Chapter 6: Why Spiders Came to Dominate Schooling

An “official” educational enterprise presumably cultivates beliefs, skills, and feelings in order to transmit and explicate its sponsoring culture’s ways of interpreting the natural and social worlds.

Jerome Bruner, The Culture of Education.

If it ain’t broke, don’t fix it. While chapter 4 argued that empirical the top-down expansion of “more of the same” is not on track to promote learning goals and chapter 5 argued that existing systems of schooling may actually be as much problems as solutions, this leaves the question of why countries have the schools they have. Before entertaining notions of sweeping systemic reform, we ought to have a good account of why things are the way they are. Voltaire’s Dr. Pangloss’s account, that things are the way they are because this is the best of all possible worlds, may just be right. Three big questions about schooling are:

- why has the expansion of public schooling been so universally successful?
- why does government directly produce so very much of basic schooling?
- why does the government produce schooling in “spiders”: large hierarchical organizations of massive scale?

Perhaps the answers to those questions are really simple:

- Because schooling is so good and is universally recognized as such,
- Because governments are the best at producing schooling, and
- Because big is the best size for schooling systems.

If this is the right account then fixing schooling to meet the learning gaps will not require fundamental change, just trying harder. Perhaps more of the same, but better and with more money, really is the solution to all ills.

However, this simple Panglossian account of the rise of government owned and operated spider systems as the dominant system of basic education has very little, other than making you smile, going for it. An alternative account, capable of explaining the historical rise of the schooling, its successes in mass expansion, its present features and operation as government spider systems as well its failures, has three essential elements.

- The inculcation of beliefs is not third party contractible.
- Nation-states care about, and act autonomously to control, the socialization process, through the direct production of schooling.
- Isomorphic mimicry, discussed in the previous section, is a powerful force in shaping the diffusion of institutional organizations across nation-states.
With these three analytical pieces in place I can explain everything we observe about education systems in the world today. I can also dismiss for what it is the Panglossian nonsense that gets said about these questions, by economists and others. Once we have cleared the debris of the false necessity of the way things are we can move to discussing in the next chapter elucidating the principals of an alternative to spider systems: structured, pressured, supported, starfish systems of schooling.

I) The Inculcation of Beliefs is not Third Party Contractible

The Beatles knew, as everyone does, that can’t money buy you love. Why? If I tried to buy love I could never be sure the person was not faking it. Someone could act like they love me but just be pretending. Love is not observable. A market in love would require that love is not just observable between two people, but that love be verifiable. Could a third party reliably settle a contractual dispute between two parties over whether money had bought love? Could a paying lover who felt defrauded by a contracted lover successfully get their money back? Love, being neither observable nor verifiable is not a contractible.

In Vienna Virginia, the perfectly ordinary suburb of Washington DC, Robert Hannsen lived the apparently perfectly ordinary life of a career bureaucrat for the FBI. Perhaps his most remarkable characteristic to those who knew him was that he was a fervent conservative Catholic, attending mass daily at 6:30 AM (and often again during the day) and sending his daughters to an Opus Dei operated private school (where his wife taught religion). The reality was apparent to no one: Robert Hannsen was a spy for the Soviet Union/Russia and had been, off and on, during nearly all his FBI career (1979-2001). This apparently fervent anti-communist was perhaps the most damaging US double agent in the history of the Cold War, playing a role in the loss of nearly every active US asset in the Soviet Union in the period 1985-86. Love is not the only thing that can be faked, so can loyalty.

If money cannot buy you love or loyalty can it buy the teaching of love or loyalty—or of any belief or mental disposition for that matter? I have a friend who is an excellent musician and who is, as am I, a Mormon, a historically quirky American denomination with beliefs far from the Christian mainstream. This friend worked his way through a PhD in Choral Conducting as the director of music for a local Catholic congregation. He had responsibility for the Sunday music (playing the organ) and directing the congregation choir—including its Christmas and Easter concerts and teaching the youth choir to sing. Why is it unremarkable that a Catholic congregation would hire a Mormon music director but if the same congregation were to contract out to a Mormon teaching
the youth Sunday School this would be remarkable? Why can money buy teaching religious music but not teaching of religion?

Suppose a student learns speak Swahili and after a period of instruction can carry on a conversation with a native speaker and can read texts in that language. If the student reports to a friend: “They think I have learned Swahili but I really haven’t because I don’t believe in Swahili” most people would regard this as an exceptionally odd statement. Perhaps he might not enjoy Swahili or have the disposition to speak Swahili but a person’s functional mastery of Swahili can be separated from any mental states they might have about it.

Now suppose the same student is being taught to pray. For instance, suppose he has learned the a series of words Christians call the Lord’s Prayer has learned to say those words with appropriate inflection and affect, and has learned the appropriate circumstances in which to repeat those words. In fact, imagine the student could pass any conceivable external assessment of his ability to pray. If the student reports to his friend: “They think I have learned to pray but I really haven’t learned to pray because I don’t believe in praying” in this case he is right—he has not learned to pray.

I define a skill to be something for which the demonstrable performance is everything while for a belief a person’s mental state is independently important. The distinction is not between those things that are “physical” and those that are “mental” as skills run the gamut from weight-lifting or tennis to algebra or chess. The key analytical difference for how transactions is that no one can pretend to have a skill they do not have (though of course people can pretend to not have skills they do have) while people can, and do, pretend to have beliefs they do not have.

Since skills are observable and verifiable skills and hence contractible. Instruction in skills is directly contractible. Most importantly, instruction in skills is third party contractible.

