

**Remarks of Sendhil Mullainathan on May 26, 2009 in Washington, DC at the conference  
*Beyond the Fence: Research Lessons on How Immigration and Remittances Shape Global  
Development***

Now it's working? Can you all hear me? So I feel a little setback. I thought I created interesting slides, but I don't have anything than the evil empire in here. Never give a talk after Lant, I guess, is the lesson. Okay. We're going to move from the very big picture of all of this down to some very micro details of individuals. The broad background of this work is going to be about do we harness remittances?

Migrants obviously affect the life of those left behind through remittances but in turn, how that money, how that money that's remitted is spent or saved affects the wellbeing of this and the migrant affects income growth and security, it affects the potential for remigration or back visits as you talked about. In effect, there's this money flowing back but what's happening to that money? The other backdrop to this is that the financial products that are available at the time when the remittance comes back can affect how the money is spent or saved.

So what I want to do now is to take a deep dive into the person, into what do we know about the individuals receiving the remittances? And I'm going to operate at a very high level talking about the psychology of these individuals. I'm going to say, can we use that knowledge to craft products that improve the savings of the money that's being sent back? That's the big broad picture. So let's start with what we know. The first thing, I think, we know is that here is a great deal of need for savings, and this is pretty universally true in every poor country.

The first reason that there's a big need for savings is that the poor have very variable income streams. So unlike you and me who make the same amount from month to month to month – you know, our need for savings is retirement savings. But the poor make different amounts from month to month and as a result, for example, if you're a rural farmer or you happen to run reindeer for one month a year, you have some months in which there's a lot of income flow and many months in which there's not much income flow at all. This generates a massive smoothing demand which savings can fill.

The other thing, and those of you who haven't already, this is very much worth reading, is even if we're not looking at those long horizons, if you dig deep and look day to day, there's a great book that's out just came out a few weeks ago called "Portfolios of the Poor" which does just that. It follows using financial diaries – it's kind of a broad name. It's not diaries. No one is writing down, "Dear diary, today I spent 10 cents on a cup of tea." It's more – they have surveyors go every day and track what were the expenditures, what were the loans what were the savings that took place day to day.

The surprising fact to come out of this – surprising relative to the frameworks we build but not surprising to the people who spent any time, detailed time with the poor – is that their lives are very volatile from day to day. So this results in many things. For example, you see people taking incredibly high-interest rate borrowing for a five-day loan. Why? Because they

just need a little bit of cash to make ends meet until this other income flow comes in. You see them using a diversity of instruments because money is put here. They're just juggling a lot of cash.

And one of the reasons they juggle a lot of cash is because when they get this by some sort of emergency, they have no savings to draw upon. So their mother dies and they need money for the funeral. Now it's an exercise in search. Where do I get this little bit? Well, let me get a little bit from here, a little bit from there. Let me borrow from there. Let me sell this grain. And kind of assembling all of this and then the echo of that is felt every day for the next few days because you have to reconstitute it. Where are they going to get the grain that they took away? Where is this all going to come back from?

And, again, you notice the common theme is the lack of the sort of a liquid, semi-liquid savings account, a buffer stock that you can deal with when you get hit by these shocks. And so life becomes incredibly volatile. And of course, a volatile life has a lot of problems. One problem, of course, is the interest rates, incredibly high interest rate you pay. That's a just big tax on income. Another consequence is there may be full-blown opportunities, useful investments you'd like to make that you cannot make. And, of course, there's just a pure human consequence of a life that's lived from day to day trying to stretch to make ends meet is not a particularly hedonically valuable.

But despite all this need for savings, there're some challenges for savings. Now, I think there are two types of challenges: one is institutional challenges. Are there, with the type of institutions available, transaction costs? And I think there's been a lot of discussion on this end of things: we'll do mobile banking, reduce transaction costs of intake of savings to make it feasible, et cetera. I'll call that the technology problem, the institutional problem. Do we need to do banking deregulation, or regulation, or something to facilitate savings?

