



## **Day 1, Session 2 - Opening Keynote Address: Inside the Mind of a Client**

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Hi, everybody. Thank you for welcoming me into the family. It's great to be here.

What I thought I'd do is give you sort of an outline of how we think about behavioural science these days and how it might help you think about the work you do, in particular, the perspective of the client.

When your work depends on what people do, whether you're doing financial access or driving a taxi or teaching in a classroom, if your outcome depends on what people do it's important to understand what they're doing. What drives them, how they perceive a situation, how they think about what it is that you're presenting them with. There's an old quote that talks about how you can either try to understand the psychology or you can make up your own and it's going to be bad psychology. I have a beautiful collection of bad psychology. So, if we have time, I can give you some descriptions later.

But, what does it mean to do good psychology?

I want to give you a couple of basic principles. From where I'm concerned, these are principles about information processing, about attention, about perception, about how people approach a decision scene. So, for example, culture makes a difference, a contextual difference, in the nuances. But, the stuff I want to present you with, it doesn't depend on what passport you hold. It's sort of the machinery that we hold behind the eyes, in between the ears. That's the one I'll try to give you a sense for.

And, probably two of the main principles that come when you think of that machinery is construal and context. Construal is the thing that I see when I process a scene. Now, there is a fact that...I always try to emphasize, I don't want this to sound sophisticated. This is not post-modernism. It's profoundly trivial but we tend not to think about it. When I give you a choice between A and B - it could be two bank accounts, it could be two cars, it could be two spouses, it could be two cities in which you live. What you're choosing between is not A and B. We're choosing between our A and B as they are represented in the machinery in the head.

It's obvious, but has enormous implications. All the economic theorizing when we talk about choosing A and B, it's an incredibly courageous step to make because we're assuming people are choosing between the things out there as they are. But, of course, that's not what's going on. People are choosing between the things out there as they are conceiving of them, as they are conceptualizing them. So, this issue of construal is profound. And, in research it's been shown to have big effects. If you see any visual elusion - all of you have seen visual elusions before, which is kind of fun to look at. What's happening there is there's something in the world which is not what you're seeing. You're seeing something different, that's because of the way our visual processing works. The rest of our processing looks very similar. There are things out there and we're seeing something that's not the same. It's not a copy, it's not a summary, it's a construed presentation. Of course, it would be quite different.

If you do studies on how people play prisoner dilemma games. I don't know how many of you know of this data but, it's basically, these are games that you kind of see to what extent I'm cooperative or selfish. There have been beautiful studies where you take students and have them play prisoner dilemma games and you construct the game to be identical. The only thing you change is the description of the game. In one case, subjects are invited to play the community game and then everything else is the same. In another condition, they're invited to play the Wall Street game and everything else is the same. And, they don't behave the same. So, you've kept the rewards, incentives, everything. The payoffs all identical. You've changed the name. I bring with me all the baggage that's associated with "Community" versus "Wall Street", and I play like a different person.

If you call people during a commute and ask them what car are you driving? Then, how fun is the commute today? What you'll find is that people who drive BMWs are enjoying their commute more than people who are driving Ford Escorts. Now, you do it again. This time when I call you, instead of saying, "what car are you driving and how is the ride today?" I say, "good morning. How was your ride today? And, by the way, what car are you driving?" Now, you get no difference from BMWs and Escorts. If I haven't thought about the fact that I'm in a beamer, I enjoy just as much as somebody else in a little jalopy. If you reminded me that I'm driving a BMW, I respond to it. Notice, first of all, of course, if you're a BMW you now want to have a little gadget that every 10 minutes says you're driving a BMW [*Laughter*]...but, more importantly, what people have construed...this is an everyday commute. The actual pleasure the derive, it's the same car; it's what comes to mind and that has an enormous implication for many aspects of everyday lives.

When it comes, for example, to identity threat, to stereotypes to how people feel about themselves, that can have an enormous impact. It's the same person, it's the same situation. There's beautiful work, I don't know if you've seen it, for example, on stereotype threats in schools. African-American kids in American schools have a stereotype threat. They are living in a context where if you're Black you're supposed to be less successful in academics. And, that stereotype thing is like a noise in the head, like a weight on the shoulder. That affects the performance.

And there have been fantastic studies where you go in and convince the kids; you just tell them the next task you're doing has been shown to have no racial differences in performance. Or, you affirm them. You make them do things where African-Americans excel. And, it's remarkable. Within three days, you'll lose the Black/White differences. In fact, in many of these studies the African-Americans do better than the Whites. All it has to do with is how I'm conceiving of myself, my internal construal and the performance that it yields. So, that's construal. These are all cases where it's just my representation of the case. What car I'm driving, what game I'm playing, who I am in school, that alters what I do.