The distinctions between contractible, directly contractible instruction, and third party contractible instruction can be made using a foreign language skills. Suppose an American organization wanted employees who could speak French. There are well developed rankings of language proficiency and established expertise in language skill assessment. In an hour or less any organization can reliably assess a person’s maximum language proficiency and hence speaking French is observable. Objective assessment is also verifiable such that, if an employee felt the organization was attempting to cheat on a promised incentive for speaking French a third party to could adjudicate whether or not “This person speaks/understands reads French at the specified level of proficiency” and hence could enforce that contract. This means organizations can contract for speaking French by say, only hiring people who speak French at a given level of proficiency or pay a wage premium that is based on the level of language skill, with higher bonuses, or any of a whole variety of incentives.
Language instruction is also directly contractible. That I don’t speak French is observable (either painfully or laughably so for my French speaking friends, depending on their sensitivity) but I were to want to learn to speak French I would have an array of contracting options: I could hire a tutor, I could buy a commercial “teach yourself” service, I could enroll in a course from any of a variety of institutions, I could try and teach myself with an on-line course. Since I can have my language proficiency objectively assessed at relatively low cost I can easily assess my progress and switch among providers of instruction.

The most interesting case is if an organization wants to encourage its existing employees to acquire French skills by subsidizing instruction in French. This creates a “make versus buy” decision for the organization. The organization could “make” French instruction by hiring an employee to offer French instruction to the organizations employees free. Alternatively, the organization could engage in “third party” contracting with their employees by agreeing to subsidize some portion of the cost of French instruction. This could be as simple as allowing employees to use work time to receive tutoring (of their own choice of tutor) on site. Or, the organization could agree to pay a flat rate of X dollars of the employee’s instruction from any authorized course of French instruction (allowing employees to “top up” by choosing more expensive courses if they choose). There a wide array of organizational strategies from just paying for skills and not subsidizing skill acquisition at all to a variety of ways of encouraging instruction. The “optimal” organizational choice is going to be a complex function of how costly it is to observe the skill, how fungible outside the organization the skills are, the determinants of skill acquisition depending on the individual’s own ability and effort, the risk aversion of employees (what if they pay for instruction but fail to reach the wage bonus threshold?).

Whether or not “third party” contracting for instruction in French skills is the organizationally optimal choice, it is a choice because the skill and instruction in the skill are contractible and incentives can be constructed such that the individual, the instructor and the organizations incentives are aligned. Moreover, in analyzing the organization’s incentive structure for French skills the organization’s fundamental goals did not really matter: one can imagine the Catholic Church, the U.S. Marines, Wal-Mart, Amnesty International all sending their employees to the same class in conversational French.
Table 6.1: Why money can’t buy love and governments do not give vouchers for schooling, all in one table

<table>
<thead>
<tr>
<th>Skills/Factual Knowledge (Foreign Language, Algebra, Music, Tennis, Chess, Test Prep)</th>
<th>Beliefs/Attitudes/Dispositions (Love, Loyalty, Faith, Duty, Honor, Patriotism)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contractible (observable and verifiable)</td>
<td>Yes (Hiring and/or Incentive mechanisms based on pay for demonstrated skills)</td>
</tr>
<tr>
<td>Instruction Directly Contractible</td>
<td>Yes (Thriving markets for instruction in skills through multiple modalities—tutors, classes, assisted own instruction)</td>
</tr>
<tr>
<td>Instruction Third Party Contractible</td>
<td>Yes (Organizations have an array of “make” versus “buy” choices)</td>
</tr>
</tbody>
</table>

Organizations typically want long-term employees to be personally committed to the vision, mission, and mandate of the organization. The Catholic Church wants priests and nuns who believe in God, the US Marines wants soldiers who believe in the Corps, Harvard University wants faculty who believe in the value of research (if not Harvard itself), Amnesty International wants workers who believe in human rights. These beliefs come with a variety of descriptions: faith, duty, loyalty, commitment but all of these have in common that they are neither directly observable nor verifiable in that they cannot be reliably assessed with feasible cost or time in an inter-subjectively reliable way.

The example of double agents in the world of espionage is exotic, but nevertheless instructive. Robert Hannsen rose to be one of the top FBI officials for ferreting out double agents in the US intelligence community on the basis of his apparently sincere anti-communism and loyalty while in fact he was the double agent. The counter-part in the world of skills is simply impossible. Imagine discovering the top cellist for the New York Philharmonic cannot really play the cello. An all time great tennis champion like Andre Agassi can write a memoir telling us he hated the game of tennis—but he could not possibly reveal he could not play tennis at the professional level (although, lamentably, that could be in my memoir with no surprise). Double agents illustrate there is no cheap and reliable way to observe or verify loyalty. Therefore simple incentive schemes like paying a wage premium for those who speak French at level II or higher not possible. The elicitation and demonstration of commitment to the core values of
organizations requires much longer periods of observation—and typically lower powered incentives.

Beliefs are not contractible because only I know (even if only imperfectly) what I believe and I can, and very often do, mislead others about my true beliefs (“Have you lost weight sir?”, “Oh yes, your child’s solo was wonderful.” “My, what a lovely baby.”). However for that same reason instruction in beliefs actually is contractible: as the intended recipient I both completely observe all of the instruction and can make some, if only imprecise, estimates of its impact on my beliefs.

Third party contracting for instruction however runs the danger of contracts between instructor and student to collude against the third party with insincere teaching. Suppose, as is true in many politicized environments, that my promotion in my career depended in part on my technical skills as an economist but also in part on my appearing to be a loyal Baathist, or loyal Communist, or in a religious regime, a devoted follower of the this or that denomination, or in a secular regime, not have a religion at all. Then I would have the incentive to engage an instructor with the following contract for insincere teaching: “Teach me how to appear to be a loyal follower of ideology X, while reminding me periodically that X is a crock.”

More mundanely, consider an organization’s “make versus buy” decision for instructional activities intended to build commitment to the organization’s vision and mission. Could they just “buy” such instruction by giving employees a subsidy for “loyalty augmenting” instruction that the employees contract from third parties? Third party instructors may maximize their attendance by offering the following deal: “I will really maximize how much fun you have during my course, and allow you to retain whatever bitter and cynical attitude you have about your organization, but also teach you how to fake an assessment of loyalty.” For the organization to prevent this insincere instruction in beliefs when their incentives and employee incentives differ in the desired outcome of instruction they have to exert more direct control of the process of instruction. In the limit they want instructors who themselves are sincerely loyal to the firm or, at the very least, incentives are completely controlled by the firm rather than instructors whose incentives are to please the “market” of employees who self-select.

