

Global institutions: Transforming international development agencies into learning organizations

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Executive Overview

Transforming a company may have many interesting similarities to transforming a country. For instance, many executives have learned that increased capital investment does not necessarily build a better company, and international development institutions like the World Bank have learned painfully that investment in physical capital is also not the key to economic development. Knowledge embodied in human capital is now seen as key in economic development, and in knowledge-based companies or organizations. Executives developing learning organizations will share many problems with development institutions trying to foster knowledge-based economic development in the Third World. As knowledge-based transformation is learning writ large in both companies and countries, this article applies an activist philosophy of education, organizational psychology, and pedagogical theory to the international problems of economic development. The topics treated include: (1) methodologies of active learning in contrast to passive absorption of knowledge, (2) intrinsic motivation for changes in contrast to changes induced by monetary incentives, (3) local reinvention of best practices in contrast to implementation of universal recipes, and (4) horizontal learning of tacit knowledge in contrast to vertical or top-down transfers of codified knowledge. The various themes are brought together in the contrast between an open learning model of a knowledge institution and a church model of an organization promulgating branded knowledge.

Learning Organizations and Knowledge-Based Development

From Physical Capital to Knowledge Capital in Companies and Countries

There are many revealing similarities between the problems and subtleties facing an executive trying to foster a learning organization and an international development institution trying to induce economic development in a developing country. Executives who learn about the problems of learning and knowledge-based transformation in the context of developing countries may gain new and fresh insights into transforming their own organizations. That analogy should always be present in the back of the reader's mind. Moreover, learning principles that are useful in transforming countries

as well as companies would thereby seem all the more robust.

Role of the International Development Institution

The official name of the World Bank is the International Bank for Reconstruction and Development (IBRD). IBRD, the International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency (MIGA) are loosely called the World Bank Group or simply World Bank, which works together with the International Monetary Fund (IMF). The World Bank and the IMF were set up immediately following World War II and are now joined by regional development banks such as the Inter-American Development Bank, the African Development Bank, the Asian Development Bank,



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and, most recently, the European Bank for Reconstruction and Development (EBRD) for the post-socialist economies of Central Europe and the former Soviet Union. All of these international financial institutions (IFIs), together with UN organizations such as the United Nations Development Program (UNDP), are international development institutions that are increasingly turning to knowledge-based development strategies.

In the years after World War II when development economics was first being developed as a separate discipline, the emphasis was on capital goods accumulation, or hardware. It is only a slight caricature to say that using development loans to build modern factories in developing countries was thought to launch the countries on the path to development. After decades of painful experience, the emphasis has shifted from hardware to software—that is, from capital goods to knowledge and institutions. World War II itself provided a major case in point. In spite of the widespread destruction of physical capital, Germany and Japan did not become undeveloped, but quickly rebuilt themselves as world economic powers. The key to their rapid growth was the software of

sound institutional habits and knowledge, not the infrastructure loans that only expedited the process.

If technological and institutional learning is key to economic growth, then the international development institutions such as the World Bank and the regional development banks have the role of helping developing countries to undertake those learning activities and to become learning societies. The knowledge management efforts at the World Bank are directed towards creating a knowledge bank to address knowledge-based development.¹ This complements the traditional World Bank role of providing infrastructure financing to developing countries, a role being increasingly assumed by the private financial sector.

Problems in Knowledge-Based Development

The initial orthodox view was that international development institutions were well-placed to harvest the lessons of best and worst practices from the development experience in the regions or globally. That knowledge and policy advice could then, in theory, be disseminated in training activities or as part of the conditions attached to other development aid. There are, however, several significant difficulties in this orthodox view:

- The education methodology that views knowledge as being transmitted from the teacher or expert to the passive student is deeply flawed. Development assistance needs to be based on an active learning philosophy where learners have an active role in acquiring knowledge. The active learning philosophy has deep intellectual roots and strong implications for the methodology of knowledge-based development.
- External incentives can induce changes in short-term behavior (e.g., loan conditions requiring changes in laws and regulations), but they will probably not change the underlying institutional matrix that determines policies in the absence of the overlaid incentives. Effective development assistance needs to focus on promoting change in the underlying institutions.
- Development assistance in the form of knowledge does not travel as well as money or material aid. There are various contrasting types of knowledge; e.g., codified versus tacit, and general versus local, and the form of knowledge involved will affect the roles of international and local knowledge institutions.
- Two very different models exist for an international knowledge-based development institution. A development institution could function as a development church, espousing the one best

way, or it could function more as an open learning institution where different theories are allowed to publicly contend and collide, and where experimentation is encouraged to see what is locally appropriate.

