Development Dichotomies

Paul P. Streeten

Economists consist of two groups: those who don’t know, and those who don’t know that they don’t know.

—WIREDY ACCEPTED SAYING

The world is divided into two groups of people: those who divide the world into two groups of people, and those who don’t. As I evidently belong to the former, I believe that the nature of various divisions can throw light on what has come to be known as the rise and decline of development economics.

Albert Hirschman, in his stimulating contribution to the international symposium on Latin America at Bar Ilan University in 1980, used two criteria for classifying development theories: whether they asserted or rejected the claim of mutual benefits in North-South relations; and whether they asserted or rejected the claim of monoeconomics that there is a single economic discipline, applicable to all countries and at all times. Using this classification, he derived four types of theories. Orthodox (neoclassical) economics asserts both claims. Neo-Marxist and dependence theories reject both claims. Development economists tend to reject the monoeconomics claim—the reason for their existence calls for a distinct subject—but to assert the mutual benefit claim, whereas paleo-Marxists assert the monoeconomics claim (except insofar as class determines consciousness) but reject the mutual benefit thesis.

One may want to quibble with Hirschman’s classification. Development economists constitute a large group, many of whom would reject the mutual benefit claim without regarding themselves as neo-Marxists or dependence theorists. Others would assert the unity of economics, while considering it legitimate to carve out special areas for development economics, to which particular branches or modifications of the single disci-

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pline apply. In other words, there are development economists who analyze interest conflicts, and development economists who are neoclassical. Jon Elster has pointed out that Marx in his *Theories of Surplus Value* makes the point that capitalist countries exploit "backward" countries even though both parties gain from exchange. And Joan Robinson wrote: "The misery of being exploited by capitalists is nothing compared to the misery of not being exploited at all." Mutual benefit is therefore not denied.

Hirschman attributes the decline of development economics (as reflected, for example, in the difficulty of filling chairs in development economics) to a combined (though not concerted) onslaught from both neoclassical economics (with the charge of misallocation resulting from deviation from neoclassical principles) and neo-Marxist economics (with the charge of justifying dependence and exploitation). He also attributes its fall to the political disasters that struck many countries of the Third World.

**Unity in Diversity**

In 1963 Dudley Seers argued that the economics of the North does not apply to the different societies of the South. Twenty years before that, Paul Rosenstein-Rodan suggested that indivisibilities, complementarities, externalities, and economies of scale were concepts much more relevant to

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4. Though not as reflected in the attendance at an 8:00 A.M. meeting of the American Economic Association at which the economics of development and the development of economics were discussed.
developing economies than to those of the already industrialized countries.6

The "economics of the special case," applicable to advanced industrial societies, had to be broadened to encompass different relationships. Stimulated by the generalization of the "special case" of fully employed economies to conditions of industrial unemployment in advanced countries, Rosenstein-Rodan, Arthur Lewis, and others broadened our vision to encompass underemployment and low labor utilization in underdeveloped countries. Although it was later discovered that labor utilization in poor countries introduces quite different issues from those raised by Keynes for advanced countries, and although some of the writings criticized the application of Keynesian concepts to underdeveloped countries, there can be no doubt that Keynes's attack on orthodox economics provided a stimulus for the exploration of labor use in developing countries. Joan Robinson's analysis of disguised unemployment in industrial countries provided the inspiration for the analysis of underemployment in underdeveloped countries.7

Albert Hirschman, among others, has noted that the exploration of Southern societies, with different tools of analysis, has often led to new illuminations and discoveries in our own Northern societies, thereby reestablishing the unity of the analysis. Hirschman cites the case of underemployed rural labor, "development with unlimited supplies of labor," the role of labor surpluses in European economies, and theories of dual labor markets on the one hand, and the analysis of underemployed resources in developing countries that have to be activated and theories of satisficing and X-efficiency, on the other. My own work on the production function, in collaboration with Gunnar Myrdal in Asian Drama,9 similarly showed that many of the criticisms originally developed for South Asia also apply to Western Europe and the United States. Dudley Seers's odyssey from the economics of the special case to the discovery of dependency and dominance within Europe and even within a single European country is another illustration. Structuralist theories of inflation, originally constructed for the underdeveloped countries, also found new application in the advanced countries of the North. Clearly, much of the work on the

8. Hans Singer has pointed out to me that the influx of foreign workers into European economies was the result of the pressure of excess demand for labor, whereas in developing countries there was excess supply. Today, when we suffer from a labor surplus, the story is quite different. It is also true that the theories of dual labor markets in industrial countries have developed without influence from the developing-country models.
advanced countries had been done independently and in ignorance of development work. But the parallels and coincidences are remarkable.

