID is the first acknowledged global crisis, you may object, "of course we've already had global crises, big global crises." We have the global crisis of climate change that affects the whole world. We have the global crisis of resource depletion that affects the whole world. We have the global crisis of inequality between countries of the world.

You might say COVID is not the first global crisis, but we have not acknowledged climate change and resource depletion as global crises. Many people around the world are still indifferent, dismissive of climate change and resource depletion, whereas now virtually everybody is acknowledging the threat from COVID. Why is it that we acknowledge the danger of COVID and that we do not acknowledge the danger of climate change? The reason is obvious. COVID kills you quickly. If you are infected with COVID, you'll be dead within maybe two days, certainly within two weeks, if you're going to die of COVID. And if you are dying of COVID, there's no doubt that what is killing you is COVID. It's not something else. In contrast, climate change does not kill you within two days. Climate change kills us indirectly, and so those people who are dying of the effects of climate change don't say they are dying of climate change. They say dying of tsunamis or of starvation, or sea level rise or disease spread. That's why we acknowledge COVID as a danger, but we have not acknowledged climate change as a danger, although it's a more serious danger.

In reality, compared to climate change and resource depletion, COVID is a minor problem and I'm serious when I say that it's a minor problem. Just think, the estimated death toll from COVID is on the average about 2%. Suppose that everybody all around the world is infected with COVID. And suppose that 2% of all the world's people die of COVID. The world's population is about 7 billion 700 million people. If they all get infected and 2% of them die, that means that COVID will kill 154 million people. But the world has 7 billion 700 million people and even if 154,000,000 of them are killed by COVID, 2% of the population, that still leaves 7 billion 546 million people alive in the world. More than enough people to keep the human race going. That's why I say the COVID is comparatively a small problem compared to the big problems of climate change and resource depletion and inequality that affects all of us. Just think of the ways in which climate change is a threat to all of us. COVID kills us only by COVID.

Climate change threatens us in many different ways. One threat posed by climate change is the decrease of agricultural production resulting in famine. You might say: how does climate change reduce agriculture production when climate change involves warmer temperatures? Surely warmer temperatures are better for growing crops. Well, warmer temperatures are not only better for growing crops, but they're also better for growing the weeds that outcompete crops. In addition, climate change involves weather so that the net effect of climate change is to decrease food production, rather than to increase food production, and to cause famine, the slow development of famine. That's one consequence of climate change.

Another consequence of climate change affecting potentially so many people around the world is a rise in sea level because of the melting of the Arctic and Antarctic ice caps and the Greenland ice cap, the melting of glaciers resulting in a rise of sea level. But there are many parts of the world that are very low, barely above sea level. Just a meter or two above sea level. Those include the East Coast of the United States, such as Florida. The areas close to sea level include the Asian country of Bangladesh, of which something like 1/4 is barely above sea level. Recently, you may have read that there have been floods in Bangladesh. There have been heavy rains but, since Bangladesh, 1/4 of Bangladesh, is only a meter or two above sea level, one quarter of the country got flooded, as a result of climate change. China, the East Coast of China is low line and so salt water percolating into the freshwater aquifers of eastern China is making those freshwater aquifers salty and depriving Chinese people of much of their supply of fresh water. So those are ways in which climate change, not just through famine, but also through sea level rise is threatening us. Still another way in which climate change is threatening us is by causing severe weather events: hurricanes, cyclones, heat waves, droughts, storms, if you've been reading the newspaper today and within the last few days, you may have read that a second hurricane has hit Central America and you may have seen the pictures in the newspaper showing widespread flooding in Central America.

That's a consequence of climate change. The increased frequency of hurricanes, cyclones, floods and droughts. Another consequence of climate change affecting us is the spread of diseases. Because tropical climates, warmer climates, are spreading into the temperate zones. That means that diseases are also spreading into the temperate zones thanks to climate change. For example, there is a fever in tropical East Africa, in Uganda, called chikungunya fever. Until recently, chikungunya fever was a tropical disease confined to East Africa. But now, chikungunya fever has spread to Italy and infected Italians, in fact in Europeans. Why? Because Europe is getting warmer and chikungunya fever and its vectors are able to spread to Europe.

