Harnessing the Power of Economics to Give Policymakers a Nudge: A Conversation with Cass Sunstein and Richard Thaler
MICHAEL  Welcome Cass, Welcome Dick. You had a long commute.
GREENSTONE:

RICHARD  Yeah. All the way across the street.
THALER:

MICHAEL  Yes. Cass, you lived two blocks away, right?
GREENSTONE:

CASS SUNSTEIN:  I did.

MICHAEL  Yes. How does it feel to be back at home?
GREENSTONE:

CASS SUNSTEIN:  Great. Sentimental.

MICHAEL  Well, we're glad to have you here. So this is part of-- it's probably worth, just for those of you who aren't familiar with BFI, what BFI, the Becker Friedman Institute, tries to do is really just two things. One is build, and foster, and expand the tradition of Chicago economics, of uncovering new ideas to help people understand the world in a different way.

And the second is making sure that those ideas make it out into the broader world, and not just in journals that all of us on the stage like to read. And maybe not everyone in the room likes to read. So with that, this is part of those efforts. I thought I would just begin with you, Dick. And life sometimes has funny coincidences.

But the night you won the Nobel Prize, I'm sure there was lots of celebration that you were engaged in. The poor students who were enrolled in my graduate public finance class, we're in a small, somewhat dark room inside Saieh Hall listening to me lecture. And what was I lecturing on? I was lecturing on, maybe not your most favorite paper, I think.

A 1976 paper that you published with Sherwin Rosen, "The Value Of Saving A Life, Evidence From The Labor Market." And in that paper you talk about individuals making very finely tuned judgments about trade offs between money and exposing them to fatality risk. In some sense, really capture like homo economicus. Now that seems like it's something you didn't stick with very well.
And I wondered with the perspective of a couple of decades, if you could tell us a, what went on in that paper, and kind of what happened? You seem to be on such an interesting path.

**RICHARD THALER:** Well, I can tell you I was a great disappointment to Sherwin Rosen, who was my co-author on that paper and my advisor. And a very traditional Chicago economist. And I kept telling him that if he wasn't nice to me, I would write a book and say he taught me everything he knows.

So I made him nicer. So you have to understand at the time I wrote that, I was actually teaching a course in cost benefit analysis. And I got to the section about value of a life, and the method at that time, so this is the mid-'70s, was if 100 people are going to die, you add up an estimate of the human capital for each one.

**MICHAEL GREENSTONE:** Their wages.

**RICHARD THALER:** Well, the present value of future wages.

**MICHAEL GREENSTONE:** Yeah.

**RICHARD THALER:** Which means killing off old guys like me is a plus. Because not only am I not contributing, but you know, there's a lot of Social Security, and Medicare, and stuff. So even you know, when I was a young man, I thought this was a pretty stupid way of doing things.

But nobody had a better way. Tom Schelling had written an article suggesting the right concept would be how much would people pay to have the world safer. But nobody had figured out a way to do this. I thought of Russian roulette. You know, you invite people to the lab.

And you have-- you have one of these like AK-47s. Let's say it has a 100 chambers. And the end of them are full, and then you ask people how much they would pay to remove a bullet? That's the right conceptual exercise.

[LAUGHTER]

**MICHAEL GREENSTONE:** We are highlighting the differences between economics and regular people, yes?
THALER: Maybe when the provost is here, maybe we can finally get this experiment.

PROVOST: Talk to the IRE.

THALER: So my father was an actuary. And I asked him, do you happen to have data on occupational death rates? And he said he'd look around, and I got that. And then I got the idea to run a regression of wages on the kitchen sink and the risk of death. And so that was the thesis.

And you're absolutely right, that it's predicated on the idea that people, like the people who wash windows on tall buildings, that we should let them decide how safe to build our highways. That's the premise.

Yes. Not so much. I mean, so it is, while I was working on that, though, I did my first behavioral experiment. So I didn't tell Sherman about this while I was doing it. I asked people two questions. Suppose by coming to this lecture, you've been exposed to a rare fatal disease. There is a one in 1,000 chance you're going to die a quick and painless death. But we have a cure right here in this glass. How much would you pay for that cure? So how much would you pay to take one bullet out of the gun? Out of the 1,000 chambers?

That was question one. Question two, we're running some experiments on this disease over at the hospital. We need volunteers. All you have to do is expose yourself to a one in 1,000 risk of dying. How much would you have to be paid? Now, economic theory says the answer should be approximately the same.

And the answers I got were wildly different. People would say oh I'd pay $1,000 for that cure, but I wouldn't do that experiment. Maybe a third of the people say they wouldn't do it for any amount of money. And the ones who answer give answers orders of magnitude bigger. Oh, that's interesting.

So to answer your question of how would I do it now, I used to say that I would ask Howard [? Rafa. ?] Now, he's dead. But he was like the guru of decision analysis. And I think that's some version of my answer, rather than-- and Cass, don't listen to this part.
So rather than using these numbers, so that little paper we wrote, some version of that is used every day in Cass’ old office, that’s required to do cost benefit analyses on things like emitting pollution and yeah. So yeah, I wouldn’t go with that number.

