

REVISITING HIRSCHMAN ON DEVELOPMENT ASSISTANCE AND UNBALANCED GROWTH

David Ellerman

University of California—Riverside

INTRODUCTION

It is useful from time to time to revisit the pioneers in a field. The richness of their original thought is often diminished as new specialists in a field are educated or, rather, trained. Stylized caricatures and toy models out-compete nuanced multidisciplinary narratives in the competition for shelf-space in textbooks. After the students ingest the textbooks and go forth in the discipline as properly trained specialists, they are hard put just to keep up with the latest publications and to do their own bit to push the frontier forward. Outside of those inclined to intellectual history, the specialists have little occasion to go back to revisit the pioneers.

In the field of economic development, Albert Hirschman is perhaps the prime example of a thinker who has deliberately avoided the toy models that can be readily absorbed by graduate students and their professors—sometimes to the chagrin of the latter.

In effect, Hirschman said that both the theorist and the practical policymaker could and should ignore the pressures to produce buttoned-down, mathematically consistent analyses and adopt instead a sort of muscular pragmatism in grappling with the problem of development. Along with some others, notably Gunnar Myrdal, Hirschman did not wait for intellectual exile: he proudly gathered up his followers and led them into the wilderness himself. Unfortunately, they perished there. [Krugman, 1994, 40]

Perhaps students of economic development, both young and old, would be better advised to periodically revisit a thinker like Hirschman to search for paths not taken, opportunities missed, insights glossed over, and ideas not taken on board by later professors. Instead of fitting a problem to the Procrustean bed of one's professional training, Hirschman always tried to bring to bear on a problem whatever intellectual disciplines—economics, political theory, psychology, sociology, history, or philosophy—might shed some light. Hence in looking anew at Hirschman's vision of development, one should not look only through the lens of economics. Perhaps subsequent work in adjacent fields can help illuminate our understanding.

David Ellerman: Economics Department, University of California-Riverside, Riverside, CA 92521
E-mail: david@ellerman.org

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My purpose is to revisit Hirschman along with some related thinkers from adjacent fields to see if new light can be thrown on the current debate about the methods of development assistance. Today, development planning is officially dead but the dream of socially engineering economic development on a broad scale lives on in the programs of the major agencies such as the World Bank, the IMF, the regional development banks, and the major bilateral aid agencies. Debate rages about these agencies and about their structural adjustment programs, policy-based loans accompanied by a "Christmas tree" of conditionalities, project loans, and technical assistance or training programs. To map these issues back into Hirschman's early work on economic development, we must revisit the theories that led to the idea of a "big push" to achieve balanced growth.

THE BALANCED GROWTH DEBATE

Perhaps the golden thread starts with Adam Smith's theory that development as evidenced by the extension of the division of labor was limited by the extent of the market. The modern treatment of these themes dates from Marshall's notion of external economies (for example, in his treatment of industrial districts [1961, Ch. X]) and from Allyn Young's seminal 1928 paper on increasing returns. Nicholas Kaldor studied with Young at the London School of Economics in the 1920s and was later one of the principal exponents of Young's view that "increasing returns is a 'macro-phenomenon'" [Kaldor, 1966, 9] (in addition to any increasing returns at the firm level).

In the development literature, these increasing returns themes were emphasized by Rosenstein-Rodan [1943] and Ragnar Nurkse [(1953) 1967] in the concept of balanced growth. The economic interdependence expressed in the notion of balanced growth was not as controversial as the policy implications.

Whether the forces of economic progress are to be deliberately organized or left to the action of private enterprise—in short, whether balanced growth is enforced by planning boards or achieved spontaneously by creative entrepreneurs—is, of course, a weighty and much debated issue. [Nurkse, 1967, 16]

The first line of thought was based on development planning using the idea of a "big push." The theorists of the big push had carried out the intellectual exercise of imagining all the mutually reinforcing economic processes that would seemingly need to be jump-started in a small time period to promote the lift-off to balanced growth. Hirschman perceptively criticized the big push idea at the time, noting that if a country had the capacity to successfully carry out a big push industrialization program, "it would not be underdeveloped in the first place" [1961, 54].¹ Existing developed countries had not followed that imaginative route, so it might be more fruitful to attend to the actual processes of development and how they might be assisted or catalyzed.

Nurkse himself broached an alternative to the centralized big push using Joseph Schumpeter's [1934] emphasis on entrepreneurship in the market process. "Schumpeter's creative entrepreneurs seem to have what it takes, and as they move forward on a broad front, their act of faith is crowned with commercial success" [Nurkse,

1967, 15]. Hirschman agreed on entrepreneurship and vastly generalized the notion of entrepreneurship as induced decision-making to mobilize often scattered and hidden developmental resources where the inducing mechanisms (rather than acts of faith) are provided by the same linkages or interdependencies emphasized in the increasing returns literature.

Far from denying the interdependencies, Hirschman noted how the impulses of economic change were in fact transmitted through these linkages. Rather than imagining fission by having the state somehow coordinating the big push of splitting many atoms at once, the state might try to design its interventions to catalyze a sequential chain reaction using the linkages—and therefore get entrepreneurial forces² moving forward on a broad front. Hirschman develops a similar metaphor:

In other words, I do not deny by any means the interrelatedness of various economic activities of which the balanced growth theory has made so much. On the contrary, I propose that we take advantage of it, that we probe into the structure that is holding together these interrelated activities. As in the atom, there is much energy here that can be and is in fact being utilized in building up economic development nuclei. *Later on* these nuclei look as though they could never have been separated even for a single instant when in actual fact they might never have been assembled had not a sequential solution, i.e., an unbalanced growth sequence been found, by accident, instinct, or reasoned design. To look at unbalanced growth means, in other words, to look at the dynamics of the development process *in the small*. But perhaps it is high time that we did just that. [1961, viii-ix]

But this was not to be. It is true that the big push language is passé but that does not mean that the lessons of Hirschman's unbalanced growth³ vision of development have been taken to heart in the large development agencies.

