

## THE EVIL OF BERTRAND RUSSELL

# The Science of Strategy: Durable Survival Lies in the Complex Domain

*The February 5, 2022 Manhattan Project webcast, three days after the anniversary of the death of Bertrand Russell, featured presentations by Jason Ross, science advisor to the Schiller Institute, and Anastasia Battle, the editor of Leonore magazine. The video of the entire program is available [here](#). Lyndon LaRouche's 1984 article, "How Bertrand Russell Became an Evil Man," is available [here](#).*

**Jason Ross:** Bertrand Russell was called by Lyndon LaRouche the most evil man of the 20th Century. Why? How did he do that? Much of the impact of Bertrand Russell is probably unknown to you, even though he's had a big impact on your life. Bertrand Russell, who lived from 1872 to 1970, was supposedly a peacenik, and supposedly a socialist. He was supposedly someone who wanted to eliminate the threat of war from the planet. Indeed, he did say that he wanted to eliminate war, but he only said that once the Soviet Union had developed nuclear weapons.

Before that, when the United States was the only bearer of nuclear armaments, he had actually supported a preemptive nuclear war against the Soviet Union to create a one-world government. In 1959, he was interviewed by BBC about his advocacy of a preventive nuclear war. He was asked, "Is it true or untrue that in recent years, you, Bertrand Russell, advocated that a preventive war might be made against communism, against Soviet Russia?" He responded:

It's entirely true, and I don't repent of it now. It was not inconsistent with what I think now.



*Bertrand Russell*

There was a time just after the last war, when the Americans had a monopoly of nuclear weapons, and offered to internationalize nuclear weapons by the Baruch Proposal. I thought this an extremely generous proposal on their part, one which it would be very desirable that the world should accept. Not that I advocated nuclear war, but I did think that great pressure should be put upon Russia to accept the Baruch Proposal, and I did think that if they continued to refuse it, it might be necessary actually to go to war. At that time, nuclear weapons existed

only on one side, and therefore, the odds were, the Russians would have given way. I thought they would.

The interviewer then asked, "Suppose they hadn't given way?" Russell: "I thought and hoped that the Russians would give way, but of course, you can't threaten unless you're prepared to have your bluff called."

So, here's a man unrepentantly over a decade later saying that it was the right outlook to have at the close of World War II to create a single world government with a monopoly on the use of force, and to threaten the Soviet Union with nuclear extinction if it didn't go along with it. That's a wicked outlook, obviously, but this is only part of his entire outlook. First, I'll give a few more quotes to give a sense of his social and political outlook. Then, I want to look at how his view of science has done so much damage to our ability to make discoveries and breakthroughs today.

In 1923, after World War I, before World War II, Bertrand Russell wrote his *Prospects of Industrial Civilization*, where he talked about the threat that population growth posed to his idea of a socialist utopia.

Socialism, especially international socialism, is only possible as a stable system, if the population is stationary, or nearly so. A slow increase might be coped with by improvements in agricultural methods, but a rapidly increasing population must reduce the whole population to penury. The white population of the world will soon cease to increase. The Asiatic races will be longer, and the Negroes still longer before their birth rate falls sufficiently to make their numbers stable without help of war and pestilence. Until that happens, the benefits aimed at by socialism can be only partially realized, and the less prolific races will have to defend themselves against the more prolific by methods that are disgusting, even if they are necessary.

### Russell's World Government

I don't think that even needs comment. So, this is the charming Bertrand Russell. His view of single world government is, they would have weapons inspectors, they could go and ensure that no other nations were developing nuclear weapons. They would be in a position of attempting to halt technological progress all around the world out of a fear of losing that advantage in weaponry. What kind of world would that create? It would create one where technology itself is a threat to a ruling oligarchy. In order to prevent that threat of technology development, growth to human population would have to be actively suppressed.

In those terms, it sounds sinister, evil. But when expressed in Green language, those same ideas may seem



NASA

*An African family gathers around a low-tech, low-energy solar oven demonstration in 2018.*

to some people to be progressive, liberal, future-oriented, Earth-friendly. The Green New Deal is exactly a continuation and implementation of what Bertrand Russell had dreamed of and demanded.

The Green New Deal is an imposition of a zero or negative technological growth regime on the world under the guidance and control of a supranational oligarchy. In this case, implemented largely not only through national governments, but through international financial organizations that will put out criteria for investment. If this isn't a Green investment, it isn't allowed;

it isn't Green development, it isn't allowed. The countries of the world, they say, simply cannot build more coal plants. So, a desperate country in energy poverty, with a low lifespan? Too bad. You're going to have to develop using renewable, intermittent, low energy-density power sources.

It should actually be extremely obvious that this is simply the newest form of colonialism. That's what the Green New Deal is internationally.

Unlike in the immediate post-World War II period, where there was a need to maintain some level of technological superiority to keep up with the Soviet Union, after the fall of the Soviet Union, the view was that with that threat gone, the unipolar world established, that same anti-technology, anti-growth outlook that had prevented the growth of the Third World in a disgusting way, could now as well be turned more directly against the supposedly developed world; against the nations of the trans-Atlantic. That's where we find ourselves today.

