Episode 723: Austrian Criticisms of Mainstream Economics Are Sound: Reply to a Critic

Guest: Jeff Herbener

WOODS: So let's go through this. I could have had Jonathan Newman on; it's his article, but I thought, well, I don't know his number, and I know yours, so (laughing) —

HERBENER: (laughing)

WOODS: That's basically how things get done around here. Okay, so obviously we're linking to this at TomWoods.com/723, linking to the original article and to this response. And the site that the response is on is by and large a free market site. It looks like more or less a Chicago school site, if I had to classify it. This person describes himself as a neoclassical economist. So it's not like we're talking to outright leftists who could never be persuaded to listen to reason, but in a way that annoys me even more. There's no reason for somebody like this to have misconceptions about the Austrian school or to attack us or whatever.

So let's go through these five points that Jonathan Newman raised and see what the anti-Austrian answer is and then see what the anti-anti-Austrian answer of Jeff Herbener is — if people are able to follow anything that I'm saying here. Okay, here we go.

First is the complaint, the common Austrian complaint, that quantitative models "miss the nature of human action." That's the way he describes the Austrian criticism. And here's what Jonathan Newman had indeed said. He says, "...[Y]ou can't even do basic math with people's preferences for two reasons: preferences are subjective, and preferences are ordinal. You can't measure or compare something you can't observe, and you can't do math with ordinal figures. Adding 2nd place to 3rd place doesn't get you 5th place or 1st place. It gets you nowhere, which is exactly where mainstream macro is today."

So the criticism of that that we get from this author is — and again, we don't know the name of this author. It's the Unregulated Economist, whatever that means. And the response to this is that this is a typical Austrian misunderstanding.

"Quantitative models used by mainstream economists are based off of preferences. The preference relationships used by mainstream economists are ordinal. We use utility functions because we have proved theorems about what properties preference relations need in order to be represented by a utility function. If a preference relationship can be represented by a utility function it means anything that is true for the utility function will be true for preferences. For example, if I prefer oranges to apples, then the utility function gives me higher utility for oranges. The utility function is arbitrary. All that matters is that we are representing the underlying preferences.

"Another thing we don't do is add the third best and the second best and claim that it is first best. That is a straw man." Obviously Jonathan wasn't literally saying they do that. "We do however, take combinations of bundles and can rank them as long as the preferences have certain properties. For example, if I prefer a bundle of oranges to a bundle of apples then I will most likely prefer a bundle of half oranges and half apples to a bundle of only apples. To argue that mainstream economists are adding ranked bundles the way he represents it shows a complete lack of understanding of mainstream economics."

So Jeff Herbener, does Jonathan Newman or the Austrian school, do they have a complete lack of understanding of mainstream economics? There's a meatball right over the plate for you.

HERBENER: (laughing) Yeah, well — by the way, I should say just as a point of context that Jonathan Newman's piece is actually a response to another piece by someone in a mainstream publication. And so Jonathan isn't really sort of laying out here a contrast between the Austrian and the neoclassical approaches; he's actually responding to another writer who had criticized the Austrians.

But anyway, with that said, what Jonathan — it seems to me that a sort of neutral and unbiased reading of Jonathan's claim, it is in fact correct. What he says is that we can't do basic math with people's preferences, with the preferences of real human beings. And this I don't think is controversial. I think it's quite accepted on all sides that the bundle ranking and the utility functions and so on are not the preferences of real human beings; they're simply mathematical organizations. They're just mathematical iterations. And of course if you have a mathematical iteration of bundle assessments, then it has certain properties under certain assumptions.

But as Jonathan's pointing out, this has nothing to do with real people's actual preferences. Real people don't rank all the possible bundles of all the possible goods that could come into their hands of value. They have ends, and they select means that are suitable to the attainment of these particular ends, and they acquire the goods and value them according to the particular ends that particular means achieve. And so really this — I think Jonathan's claim stands just as he stated it. Jonathan is once again not trying to make a contrast or a comparison between the Austrian approach and the neoclassical; he's responding to another author who has written that the Austrians have nothing of use to say. And so he's just pointing out that, well, we do in fact have something useful to say, and it's the truth about real people's real actions.