CONDITIONALITY-BASED DEVELOPMENT AID: THE NEW BIG PUSH

The ghost of the big-push idea has been reborn in recent decades in the form of policy-based lending with a "Christmas tree" of conditionalities—structural adjustment programs being a special example—and other comprehensive development programs that add up to big-push development planning programs in all but name. The dream of socially engineering development is still very much with us although often adorned in new garments.⁴

A large development loan with conditionalities numbering in the dozens (sometimes over a hundred) is the modern equivalent of the big push development plan—except in this case it is externally imposed. The basic problem is not whether the money is a loan or grant but the *modus operandi* of trying to socially engineer deepening social and economic change.

The modern debate⁵ over conditionality-based aid is complicated by the existence of some reforms that *can* be implemented at the behest of development agencies⁶—

the so-called "stroke of the pen," "pro forma," and price-based reforms. And Hirschman recognized this:

The more workable and more popular commitments are precisely those that are highly visible, verifiable, measurable and, at their best, irreversible. One thinks of a revision of the customs tariff, of the imposition of credit restrictions in order to curb inflation, or, most typically perhaps, of a devaluation. [1971, 206]

In the debate over the transition of the socialist economies, these reforms were the price-based forms of shock therapy such as programs to halt hyper-inflation. But just as the anti-inflation shock therapists morphed into institutional shock therapists or "market Bolsheviks" [Reddaway and Glinski, 2001] by trying to extend these methods to institutional reforms, so the conditionalities on policy-based aid became similarly "comprehensive" and "integrated"—since the aid agencies recognized that institutions matter.

Institutional reforms lie at the opposite end of the simplicity-complexity spectrum by comparison with currency devaluations: they are not for the most part amenable to treatment as preconditions; donor agencies are liable to have difficulties in keeping track of the extent of compliance; and such reforms are often imperfectly under the control of the central authorities, take time, typically involve a number of agencies, and are liable to encounter opposition from well-entrenched beneficiaries of the *status quo*. [Killick et al., 1998, 40]

Many of the imagined institutional changes suffered from an "iceberg" problem. The described changes that seemed within the capacity of a competent state were only the tip of the iceberg. Sustaining those changes required changes in long-standing norms and institutional or behavioral patterns—the rest of the iceberg below the waterline. The big push theorists, like their modern descendents, the institutional shock therapists of transition economics, thought that the state could shift the top of the iceberg all at once (for example, passing a set of laws) during the "window of opportunity" and then the rest would follow in due course.⁷

PSYCHOLOGY AND AGENCY

In addition to the problems of state incapacity to install institutional change, there was a basic problem in the psychology of this mode of development assistance. Since comprehensive conditionality-based aid has become the dominant *modus operandi* of the large development agencies, the lessons learned from the poor performance if not outright failure of these programs⁸ are likely to be superficial. Perhaps there were too many conditionalities. Perhaps the need to move the money resulted in conditionalities not being rigorously enforced. Perhaps the wording of the conditionalities left too much wiggle room. Perhaps incentives were not clear enough or strong enough. And so forth.

In crude terms, the mental model seems akin to the process of funneling a herd of sheep into a narrow passage so they will have to jump into a vat of sheep-dip. In the somewhat more sophisticated terms of principal-agent theory,⁹ the principal designs the optimal contract so that when the agents pursue their self-interest running through the narrow passage allowed by the contract, the agents will be doing the bidding of the principal.¹⁰

A basic problem in the motivational accounts of principal-agent theory (and even in the simpler notions of *homo economicus*) is that they leave the *source* of the motivation out of the model. Is the motivation something that the person can identify as his or her own, or is it an external motivation imposed from the outside? And "external" or "outside" refers to a human will—not some objective or natural event or influence. This distinction is perhaps familiar in the notion of coercion or oppression both of which assume an external *human* intervention. Robinson Crusoe may have known hard times but not coercion or oppression.

In so far as poverty arises from the niggardliness of nature or the natural defects of human character, it is an evil, but it is not a grievance.... [A] grievance is not a mere deficiency of material resources. Hunger and cold cause misery, but men do not revolt against winter or agitate against the desert. [Tawney, 1964, 102]

"The nature of things does not madden us, only ill will does," said Rousseau. The criterion of oppression is the part that I believe to be played by other human beings, directly or indirectly, with or without the intention of doing so, in frustrating my wishes. [Berlin, 1969, 123]

This distinction points out the root difficulty in the notion of conditionality-based development assistance (loans or grants). The conditionalities on a loan or grant—and the conditions more generally on a principal-agent contract—externalize the source of the motivation, which might otherwise have had an internal source. The notion of *autonomy* might be defined as acting from one's own motivation—so that conditionalities in an agency relationship can be seen as reducing the autonomy of acting party.¹¹ A program of action based on internal motivation is also said to have ownership so requiring actions with conditionalities reduces the ownership of the actors.

These matters have received some attention in the psychological literature. When an externally offered reward or punishment is used successfully to redirect a person's behavior, the behavior is said to have an external locus of causality. When one acts for one's own reasons and is the source of one's actions, one would be said to have an internal locus of causality. Having an internal locus of causality is to act autonomously in response to objective situations¹² in contrast to responding to heteronomously imposed rewards or punishments.

