THE COMPLEXITY POLICY NARRATIVE
AND THE FUTURE OF CAPITALISM

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This paper argues that complexity science leads to a new social science policy narrative that offers enormous gains to society. This new narrative sees policy not as controlling the system, but instead as influencing the evolution of the ecostructure. The driving forces of change are social entrepreneurs who can offset institutional sclerosis. It provides an example of for-benefit educational institutions, suggesting that the Kahn Academy would be much more effective if it were organized as a for-benefit, instead of a not-for-profit institution.
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The thesis of this paper is that economist’s current policy narrative, which I call the state/market control policy narrative, is holding us back in our search for creative, imaginative, and workable policy solutions to our current problems. It is time to shift to a new complexity policy narrative that flows from recent work in complexity science. This new policy narrative redirects the policy debate and thinking toward more productive veins.

The paper begins with a brief summary of the current and complexity policy narratives. Next I put the complexity policy narrative in historical perspective. Finally, I give an example of how the complexity policy narrative changes the modern policy debate.

The state/market control policy narrative

When academic policy makers think about government policy, they almost inevitably think about it in terms of the state controlling the market. The narrative goes something like this: The goal of government policy is to maximize the welfare of a system in which a whole bunch of people are each following their own self-interest. Luckily, the invisible hand of the market coordinates individual’s selfish actions reasonably well, and it would do so perfectly but for problems such as public goods and externalities. These problems, called market failures, require government policy to correct for them. While state intervention is called for by the model, the state’s ability to correct these problems is limited by “government failure”. If there were no government failure, a modified market economy, after government intervention, would maximize social welfare.

This state/market control narrative developed over the last 100 years as social scientists, largely led by economists, developed a formal “scientific” model of the social system to guide policy thinking. While they recognized that the narrative is a huge simplification, they felt that it captured the central issues of policy and provided an acceptable narrative within which to think about policy. It is a narrative that is ideologically neutral in the sense that it does not inherently favor the market or government control. That depends on the one’s perception of the degree of market failure and government failure, issues on which reasonable people may disagree.

The Complexity Revolution

To explain what I mean let me briefly discuss the complexity revolution in science. Over the past 20 years, there has been a revolution in social science theory. I call it the complexity revolution. You will have likely heard about bits of it—fractal analysis, butterfly effects, tipping points, lock-in, path dependency, and agent based modeling—in popular books, but the actual revolution is still largely hidden to the general public. But it is ongoing, and will become better known over the coming decades.

The reason the revolution is occurring is changing analytic and computational technology, which makes it possible to deal formally with increasingly complex models and to pull information directly from data. As analytic and computational technology improves, what was the domain of humanists and poets is becoming the domain of science.
I don’t plan to discuss this scientific revolution in this paper, since my interest is in the policy narrative associated with complexity science. The question the paper addresses is: How will complexity science change the way we think about social policy?

The Complexity Policy Narrative

The major change is that, unlike in the state/market control policy narrative, in the complexity policy narrative, policy cannot be thought of as controlling the social system. A complex system is too complex for control; the system evolved endogenously without an outside controller, and it will move into the future without a controller. In the complexity policy narrative, the state is the product of evolution as much as are markets. Moreover, there is not a single state, or single market; both can take millions of different forms, and, a priori, theorists can say nothing about one form being better than another.

The complexity policy narrative goes something like this: Somehow people who interact must coordinate their actions, which they do by creating collective action institutions of all types—markets, governments, non-profits, NGOs, and blends of all of them. In the complexity policy narrative, the actual coordination takes place through billions of micro evolutionary institutions, connections, and networks that are constantly evolving, as some institutions expand and others contract.

In principle, there is an entire institutional space involving all types of blended public/private institutions that can be populated. But because of hysteresis and path dependency, at any one time on the evolutionary ladder only small parts of the institutional space will likely be populated. One of the central goals of complexity policy is to explore the institutional space to discover new opportunities that people can explore. Complexity policy is about exploration, not control. Once a rich institutional environment is discovered and opened up, it will be populated and expanded by agents within the system from the bottom up.

Exploration of the policy space is a quite different policy goal than is the policy goal in the current policy narrative. It is far more visionary and speculative, and is not designed to maximize a well-specified social welfare function. Instead its goal is to open up opportunities for individuals within the system to maximize their sense of social welfare.