These themes as contrasted between the church-like organization and the open learning organization are summarized in Table 1.

Development Assistance Via Active Learning

The Cycle of Dependency

Giving Out Fish

An old Chinese story says that instead of giving people fish, it is better for them to learn how to fish themselves. This is now an internationally recognized aphorism extolling the virtues of self-reliance and autonomy. Perhaps it is best to first make the point in the modern context of a business enterprise. A company has a specific problem to solve and it does not have the required knowledge. It could take the initiative and expend the time and resources of people in the company to learn how to solve the problem. But that is a time-consuming process with an uncertain outcome sometime in the future. Perhaps it is best, in view of the time pressures and relatively low costs, to hire outside experts to solve the problem quickly. The next time the problem arises, the same time pressures will lead them to opt for the same quick fix. The company will develop a dependency relation, and the internal capability to learn will not develop.²

The same generic dynamics of dependency can develop between bilateral or multilateral development agencies (including the World Bank) and developing countries. The dynamics can be even

more tempting in this case as the outside development expertise is offered as a public good at below cost or for free, and the problems of a country's underdevelopment are always immediate and pressing.³ Development institutions, like consulting companies, are tempted to always appear to have the answers. Funding and management pressures in development agencies push for the quick and easily monitored solution of giving out fish (giving out the answers to the clients' problems) as opposed to the time-consuming, difficult, and hard-to-monitor process of helping the clients to learn how to fish for themselves (learn to find the answers themselves).

The Jug and Mug Theory of Training

Active and participatory learning may be juxtaposed against the notion of training as pouring knowledge or answers from the jug into the mugs. Harried trainers tend to implicitly adopt the jug and mug version of training. Like an empty stomach that needs to be given fish, there is a target population that needs to have its human resources developed by training programs. Little thought is given by trainers to any self-directed initiative on the part of the target group. Education is seen essentially as knowledge transfer along a transmission belt from those who know to those who don't.

Even when policy-makers do learn and appropriate important lessons through well-designed active learning programs, this might be criticized as a waste of time and money by international experts who think the policy-makers could have quickly learned the same lessons just by reading the studies by the experts. Local ownership of policies comes from local rediscovery and reappropri-

Table 1

Theme	Church-like Organization	Open Learning Organization
Educational philosophy	Truths are promulgated to passive recipients. Giving out fish.	Induce active learners to reinvent and reappropriate knowledge. Teaching how to fish.
Motivation for change	External or extrinsic motivation for short-term behavior change (Taylor).	Internal or intrinsic motivation for long-term sustainable change (Deming).
Scope of knowledge	Focuses on general or universal knowledge or best practice recipes.	Recognizes need to reinvent local adaptations of best practices.
Explicitness of knowledge	Explicit or codified knowledge (tip of the iceberg) is promulgated in vertical or top-down fashion.	Recognizes rest of iceberg is tacit or implicit knowledge to be transferred by horizontal methods.
Knowledge management philosophy	The one best way is presented as official branded knowledge.	Competition of different views in free market of ideas is coupled with experiments seen as best ways to continuously advance knowledge.

ation of the policies, not by being tutored by the proper experts.⁴

As Paul Samuelson says, the best way to get a student to learn and appropriate a theorem is to provide the result in a half-proven form so the student will then have to work out the proof by him- or herself.

The Active Learning Process

The Role of Dialogue

The aim of the active learning approach⁵ is not information transfer, but the transformation of the student into an active constructor and appropriator of knowledge. The ancient model is the Socratic

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method of dialogue exemplified in the Meno, where Socrates, by his questioning, led a slave boy to discover some truths of geometry. A modern example is the case study method of student-centered teaching in business education⁶ and other fields.

How can the teacher or trainer be the midwife in the process of active learning on the part of the students or learners? No one constructs knowledge in a void. Learning is contextual; it builds on the context of previous knowledge, experience, and problems. For the teacher to guide and assist in the process, the teacher might first learn through dialogue to see the world through the eyes of the student—to see the student's context.⁷ Hence Paulo Freire's emphasis on dialogue as the prelude to, as well as the means of, learning.⁸ The cases, examples, and questions can be couched in terms that make sense from the student's viewpoint and that are relevant to the student's interests. With this preparation, the student can take responsibility for actively reconstructing and appropriating knowledge with occasional prodding and questioning from the teacher as midwife. Knowledge obtained in this active way is the student's own; it is neither a gift nor an imposition.

