



**CIS EVENT**

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## **Religion and the Roots of Liberal Democracy**

Professor Robert D Woodberry



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Professor Robert D Woodberry examines the relationship between religion and democracy in the processes of post-Enlightenment modernisation. In particular, he discusses the development and spread of religious liberty, mass education, mass printing, newspapers, voluntary organizations, and colonial reforms, and consider their contribution to the formation of stable democracies.

Professor Woodberry is Director of the Project on Religion and Economic Change (PREC) and an Associate Professor of political science at National University of Singapore. For 2015 he is Visiting Fellow in the Kellogg Institute for International Studies at University of Notre Dame USA. His research analyzes the long-term roots of education, mass printing, economic development and democracy in former colonies. Other interests include religious influences on political institutions and the economy and the international

diffusion of social movements and printing. Supported by a large grant from the Templeton Foundation he built a global, geo-spatial database of virtually all Protestant and Catholic missionary activity, education, and medical work from the mid-19th to mid-20th centuries, connected detailed measures of colonial history, climate, terrain and geography.

His publications include "Sociology of Religion" (2012) with Christian Smith in *The Blackwell Companion to Sociology*, "The Missionary Roots of Liberal Democracy." *American Political Science Review* (2012), "Missions and Economics" (2007), "The Economic Consequences of Pentecostalism" *Society* (2006), and *Researching Spiritual Capital: Promises and Pitfalls* (2003). A current project "Aid That Works: Missionaries, Economic Development and the 'Reversal of Fortunes'."

# Professor Robert D Woodberry

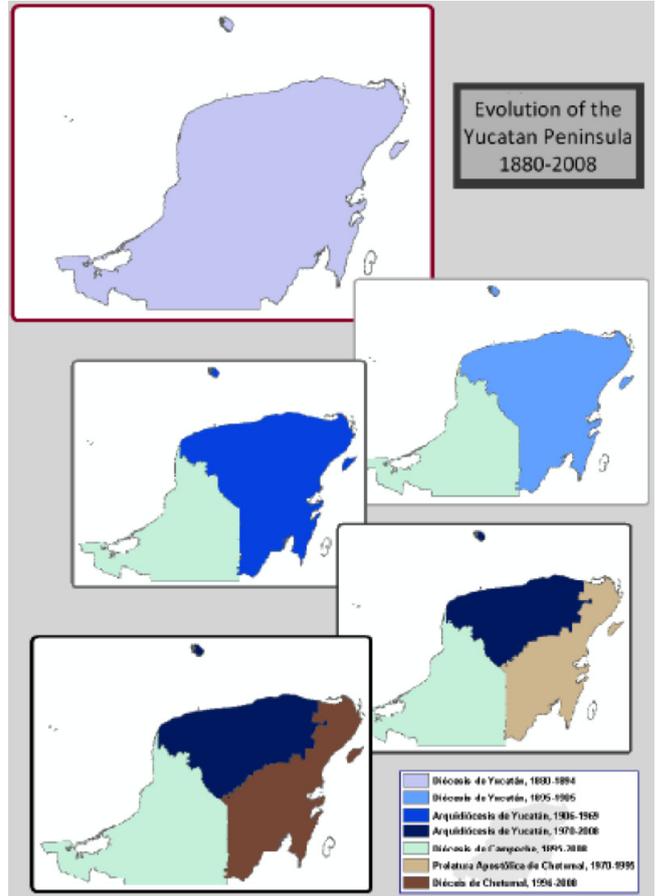
The World Bank, the IM, the United Nations, the US government and the Australian government have put in a lot of work to try to promote economic development and democracy around the world, sometimes with rather mixed results.

Consequently there's a lot of interest in why some countries end up developing over the long term, and why do some countries end become more democratic over the long-term? Because a lot of short-term policies that have been done to try to promote democracy and development haven't worked that effectively. Among those who study this problem there's debate about whether economic institutions or education (what's called human capital) is more important for explaining long-term development.

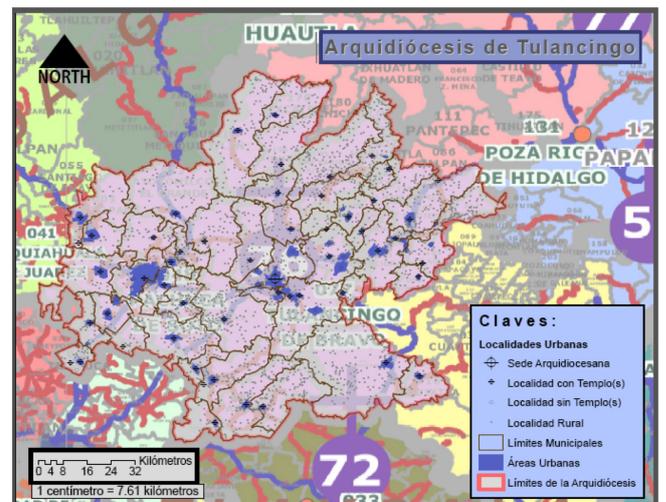
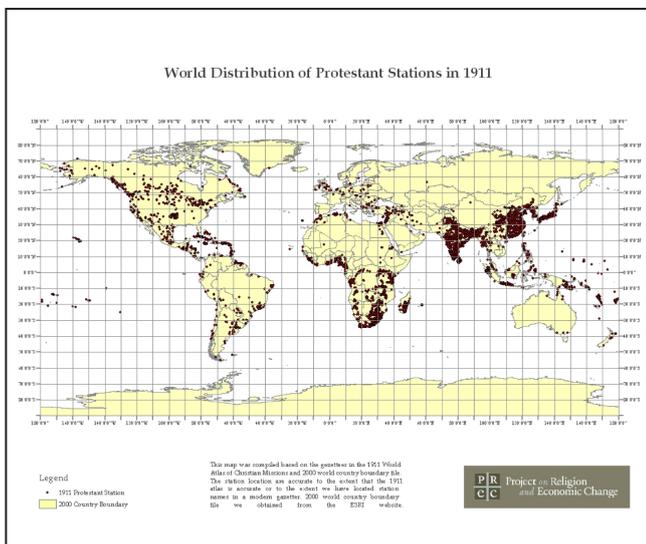
However, this leaves an additional question that I study: where did the institutions come from and where did the education come from? And so I look at the role of religion and religious groups, and how they have shaped society and how that has shaped long-term economic and political change.