But I don't have a great alternative. It's not adding up human capital. And I think asking smart people to think about it, and maybe base it on some data, is probably what I would do now.

MICHAEL GREENSTONE: But what set you off is you were bugged by that there was this prediction that the willingness to accept, and the ones to pay, should be the same. And that didn’t fit what you saw.

RICHARD THALER: Yes. And then as I went along--

MICHAEL GREENSTONE: Because what Dick and I, he's making it kind of clear, he was raised in a very homo economicus way.

RICHARD THALER: Oh, absolutely.

MICHAEL GREENSTONE: [INTERPOSING VOICES]

RICHARD THALER: Oh, I told him about it. And he said stop wasting your time, go back to writing Fortran programs. Which is not my comparative advantage, actually. So I discovered that finding puzzling behavior, I'm better at that than writing code.

MICHAEL GREENSTONE: So it must have been a secret Schermer.

RICHARD THALER: Cass, we're going to get the nudge in a minute, which people are dying to hear about. But I just wanted to talk about your new book for a minute, *The Cost Benefit Revolution*. Which you wrote in today’s kind of turbulent political environment, the issues that most divide us are fundamentally about facts rather than values.

And you said if we get clear on the facts, the value disagreement starts to seem uninteresting. I wondered if you wanted to talk about that a little bit. I guess I could just try to be obnoxious and say, we can’t even agree on how many people showed up to the inauguration of our president, so.
Most of us are not confused about that.

[LAUGHTER]

I don't know. Have you looked at the polling on Republicans versus Democrats on the question?

So people think they disagree sharply about occupational safety and health, and food safety, and clean air. And in Washington, as through the country, these issues have different valences across political lines. And it seems like a different value assessment is driving these judgments.

But here's a question for you. Suppose there's a food safety proposal that's going to cost $2 billion and save three lives a year. Is that a good idea? No matter how enthusiastic you are about food safety, it's unlikely that you'd like that idea.

Here's another one. There's occupational safety and health regulation that's going to save 600 lives a year, prevent 600 cancer deaths, and the cost is $500 million. You really have to lowball the value of a statistical life, not to embrace that. And I saw in Washington time and again, progressives retreat not with sadness, but with an acknowledgment where the facts show that the proposal they thought they liked was extremely expensive, and it wasn't going to do a lot of good.

And conservatives embrace regulatory initiatives when they saw the human consequences were on that excellent. So often, people use as a cue some simple questions like, is this the federal government regulating clean air? But once they engage the question, which may be particulate matter, which is a quite dangerous air pollutant, where reducing it from x, let's say to something a little below x, is going to save a lot of lives.

And it's not going to have a big economic hit. So that people are in their reflective moments cost benefit analysts. And once they are, they are engaging in facts. So the one time I called a member of Congress after the Obama administration issued a rule. I called one who really despised the Obama administration, but who had written a letter which was substantive and factual giving 12 points of objection to an air pollution rule.

And I called him up, and I said we got your letter. Of the 12 points, actually seven of them
were good, and we responded in whole or in part. And five we didn't agree with, and here's exactly why. And I spelled it out not with reference to values, just by reference to human consequences.

And his answer, and I won't betray his confidence to disclose his name, but someone who really hated the Obama administration, he said oh, this sounds good. I'm persuaded. I'm going to issue a press release endorsing what you did. He never issued that press release.

[LAUGHTER]

I think the reason is he got back to his staff, and his staff said you can't do that. But he didn't issue a negative press release. And to this day, he hasn't said a single negative word about that rule. And it's because once the facts were laid bare, there was basically no daylight between the most left wing people in the Obama administration and this right wing critic.

MICHAEL GREENSTONE: OK. That's great. And you're at the university.

RICHARD THALER: One little footnote to that is that we don't have to agree what the precise number should be for a valuable life. But the flawed number that you come up with, using the method we-- say it's $10 million a life, that may be wrong. But at least we won't value some at $300 and some $3 million.

MICHAEL GREENSTONE: Across different regulators.

RICHARD THALER: Across different fields. And that was like one of the big achievements that Cass achieved in watching.

MICHAEL GREENSTONE: Just one follow up on that. But let's just suppose that there's people who are not as good public spirited as you suggest, and view cost benefit analysis as like, we call it a degree of freedom. And they can insert whatever number they want in there. What happens when not everyone is playing by the same rules?

CASS SUNSTEIN: OK, good. Well, the direction we're going is a pretty technocratic conception of democracy. And we have a moral heart to the technocratic conception of democracy. And it goes back to John Stuart Mill, who was a founder of utilitarianism, and an ethicist, who you might have read a great deal of Mill.
I only read him, self evidently angry once. And it's an amazing passage where he's saying that the critics of utilitarianism seldom have the decency to acknowledge that the utility that matters is not that of a single person, or the person who's arguing for utilitarianism. But is the utility of all of us, and then Mill most uncharacteristically says that morality of utilitarianism is the morality of Jesus of Nazareth.