By the way, the critic here, he underplays what the conditions are that are necessary for the representation theorems of neoclassical economics to be correct. I mean, he just gives us an example of how there has to be a kind of consistency, transitivity let's say, in bundle rankings. But actually, in order for the bundle preference rankings to be mapped onto a utility function, the bundle rankings have to be complete, which would mean that for every possible configuration of all the different goods, each taken as a separate set or bundle, a person has to be able to say I prefer one bundle to another, or I prefer the second bundle to the first, or I'm indifferent between the two. And real people don't do this, and therefore this is just a mathematical iteration, really.

WOODS: Let's look at the second one in the — the second point that Jonathan is making is that the micro/macro separation is baseless — microeconomics and macroeconomics. Now first of all, not everybody who listens to the show was an economics major, so just tell people what micro and macro deal with, and then we'll get back to this.

HERBENER: Right, so what Jonathan's referring to is the micro and macro in mainstream economics. Microeconomics, there is this attempt to ground the analysis in the behavior of economic agents, as we've discussed. So they're trying to value goods and trying to act and achieve ends and so on. In macroeconomics, macroeconomics developed, at least under Keynes' tutelage, by looking just at correlations of aggregate datasets. So here we just get something like an aggregate demand function or a consumption function at the aggregate level, where total income in the economy is supposed to be correlated with total consumption spending. And so there seems to be this disconnect, and it's always been a tension in mainstream economics, this disconnect between at least the behavior of agents in these models and the result in the aggregate.

And so there's been a search, especially since the 1970s, to try to provide what are called microeconomic foundations to macroeconomics. But unlike what the author here claims, this attempt was really just more or less an ad hoc insertion of certain behavioral assumptions that could be integrated into a more robust modeling procedure. It didn't really have anything to do with the Lucas critique that he mentions.

WOODS: Well, I know just from reading one Austrian after another that the idea that this is an artificial distinction between micro and macro does seem to be fundamental to the way the Austrians look at the world. And he's saying here, well, look, the reason there's a separation is that there's a difference when you're studying one person and when you're aggregating millions of them. So I mean, is that a legitimate point?

HERBENER: I don't think so. I take him to mean that microeconomic models isolate the individual actor, whereas macroeconomic models provide interaction between them. That seems to be what he's saying. But I don't think that's correct at all. I think all economic analysis allows for the interaction between the different agents or persons that they're analyzing. I don't think that's the basic point at all.

So it isn't — the problem with aggregating to the macro level in mainstream economics is that this aggregation was just taken without any connection to the action of the economic agents at the micro level. There's nothing said, or very little, very little said about how the individuals are acting that bring about the aggregate result. It isn't a question of at the micro level they're not interacting with each other and so they behave in one way, and at the macro level they behave in a different way because they interact with each other, which is what I take the author to be saying.

WOODS: Well, it's interesting that apparently the Grove City College band is walking by while you're trying to make these important points (laughing).

HERBENER: Yeah, band camp, you know? The football players are on campus, and the band is practicing.

WOODS: Well, then another point within this point is — this is a point that Rothbard made too, that in mainstream economics all of a sudden you get labor economists and economists who focus on these smaller and smaller areas. And if I remember Rothbard's exposition, he said that this is a function of the fact that there is not so much of a sense of economics as being an integrated science with universal principles. Instead you have to break it down into health economics and labor economics.

And this person responds by saying, ugh, you're just "missing the point." He says, "We have different fields because they use different models. You do not model an individual's choice in education the same way you model an aggregation of individuals buying insurance...[N]o one can be a master of every model." So is that a good answer?

HERBENER: Right, I don't find that very compelling. I mean, it may be descriptively okay to say it that way, but what Jonathan's point in bringing this up is to say that generally speaking, scientific disciplines attempt to find universal principles of cause and effect, and that's what the Austrians do. There's a universal logical structure of action, which has to be the foundation for doing all the analysis in all these different fields. Sure, there are differences that have to be taken into account as well, but what the mainstream seems to lack is a unifying underlying framework of analysis, that the models could in fact be entirely different and share no sort of basic framework of human action.

WOODS: Now, this one, number three, "Economic Laws Are Not Just Empirical Regularities" — that's the claim that Jonathan is making. And then the response comes, "No economist is claiming this. No one is trying to refute the law of demand with empirical evidence and would not be published if they submitted a paper claiming to do so." Then he says, "However, there are ways to logically come to different conclusions. Therefore we need to look to the real world to find out which is true. Also, logic does not lead to truth. It is a way to understand and analyze arguments."

That is a complete intellectual train wreck right there, what I just read.