Still another way in which climate change affects us and in some cases kills us, climate change is acidifying the oceans, releasing carbon dioxide into the oceans, making the oceans more acidic, destroying the coral reefs. But the coral reefs are barriers that protect tropical coastlines against tsunamis. In the past, when there have been some tsunamis, often areas of the coast with coral reefs have been protected against the tsunamis. But now, because the coral reefs are being damaged by climate change, by acidification of the ocean, tsunamis are able to sweep inland.

About a dozen years ago, there was a tsunami that struck Indonesia and killed 200 thousand Indonesians, because the coral reef barrier had been damaged. Indonesians did not say 200,000 of us were killed by climate change. Instead, Indonesians said 200,000 of us were killed by a tsunami. But the reason why that tsunami killed Indonesians, whereas in the past would not have killed all those people, was climate change destroying the coral reefs. These are examples of how climate change is potentially ruining all of us. COVID at most will kill 2% of us. Climate change is threatening all of us in so many different ways. But climate change is not the only big global threat that's endangering the world. Another big threat is resource depletion.

The exhaustion of resources on which we humans depend. We depend upon biological resources that are so called renewable resources, resources that renew themselves. Trees that grow and produce new trees. Fish that reproduce and produce new fish. These are renewable resources and as long as we humans have been harvesting fish and cutting down trees at rates slower than the rates at which new trees grow and the rates at which new fish, new crustacean and new mollusks reproduce themselves, these have been sustainable resources that can keep going forever. But now, we've been harvesting fish and cutting down trees, harvesting mollusks and crustaceans, faster than these trees, fish, mollusks and crustaceans can reproduce themselves. So the world's fisheries are being depleted.

Many fisheries, for example, the Atlantic swordfish fishery has already been driven, essentially, to extinction. Similarly forests around the world are being chopped down faster than they grow, but we depend upon seafood and forests. We depend upon seafood for protein, something like 1/3 to 1/2 of the world's people get their protein from the sea and from rivers, from fish crustacea and from mollusks. That means that the protein supply of 1/3 of the world's people is threatened. Similarly, the world's forests provide us with construction material, and they provide us with paper. In South America in the Amazon Basin, in the Congo basin, in Indonesia, and Southeast Asia, even in Siberia, the world's forests are being depleted, which means that our construction material and our paper is being depleted. Still another renewable resource that is being depleted is topsoil, dirt soil. You might say, how on Earth can soil be depleted? Farming that removes the cover from the ground exposes soil and after crops are harvested, soil can be washed away by erosion and so the world is losing topsoil. Some years ago I visited the American state of Iowa. Iowa within the United States is famous for growing corn, so much corn. My Iowa host picked me up at an airport and then drove me to one of the universities of Iowa and as we drove, we drove past a church and it was striking. This church was 10 meters up in the air.

This church was on a man's 10 meters high and all around the church, the land was 10 meters lower. Why? The reason is that the church is surrounded by a cemetery and people do not grow corn on cemeteries, and so the cemetery, for the last century and a half, around this church has not been subject to erosion, but all the land around the cemetery and the church has been growing crops, it has been subject to erosion. In the last century and a half there's been 10 meters of topsoil swept away from the United States from the richest agricultural area of the world into the ocean. Still another renewable resource, fresh water. You might say, "Fresh water? That's not a renewable resource. Yes, there's fresh water in the Amazon, but if we depleted our fresh water or drinking water, we could always make more fresh water just by desalinating salt water. We can make fresh water from the ocean." Well, yes we can, but that requires energy. It requires fossil fuels. But our fossil fuels are in limited amounts. Burning fossil fuels is what causes climate change.