Now, whenever you're talking about long-term economic and political change, there are issues of measurement and there are issues of definition. But it's also very difficult to tease out different explanations. So for example, you get both the rise of rapid economic development and the rise of modern representative democracy in Europe and North America. And there's a lot of arguments about how that happened. And it's difficult to then differentiate what are the crucial factors in Europe as well as elsewhere. So what I do is I make arguments in Europe and then I look at the role of Protestant and Catholic missionaries as well as European settlers and colonisers —various different groups who gone around the world — and look at how they have then shaped things which shape long-term development and long-term democratization.

And then I make comparative historical arguments and I try and measure them statistically. And I organize the data so that I can look at both between countries but also regions of countries. I won't focus too much on the statistics, but we'll talk about them a little because they're important.

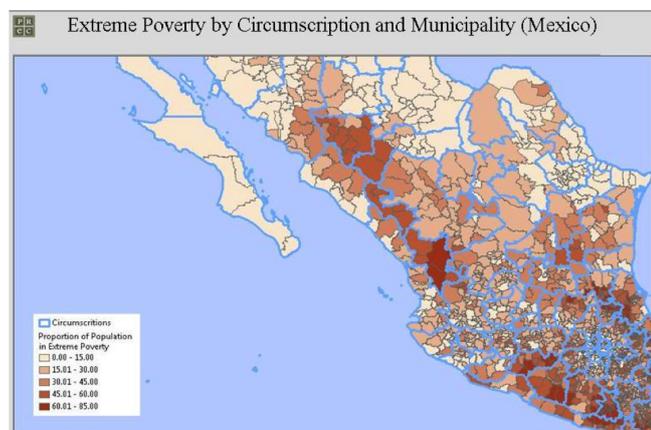
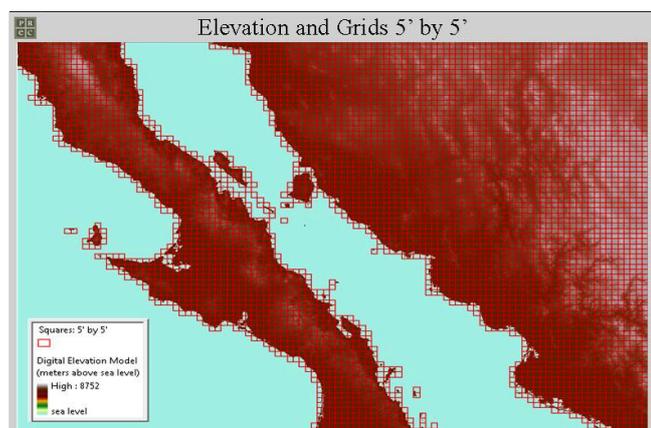
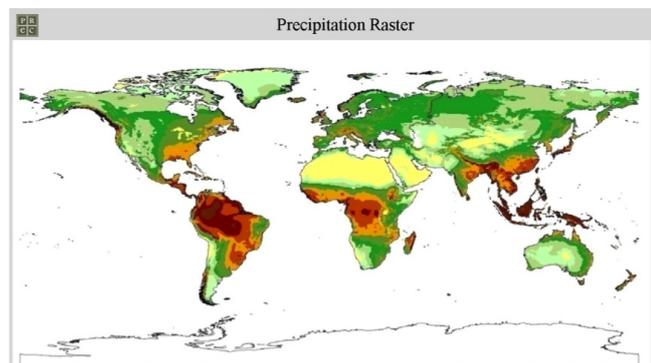


I'm looking at the role of missionaries as well as other colonial and settlers and actors, so I located the longitude and latitude of virtually every Protestant mission station from the 1820s to the 1920s. Then I have data on the Catholic Church and their activity but it's not normally at the point level, it's given for the equivalent of a diocese —they have different names. But then I reconstructed the history of these jurisdictions through time back to 1500, so I know the borders of them based on papal decrees, and then I have data which is associated with those places. Then I link that data to modern data.



So this is in Spanish, obviously, but is looking at Mexico and this is a Catholic ecclesiastical jurisdiction, which is the big unit. And then there are municipalities that are smaller units, and then churches, and urban areas, and populated places.

So I'm linking up the Catholic data with historic and current censuses so that we can look at change through time and help determine what are the many factors which promote development, especially whether what Protestant and Catholic missionaries did influenced development.



However, part of the problem is missionaries were not randomly sprinkled around the world. So let's say I find an association between where missionaries were and health. Well, did they cause that health or did the health move the missionaries. Think of this in two ways: one I'm a missionary and going out there with my family and I want my kids to survive. So I could go there and my kids could die, or I could go over here and my kids could live. So I'm going to go here. Then I move to a place that's healthy — this is a fictive example — and then there's more missionaries where it's healthier and I'm looking at this association, and 'oh look, missionaries caused health'. Well maybe the health caused where missionaries went.

Alternatively maybe missionaries went equally to places that were healthy and unhealthy but in the unhealthy places more of them died. So later on there's more missionaries in

a healthy place and I go 'look... missionaries cause health'. They didn't; they survived in places that were healthy.

So I have to try and tease out the factors that shaped both where missionaries went and where they survived so I can isolate what missionaries contributed to that local context. And there's lots of ways that I go about doing that. One of them is I divide the world into all these very small boxes — like you can see the grid for elevation in this slide. So there's all these little boxes I divided up the world into, and I have all these data about climate, soil quality, what the temperature is, how far it is from the coast, how far from a navigable river, all kinds of things that shape mortality and access and trade etc. I also know if there are mission stations in each of these boxes, and then I try to measure what factors influenced where missionaries went remove those effects from the effect of missions when I'm measuring the impact of missions. That's one way to do it, but I also use historical arguments and I also use things called natural experiments, which I'll talk about later.

This is basically my argument. I argue that, in particular, Protestant missions wanted people to read the Bible in their own language. Which now we think is easy enough. But at the time most people didn't do that ... most religious traditions didn't think that ordinary people needed to read, own books or have formal education. So in order to facilitate Bible reading, Protestants pioneered mass education — education for poor people and education for women.

In context, where other religious groups competed with Protestants, in sort of the equivalent of a religious free-market, other religious groups copied these practices, and mass education spread through competition. But it was initiated for a particular religious reason. I'll talk more about it later, but a similar mechanism is crucial for the spreading of mass printing and newspapers, and nonviolent social movement organizations. And when missionaries were not funded by white settlers or by the state — missionaries were more involved in spurring colonial reform movements. These innovations and reforms in turn dispersed power to a broader group of people, who then shape the incentives of elites by making the elite bigger and creating more people who could shape power. And that had political and economic consequences long-term.

There's some complexity, however. Whenever you're talking about religious groups, whenever you're talking about missionaries, we're talking about hundreds of years and lots of different types of people. You can find examples of almost anything if you look hard enough. Missionaries did atrocious things, and missionaries did wonderful things, but what was their average effect when we're looking at things like long-term development.

