## Transcript Interview Roberto Gronda



**Podcast Host:** Roberto, Welcome to TrustTalk.

**Roberto Gronda:** Hi Severin, thank you for having me.

**Podcast Host:** The subject of today is trust in science. Trust is a hot topic these days and we will be discussing today some current issues to see what your take is on the role of trust. Before we do that, a general question about you and the research you've done on trust. Can you tell us a little bit about your background and what's brought you to research trust?

**Roberto Gronda:** Yeah, sure. Well, I'm a philosopher of science, as you, as you may know. And I started working mainly on pragmatism. I did both, my MA. and Ph.D. dissertation on American pragmatism and pragmatism is basically this tradition of thought, according to which what is really important is the role of ideas in practice. So that's it. And a lot one of the distinctive features of pragmatism is their interest in the role of science in society. For instance, John Dewey, who is the author that I studied the most, was really concerned with the desert, with the idea that science as a kind of disruptive force and it changes society because it challenges the values that people hold dear. So there is this force which is sciences, which in a certain way threatened society. But at the very same time, it provides some useful tools to rebuild society in a better way. So that was my first love in the field of philosophy, and from there it was quite easy to go and work on the role of scientific expert and trust in scientific experts, because these are all related topics. So in a nutshell, that's my that's why I got there.

**Podcast Host:** Well, we can view the topic that you just mentioned from different angles, I guess, the first one is, can we trust science? But equally important is science into trust? Which one have you been more actively involved in?

**Roberto Gronda:** Well, I have to say I've been mostly involved in the first question if we can trust science, especially if laypeople can trust the scientists. That's the topic that I like the most and to which I devoted much attention and a lot of my work deals with that now.

**Podcast Host:** So I know before we talked in this interview, we had a short contact, and I know you draw a distinction between scientists and scientific experts. Why is that important?

**Roberto Gronda:** Well, it is important to me. I don't want to say that it is important for all the people working in the field of philosophical expertise. It is important to me because I think that there is a huge distinction between the scientists, so the work that scientists, do in their labs and the kind of work that they do in order to achieve new knowledge or solve some highly complex theoretical problems. And the function that those experts are called to carry out when, for instance, they are asked to solve a public problem. Ok, so

**Podcast Host:** like we have these days with the COVID virus

**Roberto Gronda:** I think there is a quite a distinction. it can be framed in many different ways. one simple way to understand it, I think, is the role of lab. So when scientists are working in their lab, they are protected somehow from all things outside. So there is kind of a shield around them. On the contrary, when they have to deal with a public problem, they are into the wild. They are in, they are dealing with something which really matters to people. And so the kind of detachment that they can have while they are in the lab disappears. And so things are really more difficult, more complicated. And the scientists when they work, when they work as scientific experts need to take into account much more aspects of the situation. And so they have to develop some other skills. They it is not enough for them to be good scientists. For instance, they should be able to communicate with the public to be patient with them, sometimes to understand what kind of language should they use. For instance, they should also understand what people expect from them. So why the reason why sometimes they are misunderstood so easily, and that's all part of a set of skills that need to be developed if you want to take all public problems

**Podcast Host:** Yeah, we have seen recently, yesterday, I saw on the New York Times a session, I think, in American Congress between a Republican senator and Fauci, Dr. Fauci and he being a

scientist, it's exactly what you just pointed out, how difficult it is if you are in the cross lines of somebody who is very versed and experienced in interrogating people or cross interrogating people for a professional like Fauci, like any scientists to keep a bright head and to still convey the message that you want to convey.

**Roberto Gronda:** Yeah also, because usually they are not trained into that, so they are not they do not acquire that level of skill in public communication, for instance, that's a really a problem. It's about the kind of curricula that scientists need to have and to fulfil. But you're right, it's really different because there are different contexts which they have to carry out their work and in those contexts are not neutral. So sometimes when you are speaking with the public, you need really to shift your way of thinking and, for instance, start thinking about their expectations. Why are they concerned with some problems that are not relevant to you?

**Podcast Host:** Many times we have a sort of loose talk about trust in science. Often we talk about trust in science, we mean that we trust scientists to choose the research topics wisely and not waste public money. Sometimes we mean that we trust them to respect ethical constraints on the treatment of research subjects or men or women, animals or anything else. Sometimes we mean that we trust them to report results accurately and so forth and so forth. If I would ask you what trust in science means, what would you say in this respect?