The difference between the complexity policy narrative and the state/market control policy narrative can be seen by considering the joke about an economist who sees a 50,000 Won bill and the ground and walks by it. In the standard policy narrative, his companion asks why he didn’t pick it up, and he explains that it had to be counterfeit because if it had been real someone would have already picked it up. The market system does not leave 50,000 Won bills on the ground. If the market is working perfectly, state policy has no purpose; the state is there only to correct market failure.

In the complexity policy narrative, the state has developed simultaneously with the market. The two are interconnected and academic researchers are society’s investment into exploring the institutional space. Since the space being explored by researchers is currently uninhabited, one would expect that in some parts of that space 50,000 Won bills would be lying
on the ground. If society didn’t think they were there, there would be no need for government to fund academic research.

**Constraints to Exploring the Institutional Space**

The role of academics in the complexity policy narrative is to explore the institutional space. That’s the easy part. The role of policy makers is to open that institutional space up. That’s the hard job because inevitably there are reasons that institutional space has not been explored. One of the biggest reasons is that it has barbed wire around it. Large portions of this institutional space are not explored because existing individual’s incomes are tied or grandfathered in to existing institutions. This tie-in creates incentives to protect existing institutions even though those institutions are no longer socially efficient. Mancur Olson (1982) called the result institutional sclerosis, and saw it as the fate of modern economies. The role of the policy makers in the complexity policy narrative is to create an ecostructure within which social entrepreneurs can offset this institutional sclerosis.

Notice that government’s role in this policy narrative is much more subtle than its role in the state/market control narrative that I summarized above. Its role is to influence the ecostructure and find a balance between the old and the new institutional structures. The policy role of the state is not to control anything; its role involves exploring, refereeing, balancing, and influencing the development of a continually evolving ecostructure.

**Bottom-Up and Top-down Ecostructures**

While the state/market distinction does not exist within this complexity framework, there is a parallel distinction—whether to evolve toward a top-down or bottom-up ecostructure. This distinction, I believe, captures what many people are trying to get at with their arguments for market vs. the state.

A top-down ecostructure is one that uses existing collective choice institutions, such as the state, to achieve the desired goals. Government regulation to deal with a problem is an example of a top-down ecostructure solution. People are using government to achieve collective ends; the process of government is the process of people collectively controlling themselves. A bottom-up ecostructure is an ecostructure that leaves individuals to deal with their own problems through lower level collective non-state institutions, as described in the work of Elinor Ostrom. A bottom-up ecostructure would rely more on self-regulation, not top-down regulations, to deal with problems.

In the complexity policy narrative, theory does not lead to a conclusion about which of these two approaches is better. It depends on the particular problem being dealt with, and the existing circumstances. Based on empirical observation it seems clear than all successful social systems, by which I mean systems that continue and do not die out, involve a changing blend of top-down and bottom-up ecostructures. The goal of policy in the complexity narrative is to help find the right blend.

**Historical Roots of the Complexity Policy Frame**
While the complexity science leading to this new policy narrative is new, the complexity vision and the complexity policy narrative is not. It has its roots in Classical economist’s laissez faire policy narrative. I say that hesitantly because “laissez-faire” has come to mean something quite different than it meant to Classical economists. To them, laissez faire was meant as a warning to be very hesitant about any solution requiring too much top-down state involvement. They saw the state as limited in what it could achieve. This limitation was not necessarily bad since the state as it then existed did not come close to reflecting the will of the people, and there was little reason to think that it would attempt to maximize a reasonable view of social welfare. Laissez faire did not mean that government should do nothing or that supporters of laissez faire believed that the market worked perfectly. It meant only that they recognized the problems with attempts at top-down control and collective action through the state or other collective action organizations. Supporters of laissez faire also recognized markets as highly problematic, requiring collective action intervention.