HERBENER: Yeah, absolutely. I mean, the first thing that came to my mind on that, the first point about no one would be published submitting this is Card and Krueger —

WOODS: Yeah, of course.

HERBENER: You know, minimum wage issues have been in the news lately, and that's exactly what Card and Krueger did. They said, look, the demand curve for unskilled labor slopes upward to the right. I mean, this is all over the — it's maybe not the most common sort of claim that's made in the mainstream, but to say that you can't get published doing this is just false on the face.

WOODS: Yeah, in fact, that's one of the most discussed economic papers of, you know, ever since it was published.

HERBENER: Yeah. And it is true that there is pushback, right, so if somebody does this and gets it published there's pushback. That is true. But then it begs the question in the neoclassical framework, I mean, on what basis do they claim that demand curves should always slope downward to the right. They're just models that we have to adapt to the conditions of each market as we're doing this. We have a labor model, and we have a health model, and so on and so forth. Well, why couldn't it be open to the possibility that demand curves could slope upward, or don't we have to look out at the real world, he says, and find out which conforms to what we see in the real world?

WOODS: Yeah, yeah. Now of course the Austrian analysis takes you from examining what is really going on when a human being chooses, and from those implications you go to the law of diminishing marginal utility and the law of demand. These come right out of that, and there's no step in that process that's dubious or that is itself open to empirical objection. And so the Austrians are extremely firm foundations on the law of demand, but as you say, why would this critic be? How could he be?

And then this is just such a horrible paragraph. We have to keep going on it. He says, all right, so no one's trying to refute the law of demand with empirical evidence, even though we just showed there is some — yeah, these people didn't come out and say "we're refuting the law of demand," but what we're talking about obviously involves the law of demand, the idea of the minimum wage, you don't have to worry about it. But, "There are ways" — let's see if we can even understand what he's saying. "There are ways to logically come to different conclusions." What does that sentence mean? What could that sentence mean? Let's try to be as charitable as we can.

HERBENER: Yeah, I'm a little bit mystified by that. If I had to characterize what the neoclassical project is doing, I'd say it's not so much that psychologically I can come to different conclusions; it's that the evidence would be open to the possibility that there are different magnitudes of effects that I can't ascertain by pure logic. That's the way I would think about this. So I'm not sure if that's what he's saying — it doesn't seem to be what he's saying, but I think that's a reasonable statement, descriptive statement, of how the mainstream economists would view this. Yes, we all agree there's a law of demand. Demand curves always slope downward to the right. But we don't know the elasticity of demand, and that's where we need a model to be able to test the data, and we need a model because the data is complex with many causal factors that generate the result, and so we have to disentangle them somehow quantitatively or statistically.

WOODS: But therefore we need to look to the real world to find out which is true. So again, I just don't — I wish he'd give me an example, because then we could see maybe what he's talking about.

HERBENER: Yeah.

WOODS: We need to —

HERBENER: I guess he could be saying that if we could invent any sort of model we want, then one person could propose a model with an upwards sloping demand curve — although he denies they do that — and one with a downward sloping demand curve or whatever. Then we could look at the real world. I think all these models would all be logically internally consistent, and then we could look at the real world and —

WOODS: Okay, that's a good — okay, that's a charitable way of —

HERBENER: Falsify ones and — yeah.

WOODS: Yeah. But — I wish we could have David Gordon talk about this — logic does not lead to truth?

HERBENER: (laughing)

WOODS: I'm pretty sure it does, actually.

HERBENER: Yeah again, I think to put the best reading on this, he might just be referring to the fact that of course you need to have — in order to ensure that you reach true conclusions, you have to start with true premises, and then logic would in fact lead to truth.

WOODS: Now there you're being too generous (laughing).

HERBENER: I mean, he may have that in mind when he says that. But this goes right back to what you said before, that this is one of the advantages of the Austrian approach, is that we start with reflective facts about real human action that seem to be acceptable as premises for our arguments.

WOODS: This is going to be fun, because he claims in a minute that everybody knew there was a housing bubble. So we'll get to that after thanking our sponsor.

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Okay, before we go on we've got numbers four and five to tackle, but you want to go back to something in point number two.

HERBENER: Yeah, I wanted to mention, on this Lucas critique, the author mentions this as an important aspect of introducing micro foundations to macroeconomics —

WOODS: Yeah, but hold on. Let's make clear — I mean, not everybody knows who Lucas is. We're talking about Robert Lucas.