Dudley Seers, in his recent provocative essay entitled “The Birth, Life and Death of Development Economics” in the volume of essays in honor of Kurt Martin, writes:

Virtually all countries are suffering now from structural rather than global problems. For very few would an acceleration of growth *per se* be a solution to social problems such as unemployment. All countries face powerful external forces, especially the policies of the transnational corporations, and experience the strains of absorbing modern technology. So insights from the development field could usefully be imported into the social sciences in the so-called developed countries too, which include several where neo-classical analysis and prescription did not once seem obviously implausible. I refer to appropriate technology and concepts familiar in Latin American writings, such as self-reliance, marginalization and cultural dependence.\(^{10}\)

The examples could be multiplied in which an analysis originally designed for underdeveloped economies finds application in the most developed. They range from small-scale technology in the face of energy shortage and the alienating effects of large-scale organizations, to lessons from the study of caste with relevance for trade union rivalries (craft versus industrial unions) in industrial countries, to the analysis of the “Dutch disease,” first explored by Arthur Lewis for Jamaican bauxite and Dudley Seers for Trinidad oil, long before it gained respectability through Dutch natural gas. But, as Albert Hirschman says, “whereas such a finding makes for reunification of our science, what we have here is not a return of the prodigal son to an unchanging, ever-right and -righteous father. Rather, our understanding of the economic structure of the West will have been modified and enriched by the foray into other economies.”\(^{11}\)

The move toward awareness of the universal nature of some problems originally explored in the development context was accompanied by growing differentiation of countries in the Third World to the point where it could be questioned whether a special branch of economics—development economics—applied to them all. To some extent this was the result of the analysis of the coexistence of different countries at different stages of development, and their interaction. The relations between richer and poorer countries were reflected both within the industrial and among the developing countries, and the analysis of these relationships followed along a spectrum or a hierarchy with both greater differentiation and unification.

The history of development economics can be regarded as a progress

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from large generalizations and high abstractions to greater specificity and concreteness. This applies to countries within the Third World, which was found more heterogeneous than originally thought, as well as to concepts such as national income or employment. Many early errors in development theory resulted from the transfer of assumptions and relations from one country or region to others, where they did not apply. No longer was it thought that each country must be studied in its unique specificity, or that useful generalizations can be made for all countries in the Third World; but there was a move toward a country typology, regarded as useful for the application of policies. The principal criteria in this typology were country size (measured by population), which is relevant to the importance of foreign trade and the scope for using labor-intensive techniques for exports, degrees of dualism and labor surplus, relevant to the application of different models of development; endowment with natural resources and particularly an indigenous energy base which distinguishes oil exporters from oil importers; relative size of the agricultural and the industrial sectors; and government strategies.

In combination, the two discoveries—that many problems of the countries of the South are shared by the North, and that few problems are common to all countries of the South—contributed to the decline of the early certainties, or at least the large generalizations, of development economics.

Mutual Benefits versus Conflict

The mutual benefit thesis is not as straightforward as may appear at first sight. Even when there are benefits for all, the division of them may give rise to conflict. A pure concession or sacrifice by one partner, however, may contribute to an order that is regarded as fair and acceptable, and is therefore accepted. Acceptance of this order may contribute to peace and help avoid confrontations and conflicts, and therefore turn out to be in the long-term interest of the partner making the concession.

A related point is the question of the meaning of welfare. It is not just a matter of command over economic resources, but command in relation to wants. Gains from, say, international trade have then to be assessed in relation not only to additional income but also to additional wants, expectations, and aspirations that are generated by the extra income. It is then quite possible, indeed likely, that gains in income are accompanied by losses in welfare, because wants grow faster than command over resources—the appetite grows faster than what it feeds on. This is not largely because of advertising and sales promotion, but it is often the result of the unequal division of the gains from trade; even with equal division between countries, there can be greater inequalities within countries. The inequalities contribute to the reference groups whose income levels shape the
wants of the lower groups. On this definition of welfare, it is then possible that the countries with large gains from trade fail to benefit because their internal inequalities are great, and the developing countries do not benefit because international inequalities are great. It is, of course, possible to define welfare in a different way, such as a widened range of choice, though this definition has been disputed by psychologists.

The mutual benefit thesis might be seen as the old harmony doctrine served in a new sauce, and it is doubtful whether anybody seriously believed in it, except in a very extenuated form or for purposes of political propaganda. This is not to deny that there are areas of action from which all participants benefit, particularly international trade and capital movements. And attention should be given to full exploration of these areas, particularly where there are obstacles to the achievement of these interests. But it would be a strange fluke of coincidence if these were the same actions that would have to be taken to pursue developmental goals—whether of growth, or growth with equity, or basic needs. The extenuated version is the one that would place international solidarity and morality under the heading “benefits.”

