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**PROFESSOR:** So I want to do two things today. One is wrap up what I was doing last time. And the rest of the time, or a part of the rest of the time, I want to spend kind of going back to the questions of what have we learned, or what do we think we have learned? So this is mostly continuation.

So let me just remind you what I'm continuing. The basic point I was trying to make last time is that there are always many things you can do to make even bad systems allow for relatively wide range of possible interventions. And in reverse, even in good systems, if you have bad interventions, they're bad. The fact that the system is good has no guarantee that the interventions that get chosen are bad.

If you like, in that sequence of arguments, this is the last one, which is can you actually turn bad politics-- is it really prior to policy? So does it exist outside politics? And we sort of made the case that that's not entirely true already because we've been saying things like if people have some idea of who they should vote for then they vote more discriminatively.

Part of the reason why they don't necessarily use a lot of discrimination is because they're not necessarily that interested in the election. And that's partly because they don't have much information. Here's a nice experiment which sort of emphasizes that point on how policies can mold politics.

This has to do with attitudes toward women leaders in India. In India there's a rule which says that panchayats are the lowest level of government in India, these are village governments essentially. And India has a rule which says that 1/3 of all seats of leader of panchayat, the role of the boss of the panchayat, have to be filled by women.

And it turns out that partly for political reasons they decided that which of them will be reserved for women will be decided by a lottery. So there was a lottery to decide out of the 3,000 or how many thousand villages in this particular state, how many of them will have a woman lead at this time. And then in principle the idea is that next time there will a rotation.

And so the places that are reserved this time will not be reserved the next time and vice versa. And that didn't actually happen entirely. And I'll tell you something about that in a minute.

But right now think of it as a lottery and then we see what happens. So the advantage of it being a lottery is that the government in a sense performed an experiment for us because they chose these places by a lottery. So we kind of know that they're identical to start with.

So there was a bunch of places which had to have a woman leader. These places were not a priori any different from any other places. They ended up with a woman leader.

Now, in terms of outcomes, there's data that therefore allows you to compare the villages that had a woman leader with places that didn't. And there's an outcome that seems clear that woman leaders are not obviously worse than men leaders. They seem to spend about the same amount of money. And when you ask villagers their view of corruption in government, they're less likely to say the government is corrupt. So overall if you look at just the numbers, women seem to be just as effective as men.

Now, this is not obvious. Indeed, it's quite surprising because the women are actually less experienced. Often this is the first time they've had a political job. Many of them, this is not just the first time they've had a political job. This is the first time they've ever had a job.

They're less educated than the men, and they're less likely to have had run a business than the men. That's not surprising. But given all that, that's often all of

those things that often are seen as being attributes of successful leaders.

It's not surprising maybe that people still sort of feel that they should not be able to lead because people only have a theory, which is often kind of a common theory, which is that if you have been a business leader or you've had a business you might be better at running government. And so this is a theory you encounter in the press here all the time. So maybe people might very well believe that.

So the question that's being asked in this experiment-- so the first round of kind of this lottery, people observed what happened. And, as I said, the answer was that the women did no worse than the men. However, there were still some hitches in the system.

So on the next round what was supposed to have happened was that now there would be no lottery. People would just reverse. And so let's say you had a woman leader before, now you wouldn't have one and vice versa. That was what supposed to happen.

In fact, that didn't happen. What happened was that there was some political negotiation. And they had a second lottery. So there were places that were randomly chosen again. And because there was a second lottery, some places had women leaders twice just because they happened to kind of win the lottery twice.

Some of them had a lose, depending on your point of view. Some of them had women leaders once. And some of them had zero times.

So this data is after 10 years. So the data we're going to look at is at least after more than five years. So these are places which have had a women leader for several years. So they've had her first for five years and then possibly for another couple of years. Or they've had men leaders.

So this is sort of data after a fairly long period of time. And, as I said, there are three different groups here. There are people who've had women leaders for two terms or at least one and one plus term, people who have had women leaders for one term, and people who have had women leaders for zero terms. So that's the comparison

we're going to be interested in.