Local Experimentation

General knowledge may not suffice to determine local solutions. An active learning approach may have to involve experiments in a broader process of social learning. Projects sponsored by international development institutions or agencies might be constructed as experiments in a process of active social learning.⁹ Knowledge is then a joint product along with

the project's other goals. Even a project that fails by its other goals may succeed if it yields knowledge about how to avoid those mistakes in the future. Indeed, a project that risks failure by trying some new technique may be much more informative than a safe project using old methods that add nothing to the stock of the institution's knowledge. The knowledge aspect of development projects highlights the importance of serious evaluations of why a project succeeds or fails, and the importance of disseminating the results. Otherwise, they would be like scientific experiments where no one reads, interprets, or communicates the results of the experiments. Development institutions, like other organizations, have a natural propensity not to dwell on the past (i.e., on mistakes) and to move forward without the painful self-scrutiny necessary to learn from experience.

The Learning Process is the Product

Learning for an individual, organization, or society is an active self-directed process of dialogue, use of critical reason, experimentation, and interpretation of the results—to be followed by more dialogue, reasoning, and experimentation.¹⁰ Development institutions sponsor training exercises, often backed by loan conditions, usually with the immediate goal of implementing some specified policy reform. While such a surgical operation may provide a short-term life-saving fix, the goal should be a long-term policy reform process that is self-directed, experimental, self-correcting, and embedded in the client countries.¹¹ Instead of maintaining clients in tutelage for fear that they might make mistakes, development institutions should promote autonomy through active learning programs that include the right to make mistakes, to pay for them, and to thereby learn lasting lessons. In sum:

The aim of teaching is not only to transmit information, but also to transform students from passive recipients of other people's knowledge into active constructors of their own and other's knowledge. The teacher cannot transform without the student's active participation, of course. Teaching is fundamentally about creating the pedagogical, social, and ethical conditions under which students agree to take charge of their own learning, individually and collectively.¹²

Intrinsic and Extrinsic Motivation

The Economic Way of Thinking

Insights about intrinsic versus extrinsic motivation gained in the organizational psychology literature

can be usefully carried over to the process of economic development.¹³ The conventional economic way of thinking is especially vulnerable to misunderstanding the role of monetary incentives in spheres of life where intrinsic motivation is important. It tends to misinterpret short-run and temporary modifications in behavior as proof of the efficacy of economic incentives. Western managers are sometimes mystified by the Japanese practice of paying by seniority rather than by performance. Orthodox economists are bemused by Deming's New Economics, which recommends to "Abolish incentive pay and pay based on performance," e.g., to pay salespeople by salary rather than by commission.¹⁴ Surely the Japanese and Deming fail to grasp elementary economics.

Pigeons in a Skinner box may respond well to the piece rates of being paid a pellet of food each time a lever is pressed. But in the areas of human endeavor using the higher faculties, external motivators may soon fade or may fail to inspire the necessary quality of action. Moreover, the linkage between the desired result X and the external incentive Y can always be gamed. If the system is to do X only in order to get Y, then people may soon figure out how to only appear to be doing X or to do X poorly since, after all, the point is to get Y. For instance, billions of dollars of loans were released from international agencies to Russia during the 1990s because it appeared that the loan conditions to inaugurate serious reforms were satisfied. But now it is clear that the appearances did not reflect realities.

The argument is not to substitute no motivation for piece rates, commissions, and other forms of pay for performance. The point is to replace the external motivators with a strong system of intrinsic motivation. Deming recommends replacing a quality system based on external monitoring and quality bonuses with a system using (for the most part) trust based on self-esteem and pride in the quality of one's work.

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These points are most readily understood in the context of the professions. The medical system would hardly be improved by having doctors paid by piece rates. For similar reasons, blood donations that are given freely may have higher quality and be more trustworthy than those supplied for

payment. Intrinsic motivation is of prime importance in areas of human life where intelligence, creativity, diligence, and empathy are crucial. This is in contrast to the Tayloristic model of work as a rather brutish endeavor, or Skinner's model of operant conditioning.