HERBENER: Mm hmm, right, the Chicago economist. I believe he was also at Carnegie Mellon, so he was a local guy for a while to me. But anyway, so the Lucas critique actually says that if we have an econometric model that we've used past data to estimate the parameters, we shouldn't think that the parameters will be stable in predicting the future effect of a policy change that we implement. It just might be that implementing the policy will change the way people behave and therefore change the parameters.

And actually, it seems to me that this is a rather more Austrian-oriented point to make. We could generalize this into the way the Austrians think about this. As Mises liked to point out, one of the problems of doing functional analysis in economics is there are actually no constants, and so we can't even set up functional equations, because we can't divide the phenomena into variables that are changing and constant parameters that don't change. And so I think he's off the mark a little bit in this Lucas critique, or at least he opens himself up to the other objection that Jonathan Newman doesn't even bring up, against the use of mathematics in economics.

WOODS: Nice. Let's hold off on the housing bubble thing, because that is number five, after al. But you know what? Nah. Look, it's my show; we're going to go out of order. Let's go to number five: "Austrian economists did predict the housing bubble." And one of his answers is, "[E]veryone knew there was a housing bubble." Now, let's just pause for a minute. James Galbraith said that when it came to the financial crisis, that maybe a dozen or out of the something like 15,000 professional economists saw that coming. So that's a little bit different from everyone, right? That's a much smaller percentage, I would say. Like, I wouldn't round that up to 100% — 12 out of 15,000.

But then he says, "Alan Greenspan and the Fed created a housing bubble on purpose." And so in other words, everybody knew there was a housing bubble. Now, of course if everybody knew there was a housing bubble there would be certain consequences to that. "They did this because they handled the bursting of the last bubble so well that they assumed they could handle the housing bubble as well. Therefore, they thought the benefits of the bubble would outweigh the negatives. This wasn't some secret only the Austrians had access too. Moreover, there were many people at the Fed who were predicting it to cause a recession." I think that's an awkward way of saying that "it would cause a recession." What's your immediate response to that?

HERBENER: I've actually never heard this claim before, that there were people in power who understood this and they assumed that when the bubble did burst they could handle the fallout. I don't know of any evidence — I've never read anybody making this claim or —

WOODS: Yeah, what's the citation?

HERBENER: The one that came to mind when I first read this was Tyler Cowen. I think he had said — Bob Murphy took him to task for saying right before the bubble burst that some of the Austrians were predicting that it was in fact a housing bubble. He said, well, no, it wouldn't be a housing bubble, because if it were a bubble then this would happen and that would happen and that would happen. And that's exactly what did happen once it burst. These consequences did in fact occur, just as the Austrians had said, just as Tyler Cowen understand would be the implications of the Austrian view.

WOODS: Yeah, in fact, I remember that piece. I'm going to link to that at TomWoods.com/723. That was a beautiful, beautiful thing, so I'll link to that.

HERBENER: Right, it was great; it was a great piece. So yeah, I'm not really sure — I don't know. I wish we had a citation from him so we could read who it is he's citing that understood this, and you know, were saying, hey, let's just let the bubble go ahead and burst.

WOODS: Oh, not only that, but I mean — who was it? Ben Bernanke said that the fundamental of the economy are strong and the housing market is perfectly sound. He did not — at no time was there anything in Bernanke's public statements that indicated he believed there was a bubble.

HERBENER: No, there —

WOODS: Quite to the contrary.

HERBENER: Absolutely right, yeah.

WOODS: The fundamentals were strong. It was a response to fundamentals. It was not a bubble.

HERBENER: Mm hmm.

WOODS: All right, let's go back then. Then he says — I don't want to make fun of his grammar, but he says, "If you want to see how truly poor of thinkers Austrians are" — ah, that's just terrible. You get an F. — "just consider this thought experiment: Austrians claim that markets are perfect" — okay. Now he says in parentheses, "Not in the sense that you learn in micro 101 but that markets do not make mistakes." Hmm.

HERBENER: Yeah, again, that's just wrong on the face of it.

WOODS: Yeah, we've gotten half a sentence in, and you have to comment, so go ahead.