External interventions by other people intended to change a person's behavior pose a threat to autonomy. The threat-to-autonomy or reactance [Brehm, 1972] effect results from using external motivators—carrots and sticks—to shift the locus of causality from internal to external.¹³ The effect shows itself in a poor quality and low effort performance, in sullen and perfunctory behavior fulfilling the letter but not the

spirit of an agreement, and perhaps even in the urge to defiantly do the opposite just to show one's autonomy.¹⁴ Hirschman refers to these effects as the "hidden costs" [1971, 207] of program aid while Lepper and Greene [1978] call them the "hidden costs of rewards."

In the aid context, good policies bought by conditional aid are usually ineffective. If the policies were not adopted by the government independently of the aid, the policies would tend to be

adopted by aid-hungry governments in spite of continuing doubts of the policy makers themselves, resistance from some quarters within the government, onslaught against the "deal" from the opposition, and general distaste for the whole procedure.

Naturally, doubts and reservations are not voiced at the moment of the aid compact; hence the delusion on the part of the donor that there has been a full meeting of minds. But soon after virtue has been "bought" through aid under these conditions, the reservations and resistances will find some expression—for example, through half-hearted implementation or sabotage of the agreed-to policies—and relations between donor and recipient will promptly deteriorate as a result. [Hirschman, 1971, 205]

Development agencies have their preconceptions of virtue in the sense of good policies. They try to buy virtue by imposing conditionalities on program aid geared toward virtuous behavior defined by various outward acts of allegiance to and implementation of good policies. But virtue can only be found and selected, not bought.¹⁵ If we take virtue as being defined not just by behavior but also by internal motivation, aid can only buy a faux-virtue.¹⁶ Such aid pushes the external motive of receiving the aid into the motivational foreground and establishes external control—the lack of autonomy.

Autonomy-respecting aid might remove impediments and thereby enable virtuous action where the internal motive was already present. Such aid remains in the motivational background in accordance with the idea of finding out what people are *already* motivated to do and helping them do it better.¹⁷ "In these situations, the donor would set himself the task of rewarding virtue (or rather, what he considers as such) *where virtue appears of its own accord*" [Hirschman, 1971, 204, italics added]. This leads straightaway to the "paradox" that aid is only autonomy-respecting when it does not do what is conventionally taken as a major purpose of program aid—to tip the balance of motives in favor of reforms and good policies.

Paradoxically, therefore, program aid is fully effective only when it does not achieve anything—when, that is, no quid pro quo (in the sense of a policy that would not have been undertaken in the absence of aid) is exacted as the price of aid. [ibid.]

The point about conditionalities is not simply that they might be ineffective, but that they undermine the goal of autonomous development. Suppose a government is

facing pressing problems to finance better schooling or healthcare and realizes that to raise the funding it must clean up tax collection. In this case, we might say that the government had internal motivation to improve tax collection. But then a development agency (always in need of moving the money) arrives to offer to finance the improvements in schooling or healthcare. Since this relaxes the internal pressures to improve tax collection, the agency substitutes its conditionalities by requiring a program of improving tax collection as a condition for the loan and its various tranches, for example, a structural adjustment program.

Reformers in the government who have been pushing for tax reform may even welcome the conditionalities to strengthen their hand and to provide leverage and a commitment mechanism to insure that the government will make the reforms. But the net effect is to externalize the reform motivation with the attendant effects of reactance, foot-dragging, and sabotage—and to train governments that the way to resolve pressing problems is to solicit long-term development loans or grants and then to play the conditionalities game¹⁸ with the agencies rather than undertake the difficult reforms on their own.

UNBALANCED GROWTH PROCESSES

This critique of conventional development assistance directs our attention back to the themes of the increasing returns and economic interdependence literature considered earlier—the linkages, internal pressures, or pressing problems in a country along with efforts already afoot to address the problems. The best way to assure that a reform process has some internal motivation¹⁹ in a country is not to start it but to *find* it.²⁰

I began to look for elements and processes...that *did* work, perhaps in roundabout and unappreciated fashion. [T]his search for possible *hidden rationalities* was to give an underlying unity to my work. ...[T]he hidden rationalities I was after were precisely and principally *processes of growth and change already under way* in the societies I studied, processes that were often unnoticed by the actors immediately involved, as well as by foreign experts and advisors. [Hirschman, 1984, 91-3]

Not all problems can be attacked at once so attention is first focused on the small; on the sectors or localities where some of the preconditions are in place and where initiative is afoot on its own. The initial small successes will then create pressures through the forward and backward linkages to foster both learning and change that is nearby in sectors or locations—all of which might lead to a "growth pole" [see Perroux, 1953] or local industrial district. The successes when broadcast horizontally to those facing similar problems will start to break down the paralyzing beliefs that nothing can be done and will fuel broader initiatives that take the early wins as their benchmark.²¹ Unlike a model that assumes large-scale organized social action directed by the government, the parties are responding to local pressures and inducements from their economic partners or to opportunities revealed by others in a similar position.

One thing leads to, induces, elicits, or entrains another thing through chains of “tensions, disproportions, and disequilibria.” Hirschman at one point refers to the principle of unbalanced growth as “the idea of maximizing induced decisionmaking” [1994a, 278]. The problem-solving pressures induced by unbalanced growth will call forth otherwise unused resources and enlist otherwise untapped energies. As a project moves from one bottleneck and crisis to another (in comparison with the smooth planned allocation of resources in a project), “resources and abilities that are hidden, scattered, or badly utilized” [1961, 5] will be mobilized. Hirschman [1984, 95] notes the connections with Richard Cyert and James March’s notion of “organizational slack” [1963] based on Herbert Simon’s theory of “satisficing” [1955], with Nathan Rosenberg’s theory [1969] that technological innovation is strongly influenced by inducing or focusing events such as strikes and wars, and, above all, with Harvey Leibenstein’s theory of X-inefficiency [1966; 1980]. Edmund Burke had captured part of the basic idea:

[Difficulty] has been the glory of the great masters in all the arts to confront, and to overcome; and when they had overcome the first difficulty, to turn it into an instrument for new conquests over new difficulties;... He that wrestles with us strengthens our nerves, and sharpens our skill. Our antagonist is our helper. This amicable conflict with difficulty obliges us to an intimate acquaintance with our object, and compels us to consider it in all its relations. It will not suffer us to be superficial. [1937, 299-300]

This brings us to the cognitive version of unbalanced growth as a learning process. Many economists first saw Hirschman’s vision of unbalanced growth as being about incentives or volitional impulses, but the theory also had a cognitive side about the social learning process.