The second is context, the situation. The context has an enormous impact on us. We all know there's a little bit of it but the effect of context, the power it has, is way more than we appreciate. So, the lesson, if you take an advance social psych course, is that context has an enormous impact and we tend not to get it. We discount it.

Many of you have seen studies like Milgram's experiments where people give electric shocks. There's a slew of studies that came, particularly in the U.S. after the Second World War, where a bunch of European psychologists who escaped Europe were sort of obsessed with understanding what made the German mind do the things that it did. They ran a battery of studies. Of course, there's nothing German about the German mind. This is a mind all of us carry around with us. And, what they discovered is kind of stunning.

So, one of the famous studies is Stanley Milgram's study of the basement of the Yale Psychology Department. He brings middle aged men into the department. They're supposed to play this game where they're the teachers and there's a student. The student happens to be a Confederate. He's an actor. He's working for the experimenter. He gets attached to electrodes. And then, you ask some silly questions and if a student makes a mistake, you give him a slight electric shock which gets progressively higher as we proceed. There's this fancy machine that goes to 450 volts, triple X danger. And, the question is: would anybody do this? And, what's beautiful in Milgram's work is that he actually had the wisdom to interview people before and say, "this is a study". He gave them all the details. "What's your prediction?" And, nobody predicts that anybody will go above about 150 volts. That's when the grunts by the student gets loud. Except for the psychiatrist's interviews, this is in northeast America in 1970. The psychiatrist recognized that one in a 1,000 will be a sociopath and will go up to 450. What Milgram finds is that 65% of his subjects...these are respectable men in New Haven are sociopaths, and that everybody goes above 300. If you look at his correspondence with the NIH, you'll realize this is a new lesson about the human condition. I mean, he is an expert in human behaviour. His plan, of course, was to show the opposite, was to show that U.S. independence is nothing like Germany. He is discussing this with NIH. He's blown away. He never expected to find this.

So, what we know is we've never understood it before. It's something that is very hard for us to internalize. Most of us when we open the paper and read about Abu Ghraib, we think these are not very nice people. It's very hard for us to understand these are perfectly reasonable people in a terrible situation. That most of us, unfortunately, would look similar. Hard for us, hard for

me, hard for you to believe. It's something...there's a contextual affect that is very powerful that we tend to not appreciate. Of course, that context doesn't mean electrocutions. It happens in department stores, it happens in classrooms. It happens here. And, it has an enormous impact that we fail to recognize. And, it by the way, gives you enormous power because you're in the business of shaping people's contexts. And, what's so interesting what comes up out of that is that if you recognize how that context functions and where the faults, where the obstacles and where the glitches are, you're in a position to often alter it in pretty benign ways. They can make a big difference.

Context effects are of all sorts. The very simple one I'll give you is something like the default effect. It's a very powerful effect.

What is the default if people fail to act?

There's a fantastic study of European countries if you look at people being organ donors, willing organ donors in different European countries. It's a beautiful study that was published in Science. Six countries in Europe average 94% organ donors among drivers. The other five countries average 14%. Ninety-four and fourteen. You look at it, you have Austria on one side, Germany on the other. The Netherlands on one side, Belgium on the other. What's doing?

What's doing is that the 94% countries, you're a donor unless you opt out. In the 14% countries, you're not a donor unless you opt in. Now, the transaction costs in almost all these cases is signing the back of your license. Pretty small stuff. We're not talking about buying orange juice. This is your religious beliefs, your cultural norms, your values, your family. And, you have a completely different country in which people live based on this tiny nuance, which we know lawyers in those countries did not appreciate. We know that because the day this article comes up, some countries wake up in the morning and change the default. And, we know that it turns out, for example, that most people in all of these countries would rather live in the countries where there's 94% than 14%. So, as a responsible, behaviorally-informed policymaker, you owe people to default them into being donors with the complete freedom to opt out rather than the opposite. In examples like these where the context, it's a tweak. Nobody takes it seriously but has an enormous impact on people. It ends up having enormous consequences. Sometimes intentional where you manipulate people. Very often sort of naive without really knowing where it's going.

One of the main issues, if you look at sort of behavioural psychological life, is our limited bandwidth. One reason all of this is going on is because we don't have too much time and mental apparatus and mental cognitive capacity to stop and think about this carefully. Think about us as automatic pilots. I get a driver's license. I'm an organ donor. Somebody tells me I can switch. I say thank you very much. I'll talk to friends about this. I move on and never think about it again and that's it. I don't know how many of you checked your car insurance. Is this the best one you could have? No, you chose one 37 years ago. You never looked at it again. Most likely, there's much better ones out there. All of us recognize it and life moves on. This limited bandwidth has enormous implications on us.

