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## **EPISODE II. "TO BE OR NOT TO BE" . COPING WITH GLOBAL EXISTENTIAL THREATS**

Dagne (D): Welcome to Episode II of the Infinite Potential Series entitled "To Be or Not to Be." COPING WITH GLOBAL EXISTENTIAL THREATS. So, Adam, to be or not to be - what is the question? What exactly are existential threats?

Adam (A): Nick Bostrom, founder of the Institute for the Future of Humanity, and others make a distinction between existential risks and global, enduring risks. Bostrom suggests that enduring risks might include: "threats to the biodiversity of Earth's ecosphere, moderate global warming, global economic recessions (even great depressions), and stifling cultural or religious eras such as the "dark ages", even if they are worldwide, provided they are transitory. To say that a particular global risk is enduring is not to say that it is acceptable or not tragically serious. A world war fought with conventional weapons or a Nazi-style Reich lasting for a decade would be extremely horrible events even though they would fall into the category of enduring global risks because humanity could eventually recover. (On the other hand, they could be a local terminal risk for many individuals and for persecuted ethnic groups.)

An Existential risk is one where an adverse outcome would either annihilate humanity or permanently and drastically curtail its potential. An existential risk is one where humankind, as a whole, is imperiled. Existential disasters would have major adverse consequences for human civilization for all time to come."

D: Some respected scientists and futurists are saying that humanity could become extinct by the end of this century. There have been doomsayers since time immemorial. Do you think these scientists could be exaggerating? Why would they do that?

A: No one knows the future exactly. But scientists who are studying the trends see some scary clouds forming. Personally, I think fear only increases the likelihood of a bad outcome. Anyway, the existential challenges could be seen as almost the opposite of the Radical Life Extension challenge we addressed in Episode I. Existential catastrophes imply the extinction of all intelligent life either quickly - going out with a bang or slowly just petering out with a whimper. We are talking about things like all out nuclear war, some form of toxic, self-replicating nanotechnology, germ warfare and all kinds of technologies that go awry. Some scientists worry about the new Large Hadron Collider near Geneva accidentally causing a small tear in the fabric of spacetime and creating a mini black hole that gobbles up the earth. There are of course super pandemics, environmental disasters like extreme global warming and even end games that are not of our own making such as huge asteroids, a super nova exploding too close to our star system (say, about 100 light years from earth?), radiation from space, super volcanic eruption and so on.

D: Makes horror movies seem tame. What do serious, responsible scientists think?

A: Interestingly, there have only been about 4 major papers written on this in recent times that I know about. Considering the enormity of the threat that's kind of strange isn't it? But these papers paint a surprisingly grim picture. John Leslie calculates a 50% chance of failure to survive this century, Sir Martin Rees, Britain's Astronomer Royal also figures about 50%, Richard Posner doesn't give a calculation but warns that the situation is dire. Nick Bostrom of The Institute for The Future of Humanity calculates we do not have less than a 20% chance of failure. I consider myself to be an optimistic apocalypticist, so I think we can make it. But it might not be with a big margin. And if we do survive it may be because countless people did the best we could with what we had. I think it is critically important that we get crackin'.

Most of us would rather not think about extinction much, especially those of us who live in a beautiful place with all we need to live well. A powerful case for nuclear war is clearly building. Some say that it is a miracle that it already hasn't happened. Experts tell us that the US alone has enough nukes to wipe out all human and most animal life on earth (the nuclear winter hypothesis). It seems irrational to assume that there will not be at least some nuclear attacks somewhere. It is a matter of how much and whether it can be contained fast enough. You know, the famous Doomsday Clock is never more than a few minutes from midnight.

D: This is so depressing, so painful. Tell me, why are we doing an Episode about it?

A: Because scientists and philosophers and even spiritual leaders are looking carefully at these challenges. We have evolved to the point where we actually have the power to wipe ourselves out and we are becoming more powerful technologically at exponential speed. It seems wise to acknowledge the crisis, work to avoid the danger and do our best to seize the opportunities. Our traditional trial and error ways of learning seem inadequate since some errors could cause an unstoppable process which finishes us. It seems reasonable to assume the nanotechnology arms race has already begun. I hope I'm wrong. Developing a defense against nanotechnology is going to be much harder than developing the technology itself. That's one more reason why thinking these things through now and working to bring about a different scenario is the responsible, even the choiceless individual and collective action we must take.