Extrinsic and Intrinsic Incentives in Development Assistance

All these psychological¹⁵ points have implications for development assistance. Development is not well-served by economic theories that explicitly or implicitly treat developing countries as responding only to external motivation, just as organizations were not well served by Tayloristic or Theory X notions of extrinsic motivation. Political leaders and economic policy-makers in a developing country are embedded in a whole matrix of local institutional and cultural influences. That institutional matrix could be seen as the source of their intrinsic motivation and as a source of local ownership of policies. Short-term behavior can be altered by applying a layer of external incentives, such as loans with conditions to be satisfied in order for the money to be released. However, that usually does not alter the underlying institutional matrix, and thus the induced changes are not sustainable. Even the short-term behaviors are often not efficacious, since they are undertaken only to receive the external reward.

Development assistance should focus on changing the institutional matrix of policy-making, which is a more subtle and longer term affair. Organizational learning resulting from an active learning strategy will cut deeper into the institutional matrix than will passively acquired information. If no positive changes are occurring, then positive behavior induced by bribes is unlikely to change the underlying institutions. When little positive change is occurring to benefit the poor, then it is probably because those who benefit from existing institutions are well represented in the government and control the other levers of power. A classic example of this phenomenon is Hirschman's description of the quarter century of land reform efforts begun in the 1930s in Colombia, under a government heavily influenced by land-owning interests.¹⁶

Types of Development Knowledge

General versus Local Knowledge

Scan Globally, Reinvent Locally

Money travels better than knowledge. General knowledge holds across countries, cultures, and

times, while local knowledge takes account of the specifics of place, people, and time. "Every man is mortal" is general knowledge, while "Every vegetarian is a tourist" is local knowledge in Mongolia. A best practice might work well in some countries but fail miserably when recommended in other contexts. In questions of institutional development, it is very difficult to know a priori just how general a best practice is. Prudent counsel is to scan globally for best practices, but to test them locally, since local adaptation often amounts to reinventing the best practice in the new context.¹⁷ Many external experts have discovered painfully that the devil is in the local details. It is the local component of knowledge that requires adaptation—which, in turn, requires the active participation of those who know and understand the local environment.

Local Knowledge Institutions

Considerable effort is required to adapt development knowledge to local conditions and culture. Policy research institutes or think tanks are examples of local institutions that can play that important role. In the developed countries, think tanks have proliferated and have become important agents to introduce and adapt new policy initiatives. Think tanks or similar research institutions are no less needed to transplant social innovations to new contexts. The Japanese use a metaphor based on the gardening technique, called *nemawashi*,¹⁸ of slowly preparing and wrapping each root of a tree in order to transplant it. The chances of a successful transplant are much larger than if the tree is just pulled up in one place and planted in another (the horticultural version of shock therapy). However, in practice, development institutions often try a quicker transplant method. Visiting economists¹⁹ come in to give a senior policy seminar to local government officials, then return home, hoping that their sound advice will take root. The policy advice might even be backed up by conditions on policy-based lending to motivate the country to implement the best-practice recipes. Yet this policy reform process is designed to promote neither active learning nor lasting institutional change. As these reforms were externally imposed rather than actively appropriated by the country, there would be little ownership of the reforms. Compliance might be only perfunctory; the quick transplant might soon wither and die.

Those in the central organization or center who are legitimated in their expertise, prestige, and privileges by the supposed universality of their messages are disinclined to recognize limitations

or subtleties in the local applicability of their technical expertise. Novel complexity, genuine uncertainty, conflict of values, unique circumstances, and structural instabilities are all downplayed or ignored, since they might diminish the perceived potency of the center's expertise and undercut the client's faith in that potency. The client often wants the security and comfort of being in the hands of the professional expert who will solve the perplexing problems.²⁰

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These are some of the strong institutional forces to underappreciate the subtleties of local knowledge, to hamper the growth of autonomous client ownership, and to stymie the development of indigenous local knowledge institutions.