Now, there are studies on driving with cell phones, for example. Recent studies are really quite remarkable. Forget handhelds. Everybody understands that you need two hands to hold the wheel so forget that. Non-handheld, you're speaking on the cell phone, no hands. What happens? They've done studies in simulators. When you're in the car on the cell phone hands-free, your reaction time and your ability to detect the periphery, look like somebody who's legally drunk, in the U.S.

Now, we don't understand that. I mean, you hear it. I hear it. I tell you this. All of us are going to get into the car and get on the cell phone again because we think we can beat the odds, but we have very limited bandwidths. And, there are remarkable studies where you can be busy on the cell phone and there's a clown on a unicycle going through the room and we don't notice it. It's phenomenal.

This happens to be a big challenge to all of us and it's particularly a big challenge for the poor because it turns out when you're struggling with insufficient resources - this is the main theme of our book in 'Scarcity', you're in constant juggling mode. There's a lot you need to do on a daily basis just to manage your daily life. And, when you're spending a lot of your bandwidth juggling your everyday life, your finances, there is just less "mind" left for other things. Among them, things that are very relevant to your financial life, just like your car insurance. And that ends up being a very powerful effect to that.

I'll give you one study of a series that we ran. We go to people in a shopping mall in New Jersey. We asked them to participate in the study. They sit down in front of the computer. We're going to give you scenarios from everyday life, financial difficulties. Like, if your car breaks down it's going to cost 'x' dollars to fix. And, while you're thinking about these scenarios just to make things interesting, we're going to let you play some games on the computer. These games end up being classic cognitive tests that have been used for years, of divided attention and fluid intelligence. It's a component of the I.Q. test. So, you will sit down, think about these scenarios, play these games and then they tell us how they're going to solve the problem.

The scenarios come in two versions. Call them 'manageable' and 'challenging'. The 'manageable' case, the car is going to cost \$150 to fix, which we know for most people in this New Jersey mall is manageable. The 'challenging' case, the car is going to cost \$1,500 to fix, which we know for about half of the people in the mall is a giant challenge financially. So, you sit down, do all this and you play these games. We divide them later by household income into poor and rich.

And, what do they do?

If you look at the rich in the mall, when they're worried about the \$150 or the \$1,500 car, they perform equally well on their divided attention in their I.Q. No difference. When you look at the poor in the mall, when they're worried about the \$150 car, which is manageable, they look statistically identical to the rich. No difference. But, when the poor are worried about the \$1,500 car, their divided attention goes way down and their fluid intelligence, their I.Q. score goes down.

It goes down by nearly a standard deviation; by some assumptions about the distribution of I.Q. points. These people who a minute ago were just as good as their rich friends, are now performing at about 13 I.Q. points lower. Thirteen I.Q. points in a school in New Jersey where my kids go to school on a qualitative scale, that takes you from average to borderline gifted or from average to borderline deficient. It's a big effect.

We know, for example, from studies that if I kept you up all night, like with Rolling Stones blasting in the background, you'll be today about 9 I.Q. points less successful this morning in this session. So, think about how you feel about a night without sleep. These guys, when scarcity challenges impose their ugly head, are feeling worse than you do after a night without sleep.

This issue of financial challenges and its impact on their performance, I think is really central to how we think about challenges of poverty. Because, if you take together the fact that context can make a big difference and the juggling challenges impact my performance and my I.Q., that suggests that if you design the right context that make my juggling easier, you'll have given me a bandwidth gift. You'll have given me I.Q. points because I'm spending less of my time; less of my mind, on stuff that burns my juggling on worries about food for Monday and rent for Friday, and have more "mind" left to do other things that are relevant in my everyday life. And, that is important because, again, the contextual tweaks are so easy to manipulate, you can do simple things that have a big effect.

What are those things?

FAFSA, for example, is the most generous benefits program that the U.S. government gives today. It's money to go to college for low-income kids. It's tens of thousands of dollars. Take up is a third of eligibles. Only about a third of eligible students pick up FAFSA, which, of course, has a lifetime of implications and consequences for them.