Within the laissez faire narrative, there were highly activist economists, such a John Stuart Mill and John Maynard Keynes both of whom favored an activist government. There were others, such as Frederick Hayek or Lionel Robbins, who generally opposed activist government policy. But both could accept the broad laissez faire narrative, because that narrative did not come to any policy conclusion on the basis of theory. The reason economists generally could accept this narrative is that it was not associated with any specific policy. Economists as diverse as Keynes and Hayek shared the same laissez faire framework. Consider Keynes’ letter to Hayek on the publication of the Road to Serfdom: Keynes writes that it “was grand book” and that “morally and philosophically I find myself in agreement with virtually the whole of it: and not only in agreement with it, but in deeply moved agreement.” Keynes then goes on to advocate a strong role for government planning.

For Classical economists policy conclusions were based on explicit institutional knowledge and all dimensions of the problem—dimensions that were far too many to capture in any formal scientific model. As Nassau Senior, the first Classical economist who wrote about methodology, put it “(An economist’s) conclusions, whatever be their generality and their truth, do not authorize him in adding a single syllable of advice. That privilege belongs to the writer or statesman who has considered all the causes which may promote or impede the general welfare of those whom he addresses, not to the theorist.” Put another way, in the laissez faire policy narrative, and the complexity policy narrative, it is not social scientists who create the policy answers—it is politicians and statesmen. Policy oriented social scientists provide the vision underlying the answers.

I won’t go into why this laissez faire policy narrative was replaced by the state/market control narrative. My focus in this paper is on what was lost by switching to the state/market policy narrative. In my view the biggest loss was a narrowing of the policy debate. In the laissez faire policy narrative historical, evolutionary, humanist, religions and ideological dimensions of policy problems were blended into the policy discussion. These are dimensions that the “scientific” state/market control policy narrative rules out as “unscientific”, which is why the current state/market policy narrative answers ring so hollow to many humanistically oriented people. They are dimensions that the complexity policy narrative is bringing back.

For-Benefit Corporations
To give you some sense of what I mean by exploring the institutional space, I will outline an alternative institutional structure that follows from thinking about social policy in the complexity policy narrative. The need for an alternative institutional structure is due to the success of the corporate form as compared to other forms in supplying material goods in a way that reflects people’s desires.

By just about any measure, the corporate market structure has been highly successful at meeting society’s material welfare needs. That success is a problem for those who, like me, feel that affluent societies should be turning to social goals and away from materialistic goals, for both ecological and moralistic reasons. Unfortunately, the institutions we have developed to achieve social goals—the state and non-profits—are as inefficient at achieving social goals as they are at achieving material welfare goals. For someone who inherently cares about efficiency and fairness, which I believe many of the entrepreneurs of society do, the inefficiency of current institutions in providing social goals is painful to watch, and can lead one to give up on achieving social goals.

One possible answer is to turn the power of the bottom-up corporate form toward achieving social goals, rather than just material welfare goals. A for-benefit corporation would be designed to do precisely that. A for-benefit corporation is a corporation that as part of its charter has achieving some social goal as one of its explicitly stated goal. Anyone who invests in this corporation is investing in achieving that social goal.

To many, this might sound like a not-for-profit organization, but it is not. The structure of not-for-profits is one designed to rely on philanthropic funding; it is not designed to be self-funded from its activities. Not-for-profits are designed to provide their output for less than it costs, which reduces its incentives to hold down costs; a for-benefit corporation is self-funded, and its funding comes from charging for its services and products. Its continued existence depends upon it holding its costs down.

The initial funding for a for-benefit corporation would likely come from investors who might want varying combinations of economic and social returns, but its business plan would be to provide sustainable revenue without philanthropic support. It would operate just like a for-profit, with the owners making the decisions about what it does, just as for-profit institutions do.

These different funding and organizational control mechanisms lead to very different organizational models and control than are found in state or non-profit organizations. Because non-profits require fund-raising to be sustainable, non-profits are controlled by the non-profit management. Successful non-profit managers are good at fundraising. For-benefit corporations are controlled by social entrepreneurs and socially minded shareholders, who are committed to achieving a social goal—not through the state, not through fundraising, but doing it themselves through providing a service or good to people cheaply and efficiently, and thereby achieving its social goal. For-benefit corporations involve a blend of business focus on sustainability and philanthropy within the organization.

**Materialistic Lock-in**
In a world of material goods scarcity with significant competition, a for-benefit firm is very close to a for-profit firm, and early economist’s support for for-profit firms was based on for-profit firm’s ability to provide material goods to society cheaply and efficiently. In a highly competitive economy for-profit firms were the most efficient way to improve society’s welfare.