Codified Versus Tacit Knowledge

The Rest of the Iceberg

Explicit or codified knowledge is knowledge that can be spoken, written, and codified to be saved on a computer disk or transmitted over a telephone line. But we know more than we can say. We know how to ride a bike, to recognize a face, or to tell a grammatical sentence in our native language, but we would be hard put to turn this knowledge into explicit or codified knowledge to archive in a database for dissemination over the Internet. Michael Polanyi pioneered the distinction between tacit or personal, and explicit knowledge in philosophy of science, and the distinction has since proven important to understand problems in the transfer of technologies, not to mention the transfer of institutions.²¹ There is much more to a technological system than can be put in an instruction manual. The same holds a fortiori for social technologies or institutions. In a codified description of a best practice case study, the uncoded tacit knowledge is often the rest of the iceberg. Some tacit knowledge might be transformed into codified knowledge²² so that it could be transferred by conventional methods. But the remaining tacit knowledge needs to be transmitted by special methods such as apprenticeship, secondments, imitation, twinning relations, and guided learning-by-doing. These methods of transferring tacit knowledge might be called horizontal methods of knowledge transfer—in contrast to vertical methods where

knowledge can be codified and transmitted from teacher to student in a traditional top-down relationship.

Horizontal Learning Methods

The tacit component in local or general development knowledge is best learned through horizontal methods such as study tours, cross-training, and twinning. International development institutions have the perspective to know the success stories and thus to fruitfully play a match-making or facilitating role in horizontal learning. The various methods of horizontal learning differ substantially from the traditional classroom settings for vertical or top-down teaching.

- Study tours allow people to see how it is done in nearby societies. The Marshall Plan for the post-World War II reconstruction of Europe involved many horizontal techniques such as study tours of business leaders (business to business) and government officials. But study tours can easily turn into junkets with a thin educational gloss unless they are well-prepared, monitored, and followed by evaluations.
- Cross-training is being shown how to do it by those who have already done it, particularly in nearby societies. For example, farmers may visit other farmers who have mastered some new technique. Cross-training is the implicit knowledge alternative to being explicitly told how to do it by an international expert.
- Twinning or secondments pair similar organizations for a horizontal transfer of know-how. An example is alliances between banks in east and west Europe.
- Foreign direct investment might also be viewed as a method of horizontal learning. For instance, a major source of learning about lean production methods and their adaptation to American culture was Japanese direct investment in production facilities in the United States.

General Models for Knowledge-Based Institutions

A Church Model or an Open Learning Model?

We have focused so far on the problems of fostering knowledge-based development in developing countries. What do those problems imply for the development institutions themselves? The general argument should by now be clear. If the client is not to be a mug, passively receiving knowledge, then the development organization should not function as a jug, seeking to pour knowledge into the mugs (or give out fish or supply the answers).

What, then, is the overall institutional model for a knowledge-based institution? For instance, will an international knowledge-based development institution officially take a stand on the truth in matters of development, with the consequences that stance entails for alternative views, experiences, and shades of opinion? Or will it function more as a university without students or an open learning organization where diverse opinions might collide in open debate, and where the institution itself does not espouse a particular dogmatic truth?

The Church Model of Branded Knowledge

The medieval Roman Church is an old stereotype of a closed church-like organization that has the truth, while the Soviet Communist party is a more recent example. In the course of European history, the period dominated by the Roman Catholic Church, an institution that ostensibly possessed the truth, is today known as the Dark Ages. During the Renaissance, Reformation, and Enlightenment, the west slowly emerged from what Immanuel Kant called humanity's "self-incurred tutelage" to those who had the truth. Progress was made not by finding a new truth as the object of devotion for the faithful, but by developing the scientific method, which emphasized the will to doubt and be critical, the use of repeatable experiments where possible to corroborate or disprove theories, and the general substitution of critical reason for the external voice of authority. It is doubtful that a knowledge-based organization would today explicitly adopt a church model. But the important thing is not the label or espoused model, but the actual model of operation in use. How might an open learning model operate?

A university is, ideally, an open learning organization that does not set itself up as an arbiter of truth, but as an arena in which contrary theories can be examined and can collide in open debate. If, however, an organization takes official views on questions, or considers its views as branded knowledge, then the genuine collision of adverse opinions and the rule of critical reason will tend to give way to the rule of authority and bureaucratic reason within the hierarchy of the organization. Examples include the Soviet theory of genetics or the University of Utah theory of cold fusion. The authorities in the organization naturally decide the official views of the organization that are expressed to the world and would tend to shut off any feedback loops that might expose any errors in the official views and damage the image, subtract from the franchise value of the brand name, and undermine the authority of the organization's ex-

perts. Learning from errors, which involves changing official views and modifying branded knowledge, is minimized so that the organization tends to function more as a secular church than as an open learning organization—regardless of the officially espoused model. That, in turn, has many consequences for the possibilities of autonomous development and active learning. The gardener wants only his or her own seeds to grow; all else are weeds.

