Chapter 12
Development Economics and Social Entrepreneurship: A Recursive Social Capital Accumulation Model

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In this chapter the main argument is that social entrepreneurship can be reframed as a combination of network theory and agent-based models, and it is a source of social capital accumulation, a major driver of development in the social sciences literature. Refining this analysis brings the idea that the relevance of the network aspects of social capital accumulation and social entrepreneurship should present a particular emphasis on a usually overlooked subject, the individual agent. One result of this analysis is that the concept of opportunities can be defined as the links between agents and the rest of society, which means that opportunity building, a common catch-phrase in poverty alleviation discussion, could mean enhancing the degree of connectivity of individual agents through social enterprises, a result that presents many implication for the definition of policies and action that could try to tame the endless problem of poverty.

Introduction

Now that social entrepreneurial programs have been implemented by practitioners throughout the world and exhibited many examples of success and not so great success, it is high time to apply some theoretical lenses in order to ferret out what seems to be responsible for the successes as well as the near misses. However, the issue of exactly which theoretical perspectives will be able to yield insight into this matter is not immediately obvious since social entrepreneurship has involved many different fields of inquiry including (just a partial list) urban planning, social activism, community development, economic policies, political science, business entrepreneurship, sociology, social-psychology, and most recently, complexity theory (see, e.g., Goldstein, Hazy, & Silberstein, 2008). It is also important to note that social entrepreneurship is a rapidly changing arena, particularly with respect to the promise of it becoming far more relevant than the first social enterprises tried-out.

Since social entrepreneurship drinks from so many fountains a good place to start drawing out potential insights is through exploring its conceptual roots and theoretical foundations. In terms of this chapter, the goal is to contextualize social entrepreneurship within the fields of both development economics as well as complexity-inspired economic theory, analyzing its links and common roots. Connections will also be made to other lines of research resulting in several intriguing prospects for addressing such daunting challenges as poverty reduction and related initiatives (see Goldstein & Zeidan, this volume). For that purpose I will first briefly sketch-out some of the history of development economics, a field that is relatively young, tracing its origin to the late 1940s and early 50s. I will also try to show how the field is different today and how these changes may offer new promise for social entrepreneurial ventures. The conceptual bridges that I will try to establish in this chapter are between development economics, social capital, social entrepreneurship, opportunity building, and welfare improvement. The main idea behind the chapter is that social entrepreneurship builds social capital through the enhancement of networks between individual agents and the rest of society, creating true opportunities for poverty alleviation and real change in the social fabric.

Development Economics: A Historical Primer from the Perspective of a Developing Country

The central idea behind early development economics was a simple one: *industrialization*! That is, the main thrust of early development economists concerned a *catching-up* process to industrialized countries. The intellectual history of development economics can be traced as a response, in the beginning, to macroeconomic growth models such as that of Harrod-Domar (a very good analysis of the impact of the Harrod-Domar model can be found in Easterly, 1997), whose main characteristic was the existence of different kinds of growth—for example, Harrod's model contains three definitions of growth: realized growth; the natural rate of growth (growth in production factors, specifically the labor force); and warranted growth (the relation between output and capital at which no new investments are needed). The model also included an assumption of a tendency towards equilibrium—in particular, the convergence of all the different types of growth rates. Although growth models can still be useful in many situations, the fact was that for under-developed countries, development was more a question of *dis*equilibria since the central idea was the search for growth initiation and acceleration both of which imply a *divergence* from equilibrium-inspired views about the natural rate of growth. Indeed, sometimes growth theory and development economics were even considered distant cousins (Ros, 2001).

Early development economics represented a major departure from regular economic models for two other reasons. The first had to do with the many sources which contributed to the development of new economics. But even more striking, some development economists went so far as discarding regular economic models as not being relevant or, as Furtado (1964: 60) put it, "economic analysis cannot say why any society starts developing and to what social agents this process is due."

But if that is the case, what is the point of linking economics and social entrepreneurship? The answer relies on *modern* development theory in economics, which makes use of econometric models in addition to many areas outside economics proper, including, but not restricted to, sociology, anthropology, political science, biology and demography. This rich background has led development economics to burgeon into one of the liveliest areas of research in all the social sciences, and social entrepreneurship is an appropriate fit with this modern theory of development.