We do not want to be forced to make fresh water by desalination. Instead, we want to get fresh water from renewable rivers and lakes, but already something like 85% of the freshwater around the world, 85% of the rivers and lakes of the world are exploited and the only rivers and lakes that are not exploited are in remote parts of the world, like Iceland or Northwest Australia or Northern Siberia. Most of the world's freshwater has already been being exploited. That then is a second global threat. A threat more serious than COVID itself. The threat of resource depletion following on the threat of climate change. Still, a third threat to the world, a global threat, that's much more serious than COVID, that rivals climate change and resource depletion in its seriousness, is the threat of inequality. Inequality around the world. There are rich countries and there are poor countries. Within South America for example, Bolivia is a relatively poor country. Uruguay, Chile and Argentina are relatively rich countries, and Brazil is also a relatively rich country. But even within Brazil, there's inequality, southern Brazil around São Paulo and Rio is richer than northern Brazil. Until 60 years ago, there was inequality around the world, but it was not a threat to rich countries, because there was no mass immigration and because people in poor countries didn't have television, they didn't have cell phones, they didn't know what the situation was in rich countries. But now, cell phones and television are widespread, so the people in poor countries know about the better living standards available in rich countries.

Thanks to jet planes and fast moving ships, people in poor countries don't want to wait for the government of their poor country to make their country rich. They want to become rich now, they want to have a good standard of living available now, for their children. So, they emigrate towards rich countries, they emigrate towards Europe, they emigrate towards North America, they emigrate towards Australia, they emigrate towards the richer parts of the world. Inequality, then, along with climate change and resource depletion, those are the three serious threats to the world.

Climate change is a danger that no country can solve by itself. Suppose in Brazil, you reason climate change is due to burning fossil fuels and the production of carbon dioxide. We're going to solve our climate change problem in Brazil by burning less fossil fuel, and that will mean less carbon dioxide in the atmosphere over Brazil. But burning less fossil fuel in Brazil won't protect Brazil because the atmosphere over Brazil is mixed with the atmosphere all around the world. Brazil's reducing its production of carbon dioxide and attempting to reduce the carbon dioxide in the atmosphere over Brazil will not spare Brazil because the world's atmosphere is mixed.

That illustrates then that climate change is a global problem, and neither Brazil nor any other country can, by its own efforts, protect itself against climate change. Instead, climate change is a global problem that requires a global solution. Just as COVID is a global problem requiring a global solution. Just as Brazil cannot reduce the carbon dioxide over Brazil forever, Brazil cannot reduce the COVID within Brazil forever because, just as the atmosphere mixes carbon dioxide, similarly jet planes mix the people of the world. Brazil or any other country that solved its own COVID problem would still be at risk from the rest of the world. This illustrates, then, that big problems in the world today are problems that require worldwide collaboration. COVID could be solved only by collaborative efforts among people of the world. Climate change, resource depletion, inequality can be solved only by collaborative efforts among people of the world. But you may object. Surely the people of the world are not going to collaborate to solve the problem of COVID or climate change. People of the world compete with each other. China competes with the United States, China and the United States compete with Europe. Brazil competes with Australia. Within Latin America, Brazil competes with Argentina.

Countries of the world are competing with each other. They're competing even for a face mask. When COVID began to expand around the world, in January and February, there were not enough face masks to protect all the people in the world, and so there was competition for face masks. China produced excess face masks, and when China sent its face masks to Europe, there was a scramble, there was competition for those face masks. French people, Swedes, Italians, Israelis and Russians were all competing for those same Chinese face masks. You might object. If there are vaccines that become available for COVID - and within the last week or two we've heard of two new promising vaccines developed against COVID - you may think that countries are going to compete for the vaccines. If the United States succeeds in manufacturing the two promising vaccines, or if China manufactures its vaccine, or Russia manufactures its vaccine, or if Germany manufactures its vaccine... You might think countries of the world are not going to be generous and share vaccines with each other. They'll compete, and so here is Jared Diamond saying "we have to innovate, the world has to adopt collaboration". You may say the world is not going to collaborate. We've seen that countries compete with each other. Well, I'd say the world is going to collaborate. The world will have to collaborate because there is no alternative.