And I'm not going to talk about today. I'm going to focus on a different set of problems that even if we were to have all of the technology and institutional constraints fundamentally resolved, I think these problems would still be there front and center. And these are what I want to refer to as the psychological challenges of savings. I think the psychological challenges of savings really require us to go much deeper than you're probably expecting to into how people think about their financial lives.

And I'm going to give you what I view as emerging from the research on savings as the three sort of high-level psychological problems of why it's difficult to save. And these things I would like to emphasize up front. These are what I would call universals. They are problems that are big for you and me as they are for the poorest person in Orissa. And they may express themselves in different magnitudes because you and I have different institutions than the poor person in Orissa but they're basic issues.

So the first one I want to talk about is the issue of what I would call the volition versus automaticity. So here's a simple view, I think. It's so obvious that it seems, well, how could it

not be true which is the way you are savings is how do you save? Well, you decide whether or not – how much you want to save based on your needs, your income, your interest rate and then you go about saving it. Here's a different view of savings: I really don't think I've ever saved a dollar in my life. I just had savings done for me. I think at some point I filled out some form for a 401(k) deduction. I don't save. I don't wake up in the morning and say, okay, \$10. I'm putting away \$1.

So why am I emphasizing this? These two things are very, very different. Here's a graph that's now become very popular in this behavior economics literature. This is the percentage of people who are effectively consenting for organ donation across a set of countries in the world. You can see the Austrians, Belgians, French, Hungarians. The people on the right of the graph have strong preferences about organ donation. They seem to feel like it's a very good thing. They're contributing at nearly 100 percent.

Very different preferences for organ donation in the countries on the left: Denmark, Netherlands, United Kingdom, Germany, meaning 4 percent in Denmark. We can go about asking: What is it about attitudes towards organ donations that makes the Danish so different from the Belgians? Alternatively, we could say there's a funny feature about Denmark that's different from Belgium. In Belgium, you have to explicitly check a box if you don't want your organs to be donated. In Denmark, you have to explicitly check a box if you want your organs to be donated. In one case, you have to check a box to opt in, the other case, you have to check a box to opt out.

In some sense, the path of life that's easiest is to do nothing. That's what I do. I don't save. I just do nothing. It just so happens saving happens for me when I do nothing. Same here. This is not just about organ donation. People have found this very strongly for savings as well. For example, one of – two of the most powerful tools for savings in the U.S. has been direct deposit. I simply just have my cash – my paycheck deposited. Now I don't go and have cash on hand when my employer pays me. It's in some account. It removes it from me. The path of least resistance is not to spend it. It's to wander around. I have to actually make an active step to withdraw.

Even more powerful has been payroll deduction into 401(k). And in this literature on 401(k)s, which I'm sure, since you all have, you're familiar with, there's been incredibly powerful finding. This is data from 401(k) participation at a particular company. If you look at the – I'm colorblind. So one of the lines, the one that looks really big which I assume is the red line? Oh, that's so good. Orange? Now you're just causing trouble. I don't know orange, red. I was happy for a few seconds.

So anyway. So the orange line is in a period when the employees who were hired were part of automatic enrollment. What that meant is when they showed up – before that period, when employees showed they got a form that said, if you want to participate in the 410k please select how much here. Post-automatic enrollment, when they showed up, they said, if you don't want to participate in 401(k), check this box, or if you want to participate for a different

amount, put the amount here otherwise you'll be defaulted in for 2 percent, I think, or 3 percent.

It's a mild change, but you'll notice the percentage of people who are participating even four years later and they accumulated retirement savings is hugely different through the small difference in behavior. So why am I emphasizing this? I'm emphasizing this because – oh, you're getting static? Is that good? You want me to remove the – is that good? No? I'm wearing a little static mike. Is that what we're talking about? Better? Should I just keep going? Yes. Okay. Oh, good. Okay.

So I'm emphasizing this because if you look at automaticity, automaticity is difficult to implement for the poor exactly because they're not connected; exactly because their income sources are not coming through formal channels, it's hard to see how would we payroll deduction when people don't have payrolls. Remittances are an interesting channel because it's a time when money is coming in already through a formal channel so it gives us an opportunity to recreate automatic savings in a way that we normally do not have access to for the poor. So that's one principle that I think is both applicable here and extremely first order. Okay.