For Classical economists that was not the end of the story. They did not foresee the evolution of our economic system. They expected that for-profit firms would die out and be replaced by other institutional forms since people’s material needs would have been more than met. Consider John Stuart Mill’s vision of the future of capitalism. He described it as a state in which people had transcended material needs, and were concerned with the deeper issues in life—interrelationships, social justice, ideas…. Mill (1848) pictured a society developing that was far more concerned with social welfare, and far less concerned with material welfare—a society in which “while no one is poor, no one desires to be richer, nor has any reason to fear being thrust back by the efforts of others to push themselves forward.”

Keynes (1930) expanded on Mill’s vision and in Economic Possibilities of our Grandchildren. He wrote what, in my view, many Classical liberals believed about what the future of humankind would be. He writes:

When the accumulation of wealth is no longer of high social importance, there will be great changes in the code of morals. We shall be able to rid ourselves of many of the pseudo-moral principles which have hag-ridden us for two hundred years, by which we have exalted some of the most distasteful of human qualities into the position of the highest virtues. We shall be able to afford to dare to assess the money-motive at its true value. The love of money as a possession —as distinguished from the love of money as a means to the enjoyments and realities of life—will be recognized for what it is, a somewhat disgusting morbidity, one of those semi criminal, semi-pathological propensities which one hands over with a shudder to the specialists in mental disease. All kinds of social customs and economic practices, affecting the distribution of wealth and of economic rewards and penalties, which we now maintain at all costs, however distasteful and unjust they may be in themselves, because they are tremendously useful in promoting the accumulation of capital, we shall then be free, at last, to discard. ~JM Keynes

Clearly, their vision of the future was wrong. What they forgot was that organizational forms, once created, strive to survive and figure out ways to survive. Once for-profit organizations had met the immediate material needs of society, they learned how, through advertising, to turn material wants into material needs. Doing so provided them with additional profit making opportunities, which were far less closely connected to achieving social welfare. The more affluent society became, the greater the gap between the outcome of the system and a reflective view of social welfare. Whereas material needs are limited, material wants are essentially infinite, so this change gave for-profit corporations an extended, almost unlimited, role in an increasingly materialistic society. As that happened, capitalism changed its nature. Production became less important, and advertising, marketing, and branding—all mechanisms to keep existing for-profit corporations relevant—became central to capitalist societies; manufacturing and production became secondary.
Education as an Example

To show what I mean by a for-benefit institution, let’s consider the provision of education. I choose education for two reasons. The first is that since I work in education, I have a good sense of how the current institutions actually work. The second is that it is a sector in which changes in technology—internet access and blended learning systems which combine self-directed learning with structured reflection—have made it possible to lower the cost of education enormously. Current institutions are not taking full advantage of those changes, and costs are rising, not falling as they should.

The reason education is not taking advantage of technological change is its institutional structure. Let’s say that education can be provided in four ways—through the state, through a non-profit, through a for-profit, or through a for-benefit corporation. The goal of each of these is to provide low cost quality education to students. When they initially developed, state and not-for-profit supply of education was efficient and beneficial. They served society’s purpose. Because it was a socially desirable good, for-profit general education was not seen as viable alternative. But, over time, technology changed, and what may have been an efficient way of providing education was no longer efficient. For example, today, all students can have access to top lecturers and directed learning programs, on the internet. Internet courses, combined with a system that provided direct interaction of students with individuals who can provide structured reflection on what the student has learned, could significantly lower the cost of education.

The reason why is economies of scale and scope made possible by the new technology. If one person gives the lecture in introductory economics, then we don’t need the 30,000 other professors giving that same lecture. What we need are low cost provision of those general lectures, a system that provides tutoring and "discussants", who can reflect on the material with the students both over the internet and in person, and a certification process that effectively certifies that students have acquired a set of skills and knowledge. By replacing 30,000 teachers giving the lecture with pre-developed learning programs teaching students the technical issues through self-directed problem solving, a group of on-demand, lower cost “discussants” and tutors, and a high-quality certification system that is independent of the tutors so that it provides reliable information about what students actually know, education could be provided much more efficiently than it currently is—I would expect at about 20% of its current cost.