So the way the comparison will be done is interesting. So they took a real speech that was given by a leader, a man leader in this case. And then they had a woman sort of speak out the same speech. So they had two recordings of the same speech, identical speech, one in a woman's voice and one in a man's voice.

And then what they did was they took these two speeches to the villagers and asked them to, you know, and took, like, a random sample of villagers and asked them to say which of the speeches they thought reflected leader's competence. They were hearing a man speak, a woman speak. They were hearing exactly the same speech. And you're asking them which one sounds more competent.

So some people were asked about men, others were asked about women. And the idea was precisely to see if it is the case that the same speech gets graded differently, so if people are bringing something to the speech which is not in the speech. The speech is just a voice saying the same words. Are you bringing something different to it? You're bringing some prejudice to it? You think that women are better, women are worse, whatever it is. This is an attempt to measure prejudice. Yeah.

**AUDIENCE:** I have a quick question. If a woman's a leader do people in the community think she does whatever her husband tells her to do?

**PROFESSOR:** Yeah. For example, that's an interesting question. So when this was implemented, people basically said this is not going to change anything. Women leaders are going to be just like men leaders. Why? Because men will lead in any case. The women just will be decorative. They'll be on the ballot but not actually leading.

And indeed in many villages there is somebody who people talk about quite casually as the husband of the leader. They have a word for it in Hindi, which is the husband of the leader. And that's kind of like First Lad or something. So people thought this will have no effect.

In fact, when you look at the data, it's clear that places that were randomly assigned

a woman leader are much more likely to have investments in things women care about. So women mostly care about water. And places where women are leader have more investment in water.

Water's a big woman issue because women have to find drinking water. Let's say drinking water is a huge woman issue. And so when you look at the village meetings, women ask questions about water, drinking water. And then you look at what happens if a woman is the head of the village, you see exactly that, which is you see women leaders generate more.

So going back to this experiment, they were basically asked to grade the speech. And the speech was, as I said, identical. So if you thought the man was more competent, the woman was more competent, you're bringing some data to it that was not in the speech itself. The speech was word for word identical.

So this is the comparison mostly of never reserved versus twice reserved. OK, that's the simplest comparison, one that had a woman leader twice with one where it's never had a woman leader. The first set of columns, set of bars, I guess, are for men. The second set of bars are for women.

So when it says reserved, male, that means a man in the village that has been reserved twice. What does the man say? And the difference is woman's speech versus man speech, the rating. And the result is quite dramatic.

Men, in general, if you're never reserved, think the woman's speech is much worse. That's the blue bar. It's negative. Nonetheless, if you see what happens after it's reserved twice, the men change their mind. Now the woman's speech is better. For women, the original prejudice was smaller and the swing is smaller. That's not maybe surprising because women start with less prejudice and then they don't react as much as well.

On the other hand, they also ask a different question. This was kind of a measure of competence, right? This was actually asking them does the person sound competent?

If you'd actually asked them the question should a woman be a leader, they still say no. So it's not that they changed their mind. It's that objective judgment has changed.

They feel less negative about women. The test is still against women. But somehow once you've been exposed to women leaders, you realize that they're just as good as men. You might feel that they're really not a good idea. Women should not be in this job. But when you look at who does the job, you figure that they're just as good as others.

There's a similar experiment that was done in-- so this is sort of continuing that same data. This is actually election outcome. So this is comparing how what fraction of women get elected.

Now, in unreserved seats-- so these were seats in 2008 that had been reserved once, twice, or zero times. That's what you're comparing. You're taking seats in 2008 that are not reserved. Now, some of these seats in '98 and 2003 were reserved. Some were reserved once. Some were reserved twice. This is the third election.

So do you understand? So instead of asking what is your preferences, this is asking what did you observe? How did you vote actually? Did you support women?

And, here, again you see the same pattern. These are two different jobs. So the greens are different jobs. So the Pradhan is the top leader. The ward councillor is the next level leader.

And if you look at both, you just see that they just keep going up. So if you reserve more, you vote more for women. These are unreserved seats. So right now you're not required to vote for women.

And if you start with the ones which are never reserved, you get 9%. The ones who you reserved twice, you get twice as much. So basically people's political judgments are substantially shifted by being reserved twice. Yeah.