Even outside of formal schooling there are instances where the “make versus buy” choice for instruction is based on the difference between skills and beliefs. The U.S. Army for instance “contracts out” the instruction of officers in some skills (language training, economics) but controls directly the all dimensions of training intended to induce service loyalty and unit cohesion. Many churches contract out child care in church owned facilities or musical skills such as organists to people of different faiths, but few mainstream churches contract out Sabbath day sermons or religious instruction to non-adherents.

Priests and Marines and Wal-mart employees might end up in the same courses (real or virtual) for skills like speaking French or how to use a spreadsheet. But churches will contract out music but not sermons. The U.S. Marines contract out skill acquisition but
not their basic training—even branches of the US armed forces don’t share basic training. Wal-mart employees will have motivational programs run by Wal-mart. Instruction in beliefs is not third-party contractible so organizations will choose “make” not buy in the inculcation of core values.


_Down with conscription, Down with the public schools, Down with the solar calendar_

_Slogans in 1870s popular uprisings in Japan_

When I was a teen-ager my father used to tell me “Whenever anyone tells you anything, your first question should be ‘how would they be better off if you believe them?’” My first reaction was that my father was a cynical old coot. My second reaction was to think that he only wanted me to think that so that I would listen to him more and to others less—which showed I understood his fundamental lesson, perhaps even too well. But it turns out my father only appeared to be a cynical old coot because he was ahead of his time and not a French intellectual. Michel Foucault, quite possibly the most influential intellectual of our times, was saying nearly the same thing, but in philosophical terms and in French: that behind discourse we should look for power, that “reality” is not “discovered” but rather is socially constructed, often to serve the ends of powerful forces. The fun part of deconstruction is the recovering the reality that existed before the dominant social construct became the “common sense” that constrains discourse. How could “Down with public schools” be a slogan of a popular movement that had to be put down with force?

Public schooling, like any truly successful institution, projects its own inevitability into the fabric of language itself. The Millennium Declaration was signed onto by 147 heads of state as a “consensus” about the goals of development and part of this was elaborated into the Millennium Development Goals which are to “achieve universal primary education” for which the target is “all children can complete a full course of primary schooling.” But nothing could be more obvious that education, defined as the preparation of children and youth to take on their social, political and economic roles as an adult, has always been universal in every society. Following the advice of my father and Foucault, you should ask yourself: why did 147 heads of state, who range from democratically elected visionary leaders to generals to autocrats to kleptocratic thugs, all agree you should conflate “schooling” and “education”?

Returning again to chapter’s three big questions: Why has the public school as an institution been so successful? Why are so many schools run directly governments? Why are the government organizations that run schools so large? Or, alternatively, how

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1 While many think that economists have been intellectually influential, the most cited academic economist in Google Scholar, Gary Becker, has half the citations of Foucault.
did the governmental spider become the dominant universally successful system for schooling?

The answer for the “first movers” (those countries that built and expanded systems of universalizing basic schooling in the era from 1870 to 1920s) is easy and was recognized as such during the time. Only our historical distance from schooling’s origin has allowed mythic narratives to replace the contemporaneously obvious facts. The answer is that the rise of the “modern” economy, with the shift from traditional agriculture and craft production into larger organizational units of production carrying out new activities implied that more and more parents felt their children needed more exposure to some process of formal schooling as a part of their education. At the same time, the consolidation of the “modern” nation-state as a mode of political organization required an extended process of socialization to mold the new “citizens.”

That is, if there was to be an extended period of schooling in which “skills” and “beliefs” were produced together, then the elites and leaders of the consolidating nation-states understood that the state must control that socialization and understood that this control required not just that the state “support” schooling but that, since the inculcation of belief was not third party contractible the state must directly control schooling, so that the fundamental contract with teachers was not between teachers and parents but between teachers and the state.

The resulting modern systems of schooling depended on how the various ideological struggles over the control of socialization played out. Since the most important competitors for the socialization role of education before the state were religions, the contest between state, society, and religion determined the ultimate size of the governmental units that controlled education. A series of quick vignettes from various countries illustrate how these forces played out. Notice that in none of these narratives do any Panglossian elements of elites providing schooling as a response to popular pressure, a benign state, or the superior technical efficacy of the mode of the organization of schooling play any key role in the foundations of the system of schooling.

**Japan in the early Meiji period**

*In administration of all schools, it must be kept in mind, what is to be done is not for the sake of the pupils, but for the sake of the country.*

*Mori Anori, Japanese Minister of Education 1886-1889*

Before the Meiji Restoration in 1868 there were a mix of schools and schooling that, with almost no direct influence or support of the national government, had already achieved quite high enrollment rates, estimated at 79 percent for boys, 21 percent for girls in 1854-67. In 1873 the new government launched a new centralized school system (modeled on the French system) in which the national Ministry dictated curriculum and
texts not primarily as an expansion of schooling but as a bid for control of existing schooling. While compulsory, this schooling was not free—there were both individual tuitions and nearly all of the costs of basic schooling were locally borne. This new system was not popular and riots broke out sporadically around the country between 1873 and 1877 that had to be put down with force. Whatever motivation of the disturbances, the slogans often focused on three resented features of the new regime: Down with conscription, down with the public schools, down with the solar calendar. Over the decade as the public schools grew three-way ideological debates raged between those emphasizing utilitarian skills (and “Western” ideas), traditionalists emphasizing Confucian training, and nationalists emphasizing loyalty to the nation-state (as embodied in the Emperor). By the 1890s the nationalists were transcendent with a dual educational system that had a “compulsory sector heavily indoctrinated in the spirit of morality and nationalism” (Passin, 1965).

