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SARAH HANSEN: Today on *Chalk Radio,* we're expanding our traditional understanding of economics.

FRANK SCHILBACH: At the end of the day, what economists should be trying to do or economics should try to do is maximize people's well-being.

SARAH HANSEN: I'm your host, Sarah Hansen. Today we're talking about economics and well-being. From exploring the impact of sleep trends in decision-making, to dissecting why students procrastinate, Dr. Frank Schilbach is working to understand how our psychological well-being impacts our economic behaviors and vice versa.

FRANK SCHILBACH: My name is Frank Schilbach. I'm an associate professor at MIT in the Economics Department. I study mostly issues related to poverty, studying development economics for developing countries, and I'm specifically interested in issues that disproportionately affect the poor that are, in one way or the other, psychological or have psychological effects.

These include sleep deprivation, physical pain, loneliness, mental distress or mental health issues such as depression or anxiety, or just worries about money. And all of these factors might affect people's psychological well-being. They might also have impacts on people's decision-making, such as how much money to save, whether to purchase insurance, or what food to eat or purchase, as well as people's work decisions.

So how productive people are at work, how many hours they work, how much do they earn. And all together, these might affect people's ability to escape poverty or become richer in the future, and thus, as a whole, perhaps lead to what people might call a psychological poverty trap because they have to struggle with so many issues associated with poverty. Their sleeping conditions are bad, struggle with mental distress, et cetera.

SARAH HANSEN: Because he seeks to include these social factors in his work, Frank's model of economics diverges from many traditional models.

FRANK SCHILBACH: Our lab is really the world. We can look around and talk to people every day and experience things, try to introspect how we make decisions ourselves, but also talk to people and try to understand-- and you can take a cab or an Uber and just ask your Uber driver how they're making choices on whether or not to stop working or how much to work. You can ask anybody on your friends and so on, try to understand how they make choices in their lives and what factors seem important.

Some of the research that I've been doing on sleep, but also on alcohol consumption and on mental health comes very much from this type of approach. I spent some time in India trying to work on some research projects, and while working on these research projects, I spend a lot of time talking to people.

So I have lots of conversations with people asking them very basic things about what are things that make you happy? What are things that are difficult in your life? What are things that you think that could be improved? Or if you could improve one thing in your life, what would you do and so on? And a lot of the things that I'm now studying are precisely issues that are in some ways overlooked by or have, until recently, at least, not received a lot of attention in economics so far. For example, say sleep deprivation.

Yet they seemed really important in part because if you just look at people's sleeping conditions, they are replete with all sorts of factors that are terrible for people's sleep. And this is where they introspection comes in. If you then think about how do you function on a really bad night of sleep, that's very difficult at least for me. So if I sleep badly, I'm very sensitive to sleep, I don't function particularly well, and putting these things together has then gotten me interested in understanding and researching the impact of improving sleep on people's lives.

SARAH HANSEN: Intuitively, I know sleep deprivation is bad. I feel grumpy and impatient and get frustrated more easily when I don't get enough sleep. But I had no idea it might affect how much money I make and how much money I save.

FRANK SCHILBACH: So what we did in one of our studies, we tried to provide people with different interventions to improve their sleep, including eyeshades, earplugs, mattress, table fan, and so on. So these are all interventions to improve your sleep environment. We also gave people some information about doctors say sleep is important for your health, and other people were given incentives to sleep more. So they actually paid by the number of hours that they slept, and the more they slept, the more they were paid.

And all of these interventions were, in fact, quite successful in increasing people's sleep. And what we were then interested in is now if you increase your sleep, does it improve different aspects of your life? Ranging from cognition-- so these are just measures of attention. Work productivity. So we hired people for a month to work as data entry workers. So then we looked at people's labor supply, how many hours did people work? How productive were they? How fast did they work? How many mistakes that they make and so on? How much money did they earn overall?

And so is it the case that if you sleep more, now do you make more money at work on an everyday basis? And then we looked at other things such as savings. We gave people an attractive savings opportunity. You look at do people save more when they sleep more? As well as economists would call preferences, which is time risk and social preferences. So how do you make decisions over time? How prosocial are you when you decide between your own outcomes versus others? How nice are you to others? And how do you make decisions in the face of risk?

And the idea here would be that if you found effects, people might, for example, be more patient if they have slept more, so they might be willing to save more for the future, which could have high returns in the future.