**AUDIENCE:** Is there any data on the quality of leadership between women who run in the non reserved village versus in a reserved village?

**PROFESSOR:** There's certainly data on-- I don't know the answer to that question. My guess is that if women who won the unreserved villages are better. And that's what you'd expect. And I remember somebody saying that they're more educated definitely.

So if you have the confidence to run without any reservation then you are probably better situated in any case. And that seems to be true. I don't remember. The same data that is used to say that women leaders are less corrupt than men leaders must also say something about reserved versus unreserved women. I just don't know the answer. Yeah.

**AUDIENCE:** Could this just be because more women are running in areas [INAUDIBLE]?

**PROFESSOR:** Oh, absolutely. But that's an outcome, right? Women are running. And so part of it is that they're more incumbent. But the fact is that, for whatever reason, once you expose people to the possibility that they can vote for women, they vote for women.

So in other words, policies change politics. That's the point I wanted to make, which was sort of something I've been pushing for a while, but just to understand this we talked about. And so basically to summarize it's not that political constraints are not important. And lots of political events have huge consequences.

But that shouldn't stop us. The main point we're making here is that that shouldn't stop us in the fight for looking for better policies because, A, better policies are implementable even when the politics is often bad. You often still get some good policies.

And second, if you have got a chance to have a good policy, you better have one ready. So imagine the politics shifted and somebody asked you, this is what I want to do. What would you do? You would do something very, very, very, different if you knew or if you thought about it.

And, moreover, if you do undertake better policies, voters react. So there's no fixed

prejudice that makes voters completely unresponsive to performance. If you show performance, voters seem to react. And especially if there's strong evidence that the policy is working, people react even more.

So the one story that I think is on this slide and is worth mentioning is the story of a program called Progresa, which is a Mexican program which has now been imitated in many, many countries, including, briefly, by Mayor Bloomberg in New York City. This is a program called a conditional cash transfer, basically a program which told parents that if their children were immunized and sent to school, they'll get a little bit of money or quite a bit of money, actually. So they were paying parents to make sure that the parents send their children to school.

So when this program was launched, the person who launched it realized that in Mexico every six years the president changes and all the policies change. And so the policy would die in six years even if it was a great policy. So what he did is he actually got a bunch of people from University of Pennsylvania, University of California involved in evaluating the program.

And it was introduced in a random way so you could compare the places where the policies was implemented to the places that were not. And there was a bunch of well known scholars from all over the world who were evaluating it. Their results came out very positive.

So as the guy who had implemented it expected, the party that was in power then lost the elections. So a new president came in from a different party. And he immediately said we have to shut down Progresa because Progresa is a previous government's program. We don't like it.

So it was shut down. But immediately he replaced it with a slightly different program which was essentially identical to it called Oportunidades. So basically the fact that there was all this evidence out there made it very difficult for them to actually shut it down.

And so the program actually survived and now has spread to many countries. So



the general point to be made here is that I think it's too easy to assume that, well, the political system is very powerful. We just cannot change anything. And, therefore, we shouldn't intervene.

But, in fact, when you actually are strategic about playing that game, you do get lots of leverage. This Progresa example is an excellent example of how you need to be strategic about the user information. But if you are strategic then you might be capable of generating lots of change. So that's sort of one general point I wanted to make.

But I have a set of slides which are an attempt to summarize all the general points we wanted to make. So let me just go through them. So what I want to do is this is the heading. The end of our book is called "in place of a sweeping conclusion." And you can imagine why we don't want a sweeping conclusion since our whole point is that there is not one conclusion.

There's not one solution that will solve all the problems in the world. There's no sense in claiming that there is one answer. However it's sort of useful to illustrate some general principles.

And so what I'm going to do is I'm going to go through a few of, I think, the five key principles that we think are useful to keep in mind whenever you're thinking about these issues. So this is the first one. So do you remember any examples of this? Yeah.