They did a study where they go to people who are eligible for FAFSA and they said I know everything about you. I've checked your income, your household income. I know everything. You are eligible for tens of thousands of dollars from FAFSA. Here is the form. Take up is the same as before. Next version. I know everything about you. Your parents' income. Your eligible for FAFSA. Here is the form. Let's fill it out together. That creates a 25% increase in matriculation, even more in applications. It turns out that just filling out a stupid form when my life is complicated... I don't have a reading ability challenge, just managing time and having the guts to do it, makes a big difference. This is something you think about because the money you pay for people to fill out the form is much less than the U.S. government has spent trying to convince people to apply for FAFSA.

We went to a soup kitchen in Trenton where people have this identity threat, just like the African-American kids have identity threats. The poor universally, there's remarkable studies on these. There are places in the world where it's not so good to be a woman or Roma or Jewish or Black. Poor, internationally anywhere you go, the poor and the homeless are on the bottom left of the

multidimensional scale. They're untrustworthy, unreliable, unclean, etcetera. And, the poor know it. That's the stereotype they walk around with.

What we did in the soup kitchen in Trenton, in New Jersey, is half of them are in the control, the other half we affirm. We make them feel good about themselves. We asked them to describe a recent case where they felt capable and proud. And then, we put benefits packages by their sides. They see different benefits from which these people might be eligible in little government-issued booklets on the way out of the soup kitchen. And, we simply see how many of them have the guts, the gumption to take up this somewhat threatening booklet as they leave. And, those in the soup kitchen who have been affirmed, a simple 60-second interview about making you feel better about yourself, are three times more likely to walk out of the soup kitchen with the benefits package. I have no illusion they're going to fill it out because the minute they step out, you know, America is there waiting. But, for a moment, you're showing that how I feel about myself, which could be easily manipulated, has an impact on what I do, the courage I exhibit, my actual cognitive capacity, and my reliance, on, for example, things like benefits and other things.

We did another one with Shore Bank in Chicago where people came out for help for their taxes and banks. We tell them there's a bank uptown; a Shore Bank in northern Chicago, where they can open very beneficial and subsidized accounts. Again, half of them are told about it. The other half are told about it and told there is a person there in the corner you can start the process with. You still have to go uptown to Shore Bank so the transaction process is kept the same, but instead of just keeping it in mind, you're starting the process now and leave with a form half-filled. And, that has impact on their take up of the account.

So, these are all small manipulations that can have a big effect on how people think. And, there's a lot more to be done. I think there's a lot of low-lying fruit that come out of not getting it, including employers, for example, in whose self-interest it might be to understand it. I'll give you one example.

If you work for McDonald's in the U.S. today, you typically get your schedule 48-72 hours in advance. You're told when you're going to work on Friday and when you're going to work on Monday, etcetera. If you're a single mom with kids at home and work for McDonald's and you're told two or three days in advance what hours you work, you're in constant, incessant never-ending childcare management mode. You constantly have to worry who's going to be with the kids in three days. If McDonald's gave you working hours for two weeks in advance, I suspect that we'll have workers who sleep better, who are worried less, who will make less mistakes on the job. It will be completely self-serving. And, I don't think it's impossible to do, but we fail to appreciate the impact that this might have on our workers and our people's bandwidth in ways that could really help.

And, by the way, in the book we talk a lot about the following facts.

Many people in this room are time-poor in ways that are very similar to the way that our subjects are money-poor. And, we're not going to get into details here. But, one thing that happens with

the poor, for example, is you're constantly doing trade-offs. Everything you do, when you buy a cup of coffee, when you go to have lunch is you ask yourself, what will I not buy instead? Many people in this room don't feel that way about money, but you do about time. And so, if you think about time management, we are getting enormous help with our time management. We have reminders and we have people doing things for us. And, we delegate and relegate and do all kinds of things to give us more time. The poor, who in some sense need it the most, until you guys came onto the scene, are getting the least help. And, in some sense, there's a real challenge and a real place to interfere in the contextual design of the lives of the poor and simply make the juggling easier and the bandwidth a bit more open.

I'll leave you with one last thought, then we'll have the conversation. It has to do with evaluation. When you try to evaluate a program, there's something interesting going on.

If the Treasury Department introduces a new financial instrument, what do they do? Let's assume you have a nice controlled experiment, some people get it, some people don't. We'll go back two years later and see, how are those who received this new financial instrument, how are they doing financially? Is it helping them? Go back a step and think about this very limited bandwidth I'm telling you. This is a very limited bandwidth that we have and it's the only one we've got. This is a bandwidth that I need in order to do my finances, remember to take my medication on time, eat healthy, pay attention to my kids' homework. It's the one I have.

