Rationally Speaking #218: Chris Auld on "Good and bad critiques of economics"

Julia: Welcome to Rationally Speaking, the podcast where we explore the border lands between reason and nonsense. I'm your host, Julia Galef, and I'm here with today's guest, professor Chris Auld.

Chris is an applied econometrician at the University of Victoria. He works on issues related to health, the labor market, and education, and he blogs at ChrisAuld.com. One of the topics that Chris covers on his blog is basically critiques of critiques of economics. One of his most widely shared posts, in fact I think the reason that I encountered his blog in the first place, is titled, "18 Signs You're Reading Bad Criticism Of Economics." So that's one of the main topics we're gonna talk about today. Chris, welcome to Rationally Speaking.

Chris: Hi. Good to be here.

Julia: Chris, this might be a tough call for you to make, but if you had to pick one or two of the mistakes that people make when critiquing economics from your list that you think are the most common — the most common bad critiques of economics, what would they be?

Chris: I think the major mistake people make is simply misunderstanding what economists actually do, and-

Julia: That's like picking all of them.

Chris: Well, that could be true. My major complaint is most people straw-man economics. They say economists do or think X, and economists don't do or think X at all, so it's kind of a non-starter.

My main criteria for a good criticism is simply that people correctly state what economists think and then make some criticism, good or bad. Then, at least we can talk about whether the criticism is correct. If it's just a straw-man, if it's saying something that economists don't actually think, then it's a complete non-starter.

So the major one which probably most people think, and survey evidence shows this, is that what economists mostly do is make macroeconomic forecasts. And that is really, really, wrong. Probably less than 1% of academic economists do anything related to macroeconomic forecasting, so it's kind of frustrating to see the same criticism over and over and over again.

Julia: When I studied economics, the two things that I got from people were A, "Oh, so you can forecast the economy?" And B, "Oh, so you can tell me where I should invest my money."

Chris: Oh yeah, that's another one. I don't know anything about the stock market, so don't ask me anything about that.

Julia: Okay, well what about the most common mistake or misconception among people who should know better? Like smart, well-informed people who are probably arguing in good faith. They're not trying to do a hit job or smear job. What's a common misconception among that crowd?

Chris: Well the other major misconception is faulty orientation, in the sense that people are really talking about politics and not economics.

The word economics sort of has both meanings. We could talk about say Ronald Reagan's economics, and we don't mean, when we say that, Ronald Reagan's methodology of studying the social world and collecting information and reasoning about it. We mean the particular set of policies that Reagan advocated.

I think a lot of people when they talk about mainstream economics, what they really have in mind is a particular set of policies that they like or don't like. And that's not what I or most other academics would think of when we think of economics. We're thinking of economic science, the methods and data and results, not a political orientation. I think the major thing that people would be surprised about if they actually spent time in an economics department is how shockingly apolitical it is. There's really not much political talk going on at all. It's not political philosophy.

Julia: Is it implicitly political? [Surely] there are value assumptions…

Chris: Sure, I mean, economists like everybody else have political discussions and think about politics. If you went to a chemistry department, you would also find people talking about politics. But in terms of the day-to-day work, economic research, it's really not very political at all.

Julia: So one common misunderstanding… the stuff that I think about and write about and talk to people about is sort of related to economics. It involves modeling descriptively how do people make decisions, and normatively how should they make decisions, and things like that. So there's some overlap there. And some items on your list that really resonated with my experience talking to people about decision-making were misconceptions or miscommunications about specific words that come up a lot, like “rational” or “efficient” or ... I don't remember what the others were. Utility, or preferences…

Chris: Or externality is a big one.

Julia: Yeah, externality was the one on your list. So I want to talk about the “rational” one a little bit later in the episode, but I'm curious if you could elaborate more on how people misunderstand other words like efficient or externality.

Chris: Sure. And this is a big problem, and as you said there's people who aren't trying to do a hit job who simply misunderstand, in part because a lot of economic jargon is really terrible. So rational is a big one. We can talk about that later.

Externality is another big one. You hear people say, "Oh, economists don't care about the environment. They treat it as an externality." And I can see why they think that. If you just hear the word externality, it sort of seems like we're saying it's external, it doesn't matter in some sense.

It actually means a cost or benefit imposed on a third party that isn't compensated. And it's fundamental to a lot of economic thought, and it specifically doesn't mean something we're ignoring. It's a big problem that we have to address.