He says in his golden rule, you can find the entirety of the utilitarian ethic. And it's an extremely powerful passage, unifying Christian ethics with a pretty technical conception of how to think about what government should be doing. If people are representing interest groups, or using intuitions that misfire, or being expressive rather than focused on what's actually affecting human beings, the only thing that can be done is to talk to them.

And in some domains, that doesn't work. But I'm here to tell you, in Republican and Democratic administrations, the degree of uniformity with respect to on the ground stuff, crushes the degree of admittedly important interest group or value-based disagreement, at least in the terrains we're now discussing. Health safety and the environment.

MICHAEL: Excellent. OK. I thought we might turn to the book that you guys worked on together, famously.

CASS SUNSTEIN: The new one or the old one? I don't know about that.

[LAUGHTER]

RICHARD: Cass gets so excited at the idea of a new book. And you know, if you slip during a dinner conversation, the next thing you know, you have a book contract.

[LAUGHTER]

CASS SUNSTEIN: We have a book contract.

MICHAEL: Not everyone is able to generate a book contract.

GREENSTONE:

RICHARD: You know me, then the book will be done next week.

THALER:

MICHAEL: OK. So in this book, you guys set out a case for what you call libertarian paternalism. The
libertarian part, you write the libertarian aspect of our strategies lies in the straightforward insistence that in general, people should be free to do what they like, and to opt out of undesirable arrangements if they want to do so.

The paternalism part lies in the claim that's legitimate for choice architects. We are going to come back to that, to try to influence people's behavior in order to make their lives longer, healthier, and better. So probably everyone here has read the book five or six times.

But for the one or two people who haven't, could you guys give you an example of what you had in mind by all that? And where you would recommend a nudge?

RICHARD THALER: So yeah, let me give you an example that actually relates to how we stumbled on that phrase. So, a former student of mine, Shlomo Bernartsi and I, created something that we called Save More Tomorrow. And it's kind of the next step after automatic enrollment.

And the idea is you go to people and say you probably realize you're not saving enough. How about if we sign you up to increase your contributions not today, because you can't afford it. But in a few months, when you get a raise. Because we all have more self-control in the future.

So that was the idea. And we got some local company, actually, to try this. And we invited people to join this. This wasn't automatically enrolled. This was opt in. And the people who opted in tripled their saving rates. So I was presenting a paper about this over at a conference in honor of [? Sherwood, ?] who died prematurely. And my discussant was your colleague, Casey Mulligan.

MICHAEL GREENSTONE: I think I was at that conference.

RICHARD THALER: And he was sort of stammering a little bit, because the results are really strong. And he says, finally, the results are pretty good. But isn't this paternalism? Like cutting me to-- and I said well, I don't know. There's no coercion here. Right?

People volunteer for this. Like joining a bowling league, you know? So I don't know. If this is paternalism, it must be some different kind of paternalism. I don't know. We could call it maybe libertarian paternalism? And that infuriated Casey.

[LAUGHTER]
And has infuriated virtually all true blue libertarians. Because we stole their word. But the next day, I think, Cass and I were having lunch down the street at Noodles, which is where we wrote the book, basically.

[LAUGHTER]

And--

MICHAEL GREENSTONE: I've been there. I can see why you'd write a book there.

RICHARD THALER: Yeah, yeah. Cass isn't that into food, let's just say. It's a necessity, you know. So I said Cass, I told him this story. I came up with an interesting phrase yesterday. I think there might be something to this.

And then we wrote an eight page paper in the [ ? AEA ?] proceedings that I drafted. And then Cass turned it into a 90-page law review article.

[LAUGHTER]

That (WHISPERING) I haven't really read.

[LAUGHTER]

MICHAEL GREENSTONE: But you kind of know what it's about.

RICHARD THALER: But I kind of know what it's about. A lot of footnotes. A lot of footnotes. But this--

MICHAEL GREENSTONE: OK. I'm just going to interrupt. It just feels like we're getting one side of the story here.

[LAUGHTER]

RICHARD THALER: I don't know why you'd think that. But anyway, that looked like a book to me. And then I may have mentioned the B word. And then yeah, we had a book.

MICHAEL GREENSTONE: Cass?
CASS SUNSTEIN: Well, OK. So think of a GPS device as a mechanism that preserves freedom of choice, but also steers people in a direction that they have specified. So a GPS device is libertarian paternalism, in two senses. First, it's respectful of people's decisions about their own preferred destination. They set their destination. So it's means paternalistic.

And second, allows people to say I don't like the direction in which you want me to go. I have a route that I consider scenic, or nostalgic, or fun. So it is means paternalism respectful of destination, and choice-preserving. Now those are defining of things like calorie labels, which the Trump administration has recently embraced.