The church approach has implications for the question of client-centered versus paternalistic approaches to learning. The problems of economic development, like many problems of business, rarely yield to one-best-way thinking. For instance, there are many complementary approaches to the persistent problem of curbing corruption. Economists might approach the topic by trying to minimize government-imposed discretionary regulations, which present rent-seeking opportunities to officials to relax a restriction for appropriate consideration. Accountants might emphasize transparency and uniformity of data and the independence of auditing. Civil servants might emphasize codes of ethics and disclosure requirements. Lawyers might encourage civil discovery procedures and criminal sanctions. Others will promote a free and independent press, a high standard of public ethics, and a vigorous civil society. There are clearly many ways to approach the topic. In the absence of one best way, a multipronged approach seems advisable. Yet the church mentality might express alarm and dismay when different groups in an international development institution take different approaches to fighting corruption, and when these different views are aired at international conferences. How can the clients avoid the risk of thinking for themselves in order to put themselves in the hands of the experts, if the latter cannot agree on the one best way?

One source of the church mentality is that experts do not want clients to be confused or led astray by alternative viewpoints, or heresies. Officials should not disagree in public, just as parents should not argue in front of the children. This sort of knowledge management may lead in the short term to client approval of the project, but it short-circuits the client's informed ownership of the project to the detriment of its long-term sustainability. The organization should either have intellectual self-confidence in spite of the client's hearing an alternate viewpoint, or it should acknowledge that experts may differ on the topic and that the client might want to perform some local experiments to see what works.

From the client's viewpoint, an argument heard

in isolation might sound convincing but the wisdom of experience says that the argument should not be accepted until one hears the alternatives and can judge the proposal relative to the alternatives. Unfortunately, some clients do not want responsibility for their decisions. They are, for their own reasons, more than willing to follow the directives of the experts. If the project fails, they will have someone else to blame, and if by chance it succeeds, they will be praised for following good advice. The project will lack clear local ownership until it is obviously a success. But that time may never come, if the provision for failure becomes a self-fulfilling prophecy.

Does Funding Turn Project Assumptions into Gospel?

The question of knowledge management is particularly sensitive in an agency that funds projects based on theories, analyses, and project assumptions. This is in contrast to university professors, who usually do not invest organizational resources based on their theories. It is quite understandable that individual project managers want the project assumptions to be treated as gospel once the money has been committed. Commitment of money or other resources tends to affect even psychological perceptions.²³ For instance, subjective assessments of winning probabilities tend to increase after bettors at a race track place their bets. But horses do not run faster when bets are riding on them. Theories are corroborated by evidence, not by money. Many businesses have come to grief because managers would not revisit strategies after initial costs were sunk.

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In view of the record of international development aid, there is little support for the similar practice of seeing project assumptions as hardening into gospel because of the commitment of funds.

Devil's Advocacy in an Open Learning Organization

A judge should not go to the jury before both sides of the arguments have been heard, and a patient should not go to surgery before getting a second opinion. Even the Roman Catholic Church, when considering someone for sainthood, has a devil's

advocate (*advocatus diaboli*) to state the other side of the story. An organization should not pretend to greater authority or infallibility when it canonizes a success story as a best practice. Thus devil's advocacy might not only be tolerated, but fostered in an open learning organization. Devil's advocacy²⁴ is interpreted broadly to include a number of related techniques to better elicit the main policy alternatives.²⁵

The general case for a more systematic devil's advocate role is much the same as the case for genuine debate and open discussion. The locus classicus for that argument is John Stuart Mill's 1859 essay *On Liberty*. If little is known on a question, then real debate and the "clash of adverse opinions" are some of the best engines of discovery. If "partial truths" are known, then debate is necessary to ferret out a clearer picture and to better adapt theories to new and different contexts. Mill argued that even in cases of settled opinions, debate and discussion serve to disturb the "deep slumber of a decided opinion," so that it might be held more as a rational conviction than as an article of faith.

So essential is this discipline to a real understanding of moral and human subjects, that if opponents of all important truths do not exist, it is indispensable to imagine them, and supply them with the strongest arguments which the most skillful devil's advocate can conjure up.²⁶

Intellectual liberty and tolerance is fundamental to the heritage of the Reformation and Enlightenment. Free discussion and debate fueled by the collision of opposing opinions is the best security against error. These principles of philosophical liberalism were first hammered out in the battle for religious freedom. Jefferson asked that his tombstone record that he was the author of the Virginia's 1779 Bill for Establishing Religious Freedom, as well as an author of the U.S. Constitution and the founder of the University of Virginia.