So I want to at least make a few caveats ... so you don't think that I'm just whitewashing the complexity of history and the complexity of real people, who are complex like us. One thing is that missionaries who were sponsored by the state, paid for by the state, or paid for by white settlers, didn't tend to critique the people who paid them. So they're much less critical when governments pay them. Religious groups are much less critical when governments pay their salaries. Same thing in terms of their being beholden to them in other ways.

Moreover, missionaries — at least Protestant missionaries — seem to have accentuated ethnic violence in some contexts.

So if you think of Asia, for example, I'll just pick Burma ... I can pick lots of examples but they originally went to work with the Burmese, who were resistant to conversion. The minority people who were sort of dominated and exploited by the Burmese were the ones who converted. So then the missionary start to work with the Chin and the Karen and the Kachin and these various ethnic minorities. Then their language gets written, their education gets in their own indigenous language rather than Burmese, their histories are written down, and it solidifies these ethnic boundaries. They start to move up, becoming wealthier and more educated. The British look around go okay 'we'll hire those people'. So they hired these minorities into the military and the bureaucracy because they thought they would be more loyal — because the minorities know that if the dominant group comes to power they're going to lose power. So they got hired into the British colonial administration and the military, then the Burmese resented them and used violence to try to push them back down "in their place." And then the minorities use violence to try and fight to have independence. It creates this cycle of ethnic and religious conflict in places like Burma, Sri Lanka, India and Lebanon.

Thus, I'm not saying every influence missionaries had is positive; there are complex results. I'm also not saying that some missionaries were not racist —there were plenty of racist missionaries. But there's a spectrum and they were on the egalitarian fringe of their day because they believe all people were created by God and descended from the same two people, therefore all people are the same species and are capable of similar abilities. But they were taught in school in the 19th and early 20th century what we call "scientific racism;" they were told that different races are not equally capable. And they absorb some of their education and were influenced by it. But they were on the egalitarian fringe of their day and I can give you lots of evidence for that.

And there is also change over time. I know the complexity, but we have a short talk so all I have time to do is to give the general trends and patterns.

Now ... missions and education. As I mentioned before, missionaries wanted people to read the Bible in their own language, which meant poor people and women needed to be able to read — which now we think is normal but at the time was a revolutionary thing. Most education at the time was for elites, it was in a foreign language or an archaic version of the language, and people would memorise an adult text and a tutor would train them in the meaning of the text. So if you think for example, Chinese: it was in Wen Li, i.e., classical Chinese, which is very different from spoken Chinese. People memorised the sounds of the text, then they were taught the meaning of the words, and then they were taught the interpretation of the words using an adult text like the Confucian classics – not texts designed for new readers.

Similarly with classical Arabic, similarly with Latin... It was an elite educational system which was not designed for ordinary people. Conversely, religious groups pioneered the idea of mass education, where we have classrooms that are grouped according to graded ability levels and where we have texts written for children, texts written in language that's close to spoken language. Not only were those things pioneered mostly by Protestant religious groups in Europe, religious groups spread them around the world. And in context, where you have religious competition, they were also done by Catholic missionaries and Catholics often

had the best schools and they often stayed in education longer than Protestant missionaries, who sort of abandoned education to the state in the mid-20<sup>th</sup> century.

But you see a difference between the education Catholics did in context of religious liberty, religious competition, from contexts where they had a religious monopoly. So for example, compare Catholic education in Australia, India and Ireland with Catholic education in Spain, Italy and Mexico.

Missionaries also taught other things in addition to reading; they taught concepts of private property, they spread new skills, they spread new crops. In Ghana they introduced cocoa and cotton, various things like that where they're trying to help indigenous people make money and have a self-supporting church. Now what is the evidence of that influencing things over time?

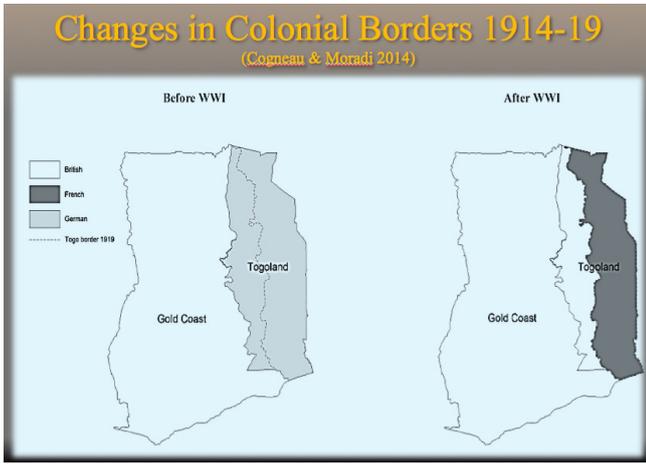
**Table 4: Regressions Testing the Causal Ordering of Protestant Missions and the Average Years of Education for People Aged 15-64**

VARIABLES	Average Years of Education in 1870		Average Years of Education in 1900		Avg. Years of Ed. in 1940	Avg. Yrs Ed. 2000
	All countries	Countries Prot. Miss. start after 1870	Countries Prot. Miss. start after 1870	Countries Prot. Miss. start after 1900	Countries Prot. Miss. start after 1890	All Countries
Prot. Miss. Stations per 10K pop. in 1839	.67*** (.13)					
Prot. Miss. Stations per 10K pop. in 1881		-35.45 (33.30)				
Prot. Miss. Stations per 10K pop. in 1890			12.55*** (3.35)			
Prot. Miss. Stations per 10K pop. in 1911				-9.13 (65.83)		
Prot. Missionaries per 10K pop. in 1923					11.62** (2.68)	1.53* (.58)
Constant	0.51*** (0.10)	0.38*** (0.07)	0.41*** (0.10)	0.10 (0.07)	0.27 (0.07)	0.47 (0.07)
N	55	24	24	4	9	52
R-squared	0.335	0.049	0.390	0.010	0.712	0.124