**AUDIENCE:** I think it was they believe, for health and disease stuff, they believe that the suggestions the religious leaders were giving were better than the medicines that--

**PROFESSOR:** For example. Others? There were many. Sorry?

**AUDIENCE:** [INAUDIBLE].

**PROFESSOR:** What about examples of situations where the poor seem to act as if they don't have key pieces of information or they have beliefs which are sort of maybe misplaced? We went over many during the-- yeah.

**AUDIENCE:** Education has an S-shaped curve to it.

**PROFESSOR:** Right. That education has very high returns at the top and almost no returns at the bottom. Yeah.

**AUDIENCE:** Probably make more sense to invest in education for women [INAUDIBLE].

**PROFESSOR:** Yeah. We talked about, for example, the belief that you should get a shot rather than a tablet whenever you get sick. Typically a tablet is much safer than a shot and does exactly the same thing. What's another example?

The other examples that we discussed a lot are examples not so much of the wrong belief as much as the lack of belief, that people often don't seem to believe that different technologies are as effective as we think. So one of the reasons why people don't want bed nets is they don't seem to believe that bed nets will work. And when you give people bed nets and they use them, a year later they're willing to buy it at full price.

A lot more of them are willing to buy it at full price because they see that they're useful and usable. The fact that you go and tell them this is great for you is not enough. They don't believe you. So when they use it, they start believing you.

Or another example of rather weak beliefs is immunization. People sort of think that immunization, maybe it works, maybe it doesn't. It's not that they don't go to get immunized, but they don't really make sure that their children get all the immunizations. Yeah.

**AUDIENCE:** Well, fertilizer is kind of a counter example in that they know it works, but then they try [INAUDIBLE].

**PROFESSOR:** Absolutely. So the converse was not being claimed. It's not that the poor only believe things which are false.

**AUDIENCE:** That was just a lack of information [INAUDIBLE].

**PROFESSOR:** Yeah. You're right. It's a good example. But it is something where that's certainly not

what we were claiming. The second one is we say that the poor bear responsibility for far too much of their lives. And what do we mean here? What are examples?

**AUDIENCE:** There are examples in health. For instance, they have to decide every time about purification of water. And [INAUDIBLE] many examples.

**AUDIENCE:** I was going to mention those, too. But also maybe education. You have a system of [INAUDIBLE] school systems working well in poor villages [INAUDIBLE] no idea that there's children not learning anything actually at school [INAUDIBLE].

**PROFESSOR:** Exactly. That's a nice example. Water's a very good example. Typically I think lots of people have said why don't poor people use, like, water purification? And it's true that they should use it. But think of what it means.

It means every time you use water, you have to make sure it's purified. Whereas for us, we just don't even worry about it. We run the tap. So in some sense we have it so easy.

So think about pensions. If you work at MIT, somebody deducts pension money from your salary, puts it into an account, and somebody else invests it for you. And you have no choice over it. But on the other hand, you know that something's being done about it.

If you're poor, you have to invest the money all by yourself and make sure that, you know, it's getting the right returns or finding a place that's safe. We don't solve any of those problems. Education's a great one actually.

I think we can take as given that the school systems are rated. We have the ability to evaluate what our children are learning. If you're poor then you really don't know. If you want to actually make sure your child is learning, you have to go and find somebody else who does know how to read and write and get him to intervene and make sure that the child is learning. Do you want-- yeah?

**AUDIENCE:** I don't know if this falls under what [INAUDIBLE]. It probably does. But insurance because I think bearing responsibility for major things that are external to their

future [INAUDIBLE], whereas if you bring [INAUDIBLE].

**PROFESSOR:** Right. So that's absolutely right. In the US, if there's a big storm then FEMA steps in. And sometimes it doesn't work so well like in New Orleans. But it's on average that there's a huge number of federal agencies that are there to guarantee you some minimum living and to help you rebuild your houses and all that disaster relief.

If the same storm happens in some less well run country then in some sense you know that is going to be your problem. So you spend all your time worrying about what will you have to do about it. In the US, you basically know that if it's something that's really out of control then it will be taken care of mostly. And that's even more true in other countries. Among rich countries, the US is particularly laissez faire.

**AUDIENCE:** [INAUDIBLE] you're saying [INAUDIBLE] poor people than poor countries. Because I think that a lot of this stuff, this also does apply [INAUDIBLE].