Automatic voter registration, which a number of voters have recently supported, and which Americans broadly are for. Where you don't have to be a voter, if you're automatically registered as a voter, you can opt out. There is a program from which over 10 million American children who are poor are benefiting, which is automatic enrollment in free lunch and dinners.

Lunch and breakfasts, if you are poor. And there's automatic enrollment, so they don't have to sign up. And they can opt out, either explicitly, or by just not taking advantage of the program. Information disclosure of multiple kinds, warnings, and reminders have that feature. And one reason the health example, which Dean Miles, gave is so I think powerful, is there's a canon now that Harvard, of nudge units basically, which are using behaviorally informed policies.

Including just sending reminders to patients, or changing the default number of opioids that people are given, or making it so that when you are released from an emergency room, if you are an opiate addict, you automatically get a medicine which has an 80% success rate in curing opioid addiction. And these are all completely choice-preserving approaches.

But in some cases, the number of lives being saved is quite high. In another case, the health benefits or are through the roof. But in all of these cases, we are not imposing a mandate, or a ban consistent with Mill's prescription and non-liberty. If people want to go their own way, they're entitled to it.

MICHAEL GREENSTONE: OK, so it seems like you guys don't like mandates and bans. And then you described a bunch of cases.

RICHARD: In most cases. We think murder should be banned.
THALER:

MICHAEL GREENSTONE: You want to hold on the libertarian part of that? So you want only limited use of bans.

CASS SUNSTEIN: Consistent with the standard libertarian view, if there's harm to others, then there's a case for a mandate or a prohibition. And it's also the case, I would say, that if there's a demonstrated self-control problem, where the benefits of the mandate crush the costs, as in the case of mandatory seat belt buckling, or I think in the case of cigarette taxes, then the presumption in favor of freedom of choice might be overcome. But you need a strong empirical demonstration where you don't do harm to others.

MICHAEL GREENSTONE: OK. So where do we get into a grey area? Some space between a bunch that are objectionable, and then people complain well, wait a minute, choice architecture. Who got to set the architecture? And what's the criteria for setting the architecture?

And I'll just even pick on your terrific work on savings, not the Save More Tomorrow. But with the defaults, it is true that you can get people to save more. But that stumped does not seem to me an answer, necessarily, to the question of are they better off?

RICHARD THALER: Well, that's true.

THALER:

MICHAEL GREENSTONE: So Cass had some good examples of death. We can all agree no one wants to be dead. So things that prevent you from being dead, those seem good. Changing what I consume today, or I consume tomorrow, it's harder to figure that one out.

RICHARD THALER: So a friend of ours happens to be here. We were at a conference this morning. Illinois has passed a law that's going to make it easier for people who have jobs where their employer doesn't offer a savings plan to have payroll saving, which is the only way people really effectively save.

If you look at the people who don't have this, and how much they've saved, it's pitiful. Now, look, it's possible some of them are going to come into a big inheritance, or planning to win the lottery. But if you see a 50-year-old that has a total of $3,000 saved, it's a good guess that that's too little.

And if we can automatically enroll them into a savings plan that they can opt out of, they save
a lot more. So the question of who should be the choice architect, in many cases, it’s the government. Or it’s the employer.

Provost and I have had interesting conversations about the health care plans that the university offers, and how they should be presented. And I think we could make people much better off by changing the choice architecture. But so far, the president and provost haven't put me in charge of them. So people, whoever is in charge, gets to be in charge of the choice architecture.

**CASS SUNSTEIN:** So there are two different questions, I think. One is, how do we know which choice architecture is best? And that's a question promotes people's welfare. And that might be easy, as in some of the cases. Might be harder in others. But there's another which is I think a more fundamental objection than some people make, which is where did these choice architects get off being choice architects at all?

Isn't the very idea of presumptuous and illiberal in the sense of authoritarian, or something? That objection is, on this view, not convincing. Because choice architecture isn't avoidable. If you are automatically enrolled in a savings program, that's one form. If you aren't, that's another form. If there is a website, it's going to have a design. A grocery store has a choice architecture.

Any entity is unavoidably involved in creating a choice architecture for those things over which the entity has jurisdiction. So, it's a good question. What should the choice architecture look like? It's not a good question, should choice architecture, question mark? It's better to say choice architecture, exclamation point! Then we get to the right question.

**RICHARD THALER:** It's the same with architecture. So this is a new auditorium. We couldn't-- the lab school couldn't have said let's have an auditorium. They had to decide how big it should be, and how much it's going to cost.

And where the doors should be, and how the seating should be arranged. You can't have a neutral architecture. It has to be something, or the building won't stand up.

**MICHAEL GREENSTONE:** OK, excellent. Now I'm going to break the confidence of Cass' marriage here. Ready?

**RICHARD THALER:** I doubt it.
MICHAEL GREENSTONE: His wife, who I know, and I only know this from Cass, not from her claims that Cass ruined movie popcorn for her.

RICHARD THALER: By telling her how fattening it is?

MICHAEL GREENSTONE: Yes. By telling her how fattening it is. So what if the nudges just make people worse?