So the major example is always the environment. If we do stuff to destroy the atmosphere or otherwise wreck the environment, that's called an externality, but the actual conclusion is the polar opposite of "we should ignore it." It's "we really have to worry about it."

Julia: — Sorry to interrupt. I want to hear the rest of your thought, but just before I move on, I wonder if what's happening specifically in the case of the "you don't care about the environment" critique is that people are misunderstanding the word externality, but that's kind of like an epi-phenomenon.

What's really happening is they perceive that if people don't value the environment in the sense of being willing to put their money where their mouth is, to preserve the environment, then economists consider that to mean, almost by definition, the environment is not valuable. And these critics, the public, see that and they're like, "That's the wrong way to assign value to things." And then they use the word externality wrongly when they're trying to explain their critique, but that's not really the misunderstanding.

Chris: Well I think there is a germ of a valid criticism there. Economists are always gonna get back to how this affects human welfare. So if you have a philosophy that says that the environment should be valued for reasons above and beyond how humans value the environment, including all future generations and all sorts of considerations like that, then that's hard to square with mainstream economic thought. But just saying people aren't willing to put their money where their mouth is is a little bit problematic because there's a free rider problem. We might all agree that we should all contribute to a carbon tax, even though I personally would prefer not to have to pay the carbon tax kind of issue.

Julia: Right. But you think that economists, when they're reasoning and writing about the environment, they do take into account the fact that future generations' preferences aren't being counted in the current allocation of money?

Chris: Sure, yeah. That's a big issue in environmental economics. It's a really problematic issue, because it's really difficult to know how to deal with future generations. Usually in most economic models we would just geometrically discount, and so just apply an interest rate and push it out arbitrarily far into the future. And that essentially means once we move far enough into the future we're essentially putting zero weight on those far enough away generations.

And you can come to all sorts of absurd conclusions if you do that. On the other hand you come to absurd conclusions if you don't do that. So it's a difficult problem, but it's certainly one lots of economists are thinking about.

Julia: Yeah. Okay, so popping back up one level, I think you were going to talk about "efficient," or a different word?

Chris: Oh, efficient. When economists talk about efficient, what they almost always have in mind is something that really means something like, "Let's not just leave money lying on the floor."

Julia: Yeah, or value, right?

Chris: Yeah. Money is just anything that's of value. We shouldn't be wasteful. If there's a mutual gain to be had, we should exhaust that mutual gain. Whereas a lot of people hear the word efficient, and they think it's a much more technocratic concept, or maybe it just means profit maximizing, which isn't what it means at all.

Julia: To be fair, the fact that economists use the word “money” as shorthand for anything that we care about might contribute to the misunderstanding that it's all about profit maximizing.

Chris: That's fair enough.

A good example of the efficiency argument, or how efficiency isn't the same as profit, is every economics student learns in the first few weeks of Economics 101 that monopolies are not efficient, but maximize their profits. So the word doesn't mean what most people think it means perhaps.

Julia: Okay. We've started to touch on this a little so far, but one of the big questions I wanted to ask you is about your model of the reasons these misconceptions exist and persist. I'm just curious about roughly how you apportion the "blame" between, say: economists themselves being bad at communicating or explaining themselves, versus the popularizers of economic theories like pundits or journalists, versus the third category might be something like prejudice or willful misunderstanding. For example you could imagine if people see economists as the champions of the reigning power or class or something, then they might just be motivated to misinterpret whatever economists say through this lens of "Oh, they're just trying to keep the rich rich," or something like that. So it's not necessarily conscious prejudice, but that's why they keep misunderstanding this stuff.

Chris: Oh, well there is that explicit argument. Economists are just in the pocket of big money and are just defending the current power structure.

Julia: Yeah, but their misunderstandings of stuff could be unconsciously filtered through that lens. That's just one example of a reason. But how would you apportion the blame for the misunderstandings?

Chris: Economists, we are in part to blame. I think economists do a worse job popularizing how we go about approaching our science than many other disciplines do. My little contribution there is my little blog post and things like that. I would hope that more economists would push back against particularly the strawman arguments against economics.

On the other hand there are people who I think have bad motives in the sense that ... Well, ironically, neoclassical economics would predict the existence of people who make these bad criticisms, because there's a return to doing so. If I come out and write a book about my research, it will probably sell a few hundred copies to people who do similar research. If I write a book called "Why Economics Is A Bunch Of Nonsense," it will probably get the front page of The Guardian, and it'll sell 100,000 copies. So there's bad incentives here as well as honest disagreement and misunderstandings.