With such a well-rounded set of intellectual sources, development economics has evolved into a powerful field of study with a viable and credible platform for making proposals on economic policy. Although from its origins, development economics was mostly preoccupied with growth, this same emphasis on growth was, as previously observed, a response to the growth models of the time. However, a sole emphasis on growth is disingenuous, otherwise we arrive at the famous quote by the Brazilian economist/politician Delfim Neto (quoted by Lessa, 2007:1): "first we make the cake grow and then worry about sharing it". Economists now know that such an orientation can lead to undesirable outcomes since it postpones *ad infinitum* policies to ameliorate the lives of poor people.

The traditional conceptualization of economic growth are summarized in Buarque (2001):

- Economic growth is the path to build a society rich and fair, as well as safe, sovereign, educated and healthy;
- Investment in infrastructure and state support to private sector are the means to induce growth;
- Foreign savings are the source of funds to finance growth.

These ideas are now considered outdated for many reasons: the inefficiency of the state in achieving its goals; empirical considerations (the emerging markets Debt Crisis of the 80s was viewed as a crisis of the old development economics model); and new features such as the notions of social and human capital.

In particular, the old development model was buried by the emergence of the *Washington Consensus*. This was a set of market-based policies designed to help developing countries emerge from a decade of economic and political turmoil. It was a major contrast to the state-led industrial policies that were heralded as the path to industrialization. The impact of the Washington Consensus on the redefinition of development policies cannot be overstated. Most developing countries followed some or most (no country really followed all) of the policies prescribed by the Consensus in the 1990's. Moreover, most theories of development were in flux, with new theories being formed on the basis of many of the ideas that will be presented shorty. The main ideas of the Consensus (Williamson, 1989) *vis a vis* the old development ideas are summarized below:

Economic Policy	Old Development Economics	Post-Washington Consensus
Fiscal Policy	Lax policy to foster growth, deficits acceptable.	Tight policy to prevent deficit budgets.
Public Spending	Infrastructure and growth.	Education and primary health.
Monetary policy	Zero or negative real interest rate to foster growth	Positive real interest rate to prevent inflation.
Exchange rates	State-defined devalued currency. Control of inward foreign investments.	Market-defined currency. Currency account liberalization.
Trade	Controlled trade to redirect sources of growth.	Trade liberalization.
Industrial Policy	Active policy to promote industrialization and growth.	Privatization and Deregulation.

Table 1 *Old Development Economics vs. Washington Consensus*

From this list it can be seen why the old model kind of growth was incompatible with the Consensus since most of the older policies were directed towards industrialization and growth via state control on economic markets while the Washington Consensus preaches a deregulated economy and market mechanisms as the source of ultimate development. Since then, macroeconomic policies around the world have been converging to the present model of market-led growth. The characteristics of modern development economics are different from the ideas advanced by early development economists, and one important reason for that is the impact of the Washington Consensus ideas over the development field.

The efforts of modern development economists are concentrated away from industrial policy and accelerated growth and towards green development, poverty reduction, microfinance and other research questions. Presently, "development is no longer seen primarily as a process of capital accumulation but rather as a process of organizational change" (Hoff & Stiglitz, 2001: 390). The main thrust of modern development is Social Capital—as advanced by such economists as Joseph Stiglitz, winner of the Nobel Prize in Economics, among others. The idea of social capital has it that the foci of development are social norms, trust, and inter-relations between members of a community. The concept is based on social networks and although its definition suffers in important respects from being too broad, it brings together economic and social ideas that were developed apart.