**Turkey and Ataturk’s Republic**

…the Turkish education system aims to take the Turkish people to the level of modern civilization by preparing individuals with high qualifications for the information age, who: (a) are committed to Atatürk's nationalism and Atatürk's principles and revolution....

Turkish Ministry of Education Web page, 2007

In March 1924, barely six months into his Presidency, Mustafa Kemal (Ataturk) launched the opening of the Grand National Assembly with a speech that announced three bold strokes: “safeguarding” the new Republic, abolishing the Caliphate, and introducing the reform of education. The Law of Unification of Instruction placed all educational institutions—religious, private, and foreign—under the control of the Ministry of Education. This was indeed a bold stroke in a country whose population was overwhelmingly Islamic (and even considered themselves the center of the Islamic world) and where the vast majority of education had been undertaken in schools controlled by religious authorities. Once under the control of the Ministry of Education religious lessons were first made voluntary, then abolished at the secondary level, and then abolished altogether in primary schools by 1932. Just how unpopular this move, undertaken by a small “modernizing” secular and nationalizing group, was is difficult to gauge as from March 1925 to March 1929 the government operated under a “Law for the Maintenance of Order” that provided for “extra ordinary and, in effect, dictatorial powers.” (Lewis, 1961). As democracy has returned to Turkey, Islam has returned to Turkish schools. Since 1950 students in grades four and five have religious instruction (with a chance to opt out) and religious instruction was reintroduced into secondary schools in 1956/57. Nevertheless, as late as 2007 the Ministry of National Education openly proclaimed its fundamental goals for skills and socialization.

**France and the laicism of the Third Republic**
Let it be understood that the first duty of a democratic government is to exercise control over public education.

Jules Ferry, French Minister, 1876

France is the clearest example of the struggle of control of schooling between Catholic and Secularists, which necessitated increasingly central control to resist the localities in which religious instruction in the schools was popular. The Ferry laws mandated free instruction in 1881, but, as many communes met their obligation to provide schooling by allowing the local Catholic parish school as the “public school” the law of 1883 mandated that all public education be secular. Not only that, but the threat of “insincere teaching” led to the ban on any cleric teaching in any public school.

The centralizing tendencies that result from a widespread conflict between a “secularist” nation-state foundational ideology and relatively homogeneous religious or cultural alternative is of course not the only possible outcome.

Netherlands and Belgium

The former Low Countries, Netherlands and Belgium, today have 68 percent and 54 percent of primary school enrollment in the private sector. The Dutch levels of private schooling are twice as high as the next highest European country (Spain). The basic system is essentially a choice system in which money follows the student system. While the government produces schooling, parents choose their school freely among available suppliers and the state provides payments directly to schools on a funding formula that treats publicly operated and privately operated schools—including religious denominational schools—on an equal basis.

The lack of public monopoly is not for lack of effort: the state did in fact try and secularize schooling—beginning in 1806 when Holland was “liberated” by the French. However, Holland had a long history of religious toleration and was deeply, and nearly evenly, divided along religious lines between Catholics and various denominations of Protestants. No religious denomination would trust a public school system to be either fair to religion (given the secular values of those allied with the French) or neutral between denominations. The compromise eventually reached was that schooling was compulsory but that religious schools “counted” as official education, religious schools received financial support by 1889 and full equality between public and private in funding was established in the constitution 1917.

In Belgium in 1879 a Liberal government adopted a school reform that (a) reduced local control stressing that “teachers were State functionaries” and that local authorities had no rights over teachers, (b) “private (Catholic) schools lost all subsidies” (c) the communes no longer had the choice to adopt a Catholic school to provide basic education but rather must build and maintain a state school, (d) all ecclesiastical inspection of schools and guidance in textbook selection was stopped, (e) dictated a program of studies for schools, and (f) “stated quite explicitly that in the future all
teachers in government subsidized and controlled schools must be trained in State-controlled teacher-training establishments” (Mallison, 1963). The strong backlash against this law (dubbed the *loi de malheur*) led by Catholic supporters and clergy led to a defeat of the Liberal party in the elections of 1884 and the party never took power in Belgium again.

From time immemorial it has been recognized that the most important part of *education* are the beliefs, attitudes, dispositions, values they acquire about themselves and about their appropriate relationships to the natural, social, and political worlds that surround them. In formal schooling instruction in skills and beliefs inextricably mixed: there is no part of the curriculum in which what is being taught and how it is taught is not simultaneously conveying to students what are appropriate beliefs. While language acquisition in a contractible, what languages are taught and in what language instruction is carried out conveys important signals about beliefs—children who are not taught in their mother tongue in school are sent a huge message about themselves and their language community. While reading is, on one level, a pure decoding skill, you cannot read without reading something that has meaning and meaning is nearly always conveying beliefs, explicitly or implicitly. One cannot live in the post-modern world and be aware that all social sciences are at their roots about beliefs. Those fields, like mathematics and the natural sciences, that set themselves up as value neutral and claim to not inculcate beliefs are themselves often the most hotly contested about the beliefs they convey. A beliefs neutral education is a self-negating position.

The historical rise of modern schools was therefore everywhere and always a contest for the control of socialization with the fact that the inculcation of values was not third party contractible always taken for granted. French Catholics knew that secular schools would undermine Catholicism, irrespective of any claims to “neutrality” and French Secularists knew priests who taught in secular schools could not be trusted.

The basic structures of the schooling systems were therefore laid down not by technical considerations of what would lead to the efficient production of skills nor by any of the ideas of public economics about externalities and market failures. The differences across countries in their schooling systems are the result of struggles over who could control the socialization of youth and how. The centralization of France, the federalization of Germany, the localism of the USA, the “choice” in Holland were not the result of debates about the relative technical efficacy of these different systems but were the result of the differences between the state and the population in ideas about legitimate socialization.