Every country in the world is going to discover that it cannot solve its COVID problem nor its climate change problem unless it collaborates with other countries. You can think of COVID as a teacher, COVID as a professor, professor COVID. COVID teaches us that much as we have resisted collaboration in the past, today collaboration is essential. We have no alternative, except to collaborate, because if we don't collaborate in the struggle against COVID, all of us are going to be ruined by it, and in that respect, COVID is a teacher.

For that reason, I began my talk today by saying that COVID is a tragedy, it has killed some of my best friends. Probably all of you here know people who have died of COVID. Yet I began by saying that, paradoxically, this tragedy may bring benefits to the world. What benefits could this killer bring to the world? Well, what COVID may do is finally inspire the world to cooperate in solving a global problem. The global problem of COVID. But suppose that we do learn from COVID and the countries of the world collaborate in solving the problem of COVID. We will then have learned for the first time how to address a global problem that requires a global solution. And perhaps therefore COVID will serve as an example to inspire the world to innovate, innovate in solving not only the global problem of COVID, but also the global problem of climate change, the global problem of resource depletion and the global problem of inequality. It's not that climate change requires us to invent something new. We already know what is causing climate change.

Climate change is caused by the human burning of fossil fuels. We know what we have to do to stop climate change. We have to burn less fossil fuels. We can do that in two ways. One is to reduce our fuel consumption. Countries around the world, particularly rich countries, like the United States, Europe, Japan and the rich countries of South America, Argentina, Brazil, Uruguay, Chile, rich countries are burning more fossil fuels than our poor countries. The United States is very wasteful in burning fossil fuels. The average American burns twice as much fossil fuel as the average European. We have big cars that consume lots of fuel. It would be relatively easy for the United States to reduce its consumption of fossil fuel by 50% just by imitating Europe. One way that we already know that we could solve our fossil fuel problem is by being more efficient in our energy consumption. But another way that we know how to solve our problem of climate change is by shifting to renewable energy sources. There are other energy sources besides fossil fuels.

There has been much development of those alternative energy sources in recent years and in the recent decade or two, more and more countries are getting more of their energy from not just fossil fuels, but from wind power, from hydroelectric power and from solar power. And there were efforts to develop tidal power. The power that could be gotten by harnessing the tides to produce energy. Already, the country of Iceland gets essentially all of its energy from hydroelectric power. Denmark gets 20% of its energy by windmills. Germany and Spain are getting much of their energy from windmills. Here in California, I live in a sunny part of the world, only a few dozen kilometers from the desert. In the deserts of California solar installations are spreading.

To get more and more of our energy from renewable resources from solar energy. There's no secret about how to solve our problem of climate change. We don't have to innovate with new technology. We already have the technology to solve the problem of climate change. Where we need to innovate is in developing the political will to adopt the solutions to climate change that we already know about. In short, we know how to solve, in principle, the world's big problem with climate change. We're developing solutions to COVID through vaccines. We have to innovate in developing a global attitude of sharing instead of the global attitude of competition that has been so widespread. You may object. People of the world have been competing with each other for so long. They've been making war against each other for so long. Will people really cooperate with each other? Yes, I'd say they will cooperate with each other because there is no alternative, if we want to have a sustainable world. And I'd end by saying that COVID, the tragedy of COVID, brings hope with it. COVID is opening to us the possibility of creating hope for a better world. In that once we have solved the problem of COVID, we will have learned that we can find a global solution to the global problem of COVID and we will then go on to adopt a global solution to the serious world problems, to the global problem of climate change and the global problem of resource depletion and the global problem of inequality. That's why, amidst the tragedy of COVID, I'm cautiously optimistic that we have at least the possibility of creating hope for a better world. Thank you.



DIOGO: Thank you very much, Professor Diamond. Very inspiring, very provocative talk. We have many questions from the audience, but I want to begin with one of my own. In your book “Guns, Germs and Steel,” you chose three words for the title, when you do this sweeping account of our past. If you were to write a book about the future, long-term future, which three words would you choose?