Julia: You said that you thought economists were maybe somewhat worse at communicating their field than people from other fields are. Why do you think that might be the case?

Chris: That's a good question. I'm not really sure. There's not much return to doing this within the economics profession.

Julia: Presumably that's true in other fields too, though.

Chris: That's true. I don't really have a good answer to that question, to tell you the truth. Maybe economists are a bit more selfish than people in other disciplines, and are less willing to provide this public good? Yeah, I don't really know.

Julia: I just was rereading some parts of Richard Thaler's Misbehaving the other night in preparation for this episode, and one thing that he says ... Shoot, I think it's him. I could be misattributing this. But anyway, probably Richard Thaler said that a feature of economics that makes it kind of unique, and might contribute to these common misconceptions relative to other fields, is that unlike other social sciences like psychology or sociology, economics has a core set of premises, or a core set of theses about the world: that people are optimizing for what they care about.

So it's harder to straw-man psychology as a field, because psychology is just a set of topics that people are investigating, whereas economics has a way of looking at the world, and then you can disagree with that, straw-man it, or misunderstand it. Does that seem fair?

Chris: That's a reasonable point, I think. That also gets to another consideration which is that everyone has an opinion on economics. And when economists disagree with each other it tends to be in newspapers. Whereas when chemists disagree with each other it doesn't tend to be in newspapers, and most people wouldn't proclaim to have a lot of expertise in chemistry.

But that still doesn't answer your question though. Given that's true, I think economists should spend more time trying to explain how we're doing things and pushing back against people who strawman the discipline, and we just tend not to do that. So I hope more economics do things like my blog post you referred to and do a little more pushing back. But I'm not holding my breath, though.

Julia: You have to incentivize them to do things, Chris.

Chris: That's true.

Julia: Economics.

Chris: Good point.

Julia: So, I ran this book club last year. It's so far had only the one meeting because I got busy, but I intend to return to it. I called it an elephant book club, which was my name for ... Instead of a standard book club where everyone reads the same book and we all discuss it, an elephant book club is where we pick a topic or a question and then we each read a different book with a different perspective on that topic, and then we summarize the books to each other and discuss them. The name elephant comes from the five elders, blind people all touching different parts of the elephant and insisting the elephant is actually long and skinny, or short and fat, because they're touching different parts.

Anyway, the topic for that one meeting of my elephant book club was "Critiques of mainstream economics." So I spent a long time looking for books that had some critique of mainstream economics. And it was an interesting and fun book club, but the problem that we ran into was that most of the books that we found that ostensibly were challenging economic orthodoxy were things that were already well-known and basically just accepted by mainstream economics. And they were packaging themselves as shots across the bow at the field, but they were saying things like, "GDP is a flawed measure and doesn't capture everything we care about." Which you know, economists will tell you too.

Chris: We tell our Economics 101 students that.

Julia: Yeah. And my question is, are there any critiques, halfway decent critiques of economics as a field — as opposed to a specific economist or a specific theory — that you think would not be commonly accepted by econ?

Chris: Right. I don't think there's any ... One aspect of bad criticism of economics is it tends to be sweeping denunciation. So this is the entire field is wrong, there's nothing of worth there, economics is brain damage, it's fake neo-liberal pseudoscience, this sort of thing. It's all wrong. And I don't think there are any critiques that follow that mold that hold any water.

But there are a whole bunch of good critiques that are much narrower in focus. So let's see. So some of them might include things like economists — and I've been frustrated by this myself — tend to just overlook other disciplines. So there's lot of work in economics these days which touches on other disciplines such as say psychology and sociology and epidemiology. Economists just tend to cite each other, rather than going out and seeing what these other scholars have said. So we're just reinventing the wheel and we should try to be more interdisciplinary in our work.

I think it's also true, or at least could be true, that economists tend to only focus on topics that we can actually say something about. Whether that's actually a good criticism or not is-

Julia: That could be also construed as a defense of economics.

Chris: Right. And the obvious objection here is, "Well, what's the alternative?" If we can't say anything about it, we can't say anything about it. But what I'm getting at here is tractability. So to get at something either statistically or in theory, we have to be able to solve the model. If we can't solve the model, then we don't write the paper because we can't solve the model. But there are some issues that are just really hard to get at in terms of that sort of quantitative modeling. That means that economists have nothing to say about those issues.