When you give me a bandwidth gift; when you make my banking easier, one very reasonable thing for me to say would be, "thank you so much. Now, I have to devote less bandwidth to banking. Let me spend more time on my kids' homework". From an evaluation perspective, what happens then, is you give me a financial instrument and where you ought to go and see how my kids are doing in school, not how I'm doing on banking. And so, what this suggests is if you give me help somewhere and go back and see how I'm doing there, you might miss something really important, which is now that you've helped me there I say, "thank you. I need to pay less attention to it. Let me do better on my life elsewhere". From an evaluation perspective, that really changes a bit of the metric of how we ought to think about gauging how much help and much benefits we're giving those who we're helping.

I think I want to stop here and let's have a conversation. Is that okay? Thank you.

***Greta Bull, Consultative Group to Assist the Poor:***

Good morning everybody. Can you hear me okay? So, I have a disclaimer that my I.Q. is at least eight or nine points lower than it would have been normally because I woke up at 3:30 in the morning and watched the debate live feed. *[Laughter]* So, it's probably actually more than nine I.Q. points lower, so forgive me for that.

So, I had the great pleasure of reading Eldar's book, 'Scarcity' over the last couple of weeks. And, I found it an incredibly useful tool. And, I think one of the things that's so powerful about it is that it speaks to multiple contexts. You talk about time. You talk about money poverty. You



even talk about scarcity of calories and people who are dieting. And so, anybody who reads it can immediately kind of relate to it. And so, for me, obviously, the time scarcity was the most powerful kind of context for my life. You introduced a few concepts that I think are really helpful in thinking about how we serve our clients in the financial sector. This idea of tunneling, you have to get something done. You don't have time. So, you just focus on that task and everything outside of that tunnel doesn't exist. And, you just focus on getting that done. But then, that leads to juggling, and you're having to juggling multiple tasks and you go from one crisis to the next. And, you give lots and lots of examples of that. I think it's a really helpful way for people to think about some of the constraints that the poor face.

The other I think interesting issue that you raise in the book is that all of this applies to the poor, but the poor have one really fundamental difference from people like me and the people in this audience, which is, there's nowhere to go. They don't have kind of the slack or the discretion to be able to manage that constraint in the same way that we can. So, I can always find ways to manage my time shortage. Whether I do it or not is a different question. But, the poor really are limited in what they can do.

So, kind of bringing your behavioural insights into this room and into the financial services context, I'm wondering if you can just give us some insights into how financial services providers can identify that bandwidth tax that's faced by their customers and use that to design products or services that take that into account and help the poor in terms of managing their bandwidth.

***Eldar Shafir:***

Okay. So, I'll pick up from the point you made earlier, which I did not cover. This is an issue of how you on time might be different from the poor on money, for example, and it's an important one.

So, there's two things to say. First of all, obviously when we are working very hard there are weekends, and there's Christmas, vacation. The poor rarely take vacation from poverty. So, in that sense, it's really different.

The other one...we describe in the book a very touching study, apropos, limited bandwidth in a school in Connecticut, where by random assignment - this is a study done by some sociologists 20 years ago - by random assignment, half the kids are assigned to a room that's in a quiet side of the school, and the other half are in the side of the school very near the train tracks. So, on an occasional basis, throughout the day a train goes by the window. And the question is, is this distracting? Sure, it's distracting. How distracting is it? They discovered that in 5th Grade, the kids near the trains are one year behind in academic performance relative to those in the quiet side. They then installed soundproofing and the kids catch up. It's a remarkable effect.

I'm telling you this because the metaphor it uses is, imagine yourself now in a very quiet room. No distractions. You're trying to do something and there are these internal trains. There's worries about money for rent or food. Those internal trains can be just like the trains outside the

window. And, again, what's interesting is for many of us who are dealing with scarce resources, the things are not pressing enough so that we're not able for an hour in this room to say let me leave those alone. I'll participate in some conversations and think about them later. It turns out, if things are pressing enough, if you left home a kid who is very sick, if you had a big fight with your partner an hour ago, then you can't do that. Then, you're actually less smart today in this room. These trains, you can't control them. And, what turns out to be in the life of the poor is that. These trains that go through that I cannot put out of sight, out of mind. And that really interferes.

Now, what does it mean for you? You're not going to stop those trains, but it means there's a lot can be done for, among other things, for example, how do you shape the context to allow me to do the right things at the right time? To be obvious, you want to sell me fertilizer not when I need it and I'm out of cash, but earlier in the season when I have cash to pay for it even if I don't use it for another six months. All else equal.