The links between social capital, social network theory, and complexity theory is an especially interesting one, as shown by Granovetter (2005). Hoff and Stiglitz (2001: 396) also stress that modern development economics is close to complexity theory: "modern development economics tends to be influenced more by biological than physical models. Whereas the latter emphasize the forces pulling toward equilibrium—and with similar forces working in all economies, all should be pulled toward the same equilibrium—the former focus more on evolutionary processes, complex systems, and chance events that may cause systems to diverge". As will be shown later, this means that network theory can bring many insights into the development processes of a country. Moreover, development is something that has non-linear features closely linked to the theory of complex systems. This non-linearity would mean, for instance, that a change brought by social entrepreneurship would not only benefit society in the short-run but would also change society in such a way that the changes would reverberate outwards and even change the structure of the development processes itself, a shift that would eventuate in different affects in the long-run.

An example of social action that does not possess the kind of amplifying impacts that something like social entrepreneurship can offer that of *foreign aid*, a model of development, advanced by Sachs, among others. In the aid literature development is exogenous and foreign capital is the main condition for it. Although aid can improve social capital accumulation, it is not a necessary condition for development. Whatever its other merits, in justifying the approach of foreign aid as the road to development, Sachs (2005) appeals to an *emotional* argument: "Basically, I don't think that we should be choosing between whether a young girl has immunizations or water, or between whether her mother and father are alive, because they have access of treatment for AIDS, or whether she has a meal at school, or whether her father and mother, who are farmers, are able to grow enough food to feed their family and earn some income. ". Other economists, and myself included, think that this view is naïve and the arguments fragile and unscientific (see, for instance, Easterly, 2005). Indeed, development processes are dynamic, part of an evolving complex adaptive system. Mere aid cannot really change the social fabric. It can certainly help bring more potential to capital accumulation, but it is far from the panacea solution fostered by Sachs. For a better understanding of the development process the next section will outline the link between social entrepreneurship and social capital accumulation through complexity theory.

Development Economics, Social Capital, Complexity and Network Theory

Much has been written about the concept of *social capital*, but a consensus on a definition as well as how to measure it has not been built. Also, although the role of entrepreneurship in growth theory is well understood, *social entrepreneurship* goes beyond this traditional role by helping to resolve the link between growth and development. Simple growth is something, as previously observed, that is a necessary but insufficient condition to welfare improvement.

Seminal papers on social capital (e.g., Coleman, 1988; Adler & Kwon, 2002) focus on social norms and the relationship between social actors to solve common social problems. Adler and Kwon (2002) summarize the literature and find that definitions of social capital can be internal or external, depending if the focus is on (19): "the relations an actor maintains with other actors, the structure among actors within a collectivity, or both types of linkages". Moreover, Adler and Kwon (2002) divide the different definitions of social capital in terms of its substance, sources and effects. This division is very interesting because it separates the plethora of definitions into workable parts.

In the many definitions, however, one aspect usually ignored is that of the individual dimension. The main preoccupation of social capital models is development, which means opportunities for people to grow beyond their current capabilities. The word "opportunities," however, is always vaguely defined. The models that deal with social capital on an individual level are usually agent-based models. Such models, however, use individual interaction as the input to build the networks which will comprise the output of the model. Also, individuals in agent-models are either homogeneous (as in some evolutionary game-theoretical models) or are constrained by the rules that develop the emergence properties of evolutionary models.

In the end, however, the impact of policies derived from social science models are the individuals. In that sense the outcome of social capital models should be the affect on individual agents and, for that one needs a precise definition of "opportunities." Here, I am defining "opportunities" in terms of the outcome of social action at an individual level. Old development models focused on *per capita* income as the ultimate goal of public policy, hence the focus on industrialization and growth. As observed in the first section above, new development models focus on other features that involve welfare improvement, including a stream of literature focused on individual happiness.

In the present chapter the accumulation of social capital is a simple input-output process governed by network theory, as exhibited Figure 1.