**Roberto Gronda:** I think it means all you have said and many other things as well, because science is a highly complicated phenomenon in our society. So also talking of science that when we, for instance, we say, please imagine a scientist, usually people imagine this guy or girl in a white coat in the lab, but scientists can be, science can be a lot of different things. So, for instance, even humanities are a science in a sense. So there are a lot of different aspects of science, and you mentioned some of them and they are really important. For instance, clearly when we have to trust science and scientists, we trust them to not waste our money, for instance, because like I said, there is public, uh, they're publicly financed, but also, for instance, are coming back to the distinction between the scientists and scientific experts, we also trust them to be capable of dealing with public problems when, for instance, they act as consultant. And this is another sense of trust. We have to trust them.

**Podcast Host:** To be competent. For research to be scientific, the Austrian philosopher Karl Popper argued, it must make predictions that can be proven wrong. If these are indeed proven wrong, Popper said, then we should celebrate rather than complain, for science proceeds not becoming more true, but instead becoming less false. How would that work out when doing scientific research into trust?

**Roberto Gronda:** Yeah, you're right. That's a problem. That's the problem with what we usually call fallibilism.

**Podcast Host:** Can you explain what that is?

**Roberto Gronda:** Yes, sure. Fallibilism is the idea that everything science says can be wrong. And what is relevant is that we have the resources to check it and change it if it happens to be wrong. But clearly, that's really strange because if you are a layperson, then you say, well, but if it is likely to be wrong, why should I trust you, right? I can see that maybe in 10 years or in 20 years or even 100 years, you will be able to change your views on the topic. But my time is now, so I need to be sure that I can trust you now. So that's really a big problem. We can say that it's a difference between finding the truth and being able to warrant some success at the moment, and there is no easy answer on this. Probably the best way to try to address this question is by saying that it is true that any time we work, we put our belief at text and we eventually may end up revising our beliefs on a certain topic because they are false or they are not correct. But at the end of the day, science is the most reliable knowledge that we have about the world. So we can, for instance, say, put it like that if you are in a restaurant and I ask you, how many people are there, OK and say, there are 65 people, if you say, well, there are 50 people here, maybe you're not completely correct, but you are more reliable than people who is not there or just trying to understand how many people are there by looking outside at the carpark in front of the entrance door. So at the end of the day, it's the most reliable tool that we have. So it's not perfect, but is better than trying to guess or paying attention to people who do not lead the research. So you're right, it's a big problem, but at the end of the day there, for instance, pragmatists here have something to say, quite interesting, pragmatists usually say, well, we do not look for certainty. Certainty is too much, which we cannot be certain, but we can be confident that some kind of knowledge is reliable enough to prove successful.

**Podcast Host:** But isn't that also dependent, Roberto, on the subject? Because when an astrologer says that there might be life somewhere around Earth, then we may accept that because nobody knows for sure. But if somebody says that the vaccine from Pfizer works against corona, then we get all sorts of opinions and writings and people in the social media saying, well, how do you know? Because how can it be that it has been developed in three months? And so can I rely on that? So science there is very much dependent also on the subject, isn't it?

**Roberto Gronda:** Sure. for instance, sometimes ago astronomical questions were really relevant to the European conscience. So, for instance, the Copernicus and the fact that they were important to them. So and that was a hot topic at the time. Now we are not very much concerned with that. So it's true that it depends on the subject, but there is no fixed distinction between those topics that are relevant and those that are not relevant to the general public. It depends on the period on clearly on what is going on out there. But you're certainly right. We are not very much, for instance, there is no public discussion on the nature of black holes. I'm not aware of any of that, for instance, but we are very much concerned with COVID, so you're completely right on that. It depends very much on the topic, but I think that the strategy should be the same. We need to collect evidence to correct our mistakes and to prove that we have sound procedures for testing, checking, revising our beliefs. And that's what we can do because we cannot

**Podcast Host:** Completely right, completely right. Bernard Barber, an American sociologist known for his work "Science and the Social Order", it's already from 1953, wrote "one sense of trust refers to an expectation or prediction that an assigned task will be competently performed. We trust that a person who is acting in a particular role or capacity will do so at reasonably expected level of proficiency, so expertise, so in this sense, scientists expect that another scientist who has the qualifications necessary to be a scientist can be trusted.