There's a lot of beautiful work on intention versus action. The fact that you see me not buying fertilizer certainly should not be interpreted as showing that I'm not interested or I don't understand it. I might be just cash-constrained right now. I'm so worried about rent, I don't have time for fertilizer. But, if you catch me at a time when I'm liquidity less constrained, I might do a lot better. So, a lot of it comes down in ideas for this organization that was mentioned, spends a lot of time, when you see behaviour that's not the way you like it to be, you need to make sure people have the intention. If they haven't understood that it's important to eat healthy or take their medication, all bets are off. But, once they understand it, you want to find what are the obstacles? How do I approach them at the right moment, at the right time, with the right frame and the right context, to facilitate implementing the things that we actually have good reason to think they would like to do, all else being equal?

***Greta Bull:***

I think this idea of giving people slack, right, so, you talk about this a lot in your book, as well. So, people have constraints. They have scarcity in abundance in kind of managing against that. For the poor, it's more scarcity than abundance. But, I was really intrigued by the experiment that you did with Dean Karlan at the Koyambedu market in Chennai. So, vendors were borrowing working capital every day, and this was effectively reducing their income by half, right? So, you guys gave, I think, a 1,000 rupees to each of these vendors so that they didn't have to borrow. So, they sort of had a bit of slack in the system. But, shocks, during the course of the year took their toll and that savings, essentially, disappeared. And so, by the end of the year, every single one of those vendors was back into the borrowing cycle and, so, unable to kind of manage that slack.

So, as we think about providing financial tools for the poor, how can we think about ways to build that kind of mental slack into their ability to manage their resources so that shocks don't tip them back into a harmful cycle?

***Eldar Shafir:***

This is super interesting. We came to the study from a different place where we weren't thinking about these issues per se. But, when you see these incredibly hardworking women borrow every morning, make a 100 rupees, go and pay back the lender 50 rupees at the end of the day, basically making half of what they could have, there's a real question. Are they just planning badly? Why are they doing this? It looks silly for 15 years to make half of what you could every single day.

So, the question was, let's render them debt-free so now they don't have to borrow. Every time they make a 100 rupees, since they didn't borrow anything this morning and have nobody to give 50 back to, they keep the entire 100. It would literally double their income overnight. And then, basically there's two theories. One, is these people are not thoughtful enough and self-controlled enough to do it right, or something else. And, as Greta mentioned, they clearly persisted long enough to be very clear they're not just splurging. They're very thoughtful, very careful. They were living a better life with twice as much income. But, they were not rich. They were not saving. They were just living better. And then things happen.

Medical emergency, a big wedding; something that led them to borrow again and one by one they fell. So, within six months and a year, they ended up borrowing again and went back to where they were before we came. And now the question comes, and it's exactly the right question, how do you form, now that life is a bit better, how do you create the right slack so as to live a longer and better life? Look, this is a problem all of us have. I mean, a lot of my colleagues are not saving enough for retirement. It's a similar story. You have the money now, but instead of putting it aside for later, you're using too much of it. When something comes up, you don't have enough. And so, this is a problem all of us have. And, again, one reason my retirement will look better is not because I'm thoughtful in planning. It's because somebody who pays my salary is taking care of a lot of it. In fact, they went further and defaulted me into more than the government requires because they're wise and they knew I could afford it. So, a lot of it now comes to how do you design exactly those features.

Take payday Loans, which are an extreme example in the U.S. People pay incredibly high cost, low-term, high interest loans. Imagine if every time you take a payday Loan and then come back and pay me at 600 APR after two weeks, imagine if now if we had a system where every time you pay me back, I take 10% of it and put it into a savings account for you. Basically, after 10 loans, you don't have to take a loan again. These are the kind of things that not-for-profits and governments could design so that even if I'm functioning at real poverty level, after a while we've created some slack, some savings. It doesn't depend on me getting up in the morning and with an overwhelmed bandwidth deciding to do something exotic. But, you design it in a context where it just happens to me and I'm thoughtful enough to accept it and not resist it, and life gets better. That's kind of the challenge, I think. I'm reluctant to give exact proposals because, of course, depending on where you are, who the people are, it's going to differ enormously.

The research we did in Chennai, not only on food vendors but on farmers, for example, we worked a lot with sugar cane farmers because their income comes in one shot, once a year during

harvest. It's a very different set of challenges than people who get paid daily like the food vendors. So, of course, that will differ how you solve it. But, the approach, the intuition is the same. It's the people who are understanding, thoughtful, interested enough to do it, life presents very complicated challenges. I think many of you are in a position to just lower the weight of those challenges and give me what behavioral scientists call channel factors. Just channels that make it easier for me to get to the right place.

***Greta Bull:***

Before we came here we were speaking with Rose Goslinga, in fact, about how you can incorporate very tiny tweaks into things that change those behaviours and just make it easier for people to kind of default to a mode that makes more sense for them.