What I'd like to speak about now is how Russell's outlook goes along with artificial intelligence, which is certainly artificial; it's not intelligence. How it has shaped our view both of what computers can do in this kind of mystical way, but also damaged our view of what human beings can do. And how Russell's work in mathematics, science, and philosophy has dramatically

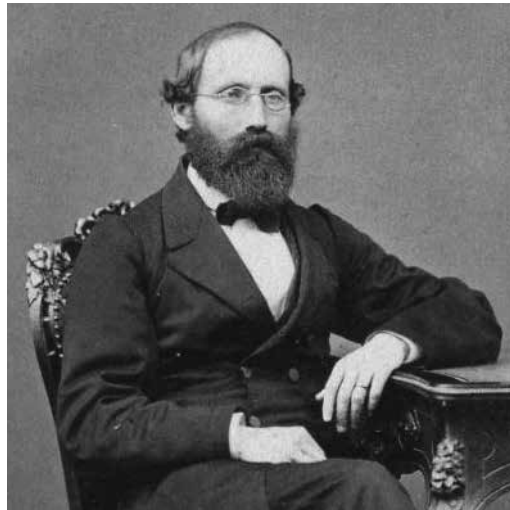
hindered the hypothesis-generating potential of our species.

### Fakery

So, let's get into that. In 1895, Bertrand Russell was working on a mathematics scholarship at Trinity College, Cambridge. He wrote an "Essay on the Foundations of Geometry." In 1895, Russell said that the idea of curved space—that space is not flat and has a different curvature in different places—was absolutely impossible; entirely out of the question. He said that the idea that space may have a different characteristic in the very small than it seems to take on at the macro scale was absolutely impossible and implied a contradiction. This was only ten years before Albert Einstein in 1905 had his miracle year and published his work on special relativity.

So, Bertrand Russell, in his supposed work as a mathematician directly attacked the tradition of scientific hypothesizing that Lyndon LaRouche has identified as the real train of discoveries that have advanced human economy and human understanding. Specifically, in this case of Russell, attacking the work of Bernhard Riemann. I don't want to say much more about him here, except by way of reference, that Riemann, in his 1854 habilitation dissertation, laid out how the general concept of curvature that was applied to surfaces could also be applied to space itself. That is, space itself isn't necessarily flat. That the idea that two parallel lines would go on forever without ever meeting, makes an assumption about the space in which you are extending these lines.

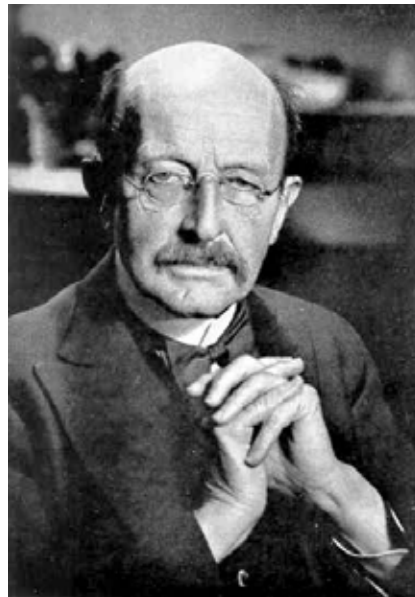
This isn't about your imagination of what geometry is. Make it a physical question: What truly happens if you go billions of light-years, what will happen to those lines? Would they end up crossing, as two lines point-



Mathematician Bernhard Riemann (1826-1866).

the quantum by Max Planck and relativity by Albert Einstein—Russell said in 1895 that those were both impossible, that no such discovery ever could occur. Of course, it did.

In 1903, Russell had written his *Principles of Mathematics*, having the same title as Isaac Newton's big



Physicist Max Planck (1858-1947).

ing north on the Earth would, on reaching the North Pole?

Riemann had said that the entire Euclidean outlook was wrong, in that it made assumptions about the world that we live in, without making them based on something physical. More on Euclid in a bit.

I want to now contrast what Bertrand Russell did, with actual geniuses like Albert Einstein and Max Planck. So, as a timeline:

In 1895, Bertrand Russell had basically said that the next decade's greatest discoveries—

work, where Russell attempted to transform mathematics, and by implication all of science, into a branch of logic. Logic explicitly cuts itself off from reality, in taking as its subject nothing about the external world, nothing about principles, magnetism, agriculture, none of that! It takes as its topic, the way that sentences are formed, and you arrive at logical conclusions from them. Russell said that was actually all that science was. Science was nothing but logic, and he tried to prove that. That's what he was doing in 1903.

Meanwhile, in 1900 Max Planck discovered the quantum, that in the very small, the universe is not smooth, that there is not continuity, but that there's something of the discrete in the very small, and energy comes in "pieces,"

not of any quantity imaginable, but in very discrete chunks.

In 1905, Albert Einstein showed that absolute space does not exist, that absolute time does not exist; that two events in the universe maybe could not be said

either to have been at the same time or which one was before the other, that it could depend on the motion of an observer who was considering these events. Simultaneity, as a concept itself—the distinction between matter and energy—was broken, expressed in Einstein’s most famous formula of all time, I think,  $E=mc^2$ , relating energy and mass. This is what Einstein did in 1905.