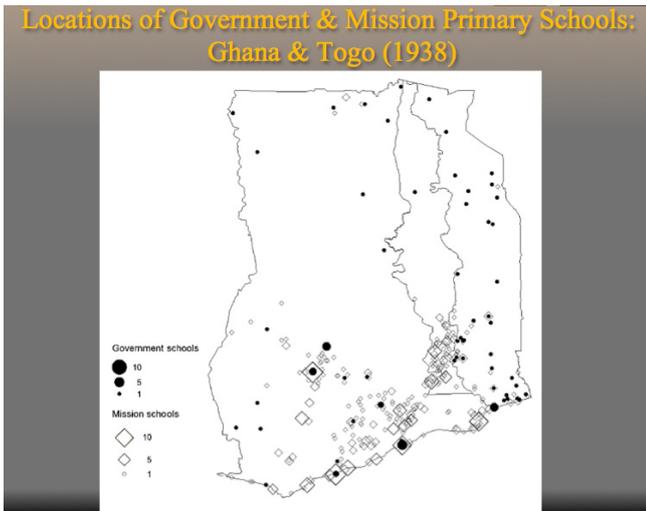
This is statistical... you don't need to know all the details of it. What you need to know is if it's a positive sign or a negative sign. Basically in the first regressions we're predicting education in 1870 and in later regressions we're predicting education in later years. So you have these columns... in column is a regression. The first column measures the impact of missionaries in 1839 on education in 1870 — if missionaries are there before 1870, it has a positive relationship with education in 1870. The next column looks backward in time – and shows the relationship between where Protestant missionaries went and education before they arrived. Column 2 shows the association between education in 1870 and missionaries who arrived after 1870... so if there were no missionaries in a country in 1870, but they got them afterwards, you see the sign is negative. Which means that, on average, Protestant missionaries went to places that had less education before they arrived, not places that had more education before they arrived.

Similarly Column 3 shows that if we have places where there were no missionaries in 1870, but have missionaries in 1890, we see the positive relationship with education in 1900. But in Column 4, if you have missionaries who came afterwards, it's a negative coefficient.

Thus consistently, Protestant missionaries are going to places that, on average, had less education before they arrived, but there's more education after they arrive. So that's evidence that the positive association between Protestant missions and education that I find in my data is because missionaries spurred the educational difference, rather than moving to places that were already better educated for other reasons. But that's sort of complicated. Another way you can analyse the same question is with a natural experiment.



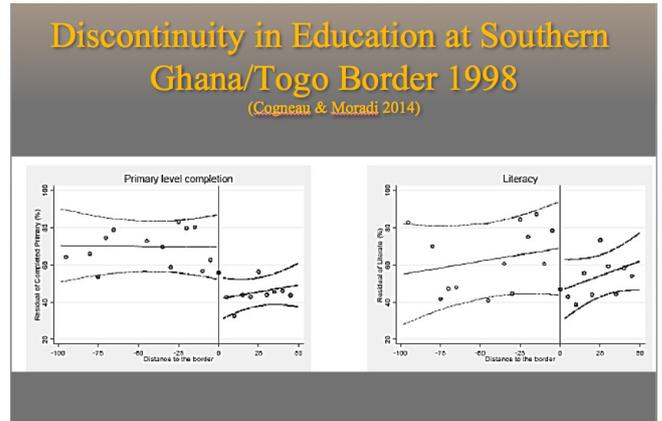
So slide 18 shows you what used to be one country in West Africa. The Germans colonised this place and called it Togoland. In World War I the French took the eastern half which became Togo and the British took the western half and made it part of the Gold Coast which is now Ghana. The French at this point in time were very anticlerical, they didn't like missionaries at all, so they tried to keep them out. And if they allowed them, they had to be French – which almost always meant Catholic. The British didn't want missionaries to work with Muslims so they tried to keep missionaries out of Muslim areas (and also Theravada Buddhist areas) because these groups had a more violent reaction to missionaries and the British wanted to rule indirectly through local elites.



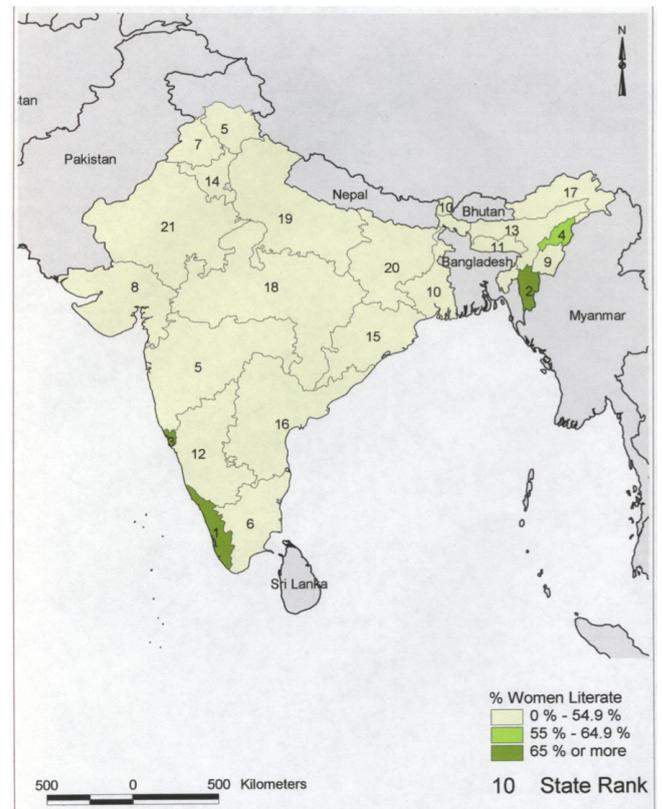
So the British made a line in Ghana and missionaries were not allowed to work north of that line; the British allowed missionaries in the south but not in the north except for a small group of Catholics the British allowed to work in the north after the French kicked them out of what is now Burkina Faso.

We know there's a big difference in education between what's now Ghana, and what's now Togo. The question is did the British cause that or did missionaries cause that? If the British caused it, we would expect the difference all along the border. If the missionaries caused it, we would only expect it in the south and not in the north because the missionaries were not allowed in the north, but the British government was.

The black dots are government schools, and the diamond shapes are mission schools. And you'll noticed a huge concentration of missionaries in the south and not in the north.