Julia: What's an example?

Chris: So one example might be the effect of income inequality on political structures. So thinking about not inequality as just how does each person's income affect their well-being, but how do concentrations of income affect what sort of policies get put into place? It's difficult to model that. It's difficult to get it that empirically. It may or may not be really important in terms of an actual mechanism, but if it is, it is something we should worry about.

Julia: It also seems like political scientists' job. If anyone should be tasked with figuring out how to study that, it's them.

Chris: That's a good example actually of what I just mentioned about we need some more interdisciplinary work. It's partially political science, and it's partially economics. So hopefully there'd less of leeway for scholars in different disciplines to work on that same aspects of that same problem.

In terms of of just nitty gritty, there's all sorts of things that aren't just broad issues I can sort of talk about such as that. If I try to just write down a model of some of type of decision-making, in particular decisions that have lots of dimensions or take place over lots of time periods, it turns out to be really difficult mathematically to get at that sort of issue.

So what I would do then is just simplify it until I can actually solve the model, and I'm wiping out all sorts of things when I do that simplification. So if those are important things, well, I just can't get at them because I need the math to work.

Again, it's not really clear this is all that great a criticism because what's the alternative? If I can't solve the model, the model's useless, but it's still something I think we should keep in mind.

Julia: Okay. So my original question was are there any ... I think I used the word “halfway decent” or “at least halfway decent” critiques of economics that aren't already believed and agreed with by mainstream economics…

Chris: I think most economists probably wouldn't agree with those things I just said.

Julia: Oh, yeah, no, that was a good answer to the question. I just wanted to modify my question a little bit, and ask ... I think the thing I was really trying to grope towards was: Are there any criticisms of the premises or approach of economics that are not straw manning economics?

Like the things that economists believe or assume, or the epistemology — the methodology that they think is legitimate. Are there any critiques like that? That of course you don't have to agree with, but that at least are not straw manning what economists actually believe.

Chris: Sure, well, one critique which I think holds some water is economists are very quantitative. So to publish any empirical work in economics, it's essentially got to be econometric. It's got to be statistical. You've got to go out and collect data and estimate models using those data.

A lot of other disciplines adopt a hybrid approach, where they use qualitative methods, which is ... They may not like this description of this, but this is essentially just going and asking people what happened, why are they doing things. Economists never do that, basically.

I think just doing that would be problematic, but I'm also little worried that the way that we do it — we just do the opposite — is also problematic, and maybe we should be a little more open to these sort of qualitative approaches. That's more of an empirical answer than a theoretical answer.

Julia: But that still counts, in what I was intending to ask about. I mean, if you can think of any theoretical answers, then I'm certainly interested, but if you can't, that's fine too.

Chris: Yeah, I'm a pretty big fan of the way we do theory, so... I think there's a lot of valid criticisms of some theories, but the way we go about doing theory, I think is pretty good. I think most of the reasons that people think we're not doing things well, are because they aren't familiar with developments in economics since say, the 1950s. Or again they misunderstand the words that economists use to describe their theories.

So things like “equilibrium” is a big one. I think when people hear that word, they think, "Oh, economists are saying that the world just approaches some stable state that just never changes." That's not what the word means at all in economics. It usually means something more like people don't have an incentive to systematically change their pattern of behavior.

So I guess that's my not-very-good answer to that question.

Julia: But how is that different from “the economy will reach a stable state,” if people have no incentive to change their behavior ... Oh, you're just saying there could be external shocks to the system?

Chris: Yeah, so there can be shocks going all the time. The economy could be ... Or some narrow aspect of the economy, depending on what we're modeling, might be moving all over the place all the time. But due to this randomness and what I can't observe about the world, and my own cognitive limitations, and all sorts of things we could add to the model, I don't have a incentive to change how I'm doing things. So my behavior might be changing, but my strategy, if you will, isn't changing.

Julia: Okay. Can I ask you about a couple specific econ critics and you can share as much of your opinion as you're willing to share?

Chris: Yep.

Julia: So one popular book ... At least, I don't know, 10 years ago it was a popular critique of economics was Debunking Economics by Steve Keen. I think you've written about this.

Chris: I've had a lot of criticism Steve Keen. I don't think there is anything worthwhile in Debunking Economics. I don't recommend anyone read it for a reason other than seeing what one of the worst critiques ever authored of economics looks like.