CASS SUNSTEIN: Oh, so there are two different points.

LAUGHTER

RICHARD THALER: I'm taping this.

CASS SUNSTEIN: You could have a nudge that is nudging people in bad directions. It happens all the time. Private self-interested entities, or private altruistic entities, in the first case not a mistake, but harmful. In the second case, harmful. Governments may nudge in ways that make people worse off, either because they're incompetent, or because they're self-interested, or evil.

So that's as absolutely true, and really important. You might want a cost-benefit executive order, to pull an example out of a hat, as a constraint on mistaken nudging. Or you might want--

MICHAEL GREENSTONE: But would they have captured that Samantha finds it like burdensome to know the number of calories in movie popcorn?

CASS SUNSTEIN: Ambassador Power example, which is when we worked in the government, we worked on calorie labeling as a nudge for the Affordable Care Act. Not a part that is creating much across political lines, opposition. And we proposed not to include movie theaters, and--

RICHARD THALER: The Samantha Power exemption.

CASS SUNSTEIN: We weren't sure about whether the law authorized it, and we didn't have the data. So we didn't know enough on what the consensus was about the public health and cost benefit consequences. But I thought we maybe wanted to include movie theaters, because the legal
question wasn't at all clear.

And we wanted to get public comments on whether to include movie theaters, such that we'd leave that option available when the final decision was made. After I left the government, the information all came in, and the choice was to include movie theaters. And again, the Trump administration has followed that.

I sent a note to Ambassador Power, saying with enthusiasm, they chose to include movie theaters. And she sent me a three word email back, Cass ruined popcorn.

[LAUGHTER]

And there is an idea there which is that there may be a-- what's the right word? Hedonic adverse effect of being nudged. So you might see something, caloric content of popcorn, or some warning about something, and that might make you sad. And that has to be part of the all things considered judgment about whether it's a good idea.

MICHAEL GREENSTONE:

OK.

RICHARD THALER:

He's not going to ruin their marriage. At least not that way.

MICHAEL GREENSTONE:

So one of the great appeals of nudges, I think, is that they-- at least at a high level, offer something for nothing in many instances. Some socially desirable outcome that doesn't cost very many resources. Maybe some extra ink on the side of the popcorn box, or something like that.

But some problems are really big. And you don't have a lot of time to act. And I wonder, like is this-- so this should go into the toolkit, I assume both of you think? But how big of an arrow is this one? Mixing metaphors here.

And an obvious example is, there's been great-- in the area that I work in, there's been great, really an enormous amount of interest in a couple of articles that have demonstrated that if you show people how much energy their neighbors are using, they'll consume at least temporarily a little less energy.

And people love it. And I think they love it because it appears to be basically free. But I think
also the effects aren't that big. So I wondered how big is this tool in the tool chest?

CASS SUNSTEIN: Well remember, in a bad year, 10 million children are having meals to which they're legally entitled as a result of automatic enrollment. That's 10 million children. That's a statistic. If outside of this room, there was a very small fraction, and you saw them as you left, I think there wouldn't be a dry eye in the house.

And that's 10 million. The savings from the Credit Card Act of 2009, the annual savings, are estimated at over $10 billion also. That's a product of either nudges, or behaviorally informed interventions. And that multiple billion dollar annual savings is concentrated among people with poor credit ratings.

So these are fellow citizens who are through inadvertence or inattention, or unrealistic optimism, stopped losing significant sums of money on their credit card, and the Credit Card Law is helping them. And we're speaking of billions of dollars. The automatic enrollment program, for savings, the aggregate number of dollars in those programs, Dick you may know.

But it's in the tens of billions, also. So for a wide range of problems, voter registration, automatic enrollment. If we want to lowball the estimate, we're talking about hundreds of thousands of people who are voters like that. And that's not incremental. And for other things, it's a several percentage point increase.

And if you can get an improvement in air pollution, or reduction in greenhouse gas emissions, that's good. It may be that more aggressive tools are a lot better.

RICHARD THALER: So, yeah. Let me follow up on that. In the chapter on the environment and nudge, the first thing we say is, step one is a carbon tax. You've got to get the prices right. But prices won't always be the most efficient way. So if we go back to savings, the tax shelter is really expensive.

And as best we can tell, nearly useless. So Raj Chetty, not a bad economist, has a paper using Danish data where they don't seem to care that much about things like data privacy. So we've always wanted to do this test. If you get people to save more over here, do they just spend?

And in this paper with the Danish data, they find that there's-- if you move from Chicago to Harvard, and Harvard has a more generous retirement savings plan, you just saved more there, and you don't save less somewhere else. But they estimate that the tax break, you get a
penny on the dollar.

**MICHAEL GREENSTONE:** It's a very powerful paper.

**RICHARD THALER:** So price won't always, if you give me a choice between creating the right defaults and choice architecture, versus a tax break in the saving domain, I'll take choice architecture every time.