HERBENER: Yeah, I mean, this is one of the advantages of the Austrian view,is that there's uncertainty in the future. Of course mistakes are made all the time by entrepreneurs, and it's just that in the market it's a self-correcting process. So there's a process where the entrepreneurs who make mistakes are decapitalized, and the entrepreneurs who are superior in their foresight gain capital funding, and then the market muddles through. But I don't know of any Austrian who claims the markets are perfect.

WOODS: Yeah, but then what he's going to say is Austrian economics has lost in the marketplace of ideas, so either "Austrian methodology is a failed experiment (because markets do not make mistakes), or the market is imperfect, which means Austrians are wrong. Either way Austrians need to move on. There have been so many advancements to mainstream economics since *Human Action* was written that it is embarrassing they are still clinging to it." I don't have the sense that he understands any of the contributions *Human Action* made or he understands the Austrians or Mises at all from anything that's written here. But Jeff, what do you think about this claim that since Austrians aren't the dominant school that this shows that either we're stupid-heads and obviously wrong or that our philosophy that markets are always correct — by the way, as if the academic job market is a free market (laughing). You know? I mean, hello!

HERBENER: Yeah, that's exactly the difficulty. The marketplace of ideas is not a market. And it's very similar — this kind of argument is very similar to the argument that I hear from my non-economist friends who say, well, capitalism is no good; the free market is no good. I mean, look at the world. It's all messed up. We have all these problems. So they can't really disentangle the elements of the real world that are being generated from the market from those that are being generated by the states. It's a similar kind of problem here. There is no marketplace of ideas in the sense of the market.

WOODS: It's incredibly sloppy for an economist to use this figure of speech and not realize it's a figure of speech.

HERBENER: Right, exactly. You know the good piece on this is Leland Yeager. A few years back he wrote a nice piece pointing this out, making this distinction about how the marketplace of ideas is really just a metaphor, and it isn't meant to imply anything about the true value of the ideas that win out in the so-called marketplace of ideas.

WOODS: All right, let's go back now to number four. And in number four, Jonathan Newman was saying that Austrian economics is not a collection of "vague ideas," so "Even though empirical testing is out of the question, economics is not reduced to a collection of 'vague ideas,' as Smith put it. Economics," as Jonathan goes on, "is based on both causal relationships and realistic relationships, which is why some rightfully refer to the Austrian brand as 'causal-realist economics.' We do not conjure up some homo economicus who behaves in some predictable way or consider human behavior as a formula with a stochastic component. We consider real humans as they really act."

And now the response from the critic is that the "Austrians do not even understand that they are doing" — or, I think he means to say "what they are doing." There's a typo there. He says that despite the protestations of Jonathan, he says, "This is *exactly* what Austrian economists do. Why do we get the law of demand? Every single person sees diminishing marginal utility. In other words; every single person acts in a very predictable way. Why did Austrians 'predict' the housing bubble? Because every single person reacts to low interest rates and government policies in a way that would lead to the crisis. In other words; every single person acts in a predictable way. Austrians try to act as if they do not assume humans act in a predictable way but yet they constantly make predictions about how humans act! Moreover, they constantly brag about being able to predict how humans will act. If humans didn't act in a predictable way then there would be no reason to do economics. All this fourth point by Newman has demonstrated is that Austrians do not even understand their own methods, let alone mainstream economists." He means let alone the methods of mainstream economists. So go ahead, Jeff.

HERBENER: Yeah, well, this is an illustration of a point you made earlier, that he doesn't seem to really have read carefully *Human Action* or to have comprehended the way in which the Austrians conceive of the difference between economic theory and economic history. So anyway, I think we said this before, that what the Austrians do with theory, which we do think is exact and gives us the cause and effect structure of action, is isolate or abstract the universal logical structure of action from the particular contingent features of particular actions. We're trying to find what must be logically the case for any and all actions. So that theoretical structure then provides us with the groundwork from which we engage in prediction, and the prediction that we engage in of course has to deal with the uncertainty of the future; it has to deal with the quantitative magnitude of the cause and effect relationships, and so on and so forth, that theory does not provide us.

So we have to have another augmented way of engaging in that part of economic analysis. And here the way that Mises suggests we do this is through what he calls specific understanding, through human judgment, so that instead of relying solely on statistical methods, which are after all rather weak, ways of doing analysis, we can use human judgment, just like the entrepreneurs in the market would use their judgment about the conditions that they anticipate will exist in the future when their profit is either realized or not, and not rely just upon statistical projections. We can do the same kind of thing in economic analysis, in predicting, let's say, the trend in the macroeconomy. We might just use our judgment of past booms and busts and assessments of various causal factors that we see put into motion and so on to make our predictions. And part of this may — we may use statistical analysis to aid us in this, but we don't rely solely upon it.