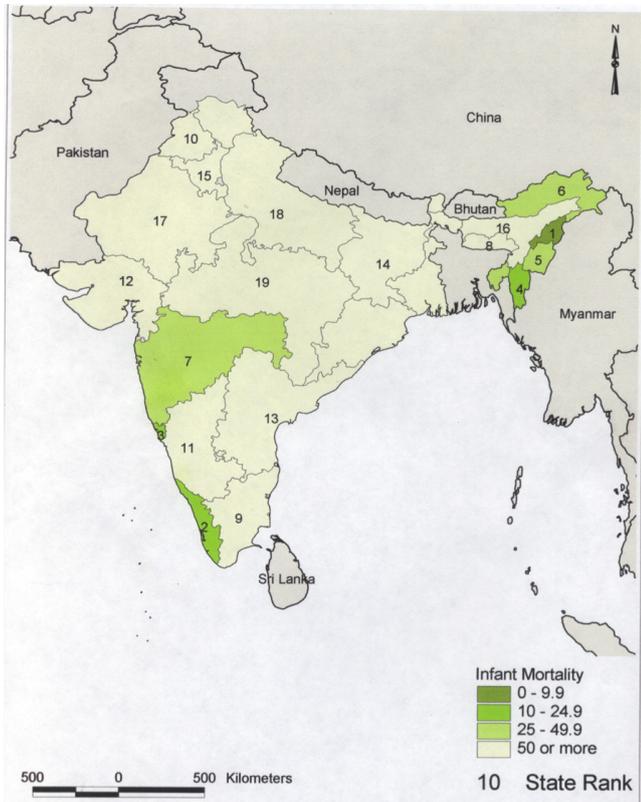
Slide 21 shows the change of education in the south as you get closer and closer to the border, and then hit the border. You notice there's a discontinuity that happens right at the border. We're looking at the same ethnic groups in what used to be the same colony, but got split between the British and French. But this discontinuity in education is only the south. In the north, it's straight lines... no difference across the border. So that's evidence it was missionaries that caused the difference, not the colonisers.



And the same pattern works at the subnational level in places like India. Slide 23 is looking at female literacy in India... the highest female literacy is in Kerala, then Mizoram, then Goa, then Nagaland. Yet these are not the centre of trade, these are not the centre of British colonial activity, these are not

the centre of government activity. These are the centres of Protestantism and Catholicism in India.

The people in Nagaland and Mizoram did not have a written language before the 1890s; they were hunter-gatherer people. And now they're almost all Baptists. Kerala and Goa have large Catholic populations and a significant number of Protestants by Indian standards. These areas have the highest literacy rates in India, particularly women's literacy.



Now if we look at infant mortality on Slide 24, we see the same pattern. That is not because of what the Indian government did, and that's not because of what the British government did. In fact most of Kerala was indirectly ruled and Goa was a Portuguese colony, and the British did almost nothing in Nagaland, Mizoram and Manipure — because it was just mountains and they didn't care. But these places with limited British colonial influence, and limited investment from the Indian central government, but major influence of Protestant and Catholic missionaries end up being better off.

We find similar patterns if we look at mass printing. We tend to think mass printing is something that 'if I know how to print, that's a valuable technology... I will do that'. But for hundreds of years, people knew how to print and didn't do it. Also you had printing in East Asia way before you had it in Europe, and it didn't have the same effects. So Europeans did not invent printing. The Chinese, Japanese and Koreans had printing about 800 years before Europe did. Europe did not invent movable font metal type either, the Koreans did — they had movable font metal type about 80 years before Europe. But printing in East Asia did not have the same transformative effect that it had in Europe. Both in East Asia and in pre-Reformation Europe printing changed how many books people had, but did not radically change who had books.. Pre-Protestant printing did expand who had books somewhat, but did not create the same explosion

of mass publishing that made books accessible to poor people. Moreover, in East Asia you never got nationalism, you never got newspapers, you never got all the things until the nineteenth century. Lots of people had contact with China and Europe over hundreds of years and didn't print. If we look at the Mongols, who invaded China; the ones who became Mahayana Buddhists printed, the ones who became Muslim didn't.

You have the Uighurs in western China; they printed when they were a combination of Christian, Manichaeian and Mahayana Buddhist, and then when they became Muslim they stopped. And you had all this contact with Europe over time, but nobody copied printing until you get Protestant missionaries coming along and printing tens of thousands of texts trying to convert people. Then all of a sudden Muslims, Hindus and Theravada Buddhists start to print. Before that only Mahayana and Vajrayana Buddhists that printed, these Buddhists have competing sects and predominate in China, Korea, Japan, Vietnam, Tibet, and Mongolia. Theravada Buddhist that have one national community (no competing sects) did not print. Yet even in Mahayana Buddhist societies, Protestant missionaries transformed printing into a mass technology.

Similarly if we talk about nonviolent social movement organizations, we tend to think that if you want to have a social movement, you form an association, and then you have directors of that association, and you have a newsletter or newspaper, and you have traveling speakers, and you march and have placards and sign petitions and make boycotts. You do all these things which we think are normal. However, those techniques were pioneered, for the most part, in the late nineteenth and early twentieth century, and they were pioneered mostly by nonconformist Protestants and evangelical Protestants in England and in the United States. And they're the people who spread them around the world. They took these technologies that were originally developed for mobilizing religious movements, and used them for political movements. So if your church doesn't receive money from the state, you have to instill voluntarism, you need to instill charity, and you have to have a way to recruit people and get them excited about your faith — which they did.

So when they became upset about slavery, corporations promoting the excessive use of alcohol, and other things like that they used these tactics that were used originally for religious purposes, and use them for political purposes.

Now, over time these techniques have spread beyond activist Protestant groups so we don't have to learn these techniques from religious groups anymore; we can learn from any other political movement. But they originated in a particular place, and we can see that historically not only in terms of who pioneers them in Europe and North America, but who spread them around the world. So for example, you get the crystallization of the sort of tactics in the early nineteenth century in the United States, both in the Northeast and the Western frontier, and in England. But almost simultaneously you get them emerging in Calcutta, India, and among the Xhosa in southern Africa who are using similar techniques because they're taught to them by the missionaries. And then that has political implications in terms of civil society — the ability of people to organise, to pressure for the things that they want.

So if we look at a place like India, the early Baptist missionaries — William Carey, what's called the Serampore Trio — they went there, they printed the Bible into 40-something languages within the first 20 or so years, and printed tens of thousands of copies of the Bible. And they were trying to convert people. But they also saw things that they didn't like. There was a practice called suttee, where when a man died his wife was supposed to burn herself alive on his funeral pyre — which they thought was a bad thing.

So they organised protests against it in India and they also organised protests in England, and they were trying to pressure the British East India Company to ban it. The British East India Company didn't want to ban it because their view was 'just stay out of politics, don't make waves because if you make waves and people get upset it will maybe lead to violence'. The British East India Company just wanted to make money, basically.

But the missionaries were not easy to shut up, and they kept protesting. Then that influenced other people. There was a man named Rammohun Roy who originally helped the missionaries translate the Bible into Bengali. Initially he became a Baptist, then a Unitarian, then a reforming Hindu. By the time of the suttee controversy he had decided that rather than becoming a Christian he was going to reform Hinduism, so he didn't want people to become Christian, he wanted them to be reformed Hindus.