I recognize that these observations will not sit well with many academics. Indeed, when I was invited by my university’s trustees to discuss a much milder critique of the educational system, a number of trustees suggested that I better check into acquiring police protection. Disruptive change does not come from within existing institutions—be they private, not-for-profit, or state. It comes from disruptive entrepreneurs introducing disruptive technologies. Existing institutions of any type are seldom willing agents of major disruptive technological change. Those changes undermine the rents of millions of current providers. Making such a change within existing state-run or non-profit institutions is just too hard and disruptive. It would eliminate the rents of many of us in that institutional complex. Thus disruptive change can only come from without.

In education, the answer is not-for-profit educational institutions. As we have seen from for-profit educational institutions in the US, for-profit institutions are in many ways as bad or
worse at providing low cost quality education than are state or non-profit institutions. The problem is that for-profit institutions work in the public interest only when they are forced to do so by competition. Unfortunately, the competitive structure of education is insufficient to achieve that. With government loans, the lack of transparency in what educational benefits are, and the lack of an independent knowledge certification process, for-profit educational organizations have found that they can easily be super at generating profit for investors even when they are not successful at providing low cost quality education to students.

**Social Entrepreneurs as Agents of Change**

There is, however, one group of people who I believe have both the incentive, and power to change education. They are what I call social entrepreneurs. These are very similar to for-profit entrepreneurs, but they are individuals whose focus is on achieving social goals. Social entrepreneurs are every bit as selfish and driven as for-profit entrepreneurs. It is just that by nature social entrepreneur’s goal is non-materialistic; they want make society better as they interpret “better”. It is doing so that gives them pleasure. Social entrepreneurs, to me, are central to social change, and the for-profit corporation is designed to give them a vehicle to make a difference. The goal of these social entrepreneurs is not to make as much profit for the entrepreneur as possible; the goal is to provide socially beneficial products and achieve social goals as they see it.

A for-profit university would be a blend of a for-profit and not-for-profit university. It might be initially funded by socially minded investors and venture philanthropists, including the social entrepreneurs themselves. These investors may want some return on their investment, but that return likely would be limited in the institutional charter since much of the investment return to a social entrepreneur will be psychic—seeing the institution they have set up succeeding in providing low cost education to students in the most cost effective manner possible. Who might such an investor be? Initially it will likely be a successful entrepreneur who is looking for a new challenge. This person will come from the same set of people who gives $10,000,000, or $100,000,000 to a non-profit educational institution.

It is not surprising to me that the push for for-profit corporations in the US has come from entrepreneurs who have made millions and are now wondering what to do with their money. (Indeed, it is such entrepreneurs who introduced me to the idea of for-profit corporations and who are pushing for the development of for-benefit institutions in the US through groups like the Fourth Sector [http://www.fourthsector.net](http://www.fourthsector.net). The reality is that if you are socially minded, and not especially materialistically consumption focused, but have a strong desire for efficiency in achieving social goals, it is not easy to give away money today. Many of these social entrepreneurs believe that they could run educational organizations to achieve social ends much better than the existing organizations. Creating an environment within which for-benefit institutions are encouraged and can thrive will allow social entrepreneurs to see if they can do so.

Initial funding will not be the primary source of funding for a for-benefit institution. Successful for-benefit universities, like successful businesses, will become largely self-funded, with growth of the university coming from internal returns to the successful projects. It is this aspect of for-benefit institutions that make them such a potentially powerful force for social change. They create a continuing sustainable funding source. They offer a way for society to
channel funds to successful social entrepreneurs whose primary goals are social, rather than materialistic. Thus they reinforce social entrepreneurship in the same way that for-profit corporations reinforce for-profit entrepreneurship.

**The Kahn Academy as a For-Benefit Corporation**

Let me give an example of an institution that I think would be an ideal candidate for a for-benefit institution—the Kahn Academy. The Kahn Academy was founded by Salman Kahn; it is currently organized as a non-profit, and it would seem to be a counter example to my argument, because it has been enormously successful as a non-profit.