JARED: That’s a good question, and especially an appropriate question for me as an author. It’s true that my book “Guns, Germs, and Steel...” The title was those three words, “guns,” “germs” and “steel”, and it was my wife Marie, in whose study I’m sitting there, was my wife Marie who thought of the title. What would be the three-word title for my next book? The title would be: “Sustainable, sustainable, sustainable.” By that I mean that the world has to get on to a sustainable course. The world is now on an unsustainable course. We are consuming resources faster than those resources are renewing themselves, and so we need a sustainable world. But if you want a three-word title, my three-word title will be “sustainable, sustainable, sustainable.”



DIOGO: Excellent. Questions from the audience: is our global system of governance up to the challenge of tackling complex issues such as climate change and inequality? And, if not, how could an adequate level of international cooperation be achieved? You are optimistic about that, but how do you go about achieving that?



JARED: Is our global system of government up to the task of solving our major problems today? Yes, it is because our global system of government already has a successful track record. Think of the difficult major problems affecting the whole world that our global system of government already has solved. Smallpox - the deadliest disease of human history, the world succeeded in eliminating smallpox, the World Health Organization organized campaigns to eliminate smallpox all around the world, and that was difficult because the last country that had smallpox was the African country of Somalia. It is not easy to cure health problems in Somalia, but the world campaign to eliminate smallpox succeeding in the last case, was in Somalia. This is a campaign that was successful. One of the world's worst diseases of livestock rinderpest, there was cooperation between Europe, Asia and Africa to eliminate rinderpest, the most serious disease of cattle. Or the damage to the ozone layer caused by chlorofluorocarbons, the world collaborated to get chlorofluorocarbons out of production and out of the atmosphere. The world already eliminated chlorofluorocarbons; the world already reached agreement on eliminating coastal economic zones. That was difficult because neighboring countries have economic zones that overlap, but the world succeeded in delineating coastal economic zones and the world has also succeeded in achieving a framework for managing the open oceans that will eventually make deep sea mining into a world framework. My answer to your question is the world already has a framework having solved difficult problems such as the ozone layer, smallpox, and rinderpest. Therefore again, I'm cautiously optimistic that the world having solved these difficult problems can also solve further difficult problems of COVID, climate change, resource depletion and inequality.



DIOGO: And how optimistic are you about future technological developments? We know that technology can be seen as a path for a less sustainable future, but also for a more sustainable future. You have companies like Tesla that try to make sustainable transportation, for instance. Do you see yourself as a technological optimistic or technological pessimist?



JARED: I am a technological neutralist. By that I mean that technology is morally neutral. Technology can do good and technology can do harm. Technology has brought us cures for many diseases. It has brought us vaccines. Test technology also brought us the atomic bomb, it brought us cyanide and brought us the ovens of Auschwitz. Technology can do either good or harm. Today, technology is doing both good and harm. The burning fossil fuel is the cause of climate change, but technology is also developing new methods for producing energy. For example, windmills at the time of the Gulf oil crisis of something like 40 years ago, in the United States, I remember, American gas stations running out of gas, and so the United States government embarked on a crash program of supporting the development of windmills. The US government put a lot of money into developing windmills, we developed really super duper windmills. The US government then lost interest in windmills, but those American super duper windmills are now the windmills that are producing 20% of the energy of Denmark, Spain and Germany. There is a way. There is an example of technology helping us, but technology can also damage us and so the challenge that we face is to get the benefits out of technology while avoiding getting the harm out of technology.



DIOGO: Another question. Where are you right now in relation to the effects of ideas versus environment in human development? Your books put a lot of weight on environmental factors, but you write as someone who believes in the power of ideas to change minds and change the future of civilizations. How do you put your work in relationship with people who are advocates of the power of ideas, such as John McCluskey or David Dodge, who prefer to use ideas more than environmental differences to explain why civilizations had different trajectories?



JARED: The reason that I'm smiling in response to your question is that the United States had an election last week and that election was a confrontation of ideas. Different Americans have different ideas, and while I have written about the role of geography and the role of the environment, I would be the last person to deny the importance of ideas. Both ideas and the environment are important. Let me make a comparison. Suppose a newly-married couple comes to you and ask you what is more important for a happy marriage. Agreement about sex or agreement about money?