**MICHAEL GREENSTONE:** Oh, that was a little bit stronger than I thought you'd say. Every time?

**RICHARD THALER:** In the domain of saving.

**MICHAEL GREENSTONE:** In the domains of saving. All right. But ultimately, we'll judge this all.

**RICHARD THALER:** Yeah, no. I mean, look. Climate change is a big problem, and getting people to lower their utility bills 2% is not going to prevent what's going on in California right now. But if we get 2% for free, and we can do that 100 times, some of what we're going to accomplish is going to be in lots of incremental bits.

And so sure, I would-- I would love to have $8 gasoline. But I'm not a politician, so I can say that.

**CASS SUNSTEIN:** Here's an environmental story. I was living in New York a few years ago, and I got a postcard in the mail that said good news, we will switch you to green energy, which has lower greenhouse gas emissions, just go on our website and ask. And I thought, that's great.

I'm going to do it and then I lost the postcard. So that was a choice architecture that had no effect. In Germany, there is an experiment, large scale, tens of thousands of families, where they automatically enrolled people in green energy, and say you want to opt out? And the opt out rate is relatively small, roughly 30%.

In the same design, the opt in rate is about 7%. So opt in to green energy, 7%. Opt out from green energy, you end up with 70% in. So that, if generalized to areas where there is relatively inexpensive green energy, could produce very significant effects in emissions reductions.
Now, we shouldn’t say that-- and maybe this is the next question. But if so, I’ll answer it anyway. So not all nudging is good. So many we know that if people ask me to sign a copy of the book, I would sign it nudge for good, which is a plea, not necessarily an expectation.

And certainly, there’s a lot of private sector nudging that’s pretty evil. And I’ll give you one example. When the first review of *Misbehaving* was published, my editor sent me a link that I clicked on. And I ran into a paywall from the *Times of London*. But it was an offer. I could have a one month trial for one pound.

So I’m willing to pay a pound, because the first couple sentences look friendly. And I’m myopic. But then, I did write this other book. So I start reading the fine print. And it turns out, if you want to cancel, you have to give them 14 days’ notice. So it’s actually a two-week trial.

And you can’t do it online. You have to call London. Not on a toll free line, and during London business hours. So I wrote a column about this in the *New York Times*, and they made me play like a reporter. So I called the *Times*, and asked them to justify this policy.

And they said, well, we want to make sure people know all the benefits. Oh, I should mention that of course, after the one month, they automatically enroll you into a subscription that cost 27 pounds a month.

That’s choice architecture.

That’s choice architecture. And it’s bad choice architecture. And I’ve coined a term for this, which I call sludge.

Now the main principle of nudging is make it easy. That’s my mantra. If you want people to do something, make it easy, remove the barriers. So you automatically enroll people, they’ll do it. If you will automatically enroll them into something that they don’t want, like if Cass had clicked on that link, he would still be a subscriber to the *Times*.

It’s really good.

Yeah. The cricket scores.
CASS SUNSTEIN: I haven't read it, but I'm sure it's good.

RICHARD THALER: They have really good coverage of cricket.

MICHAEL GREENSTONE: I'm still getting them records every month from Columbia.

RICHARD THALER: Exactly. So we've both been writing about this now. Cass has a new paper that is longer than my New York Times column. And so we would like to remove sludge. And it's not clear exactly how to do it.

I think I was trying to convince some people at a large tech firm that they should have, essentially, an extension to your web browser that will read all the fine print, and warn you. Because the EU passed some new regulations. And exactly what it accomplished is ad sludge. Because it now--

MICHAEL GREENSTONE: I was just in London. It's very irritating.

RICHARD THALER: Right? You just--

MICHAEL GREENSTONE: Very irritating.

RICHARD THALER: Anytime you're in Europe, you open up any publication, and you have to agree to God knows what. So that is not good regulation. It's not good choice architecture. And so you can absolutely nudge for evil, or for profit. And Bernie Madoff was a master of nudging. We didn't invent nudging. We just coined a term for it.

MICHAEL GREENSTONE: OK. One thing, we have only a couple minutes before we're going to take questions from this terrific audience. But one thing I do want to drive into slightly more personal, and we have lots of students here who I think will be especially interested in this, is one thing I deeply admire about both of you is that you seem unafraid of having ideas that run outside the conventional wisdom, let's call it.

Be it around nudges, or questioning the assumptions underlying homo economicus. And I
certainly saw Cass in the Obama administration time and again not necessarily endear himself to his friends when he believed deeply in something. So where did that come from? How do you guys nurture that? How do you protect it? And do you ever have moments where it would just be easier to just go along?

CASS SUNSTEIN: There's the academic, and then there's the non-academic. So if you're writing papers as a student, or as an assistant professor, or professor, do you ever feel, really talking to everyone in the room individually right now, that there's a kind of tickle it's like here? Or something like that. And if some of you were nodding, or almost.

That means, I think, that you have something that's yours, and that is stirring you in some way. It's almost like it makes you laugh, or it makes you fingers have to either inquire or to produce something. And it could be in economics, it could be in law. It could be in any number of fields. And in terms of thinking about things, if you have that tingle, or tickle, don't ignore it. Because what do you spend your time on with that will be, for you, time really well spent.