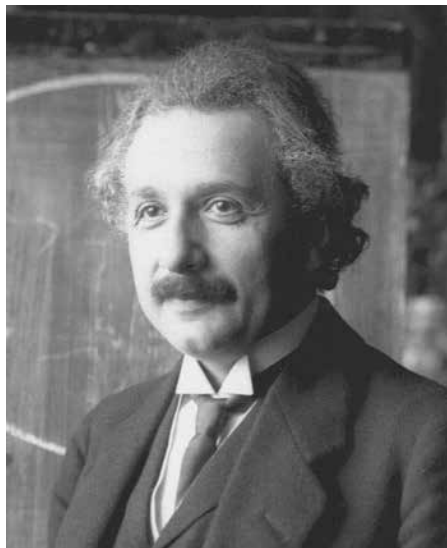
### Symbolic Logic

Bertrand Russell thought that the greatest discovery of mankind, so far, had been symbolic logic, compared to Planck and Einstein, who were actually advancing physics and our ability to do things in the world.

In 1910-1913, Russell worked on a book, *Principia Mathematica*, now with the same Latin title as Newton’s *Principia*. In it, he tried to show at great and exhaustive length, that mathematics—again, he’s getting into physics by implication with this—is nothing but logic, something that a computer could do, something that really could be automated.

Two years afterward, Albert Einstein develops general relativity.

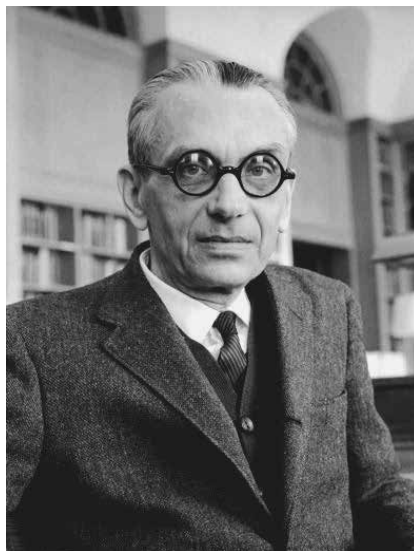
So, the approach by Russell is seen today in efforts to create general, artificial intelligence systems, the hope that eventually we’ll be able to have an AI system that’s able to perform the truly creative tasks of the human mind. This is something that’s not actually possible. The proof of the impossibility of making knowledge into a form of logic, this proof was done in 1931 by Kurt Gödel, who used Bertrand Russell’s language to prove that Bertrand Russell, and his goal, was hopeless and foolish; that any logical system was unable to decide the truthfulness of true statements that could be made in it. In other words, you can’t know with logic. There’ll be things you’re never going to discover logically, never be able to know or prove logically.



Ferdinand Schmutzer

Albert Einstein during a lecture in Vienna in 1921.

or what a physical element is. It doesn’t have physical characteristics anymore. It has chemical susceptibilities to form compounds that have physical characteristics, but chemistry is not physical characteristics. There’s something else there. These are revolutions.



Alfred Eisenstaedt

Mathematician Kurt Gödel (1906-1978).

against the wall, might believe that the shadows are speaking, as the sound echoes. In other words, your entire sensorium is not observing what’s going on behind you, which is people walking around, a fire, you’re inside a cave, they’re holding these objects. Your understanding of reality comes only through these

And this has been the whole history of human science. None of the great breakthroughs have ever been logical. What Einstein came up with was illogical—the idea about how space and time worked, Einstein’s conclusion was totally different. It wasn’t in addition; it was a revolution. It overthrew and forced a reconceptualization of all of those axioms, all of that understanding of physics. When Mendeleev developed the understanding of the periodic system of the elements, he didn’t add on to physics. He really overthrew it with an entirely new language, an entirely new idea of what an element is, a new idea of what existence means,

### The Complex Domain

The idea of the complex domain goes back to Plato.

Plato, in his *Republic* used an analogy of a cave, of people living in a cave—it was kind of a strained analogy, but these people are somehow tied up against a rock bench in a cave. Their heads are fixed, they can only look forward, and they see the wall of the cave—it’s a cave, it’s not flat, it’s rocky. Behind you is a fire, it’s wood burning, so the flames are flickering. Between the fire and behind you, pass people, holding objects, puppets, who knows what? Casting shadows on the wall. The people are speaking. You, stuck

irregular shadows cast by an uneven fire.

And that analogy is accurate to our ability to understand the world. Our senses don't show us reality. After all, our senses, they're not connected to the world out there. All of our senses are in our body, right? If you see something, what is occurring is an interaction with your eye and your nervous system. You heard something out there? OK, we're able to understand things that way, but in terms of what your sensorium truly is, something happened in your ear. Your eardrum wiggled; the hairs inside your ear jiggled. This creates something in your nervous system.

Our sensorium is not reality. And even when we extend that sensorium, say, through telescopes where we're able to look all out in the celestial sphere and look with great accuracy, and where is a planet, and what does this star look like? Let's look more closely at the Moon. When you're doing these things, you don't observe reality itself; you've essentially created something like a huge eyeball with very good vision. And whatever is causing the motion of these celestial bodies is projected onto that celestial sphere, as if you were in that cave, and projections were being made on the wall.

To understand those shadows, to understand those projections on the wall of the cave, on the celestial sphere, requires that you go beyond the senses, that you go beyond finding relationships among the things that you see, and go beyond empiricism, to hypothesize causes to say why are things occurring the way that they are.