**Roberto Gronda:** Yeah, that's perfect. Yeah, there is a lot of trust going on between scientists now, for instance, a lot of scientists who scientists work in big groups, so they need to trust each other because they do not have all the skills necessary to assess every bit of knowledge. and that's a that is a fact, now, the old idea that there is a science, there is a scientist who has enough skills to build everything from the scratch, to know everything about this field of

research to be completely autonomous from all the other people. That's not possible anymore. So we hire in this. We call the big science period. So from a certain moment on, after the Manhattan Project, scientists started working in bigger groups. And so from that moment on, scientists have to trust each other. They cannot avoid that. And also then that's interesting because it shows how the bond of trust, the bonds of trust are ubiquitous. It's not just that we, as laypeople have to trust scientists, but scientists have to trust each other. So trust is really everywhere right now in science and on the borders.

**Podcast Host:** You wrote in a book, "Trust, A Philosophical Approach" you wrote an article together with Pierluigi Barrotta called "Epistemic Inequality and the Grounds of Trust in Scientific Experts". Before we go into your findings, I think most of our listeners do not know what epistemic means.

**Roberto Gronda:** Well, epistemic is a philosophical word to indicate the fact that something is related to knowledge, so epistemic means that it has to do with knowledge. So, for instance, the epistemic inequalities means that people are different in their actual knowledge of different topics. So for instance, I'm a philosopher and I do not know almost anything about, I don't know chemistry and so on and so forth. So where there is an epistemic inequality in the sense that there are a lot of people knowing different things and there are different

**Podcast Host:** Ok, so what is it that you argued in that article about the epistemic inequality and the grounds of trust in scientific experts?

**Roberto Gronda:** Well, basically we tried to develop the idea, we talked about before the distinction between scientists and scientific experts, and the idea is that there are a lot of people who do not know almost anything about science, and there are some small group of people who are scientists by profession. And so lay people need to trust a scientist. But the relationship between laypeople and scientists is a relationship of inequality. As for what knowledge is concerned, so there is no chance that laypeople can know things better than scientists in their field of research, so there is no way that, for instance, I can know something about chemistry better than a professor of chemistry. That's the idea of epistemic inequality and the idea that there are grounds of trust means that, for instance, we need to trust as laypeople, we need to trust a scientist. But do we need to have some good reasons to trust

scientists and we believe that there are two different good, reasons to trust scientists, the first one is the there are the ontological reasons. So we believe that scientists are reliable in the sense that they are behaving right, so they are not trying to cheat us something like that. So they are good in their work, but also they are not corrupted there are not driven by personal interests. This is a first kind of ground and the other ground of trust is the institutional ground. So we believe that it is very much important to understand that scientists work in institutions and the institutions are tools that check their credibility each time so they are constantly checked. And so the Tusa aspects that the ontological aspects and the institutional aspect ground there, our trust in the scientists, while on the contrary, I cannot say that, for instance, if a scientist says me something about his field her field of expertise, I do not have direct access to that knowledge. So I cannot say, well, you are right or wrong. On the contrary, I can have direct access to some kind of deontological and institutional levels because, for instance, I can know if his institution is a good institution or not, I can check if there were scandals in his past behaviour, so all these aspects are can be assessed by a person like person so that grounds trust in scientists.

**Podcast Host:** When we talk about the relationship of trust between scientific experts and laypeople, what the current COVID pandemic crisis did make clear is that people have difficulty or maybe even not longer trust experts and scientists on their scientific word. Misinformation, distrust in everything that does not fit within the preconceived notions. Can a scientist these days stand up to that? And if so, how can you maintain those scientific values and trust?

**Roberto Gronda:** I think all institutions can do that. I don't think a single scientist can achieve this goal. It depends on the institutions, it depends on the trust put on the institutions more than put on the individual scientists. So for instance, I think that there should be a shift in perspective. We should start looking at institutions more than at the single scientists or there is also a huge problem concerning institutions about, for instance, scientific consultant and scientific experts, because when you are a scientist, there are mechanisms going on there. For instance, the peer review. Peer review is the process through which articles are selected for publication, for instance, and they can be improved, but they are good tools to check the quality of the work. So anytime, for instance, I have an idea in philosophy, I write it down, I write a paper, then send the paper to a journal, and they send to reviewers which are asked to make comments and eventually decide if my paper is worth being published or not,

**Podcast Host:** These are independent reviewers, right? You don't many times you don't even know who the reviewers are, right?