And chances are usually good that you're going to end up doing something that's worthwhile. So whenever I get that, I think go for it. And it's diagnostic, meaning chances are it's going to be OK. I had a book project in the last few years that had zero tingle or tickle. There wasn't a moment where I thought I'm almost laughing, or I'm slightly obsessed. And that book, it's disintegrated. It's 80,000 words of horror.

[LAUGHTER]

It's just terrible. So that's one thing about writing something that's you. I hope everyone that feels familiar, if you're lucky, it's once every six months. If you're unlucky, it's once a year. But it's great. And go for it, even if other people think that is horrible.

And so Dick and I both experienced every other people thinking it's horrible. In terms of institutions, if there's something that you have conviction, humility but conviction, it's going to make an institution better, or help people, there's nothing better than to fight for it. Even if your own reputation is suffering. So to do that, there's something thrilling about it, as well as really not thrilling about not doing it.

MICHAEL GREENSTONE: Cass, that's very moving. I just want to point out it runs counter to the advice that Homer gave Bart Simpson in one of the episodes. Where he said never, ever, say anything unless you're absolutely certain everyone agrees.
CASS SUNSTEIN: You're making me rethink.

[LAUGHTER]

MICHAEL GREENSTONE: Dick, do you want to talk about this?

RICHARD THALER: Well, I gave a commencement speech a few years ago, where I argued that it was rational to choose careers based on fun. And so I've found, coming up with these examples of people misbehaving to be lots of fun. And then I got to--

MICHAEL GREENSTONE: Even if all your friends didn't think it was fun.

RICHARD THALER: No, like pissing off Casey Mulligan is kind of fun.

[LAUGHTER]

So I came here 23 years ago with my eyes open. And I mean, 98% of my colleagues over that period have engaged in, I describe the University of Chicago as ruthlessly constructive. Now, there are some that go beyond that.

MICHAEL GREENSTONE: Focus on the ruthless part.

RICHARD THALER: Yeah. Overdo the ruthless. But my golf buddy, Gene Fama, who we were actually pretty good friends, and frequent golf partners. And he describes it as we agree about all the facts. We disagree about the interpretation.

And that allows us to get along pretty well, and enjoy each other’s company. So if what you're doing is just like what Cass describes writing that book, then find something else to do. You're all bright and talented. And I'm not saying that you shouldn't all go become artists.

If you can do that, and make a living, go for it. But there's no reason to do something that you hate. You're too talented for that. Find something that's at least a little fun, and rewarding, and self-fulfilling. It's easy to find something.
OK, last question, then we're turning the floor. You only get 30 seconds for this one. How do you guys find each other?

Oh, that's easy. Like the second day, I was at the University of Chicago, Cass called me up. And he said I've been reading your papers, and then I think Noodles had a different meaning. There was some prior the--

The Agora. It wasn't the Agora?

No, no. There was another restaurant that's indistinguishable. So anyway, so yeah. He basically propositioned me.

Here's what happened on my end. I was writing a paper as a young Chicago law professor on departure from rationality. And I was really stumbling. But I had the tingle. And at the squash court right around the corner, I was playing with an economist named Stephen Shavell, who's also a law professor.

And I explained to him what I was working on. And he said that sounds really horrible and hopeless. There's a guy at Cornell named Thaler who's also doing that. And he said with some combination of admiration and disgust, he actually published something on that.

And I didn't, Thaler. I didn't know if it was O-R at the end. But I went back to look for him, and I read his paper, "Toward A Positive Theory Of Consumer Choice," and it was like an explosion of light. It's a fantastic paper.

Excellent.

So, it's a love affair.

It is. We both like our wives better, but you know. And I wouldn't want to live with him.

OK. I think we have time for a couple of questions. There's a microphone floating around, or a
GREENSTONE: couple of microphones floating around.

RICHARD THALER: So if you can, if you’re capable of standing up, stand up because then we’ll see you.

AUDIENCE: Thanks for joining us to that. I had a question in the way that you’ve been talking about nudges, there’s some nudges that are passive, like the automatic enrollment. Whereas there’s some nudges that are more active, where you get a text message or an email.

I was wondering how you conceptualize the potential overload of people are getting a lot of text messages just blowing them up all the time, about you should enroll in this educational program, et cetera. I mean, that's a silly example. But I was just curious what you’re thinking about the potential to overload with the nudges.

CASS SUNSTEIN: It’s a great question. So there are some nudges there worth without enlisting the agency of the person is being nudged. So if you’re automatically enrolled in various programs at the University of Chicago, there's no overload risk. That's kind of a blessing.

It doesn't require your attention. The disadvantage of it is if the nudger is ill-motivated or confused, you may find yourself after the fact and something that you never sent into, and you never devoted your attention to. So that's not so good. The educative, or agency requiring nudges, like a calorie label, or reminder, or a reference to social norms, those are also nudges.