Some people, like Bill Joy the billionaire computer scientist and Nick Bostrom feel the greatest threat is probably from self replicating nanotechnology, developed as a weapon or accidentally getting out of the lab. A brilliant analysis as to the statistical likelihood of the known existential risks is covered in a paper by Nick Bostrom and can be found on his website. For example, the statistical chance of the Hadron Collider tearing the fabric of spacetime and creating a black hole is extremely small. However, the world has never seen the kind of concentrated, man made power the Hadron will be generating. Either way, statistical probabilities regarding some of the other threats demand that we make an effort that is unprecedented in human history.

D: The problem is so huge it is almost paralyzing. What can the ordinary person do?

A: The first thing is to remain calm. Easier to say than do. Fear and panic makes things worse. Which is why the work of the Foundation includes Radical, even Extreme Stress Training. Reducing stress clears the mind and increases energy. We need enormous energy and very clear minds.

D: Do you think there are enough high energy, clear minded people to make a difference?

A: I could be mistaken, but I think there are.

D: In my heart of hearts, I do too as well. But, it gets overwhelming at times.

A: Obviously, the magnitude of the risks demands that we use our best minds and resources extremely wisely. The ordinary person plays an absolutely critical role because, as Einstein said, The field actually is the governing agency of the particles. Society must provide an environment that enables those who can to work creatively enough to make the immense differences our situation requires. The way I look at it the ordinary human being must learn to live with the reality that perfect security is an illusion and always has been and will continue to be. Is there a way to use one's own mind so that it is possible to live in a world in which everything is changing all of the time? What is the science and art of having a wonderful life in this real world that we have now? How can the ordinary human being learn to see that the inherent insecurity of life can be a blessing rather than a curse? The great news is that the same kind of learning that can bring about psychological freedom is also the kind of learning that maximizes coherent thinking and both individual and collective power to reduce or even transform global existential threats - at least the man made ones. And organizations such as NASA's Near Earth Asteroid Tracking Program and The Space Guard Foundation are beginning to work on reducing risks from outer space. We are working on ways to divert asteroids or destroy them when we find one that looks like it will hit us and is big enough to cause catastrophic damage.

D: Most people probably think the scientists are just trying to scare us into action and generate grant money. Also, down deep people probably feel scientists are not seeing the whole picture and that there is something out there that will hopefully intervene and save us if things get bad enough.

A: From your mouth to God's ears. Honest scientists know they are not seeing the whole picture. One of the global warming scientists told the following joke. Two planets meet in outer space. One of them says to the other, "Good Lord, you look awful, what happened?" The other said, "I'm very sick, I have Homo Sapiens." The first planet answers, "My dear friend, you must be suffering terribly, but if it is any consolation, it won't last long".

D: Gives a whole new meaning to Einstein's famous saying? "God does not play dice with the Universe".

A: Right. Besides, when you think about it, the things we ought to be doing in order to reduce these scary existential threats are only what responsible human beings, those who treasure this beautiful world including political and economic order would do anyway. If you look at the numbers, even a 1% reduction in existential risk would mean saving 60 million lives. If you project that out to future generations you wind up with 10 to the 32nd power. An almost unimaginable number of lives saved. So when you think of world problems, it seems clear that making the reduction of existential threats our top priority is choiceless. All of our other problems are trivial by comparison.

D: What a wake up call. But it seems most people are too asleep to see either the danger or the opportunity.

A: Statistically, from an evolutionary perspective, Homo Sapiens Sapiens has to end sometime and it looks like a perfect storm may be building, doesn't it?

D: It is heart breaking. I love this world so much.

A: You and countless others who feel that way may be our salvation. There is another way to look at all of this. "It is better to light one small candle rather than curse the darkness". This inspires others to light their small candles as well. Soon the light is getting stronger and brighter. Also, it is important to keep perspective. The primary reason that we are facing these crises is because of humanities incredible power to evolve and adapt. In a sense, our phenomenal successes technologically, economically and even politically have brought us to this crossroads. There actually is more good news than most people realize, but we don't hear so much about it because bad news sells and we get most of our news from companies that sell things.

D: I and I'm sure our listeners could use some good news right now. So, hand it over!

A: Good news is fun, besides fear tends to make things worse. So, I want to bring some balance and focus on what I perceive to be relatively good news. By many measures the world is good and getting better. There is greater wealth, better health and diminishing levels of violence. Life expectancy increased from 44 to 79 in the past 100 years and is expected to increase at least that much again in the next century even if Radical Life Extension is far less effective than most believe it will be. In the US alone we will soon be investing a trillion dollars per year in Life Sciences.