Julia: Tell us how you really feel, Chris.

Chris: I think it's the epitome of the straw manning of economics. You mentioned before that a lot of critics say things that they claim are these deep criticisms of how economists do things, and [these are] things that economists are well aware of, and teach in Economics 101. Some of it is that. Some of it is Professor Keen's own novel criticisms, which are mostly just based on what I would say are technical errors.

Julia: Technical like mathematical errors?

Chris: Yeah, just outright mathematical errors. It's also subject to the problem that it's far too narrow. You could read Debunking Economics and have absolutely no idea at all that economists actually mostly do empirical work. Something like 65 or 70% of economic research is statistical. Going out and getting data, what's going on in the real world and trying to explain what we see in those data. There's not one mention of any empirical work in Debunking Economics.

Julia: Okay, what about ... I don't think it's a book, but at least a website and a term. David Sloan-Wilson's Evo-nomics.

Chris: Yes, I've also ... I respect Sloan-Wilson. I've read some of his work. He does interesting stuff. He seems like a bright guy and he just seems to just be very resistant to actually figuring out what it is economists are talking about. Which is kind of strange, because he goes and interviews mainstream economists quite often and never seems to update his priors, if you will.

Julia: What kinds of errors do you think he makes about economics?

Chris: So he's one the people who thinks that all that's in mainstream economics is 1950s neo-classical theory. So there's a very influential model in economics called the General Equilibrium Model. It kind of looks like [suppose there are] a whole bunch of perfectly competitive markets, and they all interact with each other. How does that big economy work?

A major result from that model is the equilibrium is always efficient in the sense that we talked about before. This is sometimes construed as a defense of laissez-faire political policies. So Sloan Wilson basically just keeps saying that economists hew to this model and refuse to consider anything else.

It's very frustrating because that's really not what economic thought is all about.

Julia: He also says that economics should be incorporating evolutionary theory, like evolutionary biology or psychology, I'm not sure which. Do you know anything about that, and do you think that's a valid point?

Chris: Well, I do think that economists should ... I agree with him. I guess my complaint here is that he seems to think that economists are opposed to this, when in fact there's all sorts of evolutionary arguments in mainstream journals all the time.

We can interpret his arguments as there should be more of that. I'm not sure if he's right about that, but the idea that mainstream theory is somehow inconsistent with evolution or that mainstream journals won't publish evolutionary arguments is ... Well, it's just not correct.

Actually that gets back to another criticism of economics which I think is valid, and some people have tried to use evolutionary arguments to get at. Which is that we tend to take preferences as given. You're just bestowed with your willingness to pay for some commodity.

Preferences are actually socially constructed. It depends on how you grew up and all sorts of influences, what you want to do. We usually just ignore that.

So one way we can try to get at some of that is by considering why people evolved to have the preferences they do. So I think there's lots of interesting work there, and I guess I would just ask people like Sloan-wilson to notice that economists are actually doing some of that work.

Julia: Is that the way in which evolutionary theory was supposed to be applicable to economics? Or was it also supposed to include things like ... I don't know, like modeling the change in — I'm making this up, I'm just guessing, but — Modeling the change in the type or the number of different kinds of firms over time? The same way evolutionary biologist would model the evolution of different species or traits.

Chris: Yeah, so that's a good point. I think we could use the word in two different ways here. So we can think about biological evolution, why do human beings behave the way they do in the modern environment? Or we think about exactly as you said, we can think about applying those sorts of evolutionary arguments to social phenomena. So we're not looking at genes or maybe even memes, but which firms survive, or what strategies survive in the marketplace and that sort of thing. I think both types of arguments appear, not uncommonly anyways, in the mainstream literature.

Julia: Okay, interesting. Well, I want to make sure we talk about the critique of economics that we alluded to earlier, which is that economists think people are all perfectly rational agents, Homo Economicus. It's possible that you and I have a disagreement about this, but it seems to me that there is some validity to the critique that economists unwarrantedly model people as rational actors.

So you can certainly say that, "Look, these models of people's rational actors are just models, they're simplifications. All models have to have simplifying assumptions. So we're not saying that each individual is perfectly rational, but that like you can get pretty good results by modeling people in aggregate as if they're rational actors."

I agree with that. I think that is unfairly neglected by some of these critics.

