

The following content is provided under a Creative Commons license. Your support will help MIT OpenCourseWare continue to offer high quality, educational resources for free. To make a donation, or view additional materials from hundreds of MIT courses, visit MIT OpenCourseWare at [ocw.mit.edu](http://ocw.mit.edu).

**PROFESSOR:**

So as you might have noticed, much of for this class, and much of our work, in a sense, is about designing good policies, given the particular challenge and environment-- the policies functioning in it. So that's a lot of what we do. If you look at a lot of how policies are made in the world, it has less to do with the problem then to do with other priorities. So the example we give in the book is emphasized here, is Egypt.

Egypt became a major recipient of US aid in 1979, when Egypt essentially broke ranks with the Arab countries, and signed the Camp David accord with Israel. And the Camp David accord was not quite a declaration of friendship, but it was enough of a change in the relationship that Egypt was then on seen as a major ally for US/Israeli interest in the Middle East. So it was a very substantial political change.

As a reward, in a sense, for agreeing to that, Egypt was offered a lot of aid every year. So Egypt the biggest recipient, other than Israel, of US aid over this period. And that was not based on the idea that either that Egypt was a country that was particularly poor-- Egypt is one of the richest countries in Africa-- or on the idea that Egypt was going to do a lot of good with the money.

There's no such presumption, no such idea was ever mutated. It was very clear that the money in Egypt was supposed to be a payoff for being friendly-- a payoff not necessarily to the President, but a payoff to maybe, to some extent, to the military establishment in Egypt. So a payoff nonetheless. So it was very much seen as a payoff.

So as a result, when basically, if you take the amount-- enough aid was given to Egypt every year to pay \$20 per African child under five. So just to get a magnitude of that-- Egypt is one of the richest countries in Africa. The aid given to Egypt was so large that if it was given to the rest of Africa, it would be \$5 for every child under five.

So that's a significant amount of money. It was not given based on the idea that Egypt was going to make very good use of this money. And it was not really development aid. It was just

aid as a price for being our friends. And that's an important example, because it underscores the point that even though we may work very hard, and come up with policies that make sense, often money is spent for reasons which have nothing to do with sense-- or may have sense, but sense in some other calculus.

And that's related to a separate point, which is-- so one point that comes up in that process is that, what's the point of knowing anything if money will not be given where the information is? So the information says that you should do this policy, but in fact, Egypt gets all the money because it happens to be the country that's willing to be nice to Israel. So that's one question.

Related question is some countries just don't have a functioning state. Right now, prominent example is Cote d'Ivoire. Cote d'Ivoire, if you noticed, has an ongoing civil war where the president is supposed to have lost the election, but doesn't seem to want to leave.

And there's a French army in there, which may or may not succeed in re-establishing order, et cetera. So at this point, we might discover a very efficient way to find people will get people to immunize their children, but that might be beside the point in Cote d'Ivoire. It's true that in Cote d'Ivoire right now, there is no state, and therefore, if you think of a policy that's going to be adopted by the state, who's going to do the state that adopts that?

So a lot of people have made that point against us, if you like. And I think the most articulate version of that is this paragraph by Bill Easterly, who says, "Randomized controlled trials are infeasible for many of the big questions in development, like the economic-wide effects of good institutions or good macroeconomic policies. Embracing randomized control trials has led development researchers to lower their ambitions." So basically, the big issues are not being touched here. What we are doing is we're solving-- it's a small problem, and the implied argument is that if you don't solve the big problems, there's no reason to solve the small ones, that we should start by solving the big problems of state formation, of good macroeconomic policies, getting an effective functioning state, and then solve the other problems.

So there's a lot of people who are, I think, are very fine economists who believe in this position, which is what I would call the institutionalist view. And really two separate, possibly independent claims. One is that without good politics, you cannot have good policies; and the second is that with good politics, good policies will follow. So their claims in two directions, right?

One is a positive claim, the other's a negative claim. That is, it's hopeless to try to do anything

if you have bad politics. And you here, what people really mean by politics is not just that you should have a good leader or something, but you need a whole package of what people think of as appropriate institutions.

So the basic vision is that the appropriate institutions-- and the things like property rights. Basically, is it private property or not? Is private property well secured? That's one thing people focus on.

The second thing people focus on is whether the political system is relatively open. There's some constraints on the executive, or whether there is basically absolutism, so the guy who's running in power can do whatever he wants. So those are the kinds of things.