One can draw analogies to the process of unbalanced growth that takes place in individual learning. Suppose one takes a static snapshot of a person’s beliefs before and after learning some new and complex interconnected subject matter. The older set of beliefs might have certain self-reinforcing properties. It might at first seem difficult to change one part of the set of beliefs since one would then have some cognitive dissonance with the remaining older beliefs. One could imagine simply changing all the beliefs at once to arrive at a new self-reinforcing set. But that is rarely how learning takes place. Against the forces of self-preservation of the whole cloth of older beliefs, there are the incentives to solve problems for which the old beliefs might be inadequate. Change might start *in the small* where problem-solving progress might be made by unraveling and changing some of the beliefs. But now the interconnections can help to unravel the older cloth. Bottlenecks or inconsistencies will appear between the old and new beliefs, and problem-solving pressures will be transmitted forwards, backwards, and sideways to adjust other beliefs. One thing leads to another and eventually the person will arrive at a new set of interconnected beliefs.²²

Now consider the viewpoint of the knowledgeable outsider, a teacher or trainer, who all along understood the problem-solving superiority of the new set of beliefs.

Why couldn’t the trainer just give a “core course” to impart the new knowledge to the student and thereby save the pupil all the time, energy, and pain of learning the hard way?²³ Carrots and sticks, aid and conditionalities, could even add incentives the learning process. While a veneer of some knowledgeable behaviors might be subject to incentives—particularly in good students—by such carrots and sticks, learning that transforms older beliefs does not take place in that manner. For learners to have an ownership of new knowledge and for the new knowledge to have a transformative effect, the knowledge must be more the fruits of the learner’s own activities. Such knowledge comes out of a constructivist active learning process, not out of a pedagogy of the teaching, imparting, transmitting, disseminating, or pouring of new knowledge into passive students.

This can be phrased in Socratic terms. Instead of having the answers to be disseminated from expert-helper to counterpart-doer, Socrates displayed the ignorance or humility of knowing that he did not know. Instead of the teaching that put the learner in a passive role, Socrates proceeded by helping the learner to actively try to answer questions or resolve problems.

That real education aims at imparting knowledge rather than opinion, that knowledge cannot be handed over ready-made but has to be appropriated by the knower, that appropriation is possible only through one’s own search, and that to make him aware of his ignorance is to start a man on the search for knowledge—these are the considerations that govern and determine the Socratic method of teaching. [Versényi, 1963, 117]

Indeed, the key to the indirect Socratic approach is for the helper as midwife to facilitate the doer taking the active role (being in the driver’s seat). In a slogan: “Stop the teaching so that the learning can begin!” As George Bernard Shaw put it: “If you teach a man anything he will never learn it.” [1962, 174] Or as management theorist, Douglas McGregor, put it: “Fundamentally the staff man... must create a situation in which members of management can learn, rather than one in which they are taught...” [1966, 161] Ortega y Gasset suggested: “He who wants to teach a truth should place us in the position to discover it ourselves.” [1961, 67] Or as Myles Horton, founder of the Highlander Folk School, put it: “You don’t just tell people something; you find a way to use situations to educate them so that they can learn to figure things out themselves” [1998, 122]. It remains to be seen if large development agencies, which in part base their *raison d’être* on “having the answers,” could ever adopt such a Socratic and cognitive-autonomy-respecting strategy of capacity building.²⁴

Returning to the general theme of balanced versus unbalanced development, there is an interesting parallel with the thought patterns in the “Darwin wars” between creationists and evolutionists. From the old example of the optical eye to the modern example of the whole biochemical mechanism of DNA and RNA, there are living systems that are so complex in their interdependence that it is quite difficult for the lay observer to imagine how the systems could have evolved sequentially. Seemingly everything has to be in place at once for the system to work and thereby

exhibit any evolutionary advantage. Hence this thought pattern pushes towards a creationist conclusion that there must be some central guiding hand to explain such a complex interdependent system.

In the thought patterns of the big push school, the complex interdependence of a modernizing economy also drives toward the conclusion that there needs to be a central guiding hand to jump-start the balanced growth miracle. Evolutionary biologists and the theorists of the unbalanced development school therefore need to pay close empirical attention to the actual evolutionary histories to dispel the *a priori* thought patterns arguing for a central guiding hand. Much of that thought pattern seems based on taking snapshots before and after some large change, and then not being able to readily imagine a step-by-step process to go from one to the other.

Hirschman uses the metaphor of solving a jigsaw puzzle for unbalanced growth version of dealing with the set of problems facing a developing country [1961, 81-2]. One could imagine a rather superhuman act of putting all the pieces together at once to solve the puzzle. Indeed, don't the experts who have seen and studied seemingly similar puzzles put together elsewhere have that knowledge? That is the comforting fantasy of those who promote comprehensive, integrated, and balanced reform programs. Do all these things together (so that it looks like the picture on the puzzle box) and you will have solved your problems!