And those hypothesized causes are not part of the sensorium. By their nature, they're not. Gravitation. This isn't something that you sense. The least-time principle of how light bends as it goes from air into water, or through different kinds of glasses, or plastics, lenses—the way that that operates, the fact that light takes the least time to get from one part of its path to another, this principle is nothing observable. It's very much a human idea.



*Mathemagician Isaac Newton (1643-1727).*

## **Isaac Newton, Serial Fraudster**

So, the crushing of hypothesizing, as done explicitly by Isaac Newton, who opened up his *Principia Mathematica* by saying “I do not frame hypotheses.” “I don't make hypotheses, I'm not hypothesizing!” “Hypothesizing, that's a dirty word! I'm just telling you like it is. I'm just writing out mathematically, how to explain what we see. I am not saying anything about why it works the way that it does.”

Newton, considered to be the great discoverer of universal gravitation, if he was asked “How do objects pull on each other?” what he described is the result: that things accelerate toward each other, objects

do—but in terms of what was causing that, what would make all of that happen? No answer to that—not an idea. It really was a relationship, even if it's called a “force” it was an empirical type of claim, about how do objects end up changing their motion as a result of this gravitation.

The last thing is to give some ideas of applying this principle in economy or in politics. In economy, there are two really big errors. One of them is thinking that money explains the economy, or that there's such a thing as monetary economics. That phrase itself is a contradiction, because money cannot understand the value of technology. If you make a fundamentally new scientific breakthrough, how can you value that in monetary terms?

Money is a scalar. It relates to the present, prices, and things like that. If you unlocked the potential to completely transform our relationship to nature, our potential population density; if you've transformed the carrying capacity of human beings on the Earth, how many dollars is that worth? It's an unanswerable question. Because what you've just done is to change what a dollar could possibly do. The development of nuclear science unlocked an enormous potential of energy to us: Uranium, no longer just a yellow rock, now an amazing fuel. Transformations like that, you of course can't un-



derstand them in money terms in the systems analysis—they have a transcendental value.

The other issue is in looking at the physical world, in thinking that physical production is where value lies in an economy. It just isn't. Physical production is also part of a real shadow, of a projection of a process that involves, of course, labor, the productive powers of labor, but most fundamentally involves improving the productive powers of labor, through the development of new machine tools, through the development of new technologies, through the discovery of scientific principles. Economic value lies there. It's created by the mind. It is put into practice, socially, through the organization of the development of infrastructure, physical production, new physical production techniques. But the real goal of economy is fostering the development of a culture, a scientific and cultural outlook that is able to hypothesize new principles, to implement them socially, and to bring more and more and more people into that joyful opportunity to play a role in advancing human knowledge. And then coming to understand how that knowledge was created.

### Physical Geometry

Euclid is known as “that geometry guy.” He wrote books about circles, and squares, and triangles, and spheres, and all of this. He compiled the known geometric discoveries of his era and pulled them together in a systematic way, and presented these as having dependencies on each other. In other words, from the axiom, “I’m able to prove this; and from this I can prove this, and from this I can prove this.”

There’s something to that. I don’t want to completely denigrate that. But if you present the geometrical concepts, or any concepts of knowledge, as how they depend on fundamental axioms, and you make that your instructional approach, your



NRC

*Through the discoveries of scientific principles and technologies, the minds of men and women have transformed what is otherwise just a yellow rock into the fuel to power civilization. Left: nuclear fuel rods are assembled for a light water reactor.*



*A chunk of uranium ore.*

educational approach, and by implication, your discovery approach, you are stealing from the students the most crucial part, which is, how

were those things discovered in the first place? Discovery and proving are extremely different things.

Bertrand Russell said there was nothing more “delicious” than his first encounter with Euclid, that this made such an impression on him, it was like falling in love for the first time, or maybe he said it was like “making love” for the first time. He was really into this approach.

LaRouche was quite the opposite. To him, what was most crucial was not geometry, shapes existing on the basis of geometric concepts, but it was always physical reality, and it was the power of the mind: How are ideas created? In blowing apart the Euclidean approach, Riemann not only blew apart Euclid’s geometric axioms, but that entire approach to thinking through knowledge, and, implicitly, the method of discovery in education. Will principles be understood as the result of our hypothesizing? Or are they going to be presented sort of as a generalization, as a basic understanding?

What Russell did was to attack the idea and the existence of the human mind. He did that by trying to kill people, which reduces human



*Geometer Euclid of Alexandria (c. 325 B.C. – c. 265 B.C.)*

beings. He did it by explicitly saying there should be two systems of education, one for the ruling class, where creativity is encouraged, and then one for the peons, where thought is discouraged, and that people in the lower class, who seem like they might become geniuses can be given a choice of joining the upper class, or, if they rebel and stick to their lower-class roots, you'll have no choice but to execute them. This is really what Russell said.

Against that, we've got the human potential of finally throwing off oligarchy and organizing ourselves through an understanding of that creative potential in every single human being—every human being—and that this is the basis for thinking through our relations with our fellow human beings in our countries, between countries and so on; and that this has to be the greatest goal of a dialogue among civilizations, to be able to advance to that next level of economic growth and well-being, where we can be thinking of economic output 10 times beyond what it is today per capita in the world—not some small improvement—an order of magnitude leap, through nuclear fusion, through fundamental new science. And that's the scale that our ambitions have to be at, in order to be human.