Imagine, however, for the moment that the Kahn Academy were a for-profit institution. Think of all the buzz—there’s this new learning platform that can totally innovate teaching, and the Kahn Academy has first mover advantage. Venture capital would be flowing in—multi-billion dollar buy-out offers would have come in, and Kahn Academy would be looking to expand and round out its concept of low cost learning with “classes in a can” where the on-line tutorials are blended with “in person tutorials” to provide the synthesis and overview learning that is needed to complement the skills provided by the on-line tutorials.

A for-profit Kahn Academy would have billions of dollars to spend on changing the future of education, and the Kahn Academy would be seen as doing for education what Apple, Google and Facebook did for computers, internet search and social networking.

Of course, if the Kahn Academy was a for-profit institution, it wouldn’t be the Kahn Academy. One of the things that makes the Kahn Academy special is that it has social goals, not material profit goals, and thus, to many, it is naturally organized as a non-profit, not as a for-profit. But a bit of reflection should lead one to question that assumption. There is nothing natural about the Kahn Academy being a nonprofit just because it was created by a socially minded entrepreneur.

Facebook and Google are in activities that are more conducive to non-profits than is the Kahn Academy. Facebook and Google have no direct products that under current institutional structures can be easily charged for, which means that they must support themselves through advertising revenue streams. The Kahn Academy has a specific service for which it could charge.

Even as a non-profit, the Kahn Academy product is so good that it has attracted funding from numerous non-profit foundations allowing it to expand its operations and improve the education of millions of children throughout the world. But this income flow is in millions not billions, which means that while Salmon Kahn may have moral influence, he does not have the economic influence of a Mark Zuckerberg. What this means is that despite its brilliance, the chances of the Kahn Academy changing the world of education are slim.

I wish the above assessment were wrong. But if past experience is any guide, it isn’t. Most of the existing non-profits started out as a similar wonderful idea with similarly lofty goals, led by a charismatic social entrepreneur. Then, over time, that initial flurry of growth and enthusiasm slows down, and the non-profit becomes a bureaucratic organization with lofty goals, but a non-profit organizational structure that is designed to benefit the people within the
organization, not the people served by the organization. Such a change in focus and control is inevitable since raising money is central to the non-profit organization’s survival.

**Beyond the Profit Incentive**

Within the state/market control narrative, the problem of non-profits is the lack of a profit incentives. Thus, within that narrative, for-benefit institutions will suffer from that same problem as do non-profits. I don’t see that. As I have argued above, people’s incentives are far more than just monetary incentives. People want to make a difference; they want to achieve their social ends as they see them, and they want to do so efficiently. For a social entrepreneur, efficient social production is his or her primary consumption good. As Daniel Pink (2009) has shown in his book *Drive*, financial incentives are only a small part of the incentives driving entrepreneurial individuals. Bill Gates, Steve Jobs, and Mark Zuckerberg, Larry Page and Sergey Brin all earned far more wealth than they could want to spend on material consumption early on in their careers. Their goals included broader social goals as well as.

A central goal of policy in the complexity policy narrative is to bring out the social entrepreneur aspect of all individuals, letting them achieve their social vision with far less focus on profit than current institutions lead them to do. Doing so will achieve social goals from the bottom up. This change in institutions is relatively easy and low-cost to accomplish. It relies on voluntary, not mandatory action. It doesn’t require the state to increase taxes. Most highly successful entrepreneurs already end up creating non-profits foundations that give back a large part of their wealth to society. Society would be better off if they blended their philanthropic and materialistic goals throughout their lives; for-benefit corporations allow them to do so.

**Conclusion**

Let me conclude. Large gains in policy are to be found in changing narratives, not in marginal changes around the edges of policy using the current policy narrative. The current state/market policy narrative limits creativity and imagination. The complexity policy narrative offers large policy gains because it separates the forces of entrepreneurial bottom-up power from the state/market—social goods/material goods connection. It sees social entrepreneurs as the dynamic force for the future in the way that for-profit entrepreneurs were the dynamic force in the past.

By developing an ecostructure that fosters the development of social entrepreneurship, economies can move forward, avoiding the pitfalls of welfare capitalism. For-benefit institutions are one small example of the ideas opened up by the complexity policy narrative; there are many others. The institutional space of the social ecostructure is largely unexplored. Exploring it will offer large gains for the future.

**References**