The Open Learning Model

What is wrong with espousing the best practices from successful development as well as promoting the underlying guiding principles? Should international development organizations be agnostic on the questions of development and treat all opinions as having equal weight? To approach these questions, it is useful to consider the methodology of science. Science as a loosely structured international open learning organization is hardly agnos-

tic in any given area. All opinions are not given equal weight. Certain theories are the received or current theories in a field. The difference from a church lies in the methodology used to sustain or overturn the hypotheses. In mathematics, proof, not authority, is the basis for theorems. In the empirical sciences, hypotheses are developed on the basis of intellectual coherence and factual cues, and are then openly subjected to experiments that can be verified and reproduced.

The methodology of science shows, at least in general terms, how an open learning model of a knowledge-based development institution might operate. The important thing to teach a client is not the truth but the active learning methodology to find and corroborate or disprove truths (i.e., hypotheses and theories). For instance, if a knowledge-based development organization wants to promote one best method of reforming or changing certain institutions (e.g., the best model of fighting corruption or the best form of privatization), then it should be willing to share the source of that knowledge. This would help to promote some experiments in the country or company to corroborate such a hypothesis or to validate a local adaptation, and to encourage horizontal cross-learning from similar experiments documented in the organization's knowledge management system. This would occur before the reform is accepted as a blueprint for the country or company as a whole. The message to policy-makers is:

- To the best of our accumulated experience, which we deem to call knowledge, these case studies describe what works best in situations like yours.
- Why don't you study these principles together with their corroboration to date (best practice success stories).
- You might also contact the people who designed these reforms and set up horizontal learning programs with the best practice cases.
- Finally, you might maintain and promote an experimental attitude to see what actually works in your own case.

To impose a model without this local learning process would be to short-circuit and bypass the active learning capability of the local policy-makers, to substitute authority in its place, and thus to perpetuate the passivity of tutelage.

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to the World Bank, to its affiliated organizations, or to the members of its Board of Directors or the countries they represent.

Endnotes

¹ For an excellent summary of education, broadly conceived, in development prior to the more recent concept of knowledge-based development, see Simmons, J. 1979. Education for Development, Reconsidered. *World Development* 7, 11/12 (Nov/Dec), 1005-16.

² See the analysis of "shifting the burden" as the "generic dynamics of addiction" in Senge, P. 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization*, 104-113. New York, Currency Doubleday.

³ Hirschman, A. 1973. described his book *Journeys Toward Progress*, New York: Norton, originally published in 1963 as being about "dependencia—perhaps best translated as lack of autonomy" (p. v).

⁴ See Lindblom, C. 1990. *Inquiry and Change*, New Haven, Yale University Press, for analysis of how "professional policy analysis" may actually impair probing and learning.

⁵ See Dewey, J. 1916, *Democracy and Education*. New York, Free Press; Chomsky, N. 1966, *Cartesian Linguistics*. New York, Harper & Row.

⁶ See Christensen, C.R. 1991. Garvin, D.A. and Sweet A., eds. *Education for Judgment*. Boston, Harvard Business School Press.

⁷ See Salmen, L.F. 1987. *Listen to the People*. New York, Oxford—A World Bank Publication.

⁸ See Freire, P. 1970. *Pedagogy of the Oppressed*. New York, Continuum.

⁹ See Rondinelli, D. 1983. *Development Projects as Policy Experiments: An Adaptive Approach to Development Administration*. London, Methuen.

¹⁰ Recall the Shewhart-Deming Plan-Do-Check-Act or PDCA cycle of the quality management literature.

¹¹ See the World Bank Chief Economist Joseph Stiglitz's Prebisch Lecture given at UNCTAD (Geneva) in October 1998: *Towards a New Paradigm for Development: Strategies, Policies, and Processes*. (Washington: World Bank, 1998). Speeches might be obtained from the Bank's website at <http://www.world-bank.org>.

¹² Elmore, R. 1991. Foreword. *Education for Judgment*, xvi. Christensen, C.R., Garvin, D.A., and Sweet, A. eds. Boston, Harvard Business School Press.