**PROFESSOR:** Absolutely. So I think poor people in rich countries have many of the same issues. For example, if you don't have a regular job, you don't get health insurance. You don't get pensions. So you have to then decide to do your savings on your own. You have to find a way to fund your health problems on your own, et cetera. You bear much more response-- for an MIT professor, so many things are taken care of, which if you were poor, they wouldn't be. So that's absolutely right.

This is also true, as Melissa said, of poor people all over the world, including the US. Markets will work less well for poor people. And the corollary of that is therefore you should not always pin your fate on markets delivering. So what's an example of markets working less well for people and why would they work less well? Yeah.

**AUDIENCE:** The insurance market, performing [INAUDIBLE] just because the information [INAUDIBLE] to form institutions in some of, I guess, the [INAUDIBLE]. So that's why they form more informal insurance markets where family members and community members try to insure against a bad shock.

**PROFESSOR:** Right. That's a great example. You don't really have access to formal insurance because maybe you are just not valuable enough and you're too far away from the

insurance company. Yeah.

**AUDIENCE:** I guess the mosquito net market because they don't see the importance or the value of buying a mosquito net. So you have to give it away first to convince them of its importance. But you also have to make sure to give it away [INAUDIBLE].

**PROFESSOR:** They don't mostly. I think we talked about the evidence [INAUDIBLE]. Yep.

**AUDIENCE:** There's talk about the fertilizer market and how people might have had money at the right time when [INAUDIBLE].

**PROFESSOR:** If you have no place to sort of-- one thing that makes life very difficult for people in agriculture it that they get their entire salary all at once. And then they have to figure out a way to spend it smoothly over a period of time because they're going to get no money for a long time. We get paid every week or every month.

So even if you spent the last month's income, we have this month's income coming in. If you have an income every six months, you have to have that much more self restraint. And so poor people are often farmers, and they have to deal with these very large ups and downs in incomes which we don't have a deal with at all. Yeah.

**AUDIENCE:** Maybe of giving things away. You have to give away a bag of rice to get people to get vaccines. So it's more about the [INAUDIBLE].

**PROFESSOR:** Yeah. Exactly. Once the market doesn't work then you have to think of what to do. We talked about the credit market where in the credit market the reason why the poor end up paying much higher interest rates is because there's this vicious circle of if you are poor then nobody's going to lend you a lot of money.

So since you're going to be lent a very small amount of money then the interest rate will have to cover the cost of enforcing the loan. And that's kind of a fixed cost. So if that's, let's say, \$10 and you are borrowing \$10 million, then that's nothing. If you were borrowing \$10, then that's, you know, 100%.

So you get a much bigger kick from having high interest rates. And then it turns into

this kind of further vicious cycle because if the interest rate is high then the incentive to default is higher and then you have to spend even more money making sure that people don't default. But that then raises the interest rate even more. So you get this vicious cycle of you start by being poor and you end up with a very high interest rate. That's one of the reasons why the poor find it very difficult to borrow.

So this one we talked about already. This is the one we were talking about a lot. So I'll skip it and go to the last one, which is that a lot of what keeps people in poverty is just the expectations of hopelessness and expectations of negative outcomes. Do you want to give examples of that? Yeah.

**AUDIENCE:** [INAUDIBLE] give them a test and then told them to stay for the test or not, like, making them aware [INAUDIBLE].

**PROFESSOR:** Louder.

**AUDIENCE:** Basically, in education, students [INAUDIBLE].

**PROFESSOR:** Right. So students are often told that because they didn't do well in their first grade test that they're stupid. And if they believe they're stupid, they stop trying. What's another example?

**AUDIENCE:** That, like, we saw that if the poor believe that they are not going to earn much from a particular profession then they will not pursue that [INAUDIBLE] business.

**PROFESSOR:** Right. So if you think that the rewards that you're going to get from some investment are pretty small so your life won't really change in any substantial way then you might just give up and not try very much to do anything innovative. Yeah.

**AUDIENCE:** There's also the savings example of always expecting [INAUDIBLE] about that can be suspended as who's qualified [INAUDIBLE]. Knowing that some things can come up that's going to require money gives an incentive to try to save.