And that means throwing away and making fun of, repudiating, and crushing the legacy of Bertrand Russell.

### **Frightened Fraudsters**

**Anastasia Battle:** I want to underline a number of things that Bertrand Russell actually tried to do, because there's an irony there. Here's a man who's calling for global governance, talking about mass depopulation, who wants to control the world with this global government, to use nuclear weapons and things like that, while at the same time, he's thought of amongst the "educated circles" as being a "peace activist" and loving humanity. So, what happened there? What's going on?

I want to take a quote, from Bertrand Russell himself. This is from his 1951 book, *The Impact of Science on Society*. He wrote:

Physiology and psychology afford fields for scientific technique which still await development. Two great men, Pavlov and Freud, have laid the foundation. I do not accept the view that they are in any essential conflict, but what structure will be built on their foundations is still in doubt. I think the subject which will be of most impor-

tance politically is mass psychology.... Its importance has been enormously increased by the growth of modern methods of propaganda. Of these the most influential is what is called "education." Religion plays a part, though a diminishing one; the press, the cinema, and the radio play an increasing part.... It may be hoped that in time anybody will be able to persuade anybody of anything if he can catch the patient young and is provided by the State with money and equipment.

The subject will make great strides when it is taken up by scientists under a scientific dictatorship.... The social psychologists of the future will have a number of classes of school children on whom they will try different methods of producing an unshakable conviction that snow is black. Various results will soon be arrived at. First, that the influence of home is obstructive. Second, that not much can be done unless indoctrination begins before the age of ten. Third, that verses set to music and repeatedly intoned are very effective. Fourth, that the opinion that snow is white must be held to show a morbid taste for eccentricity. But I anticipate. It is for future scientists to make these maxims precise and discover exactly how much it costs per head to make children believe that snow is black, and how much less it would cost to make them believe it is dark grey.

This man had a certain understanding of how the human mind works and used it for an evil purpose to control *you*, to control how you think, control what you think, even some of the things that you say. We had a lot of fun on campus at the University of Washington, where we had posters out: One picturing Bertrand Russell that says, "I know what you think—because I made you that way." With other longer quotes, like the one I just read you, posters of what he actually said. And then just a long list of probably 20 things of all the evil things he did.

### **Fake Philosophers**

We completely flipped out the Philosophy Department, who were coming up to us, saying "Oh, you can't say that! You're taking it out of context. That's not what he really meant." And then you start reading the whole quote from his book, or something—we actually had printouts of this stuff—and it was even worse in context, than what people were trying to make excuses for!

[laughter] It was even worse!

So, we really ticked off these students in the Philosophy Department, because they didn't want to let it go. They even tried to steal our posters! They [the posters] were getting knocked over, people were yelling at us. But what ended up happening is that students who were coming up during this, and listening to what we were talking about, started asking questions, they started to get it.

What Bertrand Russell was attacking—and this is important to communicate—is that the way that we give you the arsenal to defend your own mind from this kind of assault, is through Classical culture. That's why Mr. LaRouche really emphasized this, because this is how the human mind actually functions. Classical culture isn't just some like fancy, French décor, or having some nice, framed pictures or something like that, or going to the opera in some big dress. But it's how does the human mind work, and how do you provoke it to form a unique thought? And that's been seriously taken away at this point.

**Question:** You've said that humanity is defined in its ability to go beyond sense reality, sense perception, but you critique Euclid's geometry for its not being based in the physical. What is this physical geometry, such that it is neither directly based in sense reality, nor in the total abstractions of Euclid?

**Ross:** I made two complaints about Euclid. One was that he made assumptions about space that he didn't know if they were true or not. Two specific examples: first parallel lines. Euclid claims that if you have a line and you have a point not on the line, both are in a plane. So, you have to have a plane, first. But if you have a line in it, and then a point not on that line, you can make parallel lines. You'll have two lines, always the same distance apart, and that never touch. He's made the assumption there that you have a plane. Or, if you have two lines that seem like they're in the same plane, that the space that they would continue to move in would actually be a plane, as opposed to, say, a very large sphere. Now, does he know whether space itself curves or not? He doesn't know! He just made an assumption.

He says that all triangles have angles that add up to  $180^\circ$ . If they're on a flat plane, that's true. But if you draw triangles on the surface of the Earth, you have more than  $180^\circ$  in them. You might say, well, that's be-

cause the Earth is curved. But if you draw a triangle in space—if you draw a huge one—how do you know if space is curved or not? So that was one of the issues with Euclid, is that he made those assumptions about space that are unjustified.

## Riemann

The second complaint of mine was that he expressed things in terms of truth coming as a deductive process from axioms, as opposed to how the discoveries were actually created in the past.

In terms of going beyond that, Riemann says that you have to first identify that you're making those assumptions; and second that the only way to resolve those questions, the only way to know what the shape of space is, is not going to be from thinking about it, and imagining how mathematics might be. It's going to be from looking at physics. In other words, understanding better what governs the relationships of things *in space*.