### III) The Spread of Public Schooling

*Inclusive and powerful systems of public schools did not exist anywhere in the world even two centuries ago...and a vigorous use of the historical imagination is needed to understand the transformation caused by the rise of nationalism. ... The institutional mountain range that divides the older past from the*
present is nationalism and its individual peaks and great plateaus are the nation-states that use the school as an instrument of nationalism.

Good and Teller, *The History of Western Education.*

The main intellectual puzzle with accounts that attempt to explain the rise of schooling is not explaining its rise in the historical developmental successes like France, Japan, and the USA. As we saw above, in those cases, some simple combination of rising returns to formal school as part of an education, increasingly democratic political structures, and demands of ideological control of socialization (either state-led, perhaps constrained by democracy or driven by democracy) does the trick.

The hard thing is explaining the *universality* of the rise of schooling, in that enrollment is nearly universal in countries that are otherwise complete and abject failures, economically, politically, or both. The puzzle is not explaining why the Primary School Gross Enrollment Rate in peaceful, equal, democratic, prosperous Costa Rica is 110%, the puzzle is explaining why it is 113% in neighboring Guatemala, which has been none of those2. The problem is not explaining GER of 104% in Thailand but why it is 119% in neighboring Cambodia. In infamously corrupt Nigeria the GER in 97 percent, in borderline “failed state” of Pakistan the GER is 92 percent. The puzzle of schooling is that not just good guys do it, bad guys do too.

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2 All figures on gross enrollment rates are from the EFA monitoring report 2010.
In order to explain universality across countries of the rise to (nearing) universal schooling, mainly through publicly produced spider systems, we cannot have a single “explanation” applied to all cases, rather we need three different narratives, all of which lead to the same outcome (we’ll come back to Occam and his razor), which can co-exist in various mixes. The three accounts of the rise of modern schooling are:

- Demand, driven by a modernizing economy
- Pure Drive for Ideological Control of Socialization
- Isomorphic Mimicry (Keeping up with the Jones’s)

### III.A) Demand, driven by a modernizing economy

*Primitive education was a process by which continuity was maintained between parents and children ... Modern education includes a heavy emphasis upon the function of education to create discontinuities — to turn the child of the peasant into a clerk, of the farmer into a lawyer, of the Italian immigrant into an American, of the illiterate into the literate.*

Margaret Mead, *Our Education Emphasis in Primitive Perspective*, 1943.
The first narrative of the rise of schooling is a fundamental shift in the economic activities that increased the private pecuniary returns to schooling. The early economic work on the economics of education emphasized that in a perfectly stagnant economy there is not return to formal education. In the economy that characterized most of human history, in which daughters did what their mothers did and sons did what their fathers did so that most of the population held the same occupation generation after generation, and in which technological progress was slow, so that they did so with roughly the same tools and techniques, then education is mostly by apprenticeship and can be carried out within the household or clan. It is only when technology creates relatively rapid change and occupation shifts become massive does a monetary demand for anything like formal schooling emerge—because those with higher levels of education earn more money.

The increased economic returns to education has certainly been a major factor in the expansion of demand for schooling. However, private demand due to economic dynamism has a hard time explaining the universality of the expansion of schooling. Over the last 50 years schooling has rising massively in both rapidly growing and economically stagnant economies. Figure 6.2 shows the differences in the growth rate of schooling across countries low growth (less than .4 percent per annum), medium growth and high growth. Over 95 percent of countries that had low growth also say the years of schooling of their population double. Of course, most of these countries started from a low base, but even in absolute terms over 80 percent of the low growth countries saw the average years of schooling increase by more than three years.

**Figure 6.2:** Countries in the lowest third of economic growth rates were most likely to have doubled or more their years of schooling, 1960-2010

*Source: Author’s calculations with Barro and Lee 2010 and Penn World tables.*
In this narrative of the rise of schooling, governments play a responsive role. Parents demand more schooling and states, under pressure of citizens, respond by supplying more of it. This explanation does not explain why governments are responsive by producing rather than financing schooling, but it can explain the rise of the demand for schooling.

III.B) Supply driven, by a need for nation-state control of socialization

Let me stand a common observation on its head, to create a puzzle, which then points immediately to an answer. The common observation is that many Communist states have achieved much higher levels of education than their per capita would predict; places like Cuba are very educated for how poor they are. But stand that on its head. If education drives higher productivity, why is Cuba so poor with such high education. This creates a puzzle, if the expansion of schooling was not driven by a modernizing economy creating incentives for parents and children to become more educated, what accounts for the massive expansions of education, even in the face of economic stagnation, if not retrogression?

This time it is an expansion in the demand for socialization, but with the causation flowing from state to student. That is, instead of the student wanting skills and the state directly producing schooling to control the beliefs, in this case the state gets kids into school, even if not motivated by returns to skills, in order to create a set of beliefs.

Think of the “ideology”—a collection of beliefs—that most perfectly justifies a particular regime’s control over the state. Now think of the “ideology” a child would receive through their education and socialization if they had no formal schooling at all (again, pedantically, all children receive an education).

If the state’s desired ideology and the “traditional” default ideology are close, that is, a regime appeals to “traditional” values to legitimate their control of the state, then the regime’s need for expansion of formal public schooling is low and their antipathy towards private schooling is low.

At the other extreme, imagine a regime who legitimates its control of the state on the basis of an ideology and that ideology was new—so that the folk socialization of a non-formal school based education would be unlikely to convey that ideology. In this case the gap between the “public school” socialization and either the “no school” socialization or the “private school” socialization is large and works to the disadvantage of the regime. In this case we would expect regimes to both push to expand public school and to exhibit antipathy towards private schooling (which would often of course exist as a recourse for parents who wanted to avoid the regime ideology).