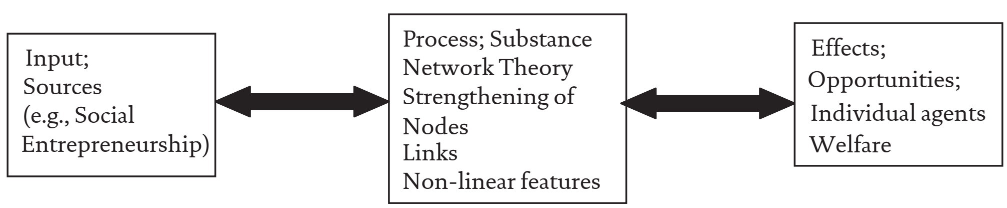

Figure 1 *A simple way to look at Social Capital*

Although the figure above gives a very simple picture of social capital accumulation, it brings to light some interesting features of what a comprehensive model of social capital would look like. First of all, it delineates more clearly the classification of sources, substance and affects of Adler and Kwon (2002), putting it into a more easily understandable framework in terms of causation. Secondly, there is a *recursive* quality to it since it is built upon an interative network theory. As many authors have pointed out, one of the strength of a social networks perspective is that it is the easiest way to visualize social capital in action. That means that features like dynamic attractors and non-linear features can be quite relevant in social capital models (see both Goldstein, Hazy & Silberstang, and Hazy, Moskalev & Torras, both in this volume). The optimized effects of the sources in the figure above would happen only if the characteristics of network theory are taken into account. One simple example would be the ripening effect of some small source of social action on the well-being of a community. An ideal social action and capital accumulation model would present positive network externalities—i.e., positive and recursive feedbacks that would render the end result to be much more than merely the inputs taken into the system. The feedback features have to be consistent with the idea behind the literature. For instance, one source of positive feedback is the reinforcement of trust among the agents of a community. A social enterprise can then, alongside its direct effects, allow for capital accumulation indirectly through the changes in the social norms presented by its mere existence.

Social Capital and the Lens of the Individual Agent

One way to reframe social capital is to look at it through the lens of the individual agent. What should the affects of social capital accumulation be upon a single agent? Since in this case opportunities should be looked upon as constituted by the links between individual agents and other social actors, strengthening the links would represent more opportunities because of more integration between the individual and the rest of society (see Goldstein & Zeidan, this volume). These links can be financial, economic, social, or even psychological.

The regular way to design agent-based model is bottom-up, and this is probably the best way to go, but the agent design should be more precisely defined. I propose that the definition of the rules for the models should take into account the links between agents and the rest of society. Ideally, the outcome should reverberate on the individual agents to show how their relationships to the environment change with social action. This recursive feature is something that is lacking in many models. In a simple way social capital would be accumulated in the links between the individual agent and society, as shown in Figure 2.

Although Figure 2 yields a very simple characterization of the social capital accumulation process, it is useful to bring some insights into this process. Take for instance the distinction, in Coleman (1988: 95), between the explanation of social action on the part of sociologists and economists: sociologists "see the actor as socialized and action as governed by social norms, rules and obligations", while economists see "the actor as having goals independently arrived at, as acting independently, and as wholly self-interested". The figure above combines both processes, the economics view of the individual agent as social actor, and the capital accumulation by the links between actor and the rest of society. But here the social actor is also the outcome of the process. It is in through this combination of individual agent and social norms, rules and objectives that social capital is accumulated, that opportunities are created and strengthened.

Of course, the resulting specific pattern of accumulation remains a big question. In the rest of this book cases are presented that the pattern can be better understood through complexity theory, the process governed by the same dynamics as other complex adaptive systems. One of the main differences of the present framework is that individual choice matters, that is, for instance, long-term poverty reduction by way of social capital accumulation would depend