So I'm going to keep using institutions with capitals for awhile. And you'll see why later. So I'm going to use it in capital for the time being.

So let me say what I'm trying to get at. These are not only institutions-- MIT is an institution, too-- but it's not institution in the same sense as property rights is an institution. I'm sure, it might be as [? venerable ?], respected institution, but it would not count in the same sense as institutions in this sense.

This is institutions meaning these big things that define how the economic and political system jointly functions. There are institutional, few kind of structural features of the economy, which drive everything else. And those are things like property rights, political system, et cetera.

So I think one interesting place to start is to look at the work of Acemoglu, Johnson, and Robinson. Acemoglu and Johnson are both MIT professors. This is a really interesting book. And what I'm going to try to-- what they claim in their book is that countries succeed or fail based on institutions as defined by property rights-- few things like the nature of property rights, the nature of the political system, et cetera.

And what they have done, I think, very compellingly is provide some very interesting evidence along these lines. So I'm going to start by presenting the evidence. And then, we'll think about what, given that evidence, how should we think about the world?

Now the first reason why this evidence is difficult is because institutions are androgynous. What do I mean when I say institutions are androgynous?

**AUDIENCE:** [INAUDIBLE] wanted a place that's very distractive, or had a very [INAUDIBLE] infrastructure.

It would tend to stay the [INAUDIBLE] of time.

**PROFESSOR:** So you're saying that it's the opposite, saying that institutions are not affected by local conditions.

**AUDIENCE:** Well, they're initially [INAUDIBLE].

**PROFESSOR:** Sorry?

**AUDIENCE:** They are initially [INAUDIBLE] by something. But once they're in place.

**PROFESSOR:** They're formed by something. That's the key.

**AUDIENCE:** [INAUDIBLE] institutions was created by [INAUDIBLE].

**PROFESSOR:** Do you want to add to that?

**AUDIENCE:** Yeah. I wanted to say that the state of the society [INAUDIBLE] determines which institutions it [INAUDIBLE]. But at the same time, the institutions contribute to [INAUDIBLE] the state of the society.

**PROFESSOR:** Right. So you might say that, for example, to have effective property rights, we need effective courts. To have effective courts, we need effective judges. To have effective judges, we need an effective education system. To have an effective education system, we might need good properties.

So all of these things are related. The investment in the education system may not be effective without property rights, so all of these things are related. So basically, institutions are androgynous in the sense that lots of things that matter for other aspects of the economy also affect institutions. Institutions are a result of what else is happening in the economy they also cause. So that's what makes it difficult.

So how do you study the effects? Problem with things that are androgynous is that, how do you study the effects of those? Because in some sense, the basic rule of us studying the effect of something is what we want to do is we want to say, here's two countries. One country has better institutions than the other entirely by chance, not because this country has some other aspect that makes it better, right?

The problem is, we're worried that if I say that Spain has better institutions than Portugal, then

I would need to argue that this is not a result of the fact that Spain was, to start with, a stronger economy, and that's why the institutions came out. We want to say there are two countries essentially identical, and by an act of chance, Portugal got worse institutions than Spain. And those acts of chance are difficult to find. That's basically the challenge.

So how does anybody solve this problem? Well, here's a very nice insight. The very nice insight is that in former colonies-- so take the countries that were European colonies. It's a lot of countries-- pretty much all of Africa, and most of Asia, and most of Latin America.

All of Latin America, most of Asia, and most of Africa were former colonies of either Britain, France, Holland, Portugal, Spain, or Belgium. So essentially, these six countries were between them-- Germany to a very small extent-- had most of the world carved up. So most countries were colonies of these countries.

And it turns out, not surprisingly-- it's what was said a little while ago-- institutions are persistent. So if the institutions were good institutions were set up in this country a long time ago, they still remain relatively good. And if bad institutions were set up-- so good and bad here-- I'm not telling you what would good and bad are, yet I'll tell you what they mean in a minute.

But the basic theory is that whatever institution was set up a long time ago, that's how they stay. So institutions are persistent. That's step one.

Step two is to observe that when Europeans settled in a country, they were very clear about what kinds of institutions that wanted to set up, and that has a lot to do with whether they want to live in the country or not. If they didn't want to live in the country-- so they just wanted to go there, control the country, and make some money from it, then this institution they set up enabled making money quickly in the country. So they were not very protective of the local population.