Look at what's happening in a space, to understand what it's like. What is the nature of the relationships between different processes that unfold within it? That's the way you understand something. In an economics space, the value of any physical object in the economy—a screw, a piece of wood, or something like that—depends not on the object itself, but on the real terms, on what you do with that. Are you going to use those building supplies to build a warehouse? Or are you going to use those to help build a school, or a clinic, or a scientific laboratory? If you're doing plumbing, are you repairing the plumbing for a hedge fund, that's making the world worse overall? Or are you repairing the plumbing at one of those other institutions, a school, or a clinic? And what's the school teaching? You would ask.

There's no self-evident value in the shape of a space without understanding what governs the way processes evolve and unfold in it. There's no self-evident value of things in the economy, without asking, in what process it is playing a role. The value of everything and everybody in the economy, depends on what kind of future we are creating. For example, if by succeeding in our political aims, we end this threat of civilization-destroying, world-ending thermonuclear war with Russia, with China. If we scrap that. If instead we embark in cooperation with these other countries, and with India and others for development to completely eliminate poverty on this planet, we will transform the value of everything that everybody is doing in this country and around the world.



This is the kind of thinking that Euclid and Russell—well, certainly Euclid and Descartes—prevent, by creating objects with self-evident properties, with the nature of their interactions seen in terms of the objects themselves, as opposed to what's the nature of the space in which they're interacting.

How do we change the curvature? How do we change the shape of the political, the social space that we're in right now? How can we organize to have that as our goal? In doing that, we won't change individual people. What is our goal in terms of reshaping the kinds of basic axioms, the domain of thought overall? That's what I would say on that.

## Principles

**Question:** If I'm not wrong, Jason, you said that human beings create principles that we use as our tools to then advance our species. But is it not the case that principles pre-exist humanity, rather than that they are created from our mind? In other words, wouldn't these principles exist with or without humanity?

**Ross:** Well! That's a fantastic question! I got two to come back at you with. One of them bears on the relationship between science and culture. Did Beethoven create the Ninth Symphony, or did he discover it? The second one I want to ask you is: Our principles aren't right! They're always of a provisional character. What Einstein did with relativity, it really overthrew—it required everything that seemed like a principle before to be reconsidered, everything we thought we knew about physics—everything I can think of that we knew about physics, all had to change to take into account that new framework that Einstein created.

If you ask, "Were the principles discovered, were they already there and we found them, versus did we create them?" I think if we were to say, "Oh no, they are there, and we discovered them," how is that if the things we discovered weren't even true? You'd have to say, maybe we have never discovered a principle, since we always find a little bit more over time. Unless some of the things we found will never be overturned, but I

wouldn't bank on that.

I think that it exists—there is a part of both of them, and it would be wrong to say one or the other. It's sort of like you're having a discussion with two people, sometimes you end up with an idea that comes out of that dialogue—did it come from one person or the other? No, each person had their thoughts, and they contribute to it, but that dialogue itself as a form of thinking ends up creating ideas that aren't going to happen from people just kind of musing on their own. *The dialogue is the principle* there.



Joseph Karl Steiner  
*Ludwig van Beethoven in 1820. Did he create, or did he discover his music?*

I think that's part of the scientific approach: The way you've got to think about it, is that we're in a dialogue with the universe! And as we do that, we have things that we say, OK, least-time flight, springs work this way, and energy and matter are separate, there's a conservation of energy—we have all these thoughts, and we have a dialogue, then, with the universe. And it says—it's always giving us some kind of hint that we're wrong, if we ask it the right kind of question.

That's the opportunity to advance that dialogue and come back with something better: "OK, universe, according to Einstein, there's actually an enormous amount of energy potential in the nucleus; in fact, we have an idea of how much that is. We've got some ideas about that. Let us know what you think about them." And you ask! You do experiments. You know, we had the nuclear experiments. You learn a little bit more and have a dialogue. The universe says, "No, that's wrong," or, "Okay, here's how that turns out." How are you going to explain it? How do you make that out?

I think it has to be looked at that way, and the idea of, are the principles created or are they discovered, I think that they are both. But they're discovered in the sense that our activity makes the discovery possible, and they're created by the fact that, it's not only us that's playing a role in their creation, but in that dialogue process with the universe.

And then, I would also pose for more thought the issue of the difference between the cultural discoveries or cultural truth, and scientific advancement. I defi-

nately don't know if anybody really thinks Beethoven discovered the Ninth Symphony, but is there something about music that he *did* discover; is there something true about music or about communication, and that discovery is exemplified in the composition of his Ninth Symphony?

### Beyond Sense Perception

**Question:** The way we describe human senses implies that the five senses somehow exist in themselves, and without thought. And yet, humans, and in some ways even higher animals, can't "sense" anything without having a conception about the content or meaning of what is being sensed, and how the individual sensing something must respond to what is being sensed. If that were not the case, then it would not be possible to sense something wrongly, as perhaps, the people in the cave do. Or in another way, the individual response to a sense would have to be right, or the response would ultimately threaten the individual's existence. (Left-handed people might be very—pun intended—sensitive to this.) Can you address this, please?

**Ross:** OK! We have our senses—when we first start to get working with our senses, we're in the womb. Vision isn't going to be doing a whole lot, but sound already is; you can hear things, and so on. When babies are born, it takes a while to be able to make sense, to try to figure out how to use these eyes, to figure out what is going on. There's impressions, the nerves are getting hit with things, to try to transform that, and figure out what's actually going on out there.