**PROFESSOR:** Right. So you might expect that somebody will tax it away somehow and then you'll never want to save. Any other examples? So I just wanted to then wrap up in a couple of minutes. Let me say a couple of things. I'm going to wrap up in a couple of

minutes.

One thing is that you should really give us the evaluation for this class. It's the first time we taught it in this format, and I have no idea what the specific problems are and what we could do better. So it will be helpful for us. And it's only fair to the two TAs who work very hard on this to get feedback on what they've done because that actually matters for, for example, when they go in the job market.

This is something that matters. I know it's something easy to forget. But you should remember to do it.

Other than that, I guess, just to wrap up, this was an attempt to kind of expose you to how people-- I think mostly people from sort of the community of people associated with the Poverty Action Lab but also, I think, development, economics more generally think about issues around poverty. And I think the thing that I think you should take away from this is not that we have solved the problem of poverty. I think that would be an overstatement by some margin.

But at least that at this point that there's a huge gap between the way, kind of, the journalistic accounts of poverty operate, the level at which they operate and the level at which all of us now after this conversation should approach it. In some ways there is a very large and relatively stable body of knowledge about what the big issues are and what the sticking points are. There's a sense in which we are-- I don't know that we have all the answers or even all the problems.

But at least some problems have been clearly identified. They keep coming back, the same problems. And we kind of know how to think about them, what can we do about it. In that sense there is a sense in which I think there's reason to be optimistic.

If you think about something I keep saying, is that if you think about sort of social policy and policy against poverty, the first thing to remember is that this is an extraordinarily modern invention, that basically other than supporting the extremely destitute at some very low level there was no government policy to help the poor at

all really ever. If you were extremely poor, somebody would feed you. But mostly there was nothing else.

I mean the education systems really didn't exist except for the elites. Health systems didn't exist except in the private market. And other forms of insurance didn't exist. If you look at the world in 1900, the most striking fact about it is how small governments are.

No government is spending more than 10% of GDP. Tax collections are maximum 10% of GDP. Now, if you take, like, Sweden, tax collections are 55% of GDP-- so just to think of the range.

So what has happened over the last 100 years, and actually not even 100 years, really after the First World War, was a massive expansion of things that governments do. And more generally a massive expansion of systematic interventions to help people live their lives better. Education systems massively expanded. Health care massively expanded. Social support programs massively expanded.

In general the world of sort of interventions is a very modern world. This whole idea that there should be social policy to help the poor and all of us should worry about it is a very, very recent idea. So the fact that we haven't got it right already is no surprise.

In some sense, what happened was even between 1920 or 1910 and 1950, there's a massive expansion of governments in rich countries. Then a bunch of poor countries became independent and they imitated the rich countries by also substantially expanding their government. And then they often didn't have the experience, the state capacity, the bureaucratic capacity to implement those programs.

So you've got a lot of things happening which shouldn't have happened, lots of disasters. But in my view that says very little. If you see that in the sweep of history, in the last 10,000 years of history, this is a period of 30 years in developing



countries between 1960 and 1990. Governments expanded a lot. They tried a bunch of new programs. Many of them failed. There was lots of corruption.

But I think if you see the sweep of history, we are just at the beginning of a process of trying to create a more humane social policy. We're nowhere near the point where we would like to be. And this is no accident. We just started.

And in that sense, if you want to take that perspective that this is really the beginning in terms of any historical perspective, we are kind of at a very early point, then I think the main lesson that we suggest here should seem more plausible, which is that we really don't know very much. We've been shooting in the dark.

We expanded too fast. We didn't know what we were doing. And we're still very early in the process. And what we need to do is step back and figure out what works and how to make it work.

And if you had to take one lesson away from this class, it's that. But there is a way to learn much better about what works and what doesn't. We haven't used it. And that's no accident because we are just getting started really.

I think once you remember that lesson of history, I think things look less depressing and more promising than they would look otherwise. I'm going to stop there. Thank you and good luck for the final exam and for all the things you're going to be doing after this.

[APPLAUSE]