They were what are extractive institutions-- institutions which basically take the shape of-- it's easy to kind of bully people, not a lot of legal protection, so that you could extract whatever you wanted. You want the mines to be very profitable. You don't really want legal rights for the workers, because if you have legal rights for the workers, then they will complain, and then you wouldn't get very profitable mines.

So if you want mines to be profitable, the best way to do it is to not have very many legal rights

for workers. If you want labor to be cheap, you don't want to educate the labor force. If you want people to be docile, you don't want to have a lot of democracy.

On the other hand, if Europeans were going to stay there, then the vision for the country was very different. They wanted it to be livable, and kind of like their lives in Europe. And then the set of institutions, which were much less directly extractive. And that happens to be true, sadly enough.

So what are countries where Europeans did settle? And what are countries where they didn't settle? Examples.

**AUDIENCE:** The United States, Australia, Canada, Argentina, [INAUDIBLE].

**PROFESSOR:** Those are good examples. What are countries where they didn't settle? And you can start to see what the pattern is going to be. What are countries where they didn't settle? Yeah?

**AUDIENCE:** [INAUDIBLE].

**PROFESSOR:** Sorry?

**AUDIENCE:** Oh, sorry. Well, [INAUDIBLE]

**PROFESSOR:** Where did Africa get their [INAUDIBLE]? South Africa. To some extent, Zimbabwe. To some extent, Kenya. Those were three countries where they settled, and most other countries, they didn't settle.

Now one reason-- so here's what's nice about the paper. They claim that one reason this happened was because of settler mortality. So if you look at these early colonies in the first years of settlement, there are massive mortality rates. Really massive, like four out of five people died within five years. That kind of mortality rates.

Because Europeans were encountering new diseases, basically-- new tropical diseases of all kinds-- so the mortality rates were massive. And so therefore, the places where they did agreed to settle were places where the mortality rates were relatively low. And so one good predictor of what happens whether you get one good predictor, or whether you get a European settlement or not, is settler mortality in the early days.

And so, what they did, which is very creative, is to find a data set of settler mortality in these places. So basically, the idea is, let's look at what happens. Let's compare places where the

settlers died in droves with places where they didn't.

So here's a set of pictures that underpin their paper. So let's start with the first one. This is the picture of GDP per capita on expropriation risk. Expropriation risk is how secure are property. So expropriation is the opposite of property rights. So expropriation risk is just how likely is it that if you have a private property, it will just be taken away by the state.

And you see that countries where it varies a lot is Haiti, in Mali, in Niger, Nigeria. It's low in the US, Singapore, Australia, New Zealand. So if you look at the colonies that do well, they tend to be relatively-- the richer colonies are also the ones which had lower expropriation risks.

Now this is androgynous regression, because you could have almost shown this regressions the other way around. You could have asked, is it the case that rich countries have lower expropriation risks? This is not a regression that can be causally interpreted by itself, because it's exactly saying that expropriation risk is high in these countries. But is that because rich countries are safer, or is it because safe countries are richer? We don't know.

Now before I come to a-- well, actually, let me skip these two pictures, come back to them later. Here's a more maybe revealing picture. So this picture says, what's the relationship between settler mortality and GDP per capita? Now this is kind of a dramatic fact, which is that if settler mortality was high, like in the Gambia, GMB, Nigeria, Mali, Togo-- those countries are poor. Countries which are rich tended to have had low settler mortality.

So if we think that settler mortality has nothing to do with GDP today, then that's a surprising fact. Why was it that settlers, when they came to settle-- when did they come to settle in the Americas? When were the Americas settled? 16th and 17th century. When was Africa settled? 19th century. So these are all the long time. When was Asia settled? When was Asia conquered? 18th and 19th, mostly.

Everything that we are talking about is saying that, what happened before 1850 or 1880, basically, has a strong consequence on outcomes today. So if were in a country where Europeans died in droves in 1870, like in Gambia or-- I don't know, whenever that was, 1860-- people died in droves in 1860. Then Gambia is still a poorer country. So that's sort of an interesting correlation.

And here's why they think-- then ask the question, now that I told you that Gambia is poorer than the US, and even 120 years ago I could have predicted this, you say why? Why would

that be the case? How could you? What's the link between 120 years and now?

And their claim is that this is the persistence of institutions. So Gambia is a place where Europeans didn't settle. And as a result, they set up extractive institutions, and extractive institutions are very persistent.