Yeah, the kid is making hypotheses, making thoughts. The kid is figuring out, "Oh, I can make this thing move, because this hand is under my control, and I can bump this thing, and I can change where it is—haha! That's so cool! I just did something! I changed that thing, whoa! I knocked this thing on the floor!" So, yeah, when you look at the world, you always have your hypotheses about it, and that's why, if that wasn't true, you could never see anything wrongly, or you could never interpret anything wrongly.

This comes up with the problems in memory. Definitely the problems in memory. Something happens, you ask witnesses what occurred, you get five different stories from five different people. They all saw the thing happen—but, did they actually remember it? Are they filling in aspects that are plausible, that maybe they

don't really remember, but their mind recreated it, when thinking back about the past? So memory also comes into this, in addition to the senses themselves.

But I'd ask, "How do we extend this to an extended sensorium?" We have off-the-shelf our five senses, or maybe more, but we have the definite five very clear ones that we know about. But what about our extended sensorium? When you create some apparatus, and you're in the chemistry lab and you're measuring the temperature of something, you're using your eyes to look at a thermometer. But really, you're using the thermometer as an extended sensorium; we're saying, OK, how does this mercury, or whatever is in the thermometer, how does it change its size based on its temperature, figuring out how to use that to discover, but once you've got it, you've now got temperature as now something we can measure in a more specific way of whatever the thing is we're looking at.

I think that raises, really clearly, the issue of interpretations. Because unless you are really trying to do nothing but measure temperatures themselves, or measure exactly where a planet is seen in the sky, and there is a field to that, but usually, you're trying to figure out what's going on—and then, you're right, you're always making a hypothesis. You're trying to make sense of those sense impressions.

### Truly Human Perception

In terms of how that's done, there's a big difference, I think, between how we do that, and how machine-learning does that. When *we* do that, we have a model of the world that goes beyond the things that we're sensing. Like trying to teach a car to drive. When people are first learning to drive, it really only takes a few dozen hours to be able to drive a car somewhat safely, enough to get a license to drive. Whereas these machine learning things for cars, they're doing millions of hours of real or simulated driving, and they still make mistakes. It's so much harder there.

I think that shows the difference in the approach between our creation of hypotheses of how the whole world works, versus trying to drive a car based on just where do I see things, as opposed to having an idea of how physics works, how people work, what's a pedestrian likely or unlikely to do, when they're standing near that crosswalk—all that kind of thing.

I would look at the difference between the way we make hypotheses and the way machine learning works,

as a way of thinking about what happens if you try to understand the world just in terms of the senses, which is basically what happens with the machine learning approach.

**Question:** How does a mathematician with such a bad track record—Bertrand Russell—maintain such a hold over policy? Would it be fair to call him a modern-day Aristotle?

**Ross:** Hmm! How did Russell get such a big influence? You know, he is not alone. Let's come back to that, but let's look at other people who have a big political influence today who you would say should have clearly been discredited and laughed off the face of the Earth, namely, all of the neocons who are part of George Bush's circles who have now been welcomed with open arms into the Democratic Party by virtue of their saying Trump was bad. So, the architects of the Iraq War are being rehabilitated. Dick Cheney, Liz Cheney, Lynne Cheney are being rehabilitated. Bush himself being rehabilitated! People that you would think have no business ever making another political statement—ever—and then, they get airtime, they get play.

Is it possible that this also occurred in the past; that people with certain viewpoints were deliberately promoted in order to inject those viewpoints into popular thought, and to shape popular culture and conventional wisdom?

Russell's success was not the fruit of his vast learning, his remarkable wit, and his great insights. He also played a political role and was promoted for that reason. In terms of what he did—I'm not the biggest Russell expert in the world, but I don't find him that impressive, to be honest. The way he got his big reputation was with this work, the *Principles of Mathematics* and then the enormous *Principia Mathematica* that he wrote in 1910-1913. It's an enormous, absurd tome; it's extremely difficult to work through. It looks extremely erudite. After many, many pages into it, he says that he has now proved that  $1+1=2$ . That's the sort of thing that

gets used as a credential, to say, "I'm a deep thinker."

But then you look at all the stuff that he's said, these quotes that we read, how does someone like that still get regarded as a philosopher or have his bust up in a Philosophy Department somewhere. (Well, what else does the Philosophy Department do, to be honest? How great are they?)

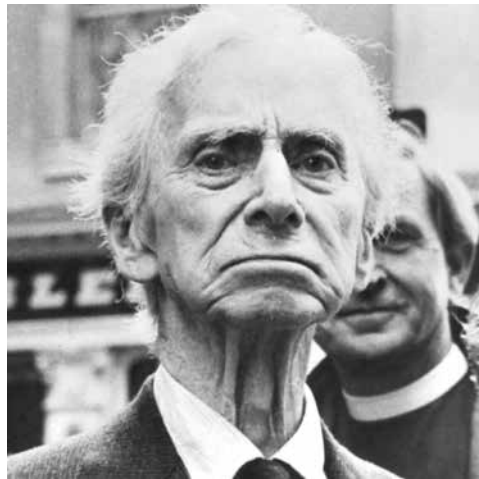
### The Empire of the Oligarchical Mind

But these things don't only happen on their merits. People are promoted for political reasons. We see a lot of it today, and it's the same as the case for Russell. He represented a political current in Britain, he was a spokesman for an oligarchical outlook, and part of his promotion was to promote that oligarchical outlook.