For the variety of reasons outlined above, countries cannot just solve all their problems at once. They must start with a few pieces that fit together and try to work outward to find other pieces that fit. Not all starting points are equal. Certain pieces of the puzzle may have nearby connections and linkages that allow building that part of the puzzle quickly—as opposed to parts whose solution might give little insight or impetus to solving the nearby parts. Perhaps someone who has seen similar puzzles solved would be a good coach to suggest promising starting points or fruitful directions for progress. Perhaps it would be helpful to study the picture on the box but a better metaphor might be putting together a puzzle when one doesn't know what the final picture will be. The actual solving of the puzzle is a piecemeal process starting in one or more propitious places and working outward through fruitful linkages to finally arrive at the new overall configuration.

We might also consider the analogy with the way an entrepreneur might develop a business. Success in an initial effort will create bottlenecks and pressures upstream or downstream that need to be resolved, as well as opportunities that can be captured. One thing leads to another in an evolutionary process of groping, adaptive learning, and experimentation. Each step is driven by the local needs to relieve pressures or grab opportunities. It is rather different from following the imposed performance incentives to move step by step through an engineering plan to construct a building or build a bridge. By studying the successful development of a complex multifaceted business, would-be entrepreneurs might gain much insight into the process that is very different from following a checklist-style business plan, or blueprint. If entrepreneurial business development is too fraught with uncertainties, complexities, instabilities, and incomplete knowledge to submit to technocratic planning, then one might well expect the same to hold for the larger processes of social reform, change, and development in a country.

In summary, learning, experimentation, and a one-size-does-not-fit-all pragmatism are basic to any alternative to the command and control models of development assistance. The limited powers of cognition and the limited capacity for implementation of central authorities in the face of the complexity of organizational, institutional, and social realities do not give much hope for social engineering approaches. Hirschman, as a keen observer of the development process, saw successes as taking place in a rather different way and he recommended that development projects attend to those "hidden rationalities" more than to the dreams of technocratic rationality entertained by social engineers. Initiatives need to find and enlist local energies and knowledge for trial-and-error problem solving. But each problem solved brings to the foreground other problems and opportunities through forward and backward linkages. Change unfolds because one thing leads to another—not because a given rational plan can be implemented through centrally coordinated action.

BRIDGES TO OTHER THINKERS

Given the multidisciplinary nature of Hirschman's approach, an all-too-brief look at some connections with other thinkers may nevertheless help to triangulate on Hirschman's ideas and to elucidate the others' work.

Herbert Simon's Theory of Bounded Rationality

One generative metaphor for Herbert Simon's work on bounded rationality is the maze [Simon, 1991, Ch. 11]. We are in the maze, not helicoptering over the maze surveying all the options from an Olympian perspective. One does not see all the possibilities at any one time, one does not know the probabilities of the outcomes given one's choices, and one does not have the computational capacity to determine an optimal outcome even if one had this information. Our capacity for rational behavior, therefore, is bounded in many dimensions.

While Simon does not directly address the problems of economic development, his work has pioneered the critique of the substantively rational decision-maker that is manifested in planning models, big push models, and, more generally, in the ambitions of technocratic reason. The contrast of being in the maze instead of over the maze is a useful mental model to use to compare realistic unbalanced growth strategies with the dreams of comprehensive development programs.

Charles Lindblom's Theory of Incrementalism and Muddling Through

Economists such as Jan Tinbergen [1956] tended to view public policy-making as a comprehensive technocratically rational process of surveying the feasible alternatives, evaluating them according to some agreed-upon objective or welfare function, and choosing the most preferred alternative. Charles Lindblom [Lindblom, 1959; 1990; Braybrooke and Lindblom, 1963] argued that limited cognitive capabilities, complexity, uncertainty, and conflicting values excluded any such synoptic policy-making process. For those reasons, actual policy-making is better described as "disjointed incre-

mentalism" and "muddling through." Moreover, he would argue that in most commonly occurring policy environments, sequential decisions are better made in this manner. When exploring a largely unknown environment, it is better to take small steps in the neighborhood of what is known than to take bold leaps into the unknown.

The similarities between Lindblom's process of incremental muddling through in policy-making and Hirschman's theory of unbalanced growth were so striking that they authored a joint article²⁵ pointing out the convergence. Both approaches are skeptical of order, balance, and detailed programming based on foresight, centralized direction, and integrated overviews.

[Both] agree it is most important that arrangements exist through which decision makers are sensitized and react promptly to newly emerging problems, imbalances, and difficulties; this essential ability to react and to improvise readily and imaginatively can be stultified by an undue preoccupation with, and consequent pretense at, advance elimination of these problems and difficulties through "integrated planning." [Hirschman and Lindblom, 1969, 364]

One of the popular themes today in aid agencies is knowledge-based development assistance conceived of as the agency "giving" or disseminating the solution to a problem to a developing country. Yet Hirschman and Lindblom agree that this will "often result in complicating the problem through mistaken diagnoses and ideologies" and therefore they argue that "the much maligned 'hard way' of learning by experiencing the problems at close range may often be the most expeditious and least expensive way to a solution" [ibid., 364]. Where conflict arises, they see the mutual adjustment of the participants as achieving a kind of coordination that could not have been anticipated or centrally planned. Similar processes of mutual adjustment without central control are evidenced in the procedures of common law (coordinated by precedents set by different judges), in Michael Polanyi's theory of coordination in science [Polanyi, 1951; 1966, 70-4 and 217], and Mary Parker Follett's [1926] notion of horizontal coordination by reciprocity in organizations.²⁶ Finally, they see in this "political adjustment and strife analogues to self-interested yet socially useful adjustment in the market" [Hirschman and Lindblom, 1969].