So the reason why we see this mapping from settler mortality to expropriation risk to GDP is the reason why we have the persistence. Settler mortality affected institutions when the country was set up, which affected institutions now. And it's very dramatic again. The quality of institutions goes down very fast with settler mortality. So that's the basic argument.

The basic argument in the paper is these two facts, which is that, look, countries with a high settler mortality are poorer, and they have poorer institutions. And there's no reason why something that happened so long ago would affect outcomes today, and therefore it must be institutions.

Now, they do something else that's actually very interesting. In fact, they do more than this. One thing they do is to argue that in the world of like, let's say, 1500 or 1600, we don't know GDP in 1600. So what they are going to try to argue is not just that we see this pattern, but that this pattern doesn't reflect fixed geographical characteristics of these countries, because if you have fixed geographical characteristics of these countries, then the countries where you had low settler mortality would have been countries which were richer already in 1500.

So one thing they wanted to show is that this is not the effect of some long-term, historical difference. It is not that the countries that have low settler mortality were rich countries already. So the US, which had low settler mortality, was actually a poor country in 1500.

How do they show that? Well, they can't actually measure GDP in 1500 very well. But one thing they can do is they can use urbanization rates, or population density.

Historically, richer countries had more population. So let's start with this. Start with this picture. This picture says that you look urbanization and GDP per capita, these are extremely correlated, right? Extremely, tightly correlated.

So then they're making the point that therefore urbanization rates in 1500 are a reasonable proxy for GDP in 1500. OK, that's the second step in the argument. So this picture says urbanization rates in 1500-- if you assume that's a predictor of GDP in 1500, then look at that relationship. What does that say? Yeah?



**AUDIENCE:** [INAUDIBLE].

**PROFESSOR:** The richer the country was in 1500, the poorer it is now.

**AUDIENCE:** Sorry. I'm not sure I understand the niche. Wouldn't initial population density play a huge role? So maybe the populated areas were kind of [INAUDIBLE] the temperate zones that were colonized later, and then settlers set up their own settlements. And any one of those [INAUDIBLE] talked how not having a population in the first place was one of the reasons they settled there, as well. And also, if you're looking at urbanization rates, shouldn't you care the tropical colonies, before they were organized to European countries that did the colonization, and you see higher organization rates in the temperate zones that have a [? purple ?] population densities.

**PROFESSOR:** OK, those are both good points. Hold them. We'll come back to them, OK? You're asking questions on whether this argument is-- you're trying to pick holes in this argument. Let's wait on that. I want to understand the argument before picking holes in it

So I think both points you made are interesting. But hold them. We will repeat them in a minute, OK?

So right now, they're making the case--- look, it's not that there's a persistence of poverty. It is not the case that the countries that were poor in 1500 are poor now. If urbanization is a good measure poverty, of being wealthy, then those countries were rich countries then, and are poor countries now. And the US, for example, was a poor country then, and a rich country now.

Indeed, famously, there's a claim that the reason why the British didn't manage to take back the US in 1776. The US was very weak, relative to Britain in 1776. How did the US colonies manage?

Well, there was a threat of another attack to, I think, to Jamaica, which was a much wealthier area-- sugar-growing, much wealthier area. So that's why the British government had to decide whether to protect Jamaica, or to protect the US. And it decided that Jamaica was more worth than protecting the US. May have not been the right judgement historically. But nonetheless, so they made this call on it, based apparently on the fact that Jamaica was a wealthier area.

This is another one. This is a [INAUDIBLE] population density, which is another classical measure of wealth. So typically, historically, more populated countries have been richer countries.

Indeed, historically, people have suggested a very simple model, which is sometimes called the Malthusian model, which is that if countries are more productive, they can sustain a bigger population, because if you're not more productive, then you have a bigger population, you starve to death. So basically, the Malthusian model says that more productive countries had bigger populations. And you see that if you believe that, then once again, richer countries in 1500 are poorer countries now.

Finally, population density in 1500, you can see, is a negative predictor of expropriation risks now. So more dense countries in 1500 was protected against risk expropriation. So they had less property rights.

And what this is saying is that you look at the economic outcomes of the higher urbanization countries and the lower urbanization countries in 1500, you can see that the higher urbanization countries actually fall below the lower urbanization countries in the middle of the 19th century. This is GDP. So they call this the reversal of fortune.

So two claims being made. One is that rich countries became poorer, and the reason why they became for poorer is because of the paternal settlement, which generated better institutions, which generated better economic outcomes. Then they go on to claim that if Zaire had the same institutions as the US today, it'd be five times richer.