There are four examples of predominantly ideological supply driven situations (many of which blend): Marxist-Leninist/Maoist communist regimes, secular nationalist

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3 This section is based primarily on a paper written jointly with Martina Viarengo, Pritchett and Viarengo 2008.
regimes in countries with Islamic populations, nation creating states resisting regional or ethnic centrifugal forces, and “personal” ideologies.

**The new Communist man.** That the Marxist-Leninist regimes used expansion of educational systems as a means of ideological control is not disputed, in fact it was an explicitly stated objective of those systems. In these cases one can see the tragic extreme of expanding schooling in the absence of any benign motivation on the part of the regime. According to official statistics the number of children 8-15 in the Ukraine almost doubled from 1928-29 to 1932-33 and enrollment reached 4.5 million. During 1932-33 there was also a combination of purge of Ukrainian elite with “nationalist” sympathies and a famine that cost somewhere between 3 and 5 million lives. Was Stalin of two minds about Ukraine—expanding schools for benign motives and yet killing, deporting, and confiscating food for malign motives on the other? Of course not, the expansion of schooling, purges, and the famine has the same objective—a suppression of Ukrainian nationalism and of opposition to Soviet (Stalin’s) control.

China is sometimes used as a positive example of a “human development” led strategy in which investments in human capital created the conditions for the economic take-off under Deng after 1978. In June 1966 schools in China were closed to allow students to take part in the Great Proletarian Cultural Revolution and one of history’s grandest experiments in education reform was fully launched. It was not until October 1967 that schools were encouraged to “prepare for the recruitment of new students” but the reopening of schools went slowly and when schools were reopened it was not return to studies, rather students were to return to schools to do a better job of “making revolution” and “resume the lesson of class struggle” and “smash the outmoded content and form of teaching” (Chen, 1981). In a country that had relied on examinations to choose civil servants for over a thousand years all examinations were to be abolished. A return to academic subjects was impossible, if not downright dangerous for teachers, so the reopened schools focused on ideology “adhering closely to quotations from Mao and songs such as ‘East is Red’ and ‘The Great Helmsman’” (Chen, 1981) and devoted time to the “half study, half work” approach to schooling. Into this ideologically charged and chaotic system more and more students poured so that “academic secondary” enrollments increased from 9.3 million students in 1956 to 58 million by the end of the Cultural Revolution in 1976 (Hannum, 1999).

Statistical analysis confirms the two obvious points. One party states that adhered to Communist ideologies both had much less toleration for private schooling, the share of secondary education in the private sector in these states in 1990 was essentially zero, compared to roughly 11 percent in multi-party democracies. But at the same time, these states have more total education (adjusted for level of income) than other countries.

**Secularists with a dominant religion.** I have found it impossible to come up with a generalized measure of the difference between a regime’s desired ideology and the “no formal schooling” socialization children would receive, but religion provides clear examples of the differences this produces for state tolerance/encouragement of private providers.
In the Middle East one can distinguish between “secularist” regimes and the generally more religiously conservative monarchies. Not surprisingly, the “secularist” regimes have five times lower secondary enrollment rates in private schools than the conservative monarchies (3 percent versus 15 percent).

This reflects the similar struggles that happened in Europe and in Latin America, which as we have seen, have long-term consequences for the structure of schooling. If one compares the South American countries that had become “secular” versus those who declared Catholicism as their state religion in 1900 even 100 years later one can see the persistent effect of the greater toleration of private (religious) schooling with lower private shares of secondary enrollment in 2000 in those countries who were “secular” in 1900. At the obvious extremes Mexico, whose constitution in 1917 explicitly forbade religious schools, today has only 16 percent of secondary students in private schools contrasts with 56 percent in private schools in neighboring Guatemala.

Keeping the state together, even when it is not a nation. In the post-colonial period many countries struggled with the fact that their newly controlled states were not (yet) “nation-states”—that is, the territory controlled by the state encompassed many more than one potential “nation.” What had been held together by colonial fiat had to be legitimized as a “nation.” In Benedict Anderson’s classic phrase, the “imagined community” that made a national had to be imagined and then encouraged in the imagination of others. Indonesia, for instance, is an archipelago of thousands of islands, with hundreds of languages, (at least) dozens of distinct cultures, in which the two modern global religions, Islam and Christianity, arrived at roughly the same time and hence each have strongholds. As one part of its effort to resist the centrifugal pressures the government of Indonesia created a national language by imposing its use throughout the centrally controlled schooling system.

Its all about me (and my ideology). In Tanzania in 1967 Nyerere launched “Education for Self Reliance”, an ideological remaking of the schooling system. He feared that schooling was producing values that were not consistent with socialism or with the reality that most school leavers were going to remain and work in agricultural areas. Primary education became the terminal degree for nearly everyone—access to secondary and higher education was incredibly rationed. The primary schooling curriculum was changed to promote more “cooperative” behavior. He also re-oriented school studies to be less “academic” and more “relevant” and “integrated with the life of the community.” The education plan was an integral part of the *ujama* in which the rural population was resettled (voluntarily or otherwise) into organized settlements to better promote delivery of social services and more “collective” action.

The point of these individual stories about how the interplay of state and traditional ideologies interacted in the evolution of state engagement with schooling is just that in

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nearly every historical narrative there was some strong contest among alternative socializations of youth that became important in how the schooling system was shaped and driven.

These first two forces are pretty much garden variety “demand” and “supply” as the driving forces though of course in each instance the outcome is the match of supply and demand. In the first narrative the causal driver of change is the increase in demand for schooling because parents perceive their children need schooling because of the changing economy (and overall situation). To this incipient demand governments respond with supply (“if there is to be schooling we must do it”) in order to control the socialization. In the second narrative an autonomous shift in the nation-state and how it is ruled can create a state that pushes supply, even ahead of parental demand, in order to create a venue for socialization. But in both cases the explanation of government production (or not) is the state’s need for direct control of schooling because instruction in beliefs is not third party contractible.