When a newly-married couple asked you that question, you know that couple is going to get divorced within a year because they're being so stupid. Both sex, money, religion, politics, children and in-laws are important for a happy marriage and similarly for understanding history. Ideas are important for understanding history, the environment is important for understanding history. In Brazil, you know that you have a very different environment up north in Brazil from the environment South in Brazil, and so the environment is important within Brazil. Just think of countries within the same environment and different ideas have had different consequences.

Germany, one country, one environment was divided in 1945 by the line between East and West Germany. East Germans and West Germans had different ideas about how to govern their country, with the result that West Germany became rich and East Germany remained poor. Or North and South Korea, North and South Koreans have very different ideas about how to organize their system of government. North and South Korea are in the same environment, and yet those different ideas mean that South Korea is one of the richest countries in the world, and North Korea is one of the poorest countries in the world. This illustrates then that both ideas and the environment are important. Just as both sex and money are important to conducting a happy marriage.



DIOGO: Very good answer. Another question from the audience. What competencies are essential for current governments to be able to deal with the great contemporary challenges?



JARED: For governments to deal with the great contemporary challenges... When I think of what so many governments sadly lack, and what they need to in order to overcome the great contemporary challenges, these are things that I wrote about in my books, in my recent book “Upheaval”: what are the things that people need to overcome crises and one of the things that governments need to overcome crisis. Just as I mentioned that there are a dozen factors that you need to have a happy marriage. In my book “Upheaval”, I also discussed the dozen factors that a person needs to resolve a personal crisis and the dozen factors that the country needs to resolve a national crisis. In a personal crisis, if your marriage has broken down, or if you’ve been fired from your job, or if a beloved relative has died and you have to figure out how to conduct your life better, you know that one thing essential is honesty. If you are not honest about yourself, and if you’re not honest about the world, you’re not going to solve your personal problems and you’re not going to solve the world’s problems.

There are governments that are outstandingly dishonest and there are governments that are honest and there are governments that started dishonest and became honest. For example, in December, when COVID emerged in China, the Chinese government at first denied COVID. That's dishonesty. As people began dying in China, in January, the Chinese government became honest and acknowledged COVID. So honesty is important. Another thing that's essential for countries to solve their problems is compromise and talking with each other, reaching agreements in every country. In Brazil, different people have different ideas. In the United States, different people have different ideas. In our recent election, it turned out that 49% of Americans have different ideas from the other 51% of Americans. We have two big political parties, the Republican Party and the Democratic Party, and sadly within the last decade or two there has been less and less compromise within the United States. Less compromise between our political parties. But also less compromise within our political parties, there has been polarization within the Republican Party and polarization within the Democratic Party. So, an essential thing for countries to solve their problems is honesty. Honesty is deficient, in some segments of the United States and I'm sure that you can think of examples of honesty being deficient in some segments of Brazil. Similarly essential for solving the problems of the United States and of China over all the countries is compromise and I'm sure you can also think of examples within Brazil, where Brazilians have different ideas, but it's necessary to have compromise between Brazilians with different ideas in order to solve Brazil's problems.



DIOGO: Very good. Going back to technology. Much of the technology used for people to farm efficiently or for more sustainable manufacture is freely available. Shouldn't we expect there to be more import of those technological ideas into different countries? If so, why is there so little?