¹³ See Deci, E. and Ryan, R. 1985. *Intrinsic Motivation and Self-Determination in Human Behavior*. New York, Plenum Press; Kohn, A. 1993. *Punished by Rewards*. Boston, Houghton Mifflin; or Hirschman, A.O. 1992. *Rival Views of Market Society*. Cambridge, Harvard University Press; ("noninstrumental activities") for these themes and a review of the literature.

¹⁴ Deming, W.E. 1994. *The New Economics for Industry, Government, Education*, 28. Cambridge, MIT Center for Advanced Engineering.

¹⁵ "All [vicious development] circles result from the two-way dependence between development and some other factor, be it capital or entrepreneurship, education, public administration, etc. But the circle to which our analysis has led us may perhaps lay claim to a privileged place in the hierarchy of these circles inasmuch as it alone places the difficulties of development back where all difficulties of human action begin and belong: in the mind." Hirschman, A.O. 1958. *The Strategy of Economic Development*, 11. New Haven, Yale University Press.

¹⁶ In Hirschman 1973 op. cit.

¹⁷ "The significance of this point of view is that contrary to the simplistic use of the term by many economists, there is, in

principle, no such thing as diffusion of best practice. At best, there is only the diffusion of best practices, that evolve in the course of their diffusion. Contrary to popular wisdom, there are times when it pays to reinvent the wheel!" Cole, R.E. 1989. *Strategies for Learning*, 117. Berkeley, University of California Press. "Every alleged example of local implementation of central policy, if it results in significant social transformation, is in fact a process of local social discovery." Schön, D. 1971. *Beyond the Stable State*, 161. New York, Norton.

¹⁸ "It is a time-honored Japanese gardening technique to prepare a tree for transplanting by slowly and carefully binding the roots over a period of time, bit by bit, to prepare the tree for the shock of the change it is about to experience. This process, called *nemawashi*, takes time and patience, but it rewards you, if it is done properly, with a healthy transplanted tree." Morita, A. 1986. *Made in Japan*, 158. New York, E.P. Dutton.

¹⁹ See Seers, D. 1962. Why Visiting Economists Fail. *Journal of Political Economy* 70, 4 (August).

²⁰ See Schön's treatment of the technical expert in contrast with reflective practitioner in Schön, D. 1983. *The Reflective Practitioner*. New York, Basic Books.

²¹ Polanyi, M. 1962. *Personal Knowledge: Towards a Post-Critical Philosophy*. Chicago. See also Oakeshott, M. 1991. *Rationalism in Politics and Other Essays*. Expanded ed. Indianapolis, Liberty Fund., for a treatment of "practical knowledge" versus "technical knowledge," and see Schön, Ibid, for a related treatment of professional versus instrumental knowledge.

²² See Nonaka, I. and Takeuchi, H. 1995. *The Knowledge-Creating Company*. New York, Oxford University Press.

²³ When predictions fail, then skewed perceptions and rationalizations are a likely outcome. See Festinger, L., Riecken, H., and Schachter, S. 1956. *When Prophecy Fails*. New York, Harper Torchbooks.; and Festinger, L. 1957. *A Theory of Cognitive Dissonance*. Stanford, Stanford University Press.

²⁴ See Schwenk, C.R. 1984. Devil's Advocacy in Managerial Decision-Making. *Journal of Management Studies*, April, 153-68.

²⁵ A *Cassandra's advocate* [see Janis, I.L. 1972. *Victims of Groupthink*, 217. Boston, Houghton Mifflin.] is a person who emphasizes alternative interpretations of data and focuses on all the things that can go wrong ("Murphy's Law-er"). The *Rashomon effect* [see Schön 1971 op.cit., 210] illustrates that the same set of circumstances and events can be interpreted very differently by different people. Discussion organized as a debate between the proposed policy and the best alternative has been called the *dialectical method* [see Schwenk, C.R. 1989. A Meta-Analysis of the Comparative Effectiveness of Devil's Advocacy and Dialectical Inquiry. *Strategic Management Journal* 10, 3 (1989), 303-6]. *Multiple advocacy* [see Haas, E.B. 1990. *When Knowledge is Power: Three Models of Change in International Organizations*, 210. Berkeley, University of California.] and *double visioning* [see Schön 1983 op.cit., 281] refers to the practice of not only allowing but fostering the presentation of two or more policy options.

²⁶ Mill, J.S. 1972. On Liberty. *J.S. Mill: Utilitarianism, On Liberty and Considerations on Representative Government*, 105. Acton, H.B. ed. London, J.M. Dent & Sons.

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