**Roberto Gronda:** No. And they make the most of the time, they do not know who is the author of the paper that they are reviewing. So it's a kind of institutional tool to assess and the quality of the work. So even if I have an idea, I can say that this idea is good, or at least it's good enough to be discussed after all this process, so it takes time, it usually all the paper are revised and resubmitted, so they ask you to write it down again to change a lot of different things and so on and so forth. So you see, it takes a lot of time. On the contrary, I think especially here in Italy, people are quite surprised by all the different opinions coming from the consultant, scientific consultants. But what is lacking, I think, is the institutional check because people are just ask for an opinion and they say their opinion. But as a scientist, we do not work that way. So we are shielded by our institutions. So when the paper is published, it has gone through all different stages. So it was presented at the conference, it was written, then it was checked and then it was written that it was checked again and finally it was published. So our community was part of our process of writing down a paper. On the contrary, when I, for instance, I act as consultant and people ask me for an opinion, well, I just go for it. Um, and so it's clear that my opinion is less reliable and less probably less interesting than an idea,

**Podcast Host:** Maybe also less scientific.

**Roberto Gronda:** It is less scientific. Yeah. Yeah. But you see, I think that it does. It is a problem of institutional.

**Podcast Host:** I understand, very insightful. Well, let's stay with vaccination. In the book "Trust in Science" that your colleague, Professor Adriano Fabris, was the editor of, an article appeared from Stephen David John, it's called "The Politics of Distrust". In this article, he takes the case of the vaccination against triple diseases, the measles, mumps and rubella, the so-called MMR. Progress toward measles elimination continues to decline, and the risk of outbreaks is mounting, all due to growing mistrust. We just mentioned it. How can science contribute to fight distrust, especially related to medical science?

**Roberto Gronda:** Well, that's a very contested topic, as Stephen John wrote, a lot of stuff on that, well, first of all, I think that it depends also on what science we have in mind, for instance, there is a lot of communication science which deals with the role of communication in society. So maybe one way in which the problem can be addressed is by improving the quality of communication. Then, for instance, sociology can provide very good insights because we need to know. With what kind of people are more likely to be resistant to, for instance, vaccination? And the reasons why vaccine hesitancy is so common now, and that's something that depends on getting sociological knowledge from sociology about our society. And then probably we can imagine some ways in which citizens can be involved in the process of, for instance, scientific certification or something like that. And maybe that could help improving the trust of people in science.

**Podcast Host:** We're approaching the end of the podcast. One final question for you, Roberto. I often ask my guests the same question that I'm now posing here to you as well. Where is research into trust in science headed to or better, what are the challenges?

**Roberto Gronda:** Well, about the challenge, One of the problem with trust in science is that it is a very, very interdisciplinary field. So there are insights coming from philosophy, insights coming from sociology and insights coming from the history of science and so on and so forth. So one of the problems with the topic is that we need to build a new language and build a new approach to keep all these different knowledge together, which is not easy at all. Because we are we are stuck into our disciplinary language and we have some kind of habits of mind or habits of thinking. Also habits which influence our way of perceiving the relevance of topics in a certain field. So that's probably the greatest difficulty that we have to face about the topic. So build a new and more comprehensive language.

**Podcast Host:** That sounds to me like something we can conclude this interview with, especially given what you just said, a huge task for our podcast TrustTalk to try to find common ground, especially in common language among aspects of trust, because it seems that everybody is talking about trust, but I may agree with you that having a same scientific language using to analyze trust and see how we can improve trust. I mean, these days in Netherlands politics trust is almost everywhere. You can't read a newspaper every day on television about politics, the word trust is there. And people have different feelings about trust.

And that's what we try to clarify in our podcast. And hopefully, if we continue to do that, we find and hopefully find, like you said, a common language and thank you very much for contributing to these efforts, and maybe we can talk about it in the future, whether we have succeeded in doing so.

**Roberto Gronda:** Thank you very much.