SARAH HANSEN: At MIT, Frank's work in behavioral economics seeks to enhance current economic models with insights from anthropology and sociology in order to make the field of economics reflect what actually goes on in people's lives. I asked Frank to explain a bit more about how his work builds on traditional economic models.

FRANK SCHILBACH: Economics makes a lot of very stark assumptions on people's behavior. So economics usually-- or standard economics usually assumes that people are very rational, they're very willful, they're also very well-informed, and very attentive. So you can think of this as-- and this is usually called Homo economicus. This is a person, the ideal human who doesn't make any mistakes, who makes perfect decisions, and is always right in what they do, and they're perfectly optimized at any point in time.

SARAH HANSEN: Frank explained that although standard economics frameworks do help explain a lot of important behaviors, their assumptions often miss some important parts of people's choices. Looking through a *psychological* lens can help round out the picture.

FRANK SCHILBACH: There are a number of examples in which psychological insights have been quite important in informing models. One very successful area is the area of self control or decision-making over time. This is the question on when we have unpleasant tasks that we might not want to do, for example, when we choose when to do certain things or want to consume earlier versus later, when there are temptations on when people try to procrastinate, people tend to have imperfect self-control.

So we don't always do the things we plan to do, we don't always plan to do the things we want to do on time. Students procrastinate their problem sets, faculty procrastinate writing their problem sets, people consume too early, people overeat, people overindulge in things that are joyful in the moment but have perhaps long-run consequences, and people underinvest in things that are painful in the moment, like, say, going to the gym or going to the doctor or making good health choices that are, in fact, then costly in the future.

And so behavioral economics has then tried to model it, try to understand self-control problems or what people call present focus, which is people excessively focused on the present. They've put lots of weight on what they experience right now. If you have a donut in front of you, it's hard to resist. Or if you're in bed in the morning and think about, should I exercise early or should I sleep for another hour, it might be very tempting to say, well, I'd rather sleep another hour even though your plan was very much to get up early and exercise and be virtuous and so on.

And so now behavioral economics has helped us understand such issues and potential ways to overcome them through what people call commitment devices, for example, which are essentially contracts or type of policies that might help people overcome self-control issues.

SARAH HANSEN: That's interesting. I also think, especially what you say about using insights from anthropology to inform standard models, insights from community members and anthropologists working with community members, it might look like someone is not making an informed decision.

Once you start looking into the community network, a decision that might not seem rational might actually be very rational in that particular context. Like they might be making decisions based on ties to other community members or reciprocity or things that would benefit them in other ways that these standardized models might miss. And I think it might be a way to make economics more culturally relevant or informed.

FRANK SCHILBACH: That's exactly right. So in a way, you might see people's choices and think that they're making irrational choices one way or the other, but in fact, it's that our models are misspecified. So typically, our definition of rationality is to say we can have a set of choices or preferences, we can have some model of your behavior that explains what you're doing overall.

If we can have such a model, then we can rationalize your behavior in some ways, and we say certain choices are rational. Now if you make certain choices where our existing models say this does not compute, this does not add up, it doesn't seem right, one might be tempted to say, well, these choices appear irrational.

But in fact, they're not irrational, it's just we have misspecified the model, we have misunderstood, and we have forgotten or omitted certain factors that seem important, and those could be exactly, as you say, like social or cultural factors, how people care about others or how people care about others' influences potentially, and that could be really important.

SARAH HANSEN: Before we get back to our interview with Frank, we wanted to take a moment to thank all of our listeners who have written to us with appreciation, feedback, and questions for our guests. We also wanted to thank those of you who have left us ratings and reviews on Apple Podcasts.

Hearing how much you're enjoying the show means a lot to us. So we thought it might be a good idea to share some of these reviews from time to time on the show, starting with this one, which also happens to include a suggestion. It says, "I am very thankful that this podcast exists. As mentioned in the trailer, it is close to being able to have a quick conversation with these great professors about their interesting courses. I love the episode with Gilbert Strang and look forward to listening to subjects that I would not normally be exposed to.

Suggestion-- please do an episode on 6.0001 with Dr. Ana Bell, Professor Eric Grimson, and Professor John Guttag." Wow, what a great review. Thank you so much. So interestingly, Eric Grimson was recently named Interim Vice President for Open Learning, which technically means he's my colleague now. And you know, I think he'd probably be into the idea of appearing on *Chalk Radio.* So why don't I give him a call right now?

[RINGBACK TONE]

ERIC GRIMSON: Hello?