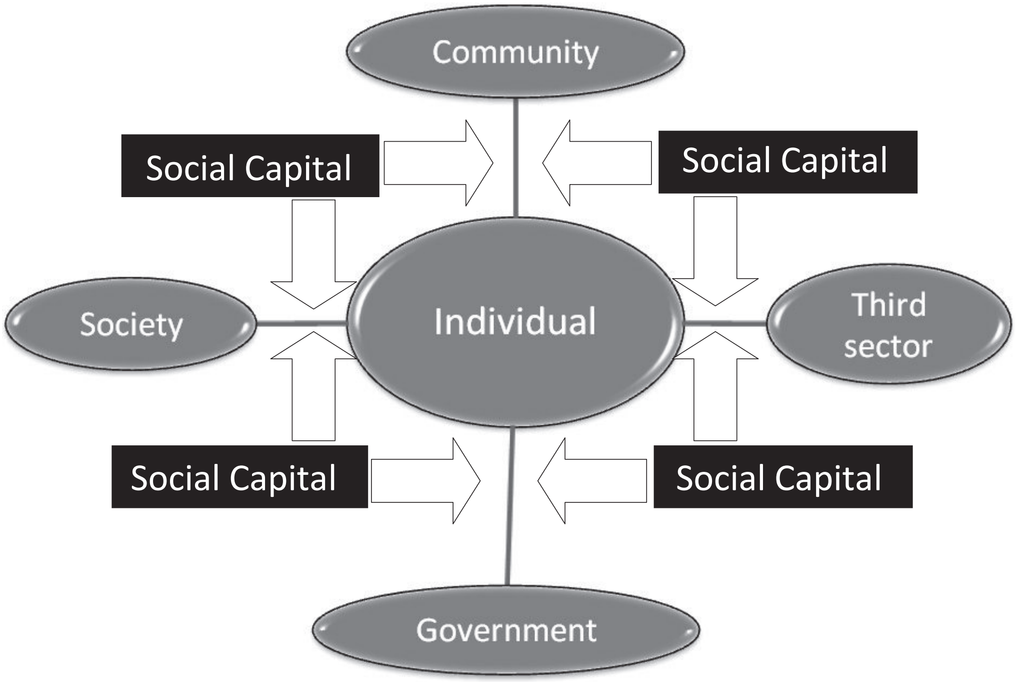

Figure 2 *The Individual at the Nexus of Social Capital*

not only on the degree of connectivity between individual agents and the rest of society (on the number and strength of the connections), but also on individual choice (a feature that is sometimes overlooked in building agent-based models).

This relationship between social capital and development is explored by Granovetter (2005) who reviews some of the ways in which social capital is accumulated and result in more development. As in the current chapter, Granovetter works with network theory to relate social capital and development, exploring some ideas like social norms and network density, the strength of weak ties, and other network concepts. While Granovetter focuses on the relationship between social capital and market mechanisms, like labor market and prices, here I focus on the individual agent. However, this focus is not on the neoclassical utility function and economic decision, but on the effect and transformation of the individual agent due to social capital accumulation. The representation of this agent can take many forms, but in all of them there will be a choice component that is lacking in many economic models, which treat agents as homogeneous or narrowly define their economic choices.

Furthermore, there is still the question about the sources of this accumulation. Theoretically, social capital would be gained by social action and its reflection on the rest of society. In this book the main driver of this process is social entrepreneurship. The case for social entrepreneurship as a driver of social capital and thus development is very persuasive since it builds on the norms, rules and objectives of society, reframing them to reflect higher welfare to individuals, in a feedback loop that leads to still more changes, more capital accumulation and higher welfare. Social entrepreneurship is a very good example of social action that builds and expands the network of individual agents. Exactly how social entrepreneurship enhances the links between agents and the rest of society is precisely the objective of many of the chapters in this book, and in all of them a researcher can see the role of enhanced connections between individual agents and the rest of society, providing individuals with more opportunities.

Nevertheless, some interesting questions remain. Should government devise policies to foster social entrepreneurship and, if so, to which extent? If one accepts that social entrepreneurship can really contribute to poverty alleviation, is there a way to promote it? This question relates to the origin issue of social entrepreneurship, that is, exactly how are such programs/policies generated in the first place? Most social ventures are spontaneous and would emerge independently of any public policy. If social entrepreneurship is something that depends on culture and self-awareness, is there a point in trying to foster it with public money? There are different degrees of public policies that could try to help create social ventures, some more hands-on, like social public ventures, and some more hands-off, like opening up a credit line to loan money with some degree of smaller interest rate. In addition, if social ventures are supposed to be self-sustaining, how can they be "pushed" both at their initiation and along the way?

Further questions for research included: Which social characteristics are conductive to the emergence of social entrepreneurs? To what extent and exactly how does culture play a role? Can social entrepreneurship drive development or are its outcomes are too small? Which other social activities are complementary to social entrepreneurship? These questions are open and there is still much we simply do not understand about the effects of social action on poverty alleviation. But it is exactly because of those unsolved issues that case studies of social enterprises can bring new insights.