So that's a huge claim, right? It's huge. The magnitudes they're talking about are immense.

So now coming back to the question. You were trying to start asking questions about this evidence. What are possible ways in which this evidence might be misleading? So let's go back to you.

**AUDIENCE:**

One was that I thought maybe they're dismissing the geography explanation if you compare tropical countries before they were colonized to European countries before they actually colonized the other countries, because it might be in North America and New Zealand and Australia, they had better institutions, didn't really have populations settled there in the first place. It's probably one of the reasons that European colonizers set up camp there.

**PROFESSOR:** So you're saying empty may be different. The development patterns may be different for a variety of reasons, which may not have to do with institutions. It may well be that if you start with an empty place, you can have a different development pattern, even if you have the same institutions. That sort. One of the things. Is that you're saying?

**AUDIENCE:** Kind of, but also that if you're trying to totally dismiss that the fact that climate may have played a role, you shouldn't compare places with similar population densities to start off with. So you should compare Europe to--

**PROFESSOR:** Why would that make sense? [INAUDIBLE].

**AUDIENCE:** Because in comparing Latin America and Saharan Africa, one of the papers talked about how there already were rich cultures thriving there, and that it was a reversal of fortune. But if you're comparing those places to, say, North America and New Zealand, the population of North America and New Zealand were small. There wasn't a lot going on. So maybe you should compare it to Europe. I think Europe would have been a lot more prosperous if you compare it to the Incas, Aztecs.

**PROFESSOR:** I see. You're saying that maybe comparing with the empty place is misleading, because those places are-- but still, isn't the point that this is misleading because empty places, for some reason, would have a different development path. After all, the empty places across the [INAUDIBLE] become better. So you're saying that even without good institutions, empty places might have had a different path, because maybe it is the case that just the population composition is different. If there's no one else living there, and I go and settle, I'm 100% of the population, whereas if there's a lot of people living there, then if I go settle, I'm a different fraction of the population. OK, you were-- yes?

**AUDIENCE:** Do you think the countries that actually colonized-- the ones who actually go and settle-- do you think [? depending ?] on the country, does that make a difference on how well the colony does? For example, all the colonies that ended up doing well were British colonies. And of course, you have India, which--

**PROFESSOR:** There's a lot of British colonies that didn't do well. Nigeria, Ghana, Uganda, Sierra Leone. Lots of British colonies. Burma.

**AUDIENCE:** Right, but most of the other ones, those happened at different times, right? Like many of the-- a lot of the [INAUDIBLE] happened later on, and the love of exploration happened in Africa. Of

course, there was already traffic in terms of slavery and things like that. I'm thinking into 1600 or so. But a lot of the colonies that have been in Africa were in a different time. [INAUDIBLE] history spectrum. So I just think that the big market was just different. The world was very different at the time.

**PROFESSOR:** Yeah, but I don't see why that's another good point. I agree with everything you said-- whoops. You want to add to that? I don't understand exactly why that's a criticism what they're doing. I understood if you said--

**AUDIENCE:** [INAUDIBLE] I was just asking a question actually, because that's just something that comes up when I--

**PROFESSOR:** Well, that's absolutely true. I think everything you said is true. But I don't see why. So they were definitely colonized in different times, but still, two things they do. One is the compare within Africa. They can compare within Africa.

It's not quite statistically as solid as it should be. But you can still do it. You can compare Zimbabwe, South Africa, Kenya with the rest of Africa-- the countries that have high settlement and low settlement, and you see some of the same difference. Mostly different by South Africa, unfortunately, which is rather special.

But the second thing you can do is you can control for the identity of the colonizer, and that doesn't change anything. So you can compare only British colonies with British colonies, and that doesn't change anything. That's much more solid. So you could compare just French colonies with French colonies, and British colonies with British colonies, and average.

**AUDIENCE:** So even within Africa--

**PROFESSOR:** I don't know whether you can do that [INAUDIBLE] that becomes two small a data set. So if you compare only Spanish colonies within Africa, there will be two. And that's not going to be a lot.

**AUDIENCE:** I'm not saying within Africa. Would you say that British colonies are probably better off then, let's say, Portuguese colonies where you have Angola and [INAUDIBLE]?

**PROFESSOR:** It's probably true, actually.

**AUDIENCE:** Whereas you compare that to South Africa, South Africa's much better off.

**PROFESSOR:** It's probably true. But that's not what they do. They're worried about-- that comparison is difficult, because British colonies are not randomly chosen. Britain was one of the leaders. In African colonization, Britain was one of the leaders. Britain got all of the most productive countries. So if you look at-- sorry?