The 20th century saw actual life style differences between the rich and poor decrease dramatically. The division in the US used to be between the haves and have-nots but now it is really between the haves and the have-mores. And the benefits are spreading. According to The World Bank, the poverty rate in Asia has declined 50 percent during the last 10 years and is expected to decline another 90 percent during the next ten years. Even horribly impoverished sub-Saharan Africa grew 5 percent economically just last year. I know it is counter intuitive but this has been accompanied by an unprecedented decrease in population growth. For example, the

Mexican birth rate has decreased from 7 per woman to about 2.3 children within only the last forty years! Japan, Russia, Italy and other major countries are going into population declines and even the US would be in a population decline if it were not for immigration (largely illegal).

As the world became more productive and wealthier, it is also become more just. Americans are upset about the erosion of civil liberties recently due to terrorism, but actually women, blacks and other minorities including homosexuals have had an unprecedented expansion of rights within a relatively short time. Steven Pinker, the Harvard psychologist asserts that compassion is spreading worldwide. Pinker writes, "Cruelty as popular entertainment, human sacrifice to indulge superstition, slavery as a labor-saving device, genocide for convenience, torture and mutilation as routine forms of punishment, execution for trivial crimes and misdemeanors, assassination as a means of political succession, pogroms as an outlet for frustration, and homicide as the major means of conflict resolution -- all were unexceptionable features of life for most of human history. Yet today they are statistically rare in the West, less common elsewhere than they used to be, and widely condemned when they do occur."

Science and technology are developing exponentially. Only about 5% of the world's population lived under multiparty democratic governments at the beginning of the 20th century. By 1997 it was 60% of the world's population and it has gotten better in the last 10 years. Apparently we are getting smarter. Its called the Flynn effect. It is a worldwide increase in IQ of about 3 points every ten years. It is controversial but assuming it is true, it is probably due to better health, nutrition, availability of information, increased connectivity, etc. Of course, there is the hypothesis that we are in a stage of rapid evolution. The UN has done a study which estimates that we could provide potable water, shelter, food and clothing for every human being on earth who needs it for less than what has been spent on the Iraq War. So, even if the US can not afford it (and we can) certainly a coalition of a few of the richest countries can easily afford to provide the basics for everyone. Those who fall through this plenty do so not because of lack of resources but rather for mostly political and corruption reasons. Which adds to our motivation to work as hard as we can to increase the quality of our own personal mindfulness. The more of us who can, the wiser will be the electorate. I'll take that a step further. It is the most effective, fastest way to transform politics.

It seems to me the evidence is compelling indicating that we are not only still evolving but we are well into an evolutionary leap. A leap which Einstein's famous statement pointed to. He said, "We shall require a substantially new manner of thinking if humankind is to survive." More people are living lives of greater freedom and greater creativity than ever before.

D: Whew! Thanks for the good news. I speak for our listeners, I'm sure.

A: This notion that we are experiencing an evolutionary leap has substance. The Nobelist Fogel said, "For the last three hundred years we have been in a techno physio evolution." Actually, we have been influencing our own evolution for much longer than three hundred years, but the rate of change has accelerated. It is probably not an exaggeration to say evolutionary change is

presently explosive from an anthropological perspective. I hypothesize that at an unconscious level - maybe not so unconscious for some - we are using technology to force ourselves to make yet another evolutionary leap. If my memory is correct the leap from Homo Erectus to Homo Sapiens took about two million years. From Homo Sapiens such as Cro Magnon to Homo Sapiens, Sapiens (that's us) took about 250 thousand years. Homo Sapiens Sapiens is at least 130 thousand years old already. If evolution really is accelerating then the timing seems about perfect for another major evolutionary leap. Remember these kinds of leaps probably require pressure. So, maybe we are creating just the right pressure to pull it off in a timely way. Too little and we don't git 'er dun. Too much and we git 'er over dun. Our goose is cooked.

In evolutionary terms each of these leaps is a form of mutation. In fact, none of them could have been predicted by what was known before. So, in a sense they all qualify as singularities. It seems reasonable to suggest we are mutating right now and much faster than ever. You and I may already be partly Homo Sapiens, Sapiens and partly some new critter. One way of looking at the bright side of all of the doomsday prophesies about the end of mankind, etc. could be to say that the prophets were merely seeing that an evolutionary leap must eventually come. Now, it is virtually here. Neanderthal was probably bad news for Homo Erectus. And Cro Magnon probably bad news for Neanderthal. But calling it bad news seems silly when we all want those that come after us to be wiser, more compassionate, more physically and spiritually fit than we have been. Evolution is how universe gave birth to what we have now and it is how universe brings about a future world that is as inconceivable to us as the present world would have been to Cro Magnon. What shall we call the new us? Let's see. There was Homo Sapiens then Homo Sapiens, Sapiens. We mustn't allow the scientists to name the new us Homo Sapiens, Sapiens, Sapiens. That would mean knowing man, knowing he's knowing. Hmmmm, actually that might make sense! Barbara Marx Hubbard, a futurist and philosopher has suggested that we call the new us something like Homo Universalis (because we are headed into the galaxy), or Homo Noeticus (because we must become a lot wiser, more compassionate and dare I say spiritually fit before we take on deep space).