They preserve freedom of choice. They may be relaxing like a GPS is. They may be a little agitating like a calorie label is. Those tax your limited resources in your head, and you're right that there is a risk of ultimate overload. I think it would be a Black Mirror episode, which I'm aspiring to write. Anyone here connected with the show here?

Where someone is so overloaded by all the reminders and such, that they stop paying attention, or start spinning really fast like a top. That wouldn't be a good Black Mirror episode. I think you're right, that this could be a kind of Kafka-esque vision. I think that would be science fiction more than reality.

But the trade off, the choice between educative agency promoting nudges, and non-educative let’s call life easing nudges, often turns on considerations of the shortcuts discussed. Which is, does the agency promoting one lead people to think oh my god, I have to deal with this? Or does it lead them to focus on something, and make a choice that's better than some external
choice architect would make?

MICHAEL GREENSTONE: OK, underscoring how you guys have packed the house. There's a questions up above.

RICHARD THALER: OK. We see him.

AUDIENCE: So, my question is do you ever see a case where the group being nudged can, in turn, nudge the group that's nudging? So kind of a nudge-ception if you will. Or does this only work from an authoritative position down? Or do you ever see a case where it can work from the bottom up?

RICHARD THALER: Well, there are now, by somebody's count, 200 nudge units around the world. And I was heavily involved with the one in the UK, and Cass was heavily involved with the one in the White House that somehow sort of has disappeared. I don't know exactly why.

But it's not like we've been going out making that happen. It's just spread. And that's encouraging. You know, things can go viral. But sometimes those are viruses. So.

MICHAEL GREENSTONE: OK I think Kara was, there's a question.

AUDIENCE: So as a parent, I'm wondering if you'd speak on the difference the similarities of nudging children versus nudging adults?

CASS SUNSTEIN: OK. So do you all know the difference between system one and system two? We refer in the book to humans who have system one, the automatic system. And to econs, who are all system two. And system two is the deliberative, reflective.

So I have a child, a little boy, as well as a little girl. But we'll talk about the boy for the moment, who when he was 6, he's now 9, he was very focused on toys. And we'd pass toy stores, and the choice architecture was such that he'd say must go in, must go in. And I explained to him, the difference between system one and system two.

[LAUGHTER]

As good as any good father would. This is an educative.
Your system one wants to get toys, but your system two knows that you have plenty of toys, there's no need. And he nodded. And I thought, good parenting. And then a month later, he turned to me as we were walking down the street and said, daddy, do I even have a system two?

And I wasn’t quick enough to say that question is proof that you do. But then, I think, I would have lost him to therapy forever. So there are informal things that parents intuitively do that involve defaults, that involve reference to social norms, which certainly involve reminders and information provision. And those can be better, sometimes, than mandates and bans.

Partly because they give the child freedom of choice, which can be important. And partly because they give the child a sense of ownership of what the child ultimately chooses to do. On the other hand, cell phone screen time limits are not the worst idea for children.

Did we just discover your next book?

Dick, should we do it?

OK. We have time for one last question. My question is for Professor Thaler. So the early research on behavioral finance, or behavior economics, is as old as 40 years old. But academic attention is in the last couple of, maybe five or 10 years? So do you think there was a special event that triggered this attention?

Well, I disagree with your history. My first behavioral finance paper was published in 1985. And it caused an immediate furor, especially here at the University of Chicago. Because it was written with a student. The paper was called “Does The Stock Market Overreact?” And all the PhD students were given the assignment to find our programming error.

Because that was the leading hypothesis here, as to how we could have come up with this
result that said you can predict future returns with prior returns. So the surprising thing, to me, has been that the most successful branch of behavioral economics to date has been behavioral finance.

I would have bet 1,000 to one against that, because financial markets are the ones where you least expect to find anomalies. Transaction costs are tiny. Stakes are huge. But they have really good data. And very sharply specified null hypotheses that turn out to be false.

So Bob Shiller and I ran an NBER workshop on behavioral finance for 30 years. So it’s been going on a long time. I'd say pop culture has engaged in behavioral economics in the last decade, in part because of books like Nudge, and Thinking Fast And Slow, and lots, and lots of others.

But in academia, I'm not saying it was a wave. But there was a strong ripple. And it's been growing pretty steadily. There’s no moment where it happened. Put it this way, the Nobel Prize comes with an approximately 30-year lag.

If you look at the prizes in the last few years, they're mostly for work in the 1980s. So the Swedes are slow.

[LAUGHTER]

But intentionally so. They don’t want to make type I errors. So they want to wait until they're convinced. But no, I don't think it was sudden. I've been at it for 40 years

MICHAEL

Cass, any final words? Reminiscing being back here in Chicago with Dick?

GREENSTONE:

CASS SUNSTEIN: Lunch tomorrow?

MICHAEL Noodles, still there. Please join me in thanking Dick Thaler and Cass Sunstein.

GREENSTONE:

[APPLAUSE]