One of the other intriguing things in your book is, not just talking about poor customers and we can use these insights for poor customers. But, you also talk about, for example, a hospital or a couple of restaurants and how providers can manage scarcity to manage their resources better. Have you given any thought to how financial services providers can also kind of think about scarcity of their resources, and particularly, you know, the microfinance community is very labour-intensive? Are there ways that we can apply these insights to the supply side on the financial services?

***Eldar Shafir:***

Yes. The example Greta describes is kind of the stunning example we come across, is a hospital that doesn't have enough rooms for all the operations, all the surgeries, and they're totally overwhelmed. They bring an expert and the expert studies this and says okay, you leave one room empty just for emergencies. And, the hospital says no, you don't understand. We don't have enough rooms. And, the expert says no, I do understand. You leave one room empty for emergencies. And, it turns out that having this room empty for emergencies so that all the other rooms can be planned throughout the day without emergencies interfering, makes an enormous difference to this hospital's future. Everything gets a lot easier than managing emergencies and planned operations altogether in the same rooms. It's a little bit like saving for a rainy day.

All of us, we talk a lot about our clients making mistakes. It's remarkable to me how bad we are in saving for a rainy day in our time management. What do I mean? Many of you now fill the calendar on a normal workday. A scheduled meeting at 9:00 and then at 10:00, at 11:00, 12:00, 1:00, 2:00, 3:00 and 4:00. Now, I guarantee you something unexpected is going to happen during that day. There is a phone call, there's an e-mail, there's a reminder that you forgot something. Why didn't you plan for that?

So, I always insist that studying this stuff does not make me any better. I'm just as culpable and silly about stuff as anybody. But, this one I learned. I actually plan one or two half-hour chunks throughout the day, empty. Just like your clients should leave for a medical emergency, you need to leave every day for that unexpected reminder of something you forgot or a phone call or an e-

mail. And, it makes an enormous difference. Now, because people don't understand it, it's kind of interesting. If I leave half an hour empty at 11:00 and Greta comes and says can we meet at 11:00, I say sorry, I'm going to be by myself. That just sounds bizarre. *[Laughter]* But, I can say sorry, I have a meeting. She doesn't know it's meeting with self. So, I call it 'meeting with self'. You schedule for yourself one or two meetings with self throughout the day and the day will get so much easier. And, things of that sort. Time management.

I'll give you another example.

You have a very important meeting at 11:00. You are a diligent and responsible person. You show up at 10:50. You have 10 minutes to kill. Perfect. Let's do a few e-mails. Terrible. Because, in those two e-mails that you have efficiently covered, there's going to be one or two that are going to take you away from your bandwidth during the important meeting you're scheduling. Because now, you walk into this meeting and you're worried about the e-mail you just saw. Terrible planning if you take seriously your limited attention. You get to the meeting early. Think about the meeting - a 100 times more effective.

Now, again, depending on what you do, the insights will come in different places. But, taking seriously the fact that you have limited attention, time management issues and how you might juggle these things, I think makes you a tiny bit happier.

**Greta Bull:**

I think you just described the story of my life. *[Laughter]* I close the door, that helps.

**Eldar Shafir:**

I was going to say that I also watched the debate at 3:30 this morning. But, my interpretation is it shows a low I.Q. when we started, not when we finished. *[Laughter]*

**Greta Bull:**

*[Laughs]* It just seems to be getting lower every week. I don't know.

So, turning more to the kind of policy sphere. CGAP has worked with you and ideas42 on incorporating some of these behavioural insights into policymaking. And so, switching from kind of the private sector provision of financial services and the constraints on the poor, what are some ways that policymakers can practically think about applying these insights into their work, particularly around things like financial education, consumer protection, but in any context.

**Eldar Shafir:**

I think the entire Consumer Financial and Protection Bureau...I don't know how much people know about this in the U.S. It was \_ baby, is driven by behavioural understanding and recognition of the fact that people are terribly limited. We, for many years have had the following kind of

findings: if you tell somebody you have a \$1,000 credit card debt at 18%, and you pay the minimum fee, how long will it take you to pay the debt? And, people will say a year and a half. The answer is 90 years. I mean, we were just off by a factor of 110.

So, it was amazing. People just have terrible intuition about compounding. And, finally, after many, many years, the Obama administration introduced what's known in the U.S. as the 'Schumer Box'. Basically, when you get your credit card bill, they are now obligated by law to tell you how much you owe, what the minimum fee is and how long it will take you to pay that minimum fee if you stick to the minimum fee. So, they're not telling you it's one and a half years, it's 90. That's now part of the law and I think that's useful because it's just something people do. It's almost a visual illusion. You just don't see it correctly.