**AUDIENCE:** What about France?

**PROFESSOR:** France was a follower. And so, France ended up with the less productive countries. So Britain targeted some countries, and then grabbed the best ones. So this is not an accident. Yeah?

**AUDIENCE:** So to follow on the earlier point that emptier places versus more heavily populated places that [INAUDIBLE] if a place is more populated, then it already has some kind of institutions. And if some institutions already exist, whether they're equitable or not equitable, I think it would be much easier to establish institutions would not be equitable, because the system is already set up.

**PROFESSOR:** That's a point, but that they won't disagree with, obviously. Imagine that they said that places which have no one there, or very low population density in the beginning, it was easier to set up fresh institutions, and fresh institutions persists. Would you say that's not a version of the institutionalist argument? That's just a slight variant of their argument. I don't think it's that different.

**AUDIENCE:** Well, I don't think that if it's an empty place, then the probability that you could settle and then procreating an institution would be lower.

**PROFESSOR:** That's absolutely true. I think they would say that that's still an argument for expropriating institutions are bad. You're just making a slightly different argument of why expropriation institutions are bad.

**AUDIENCE:** Yeah, just getting back to the point [INAUDIBLE]. So when you say, yeah, that's correct, the British empire was sort of the leader of political lines in Africa. However, that's not the case when you're talking about the Americas, right? Right, so even though Spain and Portugal were the leaders in this case, it's not like they did invite a colonization. And when you even referenced the paper, if British empire chose the regular countries in Africa [INAUDIBLE], wouldn't that imply that they would have a [INAUDIBLE] more aspiration-based, and therefore maybe South Africa would be in a worse position? Does that make sense? Or does it show that--

**PROFESSOR:** It's not so clear. They might have chosen-- we're getting off point. Let's say just to comment, the British might have picked better places, and better places might be more productive. It might also be more attractive to be expropriating, but those two factors are going in opposite directions. So if you started with better places, that already helps you a lot. And maybe they knew exploit a bit more, instead of slavery or something.

But still, it might well be on balance that you do less damage there. It's not clear, because you start with a better place, then you do a little more damage. I don't know which way it goes. But you're right. That's a certainly good point. Any other concerns?

**AUDIENCE:** [INAUDIBLE] if you could just [INAUDIBLE] geographical argument, because it's [INAUDIBLE]. [INAUDIBLE].

**PROFESSOR:** Well, to be honest, I think if you look the world in 1800s, the United States doesn't look like a more valuable economy. It looks like a less valuable economy, because the idea was that places that could grow sugar were the most valuable places. So when you compare places to the Americas, they typically compare Jamaica with the US.

And Jamaica was a place which looked more valuable then. US was actually a good place to settle, because no one was empty, and no one wanted to come there. So it was empty, and no, not much competition. The British were very worried that the Spanish would take Jamaica. Yeah, keep going.

**AUDIENCE:** [INAUDIBLE] America [INAUDIBLE] South America [INAUDIBLE]. And North America [INAUDIBLE]. I mean, it is or Asia, [INAUDIBLE] but it's [INAUDIBLE] in Africa [INAUDIBLE] least favorable, in terms of the land. [INAUDIBLE] is a very poor [INAUDIBLE]. The institutions point [INAUDIBLE].

**PROFESSOR:** But that's the point about the reversal of fortune, in the sense that the reversal of fortune is exactly point that these were richer places. In 1500, the places which are poor now were rich places. So somehow, you need to argue that geography has a different effect then than it does now.

It's not implausible, so one point you could make is that geography is not some fixed thing. These countries were richer then, because this was a period when it turned out that agriculture mattered. And then, they invested a lot in agriculture.

Turned out that by some accident, industry became the big thing later, and so places that started later were more able to jump on the industry bandwagon than the places that-- so geography that helped you originally might hurt you later. Because Jamaica specialized in sugar. Sugar was great in 1800, but not so great now, because something better was discovered. So maybe what happened was that these places that were-- it was not the institutions. It was just the specialization in certain products that really mattered. You want to continue?

**AUDIENCE:** [INAUDIBLE] Africa [INAUDIBLE] more resources [INAUDIBLE] just going to pick [INAUDIBLE] agricultural countries.