D: I like Homo Compassio even better.

A: Perfect. Homo Compassio. What about Homo Resurrectio?

D: What does that mean?

A: Awakening man.

D: OOPS. We are almost out of time. Anything else?

A: Well, I'm afraid we may annoy some of our militant atheist friends at this point. I hope they will not let semantics come between us. How can I put it? You know many of the leading Fourth Wave psychologists such as Rogers, Maslow, Jung and others seem to have a kind of

mystical side like Einstein did. And even Freud felt, toward the end of his life, that religion actually served a beneficial purpose in terms of evolution.

D: But wasn't Freud an uncompromising atheist?

A: True, but in his last book, "Moses and Monotheism" he recognized the poetry and promise in religion. He argues that religion opened up fresh possibilities for human thought and action by freeing mankind from bondage to the immediate empirical world. He suggests that faith in God facilitated a turn toward the life within and helped make a rich life of introspection possible. In particular he believed that Ancient Judaism's "...prohibition against making an image of God - the compulsion to worship a God that one cannot see meant...that a sensory perception was given second place to what may be called an abstract idea - a triumph of intellectuality over sensuality.." If people can worship what is not there, they can also reflect on what is not there, or on what is presented to them symbolically. Freud felt the mental labor of monotheism prepared people to achieve distinction in law, mathematics, science, and in literary art. It gave them an advantage in all activities that involved making an abstract model of experience, in words, numbers or lines, and working with the abstraction to achieve control over nature or to bring humane order to life. Freud called this internalizing process an "advance in intellectuality", and he credits it directly to religion.

D: That's incredible. But so much violence has happened in the name of organized religion.

A: Dave Bohm, Krishnamurti and others point out that there is an immense difference between the truly religious mind and what people do in the name of religion.

D: I remember. Dave said, "the word religion came from religio which means to return to the source:.

A: And at the core of virtually all of the great philosophical systems and religions is this notion that life is supposed to be a super school. The idea being that it is an opportunity for humans to learn to be ...

D: More human. More compassionate. To make the most out of life. I like the Sufi concept of spirituality. I believe they call it the Path of Ecstasy.

A: Me too. One of the most interesting phenomenon's is that the more the new psychology - what Maslow called Fourth Wave psychology - emerges, the more it seems to have in common with the best of some of the ancient psychological sciences such as Buddhist, Greek, Chinese and Aryurvedic forms of mind science. But I have been wondering why Buddhist psychology makes such a big deal out of the concept of reincarnation since the whole idea is to do the best you can with what you have to work with which is this daily life, moment to moment. To me, going to sleep at night and waking up in the morning is enough of a reincarnation challenge. But what if reincarnation were to actually turn out to have validity? As I understand it, the Buddhists

think that when people learn enough, that is become wise and compassionate enough they stop reincarnating. So, it makes life and dying to be a kind of transformation process from what we call human to some sort of transhuman being or heaven knows what. Anyway, if their notion is correct then the world is constantly losing its best people. No wonder things are a bit difficult.

D: Gives the term brain drain a whole new dimension doesn't it?

D: That's funny. Yes, it does. But even from an atheistic and evolutionary perspective we are learning and that may be the biggest reality and opportunity life offers us. If that is true then even if we are creating our own challenges through technology and our own evolution, the crises we are facing, including global existential threats may be immense opportunities disguised as insoluble problems. Picture some ancient tribe struggling with the insoluble problem of getting across a fast moving river to food on the other side. Then someone, probably the tribal clown, starts playing around with tying logs together. So, the greatest opportunity of all is to learn how to be...

D: More human, more compassionate, wiser, more playful.....

A: Perhaps this is a good place to end for now.

D: So Episode III is about super learning... the art and science of being more human?

A: Did you mean more than human?

D: Now there's a concept.

A: Yes, I can hardly wait.

D: Maybe we don't have to wait.

A: Keep hope alive.

D: We are out of time.

A: By we do you mean Homo Sapiens, Sapiens?

D: Enough already. Stop!

A: Yes maam.

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