So, the question is what do you with that? I think consumer protection is one very important area. People just don't understand. This stuff is complicated. It's, by the way, unbelievably boring. Nobody really cares and they just make terrible mistakes. And, it's just not that you defend people using a blender that's dangerous, you have to defend them against using financial instruments that are bad for them. Not even talking about ballooning mortgages. So, I think this is a big step in a good direction.

There are many other areas in our financial lives where policymakers can make a difference. A lot of it, of course, depends on the willingness of having government interfere. In the U.S. obviously it's very extreme; much more than Europe, about the reluctance to have government interference. To the extent that you can do it, many small tweaks of the sword can really make things a lot better in ways that I think we're seeing a little bit more every day, whether it's health or other areas where you're forcing people to do something that you know is good for them. With a recognition, obviously, we don't want to get governments too involved. There's always the Orwell in the background but up to a point, it makes a lot of sense to have experts help you.

***Greta Bull:***

I loved your example in the book about people not taking their medicine. And, somebody had designed bottle caps that sort of went off with increasing intensity of light and then they started making noise so that people would remember to take their... I need to get one of those.

Last question and kinds of leads into the panel that we'll have a little bit later today. And, I think it's a relevant question for a lot of people in this room. A lot of people, particularly in providing financial services to very low income people in Africa, are using data. And, it's becoming a driver in the design of financial products for the poor. How can we use data to influence our thinking about the constraints faced by poor customers? It's easy to kind of understand on a one-on-one basis what 'x' person is facing. But, are there ways we can use kind of larger data sets to really understand some of these counterintuitive behaviours that might not be obvious on the face of things?

***Eldar Shafir:***

Yeah, I think so. I mean, think big data can do a lot of things. The one that's the most intuitive to me, the most simple to me, is just, big data is going to help you understand better and divide the world in kind of more nuanced categories into what matters to people's behaviours in ways that are relevant. A lot of the findings are not intuitive. I'll give you an example that's totally outside the realm of finance.

When you do police lineups you have a suspect. You put six people in a lineup and you have an eyewitness. It turns out that if the policeman or woman who is conducting the lineup knows which of the six is the suspect, the chance of that one person out of the six will be identified is higher. Okay? Again, you have a totally well-intentioned...there's no strategy. It's a very well-intentioned policeperson who knows which of the six is the suspect. Then, the chance of that person being identified is higher than if the policeman who conducts the lineup doesn't know which one of the six is the suspect.

How does this happen? It's glances, it's pupils. It's how when Greta says I think it's that one. I'll say uh-huh. I say that uh-huh differently when I know than when I don't. She picks up on it. Nobody knows it's happened, but the data are very clear. This is data. You couldn't intuit it, you couldn't explain, you couldn't predict it. And, you certainly never go to a police station and say your cops, although very well-intentioned, are interfering with the lineup. It's only data that allows you to go in. When you walk into the police station and say this, the chief is very upset. She did not expect you to tell her this. But, now that you have the data...in New Jersey, it's now the law that when the policeperson runs the lineup, is not allowed to know who the suspect is.

Along those lines, there's going to be a lot of data in our world. When I tell you about African-Americans in schools who are performing less well, that's a very rough division. There's many kinds of African-Americans, there's many kinds of schools. There are African-Americans with parents who were highly educated and wealthy. And, there are other kinds. Obviously, big data is going to allow us to divide these categories into much more refined and sophisticated ways of carving the world that's relevant to us so as to produce the best outcomes.

***Greta Bull:***

Well, thank you very much for this. I am a huge fan of your book. And, just to wrap up. I found this incredibly useful and I would recommend it to anybody who's here. I discovered through this that I'm sort of a serial victim of time scarcity and, I'm a master kind of juggler. So, I think it's going to give me some really good insights into how to manage my time. But, even better. I was able to use this book to convince my children to save. So, I talked them into, last Sunday, receiving their allowance digitally into their bank accounts rather than getting it in cash so that they won't spend it on fake things that don't exist in the real world, on a computer game or on sugary sweets. So, it's a powerful enough book that it convinced, not only me, but my two children.

***Eldar Shafir:***

Now I know that your kids hate me.

***Greta Bull:***

No, no. Well, they haven't yet experienced the scarcity that's going to come from it. *[Laughter]* The book is also really a fun read. So, it features Family Feud, believe it or not, Benihana, NASA and dieting. So, I would highly recommend it to everybody here. It's a great read. So, thank you very much.

***Eldar Shafir:***

Thank you. Excellent. *[Applause]*