But at the same time, if you read debates between the sort of new guard behavioral economists ... Well, new, as in, the last few decades. Originally the old guard classical economists, their reactions to the behavioral economists who were pointing out these systematic deviations from rationality in people's reasoning and judgment, it does seem like, at least at that time, economists were ... I guess they had two responses to the behavioral economists pointing out irrationalities. One was, "Well, those are anomalies, but they don't change the fact that this rationality assumption is the best way to model people in aggregate."

Then the other reaction was sort of, "Those things you're calling irrationality are not in fact irrationality." So a recent example of that would be when I talk to Robin Hanson about seeming irrationalities, like, people aren't willing to pay even a little bit of money to look at the success rate of surgeries done by different surgeons at different hospitals if they're going in for surgery. This seems like something people should be willing to pay money for.

So I would look at that and say that's evidence of people not being rational with respect to their own preferences and values. Robin will look at that and say, "That's proof that people don't actually care about their own health. They are behaving rationally, it's just that their utility function doesn't include their own health." Which to me sounds absurd.

But there's other examples of things like that where economists will stick to the interpretation — There's two ways to interpret a behavior. One is people are being irrational. And the other is that they are being rational, they just have preferences that you might think are absurd, or a discount function you might think is absurd. I do think that happens a lot. What do you think?

Chris: Well I want to stand back a step first and say "rational" is economic jargon. It doesn't mean the same thing that it means in every day conversation. It means basically minimally consistent behavior. So you, earlier, said that rationality and "homo economicus" are the same thing, and they're not exactly the same thing. Because the latter implies people only care about their narrowly defined selfish material well-being. There are lots of models, certainly, where that is what we assume. But I could also have a rational model where people care about fairness and their health status, and the well-being of all sorts of other people. I can incorporate all sorts of those things into a model of rational behavior, which isn't a model of homo economicus.

So I guess with that said, do economists hew too much to this model of rational behavior broadly defined, not defined in terms of just my own narrowly defined material well-being? I don't know. I think it's an interesting question. It's maybe context dependent. I'm not sure I agree with Robin Hanson's take in the anecdote you just talked about, although I am also not familiar with the particular paper you were talking about.

I think maybe economists do tend to try to find rational explanations for behavior. On the other hand, behavioral economics is mainstream economics. So maybe 25 years ago, people were opposed to it and kept it out of mainstream journals, but it's won the day. Mainstream journals are now full of behavioral economics, and I think most behavioral economists would say that that approach is not a competing approach to the mainstream rational choice approach to economic theory. It's a compliment to mainstream rational choice theory. So I guess I'd have to somewhat be agnostic and say, well, I guess it depends on the exact circumstance.

I'm not sure I'm willing to come down one way or the other on whether mainstream economics tends to look for rational choice explanations too much. I'm not sure if we disagree or not.

Julia: Yeah. I mean, yeah, it's a question of magnitude. Certainly I think economists are more willing to assume rationality or to look harder for explanations of behavioral patterns in which people really are maximizing their own utility functions relative to most non-economists explanations of those patterns. Whether or not economists are correct to do so would be another question that we might or might not disagree about.

Chris: Sure. I think there's maybe some bad incentives there in that economists really like to find the quirky, counterintuitive explanation for things. So in looking at something and saying, "Look, people are clearly being irrational here," well, the incentive is for the economist to think really hard and come up with some way to rationalize that behavior — and then you look clever. And looking clever is something that we all want to do.

Julia: I can't pretend that I don't feel that pull as well.

So I've referred to two explanations that economists often have for seemingly irrational anomalies. One was the, like, "People are actually being rational."

The other was... maybe a good, different way to summarize it would be the classic sort of Milton Freedman defense of the rationality assumption. Which is that "The predictions of this model could be correct, even if the assumptions and rationality are wrong." Why would that be true?

Chris: Oh, I think that's commonly true. So if we're trying to model ... Say we're thinking about it in just straight up, canonical, microeconomics, people are going out and choosing bundles of goods to purchase in a marketplace. If I say that people are behaving rationally in that sort of context, I mean something like, "Well, if you would prefer bundle A to bundle B and bundle B to bundle C, then you must prefer bundle A to bundle C."

Now, if we go in and study people actually buying stuff in marketplaces, they often violate that. They make purchases which can't be reconciled with straight up rational choice theory.

But if I ask a question like "What happens to the total number of widgets purchased if the price of widgets goes up?", statistically, the pattern of behavior, I'm still going to be able to predict using this rational choice model.