**PROFESSOR:** But in some sense, why is that-- find. But isn't that just a version of the institutional argument, that where you want to extract diamonds, you don't create any institutions, you just extract? And that's exactly their point, in a sense, is that you create extractive institutions. That doesn't seem any different from-- seems like a variant on the argument, that where you set up extractive institutions, you get bad outcomes. Yeah?

**AUDIENCE:** [INAUDIBLE]. So could it be the case-- [INAUDIBLE] because they had invested a lot in agriculture and that was the thing back then. They were well off, and as times changed, there became less of an emphasis that other countries would invest [INAUDIBLE]. It could also be the case that other countries, the ones in temperate environments, were forced to look at other things early on because they knew that agriculture wasn't there [INAUDIBLE] and that was a bet they made not knowing how the future would be [INAUDIBLE].

**PROFESSOR:** That's an excellent point. So it could be that just if you have very easy access to the very productive agriculture, then you'd be in a society which is not looking forward to solving certain types of problems. So that's an excellent point. I don't know if it's true or not, but it's an extremely interesting observation, and part of that.

And more generally, one concern with this kind of evidence is, that, as you might imagine, the most compelling examples turn out to be Hong Kong, Singapore, South Africa, plus US, Canada, New Zealand, Australia. The regression's driven by very few countries, though I think if you look at this picture, it's less true than you might imagine. Yeah, we can do this one.

So we look at this picture. It's not entirely driven by-- so if we look at that square in the middle, even there, there's a slight downward slope. So leave out US, New Zealand, Canada, Singapore, Hong Kong, Malaysia-- those are on the left-- and just South Africa and whatever,

one other country. I don't know what it is.

And look at the block in the middle where India is the top left-hand point, and whatever-- MLI is Mali-- is the bottom right point. Even within this square, there's clear downward slope, I think. So even if you left out the very rich countries, you do get a weaker but significant relationship.

And that still tells you, if you just took that relationship, you still will get a big effect of settler mortality, even if you left out the few really exceptionally rich countries, or something. You still get reasonable good fit. I guess one concern I have is whether or not expropriation risk is something that we have assign to countries based on success. So one worry I have is that it may well be that the countries that have high settler mortality are poor whatever reason.

And then we think it's because of expropriation risk, but expropriation risk is just based on our perception of economic success. So India and Pakistan saw very different expropriation risk. One is at eight and the other is at six. I'm not sure that those are based on anything in particular. I think there might well be a legitimization of success.

So countries which are successful are assigned better-- with these numbers, who knows what expropriation risk is. It's some number somebody made up. And we may worry that this number isn't quite right. And maybe all it does is it just reflects the fact that richer countries are richer. So people assign them higher-- these countries are richer, they must have good property rights. I don't know how much of that's what's going on.

But I still think that, in some sense, I guess I'm more inclined to take this evidence as telling us something interesting. But I think one should take it really seriously. So first point it's making-- if you take it seriously, it's not just the institutions that are important. It's not saying just that institutions are important. It's saying something much more specific than that.

It's saying that institutions that were set up a long time ago, and evolved slowly over time in countries where there was low settler mortality are very different from institutions that were set up a long time ago, and evolved for a long time in high settler mortality countries. So it's not saying that if I suddenly took Mali, and gave it the institutions of the US, the institutions will automatically start functioning. That's not in this data.

It's not saying anything about whether or not we can be replace institutions in one place or the other, right? It's in fact saying quite the opposite. It's saying that all we can tell is that places that good institutions because of a lucky accident 200 years ago or 400 years ago are better



off now. That's not necessarily a big helpful policy. It's not that it says that we could change institutions today successfully. That's not what it implies.

It could be true that we could change it, but that's not what we learn from this evidence. What we learn from this evidence is if we happen to have been lucky 400 years ago, then we are lucky today. But that's a very different point from saying that we are able to fix institutions today, and if we give Mali the same institutions the US had.

And I'm not just making a debating point. Think about what the US constitution means. The US constitution means a lot of things, but it also means every school who goes to school in the US learns about the constitution. It creates a certain set of loyalties to the constitution that are very important. It is emphasized that this constitution has a long history. there were lots of battles about this constitution in the Supreme Court and other courts.

All of these things are part of the effectiveness of the constitution. It's not just the constitution that is effective. The US constitution is given content by all the judgments of the Supreme Court. The famous judgments of the Supreme Court is what makes the constitution what it is today.