Jane Jacobs' Vision of Development

Although working well outside the confines of the professional study of economies known as Economics, Jane Jacobs' voraciously eclectic work [1969; 1984] contributes to the tradition that emphasizes increasing returns, agglomeration, and diversification. Indeed, those processes describe cities, and cities were her focus beginning with her best-known book *The Death and Life of Great American Cities* [1961]. As professional economists paid more attention to the increasing returns processes so central to development (that is, growth well beyond that which results from increasing inputs), her work was better appreciated. In his work on endogenous growth theory, Robert E. Lucas noted: "I will be following very closely the lead of Jane Jacobs, whose

remarkable book *The Economy of Cities* seems to me mainly and convincingly concerned (although she does not use this terminology) with the external effects of human capital" [1988, 37].

I have focused on Hirschman's critique of the big push approach (and its latter-day forms in conditionality-based development programs) and his alternative vision of the unbalanced growth process. Jacobs has always been *the* antagonist to the technocratic city planning tradition exemplified, for example, by the High Modernism²⁷ of Le Corbusier. Thus it should not be surprising that interesting parallels should exist with Hirschman's work.

She arrives at a similar vision of an unbalanced growth process by focusing on the volatile trade between cities that are "developing on one another's shoulders:"

To rulers who want to know and control, as far as they can, what is going to be produced five years in the future and where it is going to be produced and how, and then five years beyond that, and so on, volatile intercity trade, forever unpredictably and opportunistically changing in content, represents sheer chaos. Of course it is not chaos. It is a complex form of order, akin to organic forms of order typical of all living things, in which instabilities build up (in this case, funds of potentially replaceable imports) followed by corrections, both the instabilities and the corrections being the very stuff of life processes themselves. [Jacobs, 1984, 144-5]

Jacobs also develops her version of Hirschman's vision of the innovative developmental process of problem-solving leading to more problems and pressures, which in turn calls forth more problem-solving and so on.

Earlier I defined economic development as a process of continually improvising in a context that makes injecting improvisations into everyday life feasible. We might amplify this by calling development an improvisational drift into unprecedented kinds of work that carry unprecedented problems, then drifting into improvised solutions, which carry further unprecedented work carrying unprecedented problems... [ibid., 221-2]

Donald Schön's Theory of Decentralized Social Learning

Although not explicitly developed as a theory of learning, Hirschman's theory of unbalanced growth can be usefully seen as a theory of decentralized social learning [Schön, 1994] in a manner that will induce decision-making by the "doers of development," will collect and release scattered and dormant local energies, and will instill "ownership" in the learners. The default theory of social learning on the part of development agencies whose counterparts are governments is that the central government makes policy innovations—with the help of its advisors—which are then transmitted to the rest of the country.²⁸

[The standard approach] treats government as center, the rest of society as periphery. Central has responsibility for the formation of new policy and for its imposition on localities at the periphery. Central attempts to "train" agencies at the periphery. In spite of the language of experimentation, government-initiated learning tends to be confined to efforts to induce localities to behave in conformity with central policy. Localities learn to beat the system. Government tends to bury failure or learn from it only in the sense of veering away from it. Evaluation, then, tends to be limited to the role of establishing and monitoring the extent of peripheral conformity with central policy. [Schön, 1971, 177]

But social learning can take place in a decentralized bottom-up manner with centralized coordination. In large multi-plant companies, innovation may take the form of new ways of socially organizing and structuring productive processes (for example, quality circles or self-managed work teams). Separate plants might perform pilot experiments to find out what works and what doesn't. Headquarters frames the experiments, detects the successes, and plays the knowledge-broker to help other plants cross-learn from the others' successes. Schön described a similar process between the government and the periphery of local units trying to carry out a certain social reform.

Government cannot play the role of "experimenter for the nation," seeking first to identify the correct solution, then to train society at large in its adaptation. The opportunity for learning is primarily in discovered systems at the periphery, not in the nexus of official policies at the center. Central's role is to detect significant shifts at the periphery, to pay explicit attention to the emergence of ideas in good currency, and to derive themes of policy by induction. The movement of learning is as much from periphery to periphery, or periphery to center, as from center to periphery. Central comes to function as facilitator of society's learning, rather than as society's trainer. [1971, 177-8]

Social learning is often very different from laboratory learning. Novel complexity, genuine uncertainty, conflict of values, unique circumstances, and structural instabilities mitigate against "laboratory conditions" for discovery and learning. Decentralized experimentation with centrally-sponsored framing and quality benchmarking followed by peer-to-peer cross-learning in the periphery is a more appropriate model than classical "normal science" research at a central facility followed by the teaching-dissemination of the results.

Just-in-Time Inventory and Continuous Improvement Systems

The Japanese just-in-time (JIT) inventory system can be viewed as a system of dynamic production learning, not just a system of cutting inventory costs. Buffer in-

ventories in production might be analogized to loans from international development agencies that allow one to get by current difficulties without necessarily solving the underlying problems. But with a JIT system, the costs of the problem are evident and attention is then focused on solving the problem so that it does not recur. Hirschman has praised the low tolerance for error and narrow latitude of some technical systems (for example, aircraft maintenance or road surfaces where the low maintenance will show up as destructive potholes) which serve as inducement or pacing mechanisms for maintenance and learning. High tolerance for error or wide latitude for maintenance would operate like high inventory levels to weaken the incentives for corrective actions.

Just as a lowering of the water in a canal will reveal obstacles to navigation, a systematic reduction in the levels of inventories will bring problems to the surface so that this created necessity will be the mother of invention to resolve the problems. Then with a continuous reduction in inventory levels, other problems will come to the surface and be resolved in a process of continuous improvement.