JARED: That is a paradox, or it seems to be a paradox. Yes, technology is available all around the world. You and I are now talking to each other. We are 10,000 kilometers apart. But we are talking to each other thanks to technology and the technology that enables you and me to talk to each other is also available in Bangladesh and it's available in Bolivia and it's available in Somalia. Why is technology not helping Bolivia, as well as Brazil, become rich? You know the differences between Bolivia and Brazil. Bolivia and Brazil have different environments. Many parts of Brazil are a good environment for growing soybeans and for growing cattle. Much of Bolivia is not a good environment for growing soybeans and for growing cattle, and so Brazil is more successful at growing in and exporting cattle and soybeans than is Bolivia. There were also different levels of education. Brazil has a much more highly developed system of higher education than does Bolivia. There were also differences in wealth, differences in existing technology. Brazil is a richer country than Bolivia. Bolivia is, I believe, the poorest country in South America. The country with the lowest average per capita income and therefore yes, it's true that cell phones are available both in Brazil and in Bolivia, and computers and Zoom technology are available both in Brazil and in Bolivia. But because Brazil is richer than Bolivia, many more Brazilians, a higher percentage of Brazilians have access to cell phones and to computers and to Zoom than do Bolivians. In short, yes, technology in theory is available to spread all around the world, but because different countries have different environments and because different countries have different existing technologies and because different countries have different educational levels, the same technology is not equally available all around the world. It's not equally available to Brazil and to Bolivia, and it's not equally available to the United States and to North Korea.



DIOGO: Jared, you are a masterful storyteller. But there are some stories that are harder to tell than others. Stories that you have of great people, usually great men, are easier to tell than stories that come from civil society, from emergent orders. What are their stories that we should be making more of an effort to be able to tell?



JARED: That's a good question. Big question. What are the stories that we should be making more of an effort to tell? There are so many stories, but I would begin, the stories that we should tell are the stories of history. We can learn from history. Everything has been tried in history. Governments have tried everything and some things have worked well and some things have worked badly. We can learn from history. History is a series of lessons that have been carried out. Just as biographies: we can learn from the biographies of people. Some people have done small things, some people have done stupid things, we can learn from the biographies of people. Similarly, we can learn from the biographies of countries, we can learn from history, and therefore when you ask me what stories should the world tell... There are many stories, but perhaps in the first line, would come the stories of history, the things that countries have done well in the past and the things that countries have done badly in the past so that we can repeat the good things and we can avoid repeating the bad things.



DIOGO: How confident are you about countries around the world actually learning lessons from the current pandemic? Do you think that we have the risk of actually not learning the lessons of “Professor COVID”, as you called it?



JARED: Of course we run the risk of not learning from Professor COVID. We have the possibility of learning from Professor COVID, just as when I teach my undergraduate students at University of California. Some of my students learn from what I say and do well on exams and some of my students do not learn from what I say and do not do well on exams. How do I rate the chances that the world will learn and will master COVID? I’m a cautious optimist. I’m not a pessimist, but I say that I’m a cautious optimist. By that I mean, I’m not saying that the problem of COVID is a simple problem, and of course we’re going to solve the problem with COVID. I recognize that it’s a difficult problem, but it’s a problem that we have caused ourselves. Because we have caused the problem, we have the potential for solving the problem. If you ask me to name the odds, I would estimate the odds as 51% that we will solve COVID, climate change and resource depletion, and I rate the odds as only 49% that we will fail to solve COVID, climate change and resource depletion. I’m a cautious optimist. Basically, I’m a cautious optimist because we humans are causing our problems. It’s not that the problems of the world are because there is an asteroid in outer space that’s hurtling towards us, like the asteroid that exterminated the dinosaurs, an asteroid that’s unstoppable. Instead, our problems are stoppable. We are causing them, and because we are causing them, we can choose to stop causing them. Will we choose to stop causing them? I rate the chance of the 51% yes, that we will choose to stop causing them.



DIOGO: Professor, I think you've made us more cautious, but also more optimistic. We thank you for your time and hope that we learned from Professor COVID, but also that the world learns from Professor Jared Diamond. Thank you so much.



JARED:
Thank you.

Por que esse desafio é importante?

Oportunidade
Futura

Tokenization

Os abusos que podem ser cometidos por burocracia. Techs e por Estados, táticas demandam um

internet confiável

Eliminar intermediários e reduzir tempo e custo.

NOVOS DESAFIOS
PROPRIEDADE
PROTEÇÃO, PRIVACIDADE
ALOCAR, T

Desintermediação

Garantir

melhor

to