So it's not clear that you can just transplant a constitution without the history that goes with it. So that says that if you believe this point of view, you should be very pessimistic, because it's not actually saying that we just have to fake good institutions. This is where I think it still is wrong.

Even if you believe this point of view, it doesn't say much about development policy, because it actually doesn't tell you that you can fix institutions today in Mali, and you'll get good outcomes. And as Acemoglu and Robinson are very consistent in their book, they basically explicitly state this pessimistic position. They say, God knows how to fix countries, let's not even bother. Mostly that's their the position, and that's a very internally consistent position.

Now there are other people who take a less consistent position, who want to say that the institution is an important. This is the evidence from Acemoglu and Robinson, and now we're going to go fix countries, which is a very different plan, that we're going to fix institutions, evidence doesn't say that you can fix institutions. It says if you had the right institutions 400 years ago, then it would be good. That's very different from saying we can fix institutions. You see that? Yeah?

**AUDIENCE:** [INAUDIBLE] appropriate it would be with history, time changes going on in the world, but can you kind of take this as if we could transition towards better institutions in some countries, then maybe in 400 years those, countries would be better

**PROFESSOR:** Maybe, but not tomorrow. So I have nothing useful to say about 400 years from now, but if we can. But what it clearly doesn't say is if a fixed institution thing would be better today. That's it does not say.

**AUDIENCE:** [INAUDIBLE] Africa, [INAUDIBLE] nations [INAUDIBLE] can't really have institutions [INAUDIBLE].

**PROFESSOR:** Right. So that's also true. I think the point that you're making is also important, and we don't know how to [INAUDIBLE] institutions. It's not that people don't live in [INAUDIBLE]. So here's a fact that I know isn't in [INAUDIBLE]. Whoever owns any country, take a taxi-- I'm talking about in many countries. Get off from the taxi. You either agreed an amount when you got on the taxi, or there's a meter.

You read the meter, you give the person the amount. And at that point, the person takes the money. He shuts the meter off, and he says, here's your change. This happens in many, many countries.

Now what's remarkable about that? What's remarkable is why did I pay him? I could have said no. So what if it says \$20? I'm going to give you \$5. What's to stop me? There's nobody else was that's there. Usually when I get off in front of a house, there's no one else there. I can walk off. By the time the taxi driver can find the policeman, I'll be gone-- on one side.

So the response has to be that I'm afraid of the taxi driver beating me up, which may be true. But if the taxi driver can beat me up, why isn't the reverse true? As soon as the taxi stopped, why isn't he trying to beat me up, and saying you have to give me \$40 instead of \$20, or I'll beat you up, and claim that you owe me \$40.

How is it that we manage to negotiate this space in many, many countries successfully? If I'm paying the taxi driver who's a taxi driver who beat me up, then he should beat me up in any case. And otherwise, if he can't beat me up, then I shouldn't pay him in any case.

So why do I pay him? And why do these transactions-- thousands of millions of these transactions-- always happens? So it must be that even societies

that don't have good property rights distribution enforced up top have figured out ways to enforce lots of contracts on the ground. That has to be true. That a lot of what we call property rights must live in other forms than the form that we think of as the official form. Yeah, you had a comment?

**AUDIENCE:** [INAUDIBLE] if there's no policeman standing there, you sort of assume [INAUDIBLE] there's a certain trust that you have [INAUDIBLE].

**PROFESSOR:** Absolutely. Trust, or something like that is important. The only point I'm making here, that's not a property right. That's something else that is important. So there's lots of substitutes. Yeah?

**AUDIENCE:** [INAUDIBLE] in terms of game theory, if you play this game just one time, of course you can say that, oh, either way you can have it. But if you think of it as playing a game over and over, you could sustain--

**PROFESSOR:** Well, I don't want to play with the same taxi driver. Next time, I'm going to cheat the next taxi driver.

**AUDIENCE:** [INAUDIBLE] for every taxi driver to beat you up that one time, then all the taxi drivers are going to start beating people up, and people will stop using taxis.

**PROFESSOR:** That's a bad outcome, but that is the outcome predicted by the game, that there will be no taxis. In fact, taxis exist because we have trust, we have norms. We have all kinds of things which live outside this institution frame. So one point that I think is important is to think of, if you want to transplant institutions, you have to realize that institutions already exist in these countries.

Even the ones which you think don't have institutions have tons and tons of them. And you're always trying to turn existing institutions to other institutions. You're not creating issues in a void ever, anywhere, ever. So we'll pick that up next time.