**Question:** Well, I think that principles are created intentionally. If it were the case that there were an infinite set of monkeys writing on a set of typewriters, would they incidentally write a Shakespeare play? Of course not. It would just be an infinite jumble of letters. Creation requires a conscious effort to want to discover a principle through your creation.

**Question:** What's the fault in combatting Bertrand Russell's "snow is black" thought experiment, with an obstinate holding to the sense-perception, or sense reality that snow is white?

**Battle:** I think the analogy that Jason used about the cave. When you're trying to take somebody out of the cave, just telling them over and over again, "Look, you don't get it. You're in a cave, man! There's shadows going on..." people don't really want to hear it. Just telling them over and over again what the truth is, isn't going to be the solution to working them out of it. You actually have to provoke them to gain access to their own thinking process, their ability to form a thought, and that's where the question of using irony, pointing out somebody's axioms, what their underlying assumptions are; and getting them to see that the way they're thinking has been wrong.



*Bertrand Russell, advocate for peace—the peace of the grave.*

Otherwise, if you're trying to drag somebody out of that cave, they're going to be kicking and screaming; they'll probably bite you. I mean, literally, I've been on deployments where somebody was so upset at our posters, they actually ripped it off, and started trying to eat it—that's just an image to put in your mind, that sometimes when you get under people's skin, it can be really emotional. You've got to be prepared for those things.

We get that kind of question a lot: "Can I just tell somebody the truth?" Yes, you should always tell the truth. But there's also a *way* to tell the truth, such that somebody can be provoked to discover it, if you hear the difference.

**Ross:** Yeah, how do you get somebody to discover something? You can say things that are true, and if you do a terrible job of it—it's like, telling people "WAKE UP!!" Is that ever effective? Screaming at people to "wake up!" "Wake up, you liberal!" or "Wake up, you Nazi!" that shouldn't get you anywhere.

If Dr. Tony Fauci gets on TV and says one more time, "The vaccines are safe," is that going to convince somebody that doesn't already believe that? No!!

Now, going through it, and making fun of Dr. Robert Malone, OK, that can be fun. Anastasia, you pointed out some of the funny things that, if the vaccines were meant to kill people, why weren't they all being given to Africa, right away? Ironies are the kind of thing that wake people up! You can say something that's true—that's fine. But the point is, you're talking to somebody. How do you have a true discussion, where you have to listen to people, and then help make ironies on it.

### **We're Not Monkeys**

That's the thing. let's say one of those monkeys—you're the zookeeper, you're put in charge, you give them the typewriter—writes a Shakespeare play. Is the monkey going to know it wrote a Shakespeare play? Is it going to act it out with the other monkeys? It wouldn't even know if it came up with it anyway! And I will say that they actually did try this: Somebody gave a bunch of monkeys a typewriter, and they basically hit one letter a bunch of times, pooped on it, and broke it. [laughter]

**Dennis Speed:** Anastasia, you realize that Bertrand Russell was born in 1872. When he was 42 years old, World War I started. World War II started when he was 67. He was talking about bombing Russia with nuclear

weapons in 1946, first at the age of 74, and then again defended it, as Jason pointed out, at the age of 87, in 1959. He intervened in the Cuban Missile Crisis in 1962, didn't do Kennedy much good with that. And then, Beatle Paul McCartney, about four years ago, talked about how Bertrand Russell had briefed the Beatles on why the Vietnam War was wrong, which was the first time they became political. As you probably know, there's a six-hour documentary about the Beatles, which everybody's watching right now.

Now, that's quite a record, apart from what we've already gone through about the cultural impact. So when you went out and did your human experiments, you already talked about some of the reactions, and as you are the editor of our magazine *Leonore*, what's your view of how this kind of a character should be sent up, and sort of embalmed, permanently?

**Battle:** [laughs] Well, for one, I think that everybody should go out and have some fun on their campuses—even if you're not going to school, we should just have some fun going after these people! I wouldn't have thought that the Philosophy Department would have tried to stage a theft of our posters! Obviously, we're getting under somebody's skin!

We've had a lot of fun, showing that it's directly Bertrand Russell's thinking, which shows the continuum through the Green New Deal! That's what this is! And if we can get people to understand where their own thoughts come from, and then offer them this new culture that we can create, the aesthetical education, give people the solution, the desire to not only climb out of the cave, but to help others climb out of the cave. This is a really fruitful time right now because *so* much of what people thought of as being the reigning ideology of thinking in the United States, or abroad, has failed! It's obviously failed! We've got 23 million people starving in Afghanistan, alone! Directly being pushed into death by people who are supposed to be the greatest humanitarians of the 21st century—it's ridiculous, absolutely ridiculous!

We should point out more of these kinds of ironies. Just put yourself into this Classical culture, so you can train yourself, to hear how other people are thinking, to activate your own mind, so you can help others pull themselves out of this situation. And I think in a very short amount of time we can have a serious movement, of especially young people who are thinking in this way and are self-activated to do this all over the world.