This successive removal of inventories creates bottlenecks in production that make it possible to identify each work station's weaknesses; and in this way it is analogous to the potentially informative disruptions of production caused by, say, the construction of a new steel plant in stories of unbalanced growth. [Sabel, 1994, 240]

Hirschman has been asked if he would actually advocate unbalanced growth in view of the efficiency properties of the formal models of balanced growth, and one of his responses is that in the JIT inventory system, "the Japanese initiate and induce it." [Hirschman, 1994b, 319]

Charles Sabel's Theory of Learning by Monitoring

The Japanese system of just-in-time inventories, local problem-solving by teams, benchmarking between teams, and continuous improvement can be seen as a system of systematic learning in production that induces decision-making, problem-solving, and ownership by the participants. Charles Sabel [1994] has developed this and other examples in his theory of learning by monitoring.

Often development strategies are flawed by implicitly assuming that which needs to be created. This often takes the form of assuming an effective governance system is in place so that a development advisor simply has to pour some new wine into the sound bottle: for example, design a comprehensive set of conditionalities to be implemented by a developing country. In large organizations, top managers often adopt new strategic plans as if the problems lay in the specifics of the plan rather than in the lack of capacity to implement management's writ. The implicit assumption of an effective governance system imputes to the government of a country or to the management of a company a capacity to resolve coordination and collective action problems by command and control. In contrast, Hirschman and Sabel ask how collective action problems are solved in the small and how change does take place—without assuming an effective fiat from the center. By developing a more realistic theory of

change, they can then "back out" a more reasonable description of what the center could do to catalyze, assist, broker, and guide the process, rather than trying to finesse the problem by assuming from the beginning that the center can effectively implement its plans.

Sabel's treatment of collective action problems through learning by monitoring is particularly fruitful by showing important ways in which trust and social capital are developed without falling back on the conventional banalities about cultural inheritance and education. Individuals are assumed to have some sociability, some powers of reflection and discussion, and incomplete identities always in the process of formation and change (incompletely specified preference orderings in economists' terms). They are often in problematic situations where some cooperative action would benefit the group but where each may be vulnerable to the non-cooperation of others (which could be defection or simply error). The problem being discussed is not a problem involving others in some distant place; it is the group members' own common problem so that they would be involved in implementing any proposed solution (the learning) and will thereby be monitoring the actions of others—and hence the description learning by monitoring. The discussion to arrive at a collective action plan must also include discussion of how to apportion the gains from cooperation and how to adjudicate differences that will arise.

Central managers or coordinators, instead of being assumed as a *deus ex machina*, can be seen as agents of the group facilitating the "government by discussion" within the group and helping to minimize the vulnerabilities of cooperative action, while through benchmarking and other means of competitive stimulus helping to insure that the group continues to face the problems that come to light.

Where a set of people have interdependent opportunities and fates, the group members, through initial problem-solving discussion and action accompanied by mutual monitoring, can start to bootstrap a new collective identity that can help to stabilize future cooperative problem-solving and learning. Overall, this is a species of pragmatism which John Dewey saw as being exemplified in scientific communities and democratic polities.

Learning by monitoring is in this sense an institutional device for turning, amidst the flux of economic life, the pragmatic trick of simultaneously defining a collective-action problem and a collective actor with a natural interest in addressing it. The disequilibria created by learning by monitoring are informatively effective for the same reasons as scientific experiments and democratic rule; and under these conditions the differences between the disciplines of the factory and the laboratory dwindle in the face of their similarities. [Sabel, 1994, 272]

CLOSING REMARKS

I have revisited Hirschman's early work on the topics of development assistance and unbalanced growth. The purpose was two-fold: first to shed a Hirschmanian light on the current debates about development aid, and to see how his vision of unbal-

anced growth points to a rather different conception of development assistance; and second to elucidate bridges between Hirschman's work and the work of several other thinkers in the hope of profitable two-way traffic over those bridges.

NOTES

1. A more recent corollary is that if the post-communist countries actually had the state capacity to somehow change all their institutions at once according to the plans of the institutional shock therapists, then those states would have had the capacity to make communism successful in the first place.
2. More recently, Nicholas Stern [2001] has argued that public action to improve the investment climate may have the public goods or atmospheric effect of a coordinated push of entrepreneurs, investors, and managers toward a high equilibrium of self-reinforcing expectations.
3. See also Streeten [1959] on the pressures and impulses that drive unbalanced growth sequences.
4. A policy-based conditionality ("You get aid X if you adopt policy Y") is sometimes repackaged as a mutual commitment mechanism ("To show the depth of the development agency's commitment to policy Y, it is willing to provide aid X if you are willing to commit to policy Y").
5. See the discussion and references in Mosley et al. [1991], World Bank [1998], Killick et al. [1998], Gwin and Nelson [1997], Collier [1997], Tarp et al. [2000], and Van de Walle [2001].
6. Within the domain of benevolent aid, there are the vaccinate-the-children programs—discrete interventions to help a passive group of aid-recipients, monitorable actions by inserted aid-providers (for example, number of children vaccinated by international service providers), payment of aid according to such results, and then extraction of aid-givers leaving behind good results. Many in the development business seem to flood their minds with such models when in fact the real problem of capacity building in the healthcare system is a rather different matter.
7. This is an old argument that even precedes the post-war career of development economics. R. H. Tawney made the point after his 1930 visit to China in an unduly neglected classic of the pre-WWII literature on development. "What makes modern industry is ultimately not the machine, but the brains which use it, and the institutional framework which enables it to be used. It is a social product, which owes as much to the jurist as to the inventor. To regard it as an ingenious contrivance, like a mechanical toy, or the gilded clocks in the museum at Peiping made by London jewellers for the amusement of Chinese emperors, which a country can import to suit its fancy, irrespective of the character of the environment in which the new technique is to function, is naïve to the point of absurdity. It is like supposing that, in order to acclimatise Chinese script in the West, it would be sufficient to introduce Chinese brushes and ink." [Tawney, (1932) 1966, 130] "To lift the load of the past, China required, not merely new technical devices and new political forms, but new conceptions of law, administration and political obligations, and new standards of conduct in governments, administrators, and the society which produced them. The former could be, and were, borrowed. The latter had to be grown." [ibid, 166] It is, perhaps, an open question if this wisdom from seventy years ago informs the programs of the large development agencies today.
8. See, for example, Easterly [2001].
9. For example, Killick [1998] applies agency language to the relationship between an international financial institution (IFI) and a developing country where the IFI is the "principal" and the country is the "agent."
10. See Campbell [1995] for a recent exposition of agency theory in economics.
11. Unfortunately the word agency has conflicting uses in economics. The Aristotelian notion of agency as emphasized by Amartya Sen refers to this question of the source of an action—which is quite different from the agency in the principal-agent relationship. Thus it would be correct but rather confusing to say: "The agency contract compromises the agency (in the Aristotelian sense) of the agent." The opposite of the agent in the sense of a person acting out of internal motivation and capacity is a person who is acted upon, a patient [Sen, 1999, 11]. Hence the oft noted resemblance of the relationship between development agency and developing country to the relationship of doctor and patient.
12. In management theory, this is Mary Parker Follett's law of the situation. "Our job is not how to get people to obey orders, but how to devise methods by which we can best discover the order integral to a particular situation." [Follett, (1926) 1992, 70] See Deci and Ryan [1985, Ch. 5], or Lane [1991] for an account of these and related issues specifically in the context of market relationships.