A second principle that's important is that – it's often very – even when you decide to make an active decision, it's not simple passive neglect but that active temptations play a large role. And one easy way to see this is that when you ask people, do you plan to go to the gym, most people say, oh, yes. Yes, definitely, starting next week. Of course, you ask them next week, they say, yes, didn't I tell you? I'm going to start next week.

Now, that has to do with the fact that your preferences for today versus tomorrow are all very oriented towards today. But when looking to the future, you want to be more future-oriented. So that ends up with having a set of plans in which you would like to plan to save but you don't end up actually saving. Now we see this in the U.S. data a lot. Let me show you actually from our own data from the project I'm going to describe in a little bit.

These are people who are not saving. This is a set of – a small pilot study we did prior to implementing the project. This is people who are getting remittances. When they were asked have you thought of savings – sorry – who were not saving at all from their remittances and asked, have you thought of saving? And 48 percent said, yes. But of the 48 percent, half of them say, yes, I want to start saving in the future but right now I can't. There's a very common element that people will often express a desire to save just starting tomorrow.

So what this basically does is it generates a time inconsistency because tomorrow never arrives. When it arrives it's the present and you're once more prone to the temptations of the present. Again, today, a lot of things seem to interfere. What can be done about this? I'll skip that. Let me give you some examples in the context of the poor. Here are some specific examples: inability to say no to a relative asking for money, you might run out of cash, you

might have some various unproductive behaviors. I'll give you some data on how big these effects could be.

This is in the U.S. This is caloric intake over the month for food stamp recipients. In week one, there's a lot of calories that are being intaken, and by week four, it's baseline to be zero. So what's the difference between week one and week four? Week one is when food stamps are being received. So this is the extreme example of it. Now, we don't have yet data on this fully complied for the harvest cycle but what we started looking at is it's far more extreme for people who are living through the harvest cycle because the light goes longer, and cutting back on calories is even more important, consequential. Okay.

So what can be done about it? I like this picture a lot. This is an example of what can be done about it. This is to deal with the problem that you probably have which is another time inconsistency problem. (Laughter.) This is about – there's a lot of talk about intelligence design but I have to say the snooze bar is an example of unintelligent design. I don't really know. An interesting practical example is work that Dean Karlan and some co-authors have done. This is very similar to Clocky. What Clocky does is it kind of commits you to a course of action. You can imagine saving accounts that also commit you to a course of action.

This is a savings account that was offered in the Philippines called the C-account, and this account is just like a savings account but it has a funny feature, some people might call it a flaw, but through the lens of commitment, it's actually a feature: you can't withdraw the money whenever you like. You decide when you can withdraw it but at that point it's committed. And it could be when or when you reach a certain amount. So you can see – it turns out that that product has quite a bit of demand and there's some evidence which suggests that that actually could increase savings.

Okay. So commitment. That's another feature we might to build in to any remittance savings project. The third feature is what I will refer to as salience. I don't know if it's working but – can you guys see this? No. All this work. It's going to be one of those things where I convince that if it had worked, it would have been really nice. I mean just spectacular. What is salience? Salience is the idea that as you live day-to-day, not everything – I think you used the phrase top of mind – not everything is on top of mind.

So, if you say, I would like to save for this event distant in the future, on Monday afternoon, when you're facing a decision about should you borrow, should you spend the money here, or should you take the money out, that distant future need is just not necessarily on top of mind. You're juggling a lot of things on the top of your mind and that one may not impinge so much. And this is especially true if you look at – going back to this population that we have done survey on – if you look at the ones who – both the savers and the non-savers just amongst people getting remittances – if you look at what they are saving or what they would save for there's things like to build a house, in case of future illness or medical problems so that – for my children to start a business, improve my business.