III.C) Isomorphic mimicry

The pressures of survival in the natural world are so strong they produce all kinds of unnatural things. Holdobber and Wilson’s classic *The Ants* tells of a species of beetle that has evolved to take advantage of ants narrow minded industrious and cooperative behavior. The beetle has come to secrete the chemical that identifies itself to ants as an ant larva that needs to be fed. On finding the beetle with is secretions the ants, with the biochemical understanding this is a ant larva who needs to be fed, dutifully carry the beetle (which by the way, is thousands of times larger than the ant larva it is mimicking) into the nest and feed it. The satiated beetle can then stroll out of the ant hill, well fed and no ant the wiser.

The natural world is full of deceit. The coral snake is venomous and predators wisely therefore are leery of lunching on it. The coral snake signals its dangerous nature to predators with distinctive red, yellow and black bands. The Scarlet Kingsnake has red, yellow and black bands but is perfectly harmless.

Among non-economists who study education the most widely accepted explanation for why bad countries do the good thing of expanding schooling is that nation-states are embedded in a world system. Even bad nation-states want to signal that they are legitimate, full fledged nation-state members of the world system. Hence if nearly all other nation-states are expanding public schooling, usually with functional purposes and with functional schools, then many other nation-states will also expand public schooling, not because of any deep commitment to advancing the well-being of their people, but just because it is what all other nation-states.

As we have seen in the previous chapter, this is potentially a powerful explanation as to why many governments adopted and ran school systems, with no particularly benign motive.
IV) Just so stories that just ain’t so

It ain't what you don't know that gets you into trouble. It's what you know for sure that just ain't so.

Mark Twain

A man was sailing in a hot air balloon but hit a fog so dense he lost his bearings, could not see the ground, and became hopelessly lost. In a brief clearing he saw another man walking along a road. “Where am I?” he shouted down. “You are up in a balloon” came the reply. “You must be an economist” said the man the balloon. “Exactly correct, but how did you know?” From the balloon: “Because your answer was precisely correct and yet completely unhelpful.”

The non-economist reader may want to move on as I take up intra-mural issues with my disciplinary tribe. Economists have done policy discussions of education a disservice in three distinct ways, each perpetuated by different ideological strands within the profession.

Normative as Positive. One of the most powerful ideas in economics, going back to Adam Smith’s hand and progressively subjected to mathematical formalization (e.g. Debreu, Arrow and Hahn) that, under suitable conditions, the equilibrium of a market in which each individual pursues their own narrow well-being will result in socially desirable outcomes. Deviations from these strict conditions are common and economists call them “market failures. There is an area of economics sometimes called “welfare” economics or “public economics” that asks whether, in the face of “market failures” it would be possible for someone, say a “social planner” to implement a policy that would lead to an outcome that would be preferred by everyone. With no restrictions on the instruments available to a social planner the answer is nearly always, yes, the optimal outcome can be reached. Classic examples encountered in economics principles courses are negative externalities in which the smoke from my factory goes into the air and harms others, a harm that I, as factory owner, do not “internalize” in my profit maximizing calculations. But a “social planner” could impose a tax on the production of smoke that, combined with lump sum transfers, could make everyone, including me the factory owner better off. So far, so good, and there have been many deep and important insights from pursuing this logic.

The problem comes when normative stories become “just so” stories that pretend to be causal accounts of the world, in which the normative analysis of what could, if it were to happen, improve well being, becomes a positive “explanation” of what actually happens. So if we happen to observe that factory smoke is taxed in a situation in which taxing factory smoke would be normatively optimal one could jump to the conclusion that smoke is taxed because that taxations is optimal.

Nah, I can hear you saying, not really, you are attacking a straw man. You imagine that no one actually confuses normative, the hypothetical construct of a
benevolent social welfare maximizing planner, with real world description of what the
governments of Hastings Banda and Soeharto and Stroessner actually did. Yes, actually,
economists do this, all the time, particularly with schooling. The World Bank’s web site
on education, meant to “educate” people about the economics of education claim(ed):

Governments around the world recognize the importance of education for
economic and social development and invest large shares of their budgets to
education. The reasons for state intervention in the financing of education
can be summarized as: High returns, Equity, Externalities, Information
asymmetries, Market failure.

Note that concepts like “market failures” are given as reasons for state intervention, a
positive account of why governments “invest large shares of their budgets to education.”
As I have shown elsewhere, none of these “normative” reasons actually works well as a
“positive” account for what governments actually do, but that is probably either obvious
or just not that interesting to the non-economist reader, and not really the point.

The major problem is that there are two ways in which NAP goes beyond merely
a waste of time for a small number of academics to potentially do actual intellectual
harm.

First, a narrative in which things are the way they are because that is the optimal
choice of an agent who is striving to improve social well-being means that things can
only get better in two ways: an expansion of the resources available or “technological
progress.” This suggests that the two ways to improve the performance of education
systems are advocacy (to get the optimizing agent more resources) and research (to
creates new knowledge for the optimizing agent to use). There is no question that this
narrative might have some elements of truth in some places and at some times, but as a
general view about the means of improving performance of schooling systems it has
absolutely nothing going for it. Besides being suspiciously self-serving about justifying
the important role for researchers to play, this view risks creating complacency,
suggesting things are basically right and just need tinkering5.

Second, and much worse, many of the NAP stories rationalized government
actions in schooling because of “market failures” such as “externalities” to schooling.
That these “theories” are unproven (and mostly silly) as empirical conjectures one of
their fundamental features is the assertion that governments schooling because (as a
positive causal claim) they care more about the education of a parent’s child than the
parent’s do. While they do not mean it to, this creates an intellectual environment that
justifies over riding parents needs, demands, desires in favor of this supposedly more
socially attuned objectives of the government. This is not just false as a descriptive

5 As we will see in chapter 4, much of the research done under the rubric of NAP examining
the “educational production function” (the school and classroom correlates of student learning)
makes rearranging the deckchairs on the Titanic looks like rational prioritization, this is
academics rearranging the umbrellas in the drinks in the cup holders on the deckchairs of the
Titanic.
model (there is no feature of real world schooling systems NAP accurately explains) but positive pernicious as it provides a legitimization of taking control out of parent’s hands—which as we see above, likely has nothing to do with states have more benign objectives for their children than parents themselves.