WOODS: I remember reading a criticism some years ago of the Austrians on this point that quote Rothbard as saying, look, some people may want to act in a way that — like, people's value scales are obviously different and some people might place non-monetary goals very, very high on their value scales, and other people don't, but he at one point said, but since most people do then we can proceed with the analysis. And the person was saying, well now, wait, hold on a minute. Where did that come from? Isn't that an illegitimate insertion of an empirical observation into this otherwise logical demonstration?

HERBENER: Well, you know, there are oftentimes — I mean, there are a couple of things about that. There are oftentimes empirical generalizations that are helpful or maybe even necessary in working out the logic of what's happening in the real world. Another example would be that people have different skills and temperaments and so on to do work, and so, I mean, we don't logically infer that from some sort of earlier premise, but we just observe this as part of the world. And so I think Jonathan mentions this, that it's from that kind of consideration that we get principles to explain the division of labor. So there are reasons to do this.

The other thing that might be said in favor of Rothbard's claim is that whatever preference orientations people have toward things, they adjust their actions accordingly, and so they're always acting further — any additional action they engage in is always in consideration of having fully adjusted, as far as they are capable, have adjusted to their preferences as they are. And so people — in other words, when you go to Wal-Mart, let's say, and you buy a toothbrush, when you buy the toothbrush then you're at, as we like to say, a point of rest, and the marginal utility of an additional toothbrush is not sufficiently high for you to buy another one. And so we know at that point that only at a lower price would you buy another one, whereas we wouldn't know that before you bought the first one. And so even people who don't have monetary considerations as a primary end in life have adjusted their actions in such a way that at the margin, when monetary factors change, they too will — it's not unreasonable to think that their behavior would change.

WOODS: I want to just go back to the housing bubble point for a minute, because I found — it took me two seconds to find a list of major experts who resolutely denied the existence of a bubble. Resolutely denied it. I mean, these are top notch people who are widely published or they're commentators who are widely respected, and there's a whole bunch of them, and I'm sure it's just the very beginning. So I'm going to link to that at TomWoods.com/723. Let me jot this down: "People who were wrong about housing bubble." And I will not be writing the name Mark Thornton on there, will I?

HERBENER: (laughing) No.

WOODS: No, sir. So the idea that everybody saw that, and so that was just easy to see — I mean, come on (laughing).

HERBENER: Yeah.

WOODS: You know, criticize the Austrians if you like, but don't say that.

HERBENER: Right, yeah.

WOODS: All right, let me ask you one unrelated thing before we go, sort of unrelated. What's your entry point book for Austrian economics for somebody? It's not *Economics in One Lesson*, but specifically Austrian economics. What's the book that you direct people to?

HERBENER: Well, for someone who actually wants to master basic economics, I think Bob Murphy's book *Lessons for the Young Economist* is a good introduction.

WOODS: Okay, I'm writing that down, because we're going to link to that on the show notes page. You can get that book for free, by the way, although to get a hard copy — it's such a beautiful textbook it's almost a shame to get it for free, so you should buy the textbook. I'll write that down. But also I know you like his book *Choice*.

HERBENER: Oh yes, excellent. *Choice* is excellent, and it's a little bit more advanced, but definitely a wonderful book. It's just a wonderful condensation of Mises' *Human Action*, and the presentation of it is really great.

WOODS: All right, good, good, good. So I'm going to link to those at TomWoods.com/723. Now, I realize that — I want to acknowledge that some of the material that we covered today is a little on the technical side. It's true. But you know, we have technical people in the audience too, and they deserve an episode once in a while.

HERBENER: (laughing)

WOODS: But also, sometimes if that's what it takes to answer somebody whose article is all over the Internet, then that's what it's going to take —

HERBENER: Sure.

WOODS: — so you know, we had to do it. So I'm glad we did that. I've got to get you on for a Q&A session. You're way overdue for one over at Liberty Classroom, so we've got to get you on there. I'd like to get you on with Bob Murphy. That'd be fun, all three of us together. So we'll try and do that sometime within the next month.

HERBENER: Great.

WOODS: All right, thanks again, Jeff. Great talking to you.

HERBENER: Thank you, Tom.