But he wanted to get rid of these embarrassing things like suttee and so created Brahma Samaj to try and mobilise against suttee but using the same tactics as the missionaries. Other people wanted to defend suttee and keep it, so they created Calcutta Dharma Sabha to protect suttee and prevent it from being removed. But they also copied these same tactics.

Originally the British East India Company — and later the British colonial government — had an awkward, somewhat uncomfortable relationship with missionaries. So as long as you are organizing against the missionaries, that was fine. But over time these organizations become bigger and more powerful and they have newspapers and they have cross regional networks. And over time they start to pressure the colonial government first to expand more positions in the bureaucracy for Indians, and then they become increasingly anti-colonial and they become the foundation for the political parties.

So you have this flowering of organisational civil society which leads to political parties, which forces the British to gradually give over power, which then meant you had more people who had experience running things before the British left and it wasn't as much chaos when they left.

On the negative side it meant that the political parties were organized along religious lines, because these organisations that were the foundation for them were religious organisations. This then accentuated the conflict between Muslims and Hindus at independence because the political organisation was aligned religiously. So it had both positive and negative effects.

## Limiting colonial abuses

They were the major advocates of colonial reform movements such as abolition, the movement against slavery. Most missionaries when they went out were not abolitionists, but their experience of slavery radicalised them over time. And they became the main people who turn abolitionism into a mass movement which had profound influences in terms of the freedom of labour.

They didn't create the term trusteeship but they were the ones who popularised the idea. And after their success with the abolition of slavery they created what was called the Select Committee on Aboriginal Tribes which became the Aborigines Protection Society. It did surveys of missionaries and others around the British Empire, seeing how indigenous people were treated and trying to reform British colonial policy based on that.

They had a lot of influence in the first part of the nineteenth century. Over time their influence wanes as other people copy their tactics. So if you're the first people to organise, you have more power. Once other people start organising use the same tactics, you have less power. So over time they have less influence on colonial policy, but in the early and mid-nineteenth century they made a lot of very important reforms in British colonialism.

Stated Purpose: "[To investigate] what measures ought to be adopted with respect to the **Native Inhabitants** of Countries where British Settlements are made, and to the Neighbouring Tribes, in order to **secure them the due observation of justice and the protection of their rights**, to promote the spread of Civilization among them, and to **lead them to the peaceful and voluntary reception of the Christian Religion.**"

The stated purpose of the Aborigines Protection Society was "[to investigate] what measures ought to be adapted with respect to the native inhabitants of countries where British settlements are made, and to the Neighboring Tribes, in order to secure them the due observation of justice and the protection of their rights, to promote the spread of Christian civilisation among them, and to leave them to the peaceful and voluntary reception of the Christian religion."

Right within the purpose statement of the Aborigines Protection Society is both the sort of civilisational focus and this conversionary focus, which is then tied with the idea of transferring rights. We can talk about that being paternalistic — and there's a paternalistic aspect of it — but at the same time, they were able to moderate colonialism in a way that other people were not. These types of reforms didn't happen when you didn't have non-state missionaries who were involved in it.

As I mentioned before, missionaries facilitated the spread of voluntary associations and civil society, which also allowed local people to moderate political abuses and other things like that.

	<b>Low Corruption</b>	<b>Rule of Law</b>	<b>Government Efficiency</b>
<b>Colonial Death Rate x 100 (Acemoglu et al.)</b>	<b>.00</b> (.02)	<b>-.00</b> (.02)	<b>-.00</b> (.02)
<b>Protestant Missionaries per 10,000 pop. in 1923</b>	<b>.18*</b> (.07)	<b>.19*</b> (.07)	<b>.18*</b> (.07)
Landed Nation	-.13 (.28)	-.05 (.27)	-.12 (.28)
Island Nation	-.19 (.28)	-.25 (.27)	-.27 (.28)
Latitude	2.22* (.85)	2.54* (.87)	2.21* (.83)
Minimum Monthly Rain x 10 (Albany)	.01** (.00)	.01** (.00)	.01** (.00)
Mean Temperature (Albany)	-.01 (.02)	-.01 (.02)	-.02 (.02)
Asia	.42 (.33)	.48 (.34)	.53 (.33)
Africa	.16 (.28)	.07 (.28)	.15 (.28)
Percent European (1975)	.00 (.01)	.00 (.01)	.00 (.01)
British Colony	-.19 (.19)	-.01 (.19)	-.08 (.19)
<b>N</b>	<b>59</b>	<b>59</b>	<b>59</b>
<b>R-squared</b>	<b>.465</b>	<b>.493</b>	<b>.523</b>

So what is the evidence for the long-term impact of these historical developments? We won't go into the statistics too much, but looking at Slide 35, column 1 shows a regression measuring what predicts where you have low corruption, column 2 what predicts where you have high rule of law, and column 3 where you have higher government efficiency. And you can see that Protestant missions strongly predict all three of those outcomes.

And the mechanism, I would argue, is through this spread of newspapers and civil society and also through the reform of British colonial policy. Factors that both enhanced rule of law during colonialism and allowed local people to restrain government abuses after independence.

	<b>GDP per cap 1870</b>	<b>GDP per cap 1913</b>	<b>GDP per cap 1913</b>	<b>GDP per cap 1950</b>	<b>GDP per cap 1970</b>
<b>GDP per cap. 1820</b>	1.87*** (.33)				
<b>Protestant Mission Stations per 100,000 in 1839</b>	246.64* (115.40)				
<b>GDP per cap. 1870</b>		3.40*** (.19)	2.85*** (.19)		
<b>Protestant Mission Stations per 100,000 in 1881</b>		141.17* (62.31)			
<b>Protestant Mission Stations per 100,000 in 1903</b>			83.93*** (15.32)		
<b>Catholic Mission Stations per 100,000 in 1906</b>			-40.89+ (22.35)		
<b>GDP per cap 1913</b>				2.24*** (.28)	-.67 (1.22)
<b>Protestant Missionaries per 100,000 in 1923</b>				48.27* (21.07)	512.88*** (95.85)
<b>Catholic Missionaries per 100,000 in 1923</b>				22.53 (20.18)	357.24*** (83.36)
<b>R-squared</b>	<b>.59</b>	<b>.91</b>	<b>.90</b>	<b>.88</b>	<b>.69</b>
<b>N</b>	<b>31</b>	<b>35</b>	<b>34</b>	<b>34</b>	<b>33</b>

Economic development: in this slide we're testing the impact of Protestant missions on economic development. Column 1 measures what predicts greater GDP per capita in 1870. The numbers are adjusted to 2014 US\$ so you can understand intuitively the size of the coefficients — the coefficients are too big to be believable if they were in nineteenth century dollars. In column 1 we're controlling for economic development in 1820. Mathematically that's

the equivalent of if we make every society have the same economic development per capita in 1820. Then if we add mission stations after 1820, we can see that for each mission station per 100,000 population, on average, everyone in that society made \$246 more by 1870 — which is a huge number. It should scare you a little bit, it scares me a little because it's so big. That's huge.