I can also just add noise to it, usually, when I take the model to data. So we can loosely think of it as, well, there's this sort of pure, rational choice part of how people are making decisions, and then there's just a whole bunch of other stuff. All that other stuff is kind of going to average out when we look across enough people. So we can still explain patterns using this simplification.

I don't think we need to go full Friedman methodology there. I think — so, what you're referring to is sometimes called the "F-twist," which means Freedman took a standard philosophical argument called instrumentalism and made it even more extreme. But I think what I'm saying is consistent with a bunch of other philosophies of doing science.

Julia: What is the philosophy of instrumentalism?

Chris: It's basically what ... It's a slightly less extreme version of what Friedman was saying. It's that the predictions of models matter, not the realism of the assumptions in models.

Julia: Got it, okay. Okay, great. One more question on interpreting seemingly irrational behavior rationally:

A lot of your own research focuses on the economics around addictions like alcohol or smoking — or, arguably, addiction to food, if you want to call it that. You study obesity. There is a model of that behavior that's called the "Rational Model of Addiction," which assumes that people ... A heroin addict is behaving rationally. He's optimizing his own utility function. He just prefers — I'm going to butcher this explanation, but feel free to correct it — He just prefers heroin above everything else that he could be doing with his life, including living longer. And/or he just has a really high discount rate, so he doesn't value his future utility, and so he is not behaving irrationally.

To what extent do you think that is, A, the mainstream economics view of addictive behavior, and B, true?

Chris: Sure. So that's a great example. So the model is even goofier than the way you described it.

Julia: Oh, okay. Sometimes I inadvertently steel-man things, because I'm trying to explain them in a way that sounds reasonable…

Chris: I think it's a great example, because it's ... So this is a model due to Gary Becker and Kevin Murphy from about 30 years ago. The model is even more ridiculous than you described it. So it's:

People don't just use heroin knowing that it will reduce their lifespan in the model. In fact, people live forever. So we have these infinite-lived, perfectly rational agents, who know not only everything about the world today, they know how everything in the world will play out until the end of time. Further, they're blinked into existence at the beginning of time knowing how or being able to deduce how everything will play out.

So you go ask somebody at the beginning of time, before they have used heroin or whatever, "What's going to happen?" And they'll say something like, "Well, when I'm 19, I will choose to become a heroin addict and that's what I'm going to do for the remainder of my life. If you poke me with a stick when I'm lying in the bottom of a ditch, bleeding out my ears, and say, 'Do you have any regrets?' I'll say, 'Well, of course not. I perfectly foretold how all this would happen and I couldn't possibly be happier than I am given these choices I have made in my life.'"

Julia: Depends on whether they're on heroin or not when you ask them.

Chris: Right, yeah. So they know they're going to become addicts and they choose to do it anyways. There's no information problem, and there's no irrationality whatsoever in this model in any sense.

So this is a very controversial model, even within mainstream economics. Because one aspect of it is, "Well, the government should be hands-off here." We shouldn't do anything to restrict heroin or any other addictive substance. Because if we really, literally believed this model — and nobody really literally believes this model. If you went and asked the late Gary Becker about it, I'm sure he would tell you much the same thing.

The purpose of the model isn't to make that prediction, or make that policy advice. It's to cut away from reality everything we can, to highlight one mechanism. And the mechanism they were really talking about is how prices affect the behavior of addicts.

So if you go talk to some people in, say, public health or related disciplines, and ask them about how the price of an addictive good affects the consumption of that good, they'll say there's no effect. People are irrational. If you increase the price of alcohol, alcoholics won't respond by reducing their drinking.

That stands in contrast to the prediction of the rational addiction model. And it makes further predictions about how future prices will affect today's behavior. I think this is one of the few areas where economists have actually made a theoretical prediction, which is counterintuitive, and then later went out and found that that prediction is actually true in data.

So the model predicts that if I increase the future price of the addictive good, addicts will respond by immediately reducing their consumption of that good.

Julia: You mean, like, announcing that next year we're going to add a tax on alcohol?

Chris: Right. So the model says, if the government says on January 1st, we're going to greatly increase the tax on tobacco, people will respond by immediately smoking less. They might go and hoard cigarettes, but they're going to smoke less of them, the model says. I think most people ... So I teach this every year in health economics classes and I ask people before I give the reveal, "What do you think the model says?" And most people actually predict the opposite. They think something like, "Oh, well if alcohol is going to become more expensive tomorrow, what I should do is get blind drunk today while I still have the chance." The model says, "Nope, you should do the other thing."