13. For example, suppose one buys a townhouse in the middle of winter and is looking forward to spring to spruce up the poorly-attended front yard. But the Townhouse Association Beautification Committee [a.k.a. "Lawn Nazis"] arrives before spring to inform the new owners that they must attend to the yard or face certain penalties. Instead of just thinking "Now we have two reasons to spruce up the lawn," the new owners might well resent the attempt to externalize their locus of causality. Thus when a government wants to make a reform on its own accord and an IFI piles on a conditionality just to make sure then it might have the opposite effect.
14. Wilhelm von Humboldt (1767-1835) noted that: "Whatever task is not chosen of man's own free will, whatever constrains or even only guides him, does not become part of his nature. It remains forever alien to him; if he performs it, he does so not with true humane energy but with mere mechanical skill." [Humboldt, 1963, 47]
15. See World Bank [1998] which, with heroic optimism, recommended not trying to use aid to buy good policies. As Tawney put it after visiting China in 1930: "Salvation could not be imported from the West, even if the West possessed it; it is not an article of commerce. It must come from China herself, if it is to come at all." [Tawney (1932) 1966, 186]
16. This theme goes back at least to the Socratic notion that virtue cannot be taught. If one acted in a certain manner because one was taught that it was virtuous, then it would not be virtuous. With continual reference to Socrates, the mid-nineteenth century Danish philosopher, Søren Kierkegaard, illustrated the self-defeating nature of using objective or outside-in approaches to subjective or inside-out change with stories of putting a cap on a certain type of elf [1989, 12; 468] or putting special armor on the god Mars [1992, 174] to see how they looked when, in each case, the act made them invisible. In his terms, an objective approach could not lead to a subjective result.
17. "The first task is to study what people are already doing...and to help them do it better...." [Schumacher, 1997, 125]
18. "We'll pretend to make best efforts to fulfill your conditionalities and you pretend that you don't have to move the money anyway."
19. "But, though a nation may borrow its tools from abroad, for the energy to handle them it must look within. Erquickung hast du nicht gewonnen, Wenn sie dir nicht aus eigener Seele quillt." [Tawney (1932) 1966, 194] The quote from Goethe's *Faust* (First Part) might be translated as: "You have not gained refreshment if it does not come out of your own soul." [Terrill, 1973, 69]
20. Note the contrast with the project manager in a development agency who wants to show his boss that he made a difference by starting a project.
21. In some cases knowledge of others' successful models is necessary even for possible learners to formulate their own problems. "Managers don't know what they want until they see what they can get; in this sense, solutions are used to formulate problems." [Cole, 1989, 36] This mutual influence of means and ends is characteristic of the attitude of pragmatism.
22. Hirschman's treatment of similar questions also involves the interplay between beliefs and actions. Actions can lead to cognitive dissonance with old beliefs and thus a change in beliefs, just as new beliefs can lead to new actions. See the excellent discussion in Meldolesi 1995, 56-67.
23. Hirschman notes that "such practices [will] tend to cut short that 'long confrontation between man and a situation' (Camus) so fruitful for the achievement of genuine progress in problem-solving." [1973, 240]
24. For more on autonomy-respecting help, see Ellerman [2001].
25. Hirschman and Lindblom [1969]. The article also considered the convergence with the theory of technological research and development of Klein and Meckling [1958].
26. See Metcalf and Urwick [1942, 297-314] cited in Lindblom [1965, 8].
27. The contrast between these two traditions is extensively and provocatively analyzed in the context of social and economic development by James Scott [1998].
28. Ironically, as countries moved away from centralized planning to decentralized market systems, many still cling to centralized models of social learning, policy reform, and institutional change. Yet the virtues of systems of decentralized initiatives with centralized regulation are broader than just market activities—which Hayek considered more broadly as a spontaneous process of forming order through mutual adjustment and the use of local knowledge for problem solving. For example, see "Competition as a Discovery Procedure" in Hayek [1978]. Michael Polanyi [1951] finds a similar process of mutual adjustment in the progress of science. See Lavoie [1985] and [1992] on Hayek and Polanyi, and see Metcalfe et al. [2002] for recent developments.

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