Just put yourself in the shoes of somebody who's making decisions in the moment: their mother has just died and they have to and figure out where to get the money. Should they tap into their savings account? Or they've just got a big payment, a car payment and they're thinking, gosh, what should I buy right now? A lot of these needs may not necessarily be floating on their own to the top of your mind. For consumption needs you have today, well, they don't need to float on to the top of the mind. They're there, starring you in the face. So it's kind of an uneven battlefield between the non-salient future needs and the very salient immediate needs. This is not about self-control. It's not temptation. It's just a pure cognitive salience issue.

One example of this that we've seen is that it turns out in some other work we've done, if you simply just take a regular savings account, you simply just add a reminder that you periodically text somebody, remember, you're intending to save or you're intending to save this much for this goal, it turns out to actually – just this trivial intervention. It's not doing anything. It's not a commitment device, not doing anything. It turns out to have a pretty noticeable and significant impact on the amount saved. So in this data, it's about 6.3 percent is the impact on savings simply to bring back to the top of mind at crucial moments, remember, this is out there and you wanted to save for it.

So these are the three principles: automatizing, self-control and reminding. And those turn out to be, I think, pretty important. And that's sort of when we went in to this design project thinking about these three, and I'm putting all these out even though as we've seen, we weren't able to implement one of them, but nevertheless, I think the other two are pretty important. Okay. So to this extent, what we did was we were able – thanks to Bob – we were able to do an experiment in Mexico with a local community bank there that was interesting in improving savings.

The product there – and I'll get to some of the features in more detail – was we took a sample of about 700 and so people who were receiving remittances very regularly, and we divided them into a treatment and control group. Half of them were given this product which we tried to design around these features constrained by what is allowed by the bank's infrastructure. And what we ended up with was a product which actually does not have commitment features. That turned out not to be feasible. So that's the thing we could not do. And if I have one regret, this is the one. I have lots of regrets but one regret on this product design it is that I would like to add some commitment features.

But what we did manage to build in is the money deducted from the remittance into the savings account prior to ever reaching the person's bank account. So that automaticity is there. And we tried to build in a lot of reminders. So here I'll go through the details. So the first thing we did – is this readable? I hope so. The first thing we did was we basically set the default, set the status quo, and explained a little bit of time inconsistency, even though there's no commitment, is that we had the person, when they sign up for the account decide how much they would like deducted. And that sets the default.

So when they show up to pick up the remittance, they have to explicitly say I don't want the \$50, \$10, \$20 deducted. I want less deducted. Can you give me more back? So it kind of sets the default in motion so that they have to take an active step to undo the default. Second, the account into which the money is being put into was labeled so they were asked, what are you saving for? And then the account was called a housing account. What is that doing? That's kind of a self-reminding account. In that sense, if you choose not to save, now it's very clear what you're not saving for. You're not saving for this goal. Okay. And this reminder is made explicit by the teller.

And the interesting thing is that we've actually found that the demand for the product was extremely high. When people were offered this product, we found that they were much more likely to open an account with the cooperative than when they're not offered this product. Okay? So, basically, about six percentage points or 20 percent more likely. But the flipside is, we found that even though they more likely to open an account, the impact on total savings was nothing. So, on the one hand, we got them to open the accounts, which is good. But on the other hand, we were unable to get the savings to stick despite what we were trying.

So what do I conclude from this, there were some implementation failures. For example, it was very hard to get the tellers to stick to the script, to tell them look, you have to tell them that the default is this. Perhaps there are some power issues. Perhaps we just need more people. Seven hundred is not a lot of people in which you can statistically see results. Perhaps self-control is super important in this context. And where we really failed was the failure – in this particular example – to be able to implement a self-control device, that we need a stickier default.

I think there's a deeper point here which is that demand for this product tells us that we're on to something but this is something we see again and again that if we're going to crack this nut, that to realize the promise smart remittance projects, what it requires is design, test, retest, and redesign. You're not going to get it right on the first pass. And I think it's worth getting it right because in some sense, there are very few savings products for the poor to have this built in automaticity that remittances promise.

So that promise is very much here. It's very rare that you're able to get this level of clear savings, low cost for the person. They don't have to do anything. It just gets done for them. But I think what we end up with is a mixed bag of getting a product that people are interested in but not necessarily going all the way. But we definitely did not go all the way of creating savings. Okay. Thanks.