Columns 2 and 3 predict economic development in 1913, but we're controlling for our previous dependent variables (GDP per capita in 1870). Now we're equalising all the countries again in terms of their economic development per capita in 1870. In column 2, if we measure Protestant missionary stations in 1881 and we see for each mission station per 100,000 population, you're making \$141 more per capita by 1923 — which again is huge, although smaller.

In column 3, if we measure Protestant mission stations in 1903, it's a smaller effect — but still a strong positive effect — on economic development in 1913 — US\$83.93 per person. If missionaries were going to places that were already more economically developed, we would expect the effect of mission stations in 1903 to be bigger than the effect of mission stations in 1881 1903 is closer to 1913 than 1881 is and there is less time for other factors to "randomly" alter the economic development of the places missionaries went.

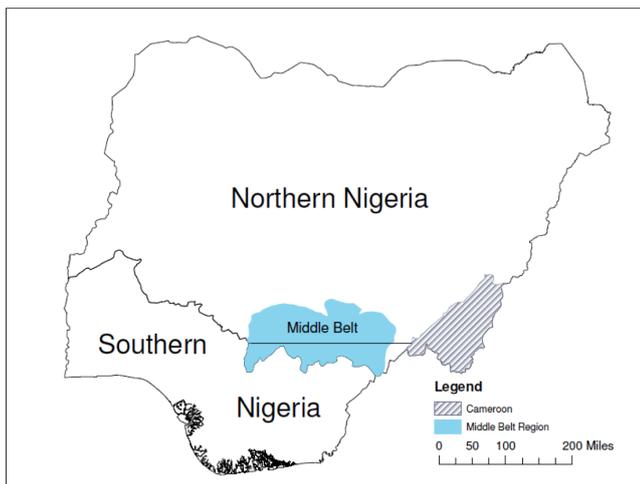
But if missionaries are doing the causing, if they have more time, they're going to have a bigger effect than if they have less time. And that's what we see. Having a Protestant mission station in 1881 has almost twice the positive impact on GDP per capita by 1913 than having a mission station in 1903.

Originally, Catholic Missions were not doing the same type of thing (mass education, mass printing, voluntary lay associations) except when they were competing with Protestant missionaries, but that starts to change in the 1920s and further on. So, Catholic Missions in 1906 doesn't have a positive effect on economic development in 1913. However, as the policies of the Catholic Church change, so does the economic impact of their missions.

So if we control for economic development in 1913 (that is, mathematically remove the effect of differences in economic development prior to 1913) and looking at economic development later — 1950s and 1970s — we see that both Protestant and Catholic missionaries in 1923 have a positive and significant effect on economic development by the 1970s, controlling for economic development from 1913.

Thus in each regression, I am mathematically equalizing countries based on their prior level of economic development. Mathematically, this is like if I had two sets of countries with the same population and the same GDP, each country in one set gets a mission station and each country in the other set does not. On average, the countries that got the mission station do much better economically than the one that did not get the station. At each stage I re-equalize the population and the GDP and change which countries get missions stations and which countries do not, but, on average, whichever countries get a mission station do better than the ones that do not. So either missionaries are amazingly prescient about which places are going to grow for other reasons, or they're having a direct or indirect effect on economic development.

Figure 1: The 1900 division of the Middle Belt region under the Northern and Southern Nigeria Administrations



This interpretation is reinforced by natural experiments. In Nigeria, the British didn't want missionaries to work for Muslims so at least twice in Nigerian history, they made a line across Nigeria that missionaries were not allowed to go north of. Slide 39 shows the line in 1900 — the advantage of this line is that part of it is straight — and nothing in nature is straight. Missionaries for a long time were not allowed to go north of that line. Slide 40 shows the line cuts the Idala, Idoma and Tiv ethnic groups in half. So if you collect data for the 10km north of that line and data for the 10km south of that line, and just compare within each of the ethnic groups, we find significant differences in education on either side of that line, in health and health provision, in durable goods, in housing quality, in income, in wages, etc. The differences happen on either side of a line which no longer exists, even though we are comparing within the same country, in the same state, in the same ethnic group.

So if you want to argue that missionaries didn't cause those differences, you have to find another thing that change exactly at that line which was not caused by missionary activity.

Some other economists who were following up on my work studied missions impact on China. Their argument is based on the fact that missionaries went to do disaster relief when there was a flood or a drought. A flood or a drought does not help your economy, but having a flood or a drought got you more missionaries. These economists showed that if you had a drought before 1848, when missionaries were not allowed in China, it has a negative effect on your economic development now.

Similarly in 1949, the Communists kicked out the missionaries if you had a drought or flood after 1949 it has a negative effect on economic development now. But during the late nineteenth and early twentieth century, if you predict the number of missionaries based on droughts and floods, it has a positive effect on your economic development now.

So unless you can think of a reason why droughts and floods would hurt China before the mid-nineteenth century and after the mid-twentieth century, but help China during the late nineteenth and early twentieth century, they have demonstrated that missions helped the economy. And it was a strong enough effect to survive through communism.

	655.82*** (167.93)	25.72*** (5.351)	365.88* (169.97)	347.12* (165.71)	326.7* (163.7)
Ln Protestant Missionaries in 1923 per 100,000 People					
Years Protestant Missionary Activity before 1960					
Total Government Aid (coefficient X 100,000)	-2.62* (1.16)	-4.21*** (1.33)	-3.01** (1.21)	-2.42** (.93)	-2.21* (.93)
British Colony			493.64 (82.87)	296.9 (83.3)	114.9 (81.6)
Dutch Colony			1,977.86 (2,026.29)	2,044 (1,978)	2,283 (1,963)
Other "Protestant" Colony			-1,070.87 (1,612.33)	-1,461 (1,570)	-693.4 (1,533)
No Significant Colonization			865.62 (915.64)	879.6 (897.0)	1,384 (886.4)
Landlocked Country			-2,229*** (703.9)	-2,233*** (686.4)	-1,786** (693.5)
Island			-113.8 (642.9)	-569.2 (658.3)	207.6 (645.3)
Latitude			34.66* (17.42)	25.66** (27.25)	34.08 (32.58)
% Population European in 1980			9.428 (13.84)	-10.91 (13.48)	-16.8 (13.13)
% Muslim in 1970			9.873 (8.973)	8.769 (8.769)	10.25 (10.25)
Major Oil Producer			1,251 (728.2)	1,431* (708.2)	1,487* (728.4)
Sub-Saharan African Country			-2,182*** (576.2)	-1,949*** (596.1)	-2,269*** (622.3)
East Asian Confucian Country			15,760*** (1,400)	16,447*** (1,389)	97.55 (1,389)
Country on Arabian Peninsula			13,719*** (1,246)	13,747*** (1,246)	12,466*** (1,246)
Malaria Endemic				-1,470* (677.9)	-1,393* (677.9)
Average Max. Temp. in Hottest Month					-31.27 (88.86)
% of Country Covered by Mountains					-11.27 (16.96)
Mean Distance to the Coast					-1.077 (1.009)
Precipitation per year					-1.211* (0.476)
N	133	133	133	133	133
R-squared	0.141	0.188	.801	.820	.779