SARAH HANSEN: Hi, Eric. This is Sarah from *Chalk Radio.*

ERIC GRIMSON: Hi, Sarah. How are you doing?

SARAH HANSEN: I'm doing great. Hey, we got a request to have you on the show to talk about computer programming, and I'm wondering if you'd be up for that.

ERIC GRIMSON: I'd love to. It'd be great. All right, just let me know when and where, I'll be there.

SARAH HANSEN: Great. We'll be in touch and we'll talk soon. Well, there you have it. You can look forward to an interview with Eric Grimson later this season on *Chalk Radio.* And if you have a suggestion for a guest you'd like to hear on*Chalk Radio,* you can let us know in a review on Apple Podcasts or Spotify, or you can email us directly at chalkradio@mit.edu. OK, now back to our interview with Frank Schilbach.

It's clear students' mental health is an important factor for Frank, and he takes that into account in the way he structures his course.

FRANK SCHILBACH: When I started, my problem sets were due at 9:00 AM or whatever-- in class, essentially, at the beginning of class, and that's very standard in many classes at MIT. But of course, what that leads to is students like pulling all-nighters-- so doing the problems that's in the middle of the night, which arguably is not good for them or good for their health or their mental health for that matter.

And so now I shifted to having problems that were due at 6:00 PM or 8:00 PM, in fact, on Fridays, in part, because I want students to have some weekends and, again, not work in the middle of the night. So very small choices that I like to think are well-informed by at least some behavioral economics or psychological considerations.

SARAH HANSEN: Yeah. It also pushes mental health and wellness out of this cordoned-off area that, oh yeah, it's important to think about, but we're going to consider all these other things first, you're really pulling it into the center of what you're doing, which is, I think, a pretty unique approach to teaching.

FRANK SCHILBACH: Yeah, I think that's right. I think it's also in economics more broadly, mental health, at least until recently, has not received a lot of attention. So in some of the research that I have been doing, it's still viewed as, in some ways, instrumental, in the sense that you say, well, if you can improve people's mental health, we can improve people's productivity or their decision-making or other types of outcomes.

What I increasingly think is, in fact, more important is just mental health by itself as an outcome is what we should strive for. Of course, that's very hard to measure in some ways in the sense that economists believe in choices and hard outcomes such as productivity or earnings or the like that are easier to measure, and mental health is much more difficult to measure in some ways. But at the end of the day, what economists should be trying to do or economics should try to do is maximize people's well-being.

SARAH HANSEN: All right. My last question. So on your OCW website page, there's an image of a credit card frozen in ice in a glass. So 30-second answer, should we all be freezing our credit cards?

FRANK SCHILBACH: At some point I was showing my wife this exact slide with this exact example, and she was then just telling me, well, haven't you seen *Confessions of a Shopaholic?* Which, in fact, is this movie where somebody exactly has this approach. And the bottom line from that movie is, well, there's a person who really likes to shop and she has, in fact, frozen her credit card, and then wants to shop, gets the credit card out of the freezer, but then just spends a lot of time trying to unfreeze their credit card and then shops anyway.

So you want to be careful with these types of policies. Are they really achieving the behavior that you want to achieve? As in, does it really make you shop less if you would like to do so? Or does it just make things more convenient and you're circumventing these types of policies-- so these types of things that you set out to do in the first place?

So if it's just then you put your credit card into the freezer then you unfreeze it by putting into the bathtub or the like, then you just put in a lot of effort and shop anyway, and so you might as well have just shopped in the first place if that makes you happy.

SARAH HANSEN: Frank's approach of including societal factors, such as mental health, in economic models is what makes his work so important and what makes economics feel so human and accessible. If you are ready to dive into teaching or learning with his materials, you can find them on our MIT OpenCourseWare website.

There, you'll find his 23 video lectures, lecture slides, recitation notes, problem sets with solutions, and quizzes with solutions, all available for re-use and remixing and all for free. You can help others find the materials, too, by subscribing to this podcast and leaving us a rating and review.

Thank you so much for listening. Until next time, signing off from Cambridge, Massachusetts, I'm your host, Sarah Hansen, from MIT OpenCourseWare. MIT *Chalk Radio's* producers include myself, Brett Paci and Dave Lishansky. Our scriptwriter is Nidhi Shastri. Show notes for this episode were written by Peter Chipman. Frank Schilbach's course site was built by Cheryl Siegel. We're funded by MIT Open Learning and supporters like you.

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