Conclusions

The main argument advanced in this chapter is that social entrepreneurship can be reframed as a combination of network theory and agent-based models, and that through this combination, it can be interpreted as a source of social capital accumulation, a major driver of development in the social sciences literature. Since there is still much that is not known about social capital, first an historical primer on development economics was presented, to try to situate it historically. The focus of modern development theory shifted away from industrialization and growth towards different sources of development, like social and human capital, and sustainable development. An argument on the relevance of the network aspects of social capital accumulation was then presented, with a particular emphasis on a usually overlooked subject, the individual agent. Reframing social capital as a concept that acts on individual agents within their situation in the social fabric can bring many insights into the process of social capital accumulation. Specifically, this chapter presented an attempt to formalize the concept of *opportunities* as the links between agents and the rest of society, the implication being that opportunity building, a common catch-phrase in poverty alleviation discussion, would mean enhancing the degree of connectivity of individual agents.

Lastly, some conjectures about social entrepreneurship and its role in social capital accumulation and development were presented. The main thrust of social entrepreneurship as a relevant road to development is the diverse cases of social entrepreneurial ventures which are now accumulating at breakneck speed, spreading around the globe as new forms of aligning business entrepreneurial acumen, social awareness, and a desire to ameliorate daunting social challenges. Social entrepreneurship is responsible for strengthening and improving connectivity for individual agents, providing real opportunities. The question of opportunities is tantamount to poverty alleviation, and understanding the process by which those opportunities are created is essential.

However, there are many questions that are still open on the effect of social entrepreneurship on the social fabric. For instance, how does social entrepreneurship act as a dynamic attractor for social change? What precisely are the mechanisms by which social entrepreneurship create new links and enhances it for individual agents? Social entrepreneurship has the promise of being able to help people get out of poverty traps, and examples of how this can be accomplished can be found throughout this book.

References

Adler, P. S. and Kwon, S. (2002). "Social capital: Prospects for a new concept," *Academy of Management Review,* (27), ISSN 0363-7425, pp. 17–40.

Buarque, C. (2001). Admirável Mundo Atual: Diccionário Pessoal dos Horrores e Esperanças do Mundo Globalizado, ISBN 857509002X.

Coleman, J.S. (1988). "Social capital in the creation of human capital," *American Journal of Sociology* 94(Supplement), ISSN 0002-9602, pp. S95–S120.

Easterly, W. (1997). *The Ghost of Financing Gap: How the Harrod-Domar Model Still Haunts Development Economics*, Policy Research Working Paper 1807, The World Bank: Washington, D.C, http://econ.worldbank.org/external/default/main?pagePK=64165259&theSitePK=469382&piPK=64165421&menuPK=64166093&entityID=000009265_3971110141350.

Furtado, C. (1964). *Development and Underdevelopment*, ISBN 0520004434.

Granovetter, M. (2005). "The impact of social structure on economic outcomes," *Journal of Economic Perspectives,* ISSN 0895-3309, 19(1): 33-50.

Hoff, K. and Stiglitz, J. (2001). "Modern economic theory and development," in G. Meier and J. Stiglitz (eds.), *Frontiers of Development Economics*, ISBN 9780195215922, pp. 389-460.

Lessa, C. (2001). "A opção pelos pobres e a crítica de Delfim Netto, Instituto de Economia," UFRJ Working Papers, http://www.ie.ufrj.br/aparte/pdfs/lessa140207.pdf.

Newman , M.E.J. (2003). "The structure and function of complex networks," *SIAM Review*, ISSN 1095-7200, 45: 167-256.

Ros, J. (2001). *Development Theory and the Economics of Growth*, ISBN 0472111418.

Sachs, J. (2005). http://www.motherjones.com/news/qa/2005/05/jeffrey_sachs.html.

Williamson, J. (1989). "What Washington means by policy reform," in J. Williamson (ed.), *Latin American Adjustment: How Much has Happened*, ISBN 0881321257.