Having demonstrated the plausibility that missionaries' impact on economic development is causal at the sub-national level; we can now look at rough estimates of the average impact of missions on long-term economic development between countries. Slide 43 tests the impact of Protestant missionaries in 1923 on current economic development. You can see that for each missionary that a county had in 1923, on average each person makes \$655 more per capita. And Protestant missions explaining about 14% of the variation in economic development, which is scarily huge. That's not proving all that is causal — some of it may be other things that are related to missions — but I control for lots of things. Moreover, local people are doing most of the work at mission hospitals, and Protestant missions spurred other groups to also invest in education, and social services. So some of the impact of missions is indirect. But you given the huge impact of missions on economic development in these regressions, the plausibility that at least some of it is causal is quite high.

British Colony	14.61** (4.93)	3.29 (5.78)	4.98 (5.85)	
Other Religious Liberty Colony	24.88* (12.05)	16.00 (11.70)	17.79 (11.83)	
Dutch Colony	9.99 (17.68)	-33.59 (21.47)	-31.76 (21.33)	-44.73** (16.37)
Never Colonized Significantly	2.12 (8.41)	.15 (7.77)	2.57 (7.80)	
Latitude	.58* (.23)	.09 (.23)	.11 (.22)	
Island Nation	14.17* (5.61)	4.71 (5.49)	5.04 (5.43)	
Landlocked Nation	-13.99* (5.93)	-88 (6.12)	1.25 (6.35)	
Percent European in 1980	.19+ (.11)	.13 (.11)	.12 (.11)	
Percent Muslim in 1970	-.21** (.07)	-.02 (.07)	-.01 (.08)	
Major Oil Producer	-5.99 (6.24)	-3.97 (5.78)	-3.01 (5.77)	
Literate Culture before Missionary Contact	-9.77+ (5.63)	-3.47 (5.35)	-3.52 (5.32)	
Years Exposure to Protestant Missions		.13* (.05)	.13* (.05)	.15*** (.04)
Protestant Missionaries per 10,000 pop. in 1923		3.63* (1.50)	3.75* (1.59)	4.39*** (1.27)
Percent Evangelized by 1900		.22** (.07)	.17* (.08)	.28*** (.05)
Years Exposure to Catholic Missions			.02 (.02)	
Foreign Catholic Priests per 10,000 pop. in 1923			.86 (1.00)	
N	142	142	142	142
R <sup>2</sup> from Robust Regression	.412	.504	.518	.500

You see the same thing in terms of liberal democracy. Again this is complicated, but in Slide 45 I'm predicting the average level of democracy in countries around the world between

1950 and 1994. This regression includes lots of things that people have written about for a long time: being a British colony, having more Muslims, having more Europeans, not being a major oil producer — various things that most scholars think predict democracy, and initially most of these things significantly predict democracy. See column 1. Everything marked yellow significantly predict democracy.

But after I control for Protestant missions in column 2, none of them predict democracy any more, and the regression “explains” 50.4% of the variation in democracy. In column 3 I add Catholic missions to the regression, but it doesn't have a positive or negative effect on democracy, it has a neutral effect. Finally, in column 4 if we drop everything that was not significant except for Dutch colonialism, Protestant missions still explains half the variation in democracy.

So all those other variables that people been writing about for 40 years like British colonialism, Islam, oil, and European settlement only really explain 0.4% of the variation in democracy — not a lot.

This effect is huge and was published in the *American Political Science Review* — the best journal in political science. This should startle you. It startled me certainly when I first found those results, and I spent a lot of time trying to make them go away ... and they didn't go away.

Its meaning is that these religious factors seem to be very, very important. It doesn't mean that religions are frozen in time and that only Protestantism will promote democracy forever. Religious groups change. Now lots of religious groups believe in mass education, lots of religious groups believe in voluntary associations, and things like that. Thus, they may promote long-term democratization as well. But having earlier exposure to that type of thing seems to have had a long-term benefit for societies that had earlier and stronger exposure to Protestant missions.

My argument generally is that Christianity has had profound influence on what we consider to be ‘modernity’. I don't think there's one modernity that everyone is headed to, what we have now in the most wealthy and powerful societies we call “modernity,” but religion had a lot to do with why some societies now have more wealth and power. Not only that, but religious incentives were important. It wasn't just that they were carriers of things developed by others for non-religious reasons ...for many outcomes religious beliefs actually mattered.

For example, if we're talking about printing, the belief that everyone had to have access to the Bible in their own language made mass printing a valuable thing. Religious competition was also crucial; religious liberty matters because in context of competition, other religious groups copied this behaviour. And then the religious distinction disappears over time because of competition, which I would argue is good.

What are the implications of this — some of them are theoretical. Lots of scholars when they talk about development, talk about class structure — whatever classes are — “institutions,” natural endowments, and other things which they believe are “material” and the true drives of change. Scholars often think ‘culture, religion, beliefs are soft and don't matter. Beliefs can't change social structure, because everyone can change beliefs.

But what I argue is that actually you have something like a yin and yang. Culture shapes things like class structure, and class structure shapes things like religion. It is actually a mutual influence rather than all the direction going from ‘hard’ things like class structure to beliefs.

My results also has political implications, and one of the biggest ones is that religious liberty matters — even if you're not a religious person, even if you don't like the types of religious people who do mission work.

Religious liberty seems to help the poor and help spread power within a society through the process of religious competition and religious groups doing things that break up elite monopolies, elite control over resources like education, books, and organizations. And you can show that expanding access to these resources beyond a small elite has had a profound influence on the development of society, both economically and politically.

So even if you don't care anything about religion you should care about religious liberty, because religious liberty influences economic and political conditions — religious liberty matters.

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