Vouchers: Settling for Pyrrhic over Victory. No one susceptible to economic reasoning can read the clarion call for vouchers in Milton Friedman’s classic *Capitalism and Freedom* and not be persuaded. Persuaded that is that, if it were the case the objective of state engagement in schooling were the promotion of contractible skills then the use of “money follows the student” schemes or, more crudely, “vouchers” would be a more effective policy than governments directly producing schooling. Over the years objections have been raised to arguments for vouchers—that they would lead to segregation, that they would perpetuate inequality. But as Caroline Hoxby’s 2001 paper shows, with even more technical sophistication than Friedman: “Any thing Q can do P can do better.” That is, any goal that government supply can accomplish by pushing quantities (Q) of schooling available (or targeting that to regions or races) could be accomplished more effectively by a suitably designed price (P) scheme. But that “any thing” that P can do must be third party contractible, otherwise the P incentive schemes can be undermined.

The problem with arguments for vouchers is that, just as Samuel Goldwyn explained the fate of his intended blockbuster: “They stayed away in droves.” Modern schooling systems have been around for at least 100 years. There are now almost 200 countries. With all those chances for countries to adopt a voucher system (as opposed to portable scholarships as a minor frill in a fundamentally spider system) there have been precious few successes. Holland, as we have seen has a “money follows the student” system with parental choice, but for reasons certainly owing nothing to Professor Friedman. Besides moves in that direction by a few ex-communist countries immediately following the transition (e.g. Czech Republic), Chile in 1981 is the only definitive adopter of a voucher like system.

Every time a voucher scheme has been put to the voters in the USA it has been defeated. In this regard Utah is particularly remarkable. Utah is one America’s consistently most conservative states (Obama got only a third of the general election vote in 2008, for instance). For this and other reasons Utah was believed by vouchers advocates to be a state potentially receptive of the voucher program (Schaeffer 2007). However, when Utah voters had to decide whether to adopt the country’s first statewide school voucher program that would have been open to anyone, an overwhelming majority

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6 Even Chile’s case, in a country in which “Chicago” economists had great influence over policy, is it obvious the real reason behind the switch was not the control of socialization, but this time in reverse. Chile’s teachers unions were at the time were dominated by hard-line left wing ideology. It is plausible that Pinochet anticipated, correctly, that nearly all the move out of public schools would be into Catholic operated schools, with an ideological orientation typically must more sympathetic to his views (and much less sympathetic to Marxism). By privatizing the school system he effectively moved a quarter of all children outside the reach of the public sector teachers unions.
of Utah’s voters, 62 percent, rejected it. The proposed law lost in every county. A “conservative” political agenda that cannot win in Utah cannot win.

**Good stories, over-extended.** The last danger of economic thinking is that good stories of particular cases, particularly when they can be fleshed out with mathematics and provided some empirical support, too quickly become “the” accepted explanation and are too easily extended both in terms of the range of cases they explain and the range of phenomena they encompass. There are excellent works on the rise of education which address the positive political economy in an interesting and theoretically plausible way (not, that is, simplistic NAP). Economic historian Peter Lindert’s *Growing Public* is an excellent account of the historical rise in social spending on OECD countries. Economist Daron Acemoglu and political scientist James Robinson have an intriguing model explaining the rise of schooling in the West as a bargaining game between “elites” and “the masses.” Claudia Goldin and Lawrence Katz have written an monumental empirical account of the rise of schooling in the USA. Theorists such a Dennis Epple and Romano have constructed voting models that can generate a positive political economy of public production. None of these scholars would, or have, claimed their work generalizes to explain the rise or features of schooling systems more broadly. Yet this casual over-generalization from the history of the UK or the USA to completely different settings happens all too often.

**Conclusion**

The Beatles. Espionage and double agents. Church Organists. Beetles being fed by ants. Referenda in Utah. Fun enough stuff, you might say, but what does it have to do with reforming primary education in Afghanistan?

There is a Russian fable about a bird that left too late on her southward migration and got caught in a snowstorm, could not fly, and was freezing to death. Along came a sympathetic cow who said, “There is not much I can do for you, but my poop is warm and if you were inside my fresh pile for a minute you could warm up enough to fly on.” So they tried that, and it worked. The bird warmed up, started stretching her wings. Just as she was about to fly a wolf came along, snatched her out of the pile, wiped he off and gulped her down. The moral of the story is that not everyone who puts you in a steaming pile is your enemy, and not everyone who takes you out of one is your friend.

Just because schooling is a great thing for a child, a fundamental human right even, does not mean that those who do it have done it for entirely benign motivations.

The expansion to universal coverage has been universally successful because it has met a universal range of needs of states and the regimes that control them.

The systems are so big, but the only part of schooling for which big is better is the control of socialization. The size of schooling systems has been determined by needs to the ideological control of socialization.
Schooling is publicly *produced* rather than publicly *supported* or *financed* because the inculcation of belief is not third party contractible and public control of socialization requires some direct control of producers.

You cannot search if you are convinced you already have found what you need. Nothing about the current schooling systems in developing countries was *designed* or *adopted* for the purpose of reaching learning goals. It would be extremely unlikely that a hippo, an animal whose evolutionary design was premised on living in large bodies of water, just so happened to be the perfect animal to cross the desert in a caravan. The spider systems we have today were designed in the 19th and adapted and adopted in the 20th century to meet a certain set of demands to prepare workers for a transition out of agriculture, to build nations to support states and to legitimate the regimes that controlled those states. It would be extraordinary indeed if those spiders just so happened to be the systems designed for the learning and educational challenges the youth of the 21st century will face.