Julia: Right.

Chris: So later, about six or seven years after the theory was published, people showed it was true. About five years after that, people showed in very careful analysis that future price changes on tobacco immediately affect behavior only if they're announced, which is exactly what we would expect. So if the government surprises people by increasing the tax, well, nobody responds to that prior. But if they say six months from now we're going to increase the tax on tobacco, they immediately reduce their consumption.

Julia: Is the reason for that because people are trying to prepare themselves so they're not ... So it doesn't hit them as hard when they suddenly can't afford as much as they were used to?

Chris: Yeah. So, the addiction is costly to me. One reason it's costly is I just have to spend a lot of money to buy my addictive good. So it's more costly to have an addiction to a good which costs lots of money than an addiction to a good which costs less money. So if you tell me it's going to become more expensive in the future, I go, "Ah-ha, I don't want to wake up six months from now a three pack a day smoker, because it's going to cost me even more money to be a three pack a day smoker."

Julia: Right.

Chris: So it turns out there's been all sorts of other work on this model, and most of it works on relaxing those really severe assumptions that I kind of ridiculed earlier. So instead of having people being perfectly rational, let's make them not be perfectly rational. They don't know everything. They don't make decisions over time or with respect to one's certainty in this way that Becker and Murphy, correctly in my view, first wrote down in the simplest version of this model. That one prediction always holds — or maybe always is too strong, but usually holds — when we relax those severe assumptions.

So getting back to where we started in this conversation, I think this is the right way to go about it. We make the simplest model we possibly can, first. And then that very simple model is always going to have all sorts of really goofy assumptions in it and then we poke at the model and see, well, what happens when we start relaxing things. Do we still get basically the same qualitative predictions out of it?

Julia: Yeah. Great. Well, Chris, before I let you go: as I think you know, I like to ask all of my guests at the end of the episode to nominate some resource — book or blog or even a person, a thinker — that you have some substantial disagreements with, but you nevertheless think is valuable to read or engage with. What would you nominate?

Chris: I would have to say Joseph Stiglitz. So some people might think that's not fair, because I'm maybe ... A lot of people might think of him as being a mainstream economist. I think for the last 20 years or so, he has spent most of his time criticizing mainstream economics and I very commonly disagree with what he has to say, but I also have tremendous respect for Stiglitz and even when I disagree with him, I have to think about what he's saying and sometimes he changes my mind about what I think about things.

I actually alluded to this earlier when I talked about the political implications of income inequality. If it weren't for reading him, I would just basically ignore that entirely, but he's got me at least worried about the fact that this is something I should be worried about.

Julia: Has he argued for a particular effect? Or has he just said this is a thing economists should be focusing on?

Chris: He has said both, I think. So he's got a few. I don't think he's written any academic papers about it. I could be wrong about that, though. But yes, quite a few pop books where he touches on this. Let's see here. One of them has got inequality in the title, but I forget it's name off the top of my head. The Price of Inequality, I think?

Julia: Mm-hmm.

Chris: Yeah. That's right. So yeah, I would recommend reading those. Again, these are things that are hard to get at in terms of economics theory, hard to get at in terms of empirics — but important, big issues. And his criticism of mainstream economics is definitely not straw man criticism. He knows what he's talking about, so even when I disagree with him, we have to take critics like this seriously.

Julia: Is there anything that you disagree with him about, that you'd be able to summarize?

Chris: Oh, well, I guess my major disagreement with him is at a meta level — his take is always very political. So I tend to recoil at these highly political takes, but depending on whether or not you agree with his politics, I guess, that might be a good thing or a bad thing in reading through his arguments about things such as the social implications of income inequality.

Julia: Okay, great. Well, we'll link to ... Did you say The Price of Inequality is the recommended book?

Chris: Yes.

Julia: Right. We'll link to that and to your blog with the post "18 Signs You're Reading Bad Criticism of Economics," which has some nice links embedded in the list, to examples of the phenomena you're complaining about, which I appreciated.

Chris: It does.

Julia: Chris, thank you so much for joining us. It's been a pleasure having you.

Chris: Oh, thank you. It was fun.

Julia: This concludes another episode of Rationally Speaking. Join us next time for more explorations on the borderlands between reason and nonsense.