It is also doubtful whether development economics asserted universally the mutual benefit thesis. Surely many writers saw the existence and possibility of conflicts of interest between nation states. Very few moral philosophers would attempt to construct a political theory on purely egoistic lines. Why then try to construct an international economic theory for national egoisms? Since we all accept the readiness of individuals to sacrifice their interests to the national community, the challenge of normative development economics is to construct the moral and institutional basis for applying sentiments and principles of solidarity beyond the national frontiers to the fledgling world community. Another obvious objection to the current fashion of the mutual interest thesis is that, where mutuality exists, people usually act accordingly (with some exceptions such as prisoner’s dilemma situations in which rational, self-interested action leads to mutual impoverishment), and no great economic, political, or philosophical analysis is needed to propagate such action. The challenging task is not to show areas of common or mutual interests or benefits, but to show how conflicts, when they arise, can be resolved.

The current preoccupation with mutual and common interests (the two are not the same, though often confused) is surprising in view of the fact that national policies are not normally justified on grounds of mutual and common individual, household, or local interests, social contract theories notwithstanding. Most of us accept the principle that the rich have an obligation toward the poor in the national community. Once this is accepted, the question arises whether humanity is a community in the same sense. It is, of course, possible to reject this on social contract grounds: why should I do anything for the world since it has done nothing for me? But there are embryonic global institutions that do render services
to their members, and a social contract is not the only ground on which obligations by the rich to the poor can be justified.

Even if such global obligations were accepted, the objection may be raised that the existence of nation states and national governments interferes with the discharge of the obligations of individual rich members to individual poor members. No doubt there is something in this objection. Those advocating development aid, and North-South cooperation generally, on the moral ground of the obligation to help the poor have not devoted enough time and effort to showing that such efforts actually achieve their aim, or, if not, how these efforts should be designed so that they do achieve the aims, without infringing too much on national sovereignty. As a result, attacks on aid by an alliance of left and right have, with a few notable exceptions, not been seriously answered by the proponents of aid. The principal reason moral obligations must be accepted by governments (as well as by individuals) is that certain objectives can be achieved only through collective action, as in developing indivisible projects, or stepping up growth rates by adding foreign savings in the form of aid, or intervening on behalf of children of poor households, a particularly vulnerable and particularly neglected group. In such situations, in order to express the moral motives of each individual, it is necessary to force others, and oneself, to contribute (through taxation) if the aim is to be achieved.

**Formal versus Informal Intellectual Sectors**

Another distinction is suggested in a sentence by Dudley Seers.\(^{12}\) It has its analogy in the distinction between the two sectors in developing countries: one sophisticated, organized, modern, large-scale, and “formal”; the other simple, nonorganized, small-scale, and “informal.” The formal sector is cultivated by the economics departments of the established universities where students are trained in sophisticated techniques and where the standards of excellence are derived from the discipline. The informal sector is made up of what the profession often dismisses as cranks, dissidents, “poets,” journalists, and novelists.\(^{13}\)

The insights of members of the informal sector have three advantages over those of the formal sector. First, these people often know better how to communicate with a wide audience. They do not use jargon and do write simply and vividly. Second, they use their eyes and ears and tell what they observe. Third, not having been drilled in the professional paradigms

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13. E. F. Schumacher once wrote (in an unpublished paper): “Some people call me a crank. I don’t mind at all. A crank is a low-cost, low-capital tool. It can be used on a moderately small scale. It is non-violent. And it makes revolutions.”
and being free of the blinkers that these impose, they often treat important issues ignored by the professionals. But since they do not have a rigorous formal framework, their insights, in spite of widespread impact, are often ephemeral and fade out fairly soon.

The formal sector has the virtues of its defects. It attracts brilliant students and generates a body of knowledge that can be admired, taught, and elaborated. But its elegance diverts attention from its irrelevance. In isolating the quantifiable and technically tractable and neglecting the rest, workers in the formal sector occasionally pour out the baby instead of the bath water.

Areas in which the informal sector has pioneered advances are corruption, the culture of poverty, and global concerns. The profession, understandably, has focused on the nation state. Concerns at a much lower level and at a transnational level (not the same as international concerns) have been relatively neglected.

David Henderson, in a review of a book by Albert Hirschman, suggests that one way of classifying economists is to distinguish “constructivists” from sceptics. The former group, while recognizing that orthodox economic analysis is far from all-embracing, chooses nonetheless to emphasise its usefulness in relation to issues of policy, and the dangers of ignoring or going against it. By contrast, the sceptics acknowledge that the orthodox approach is both elegant and helpful within its limits, but prefer to stress the narrowness of these limits, and the inadequacy of the theory both as a guide to social reality and as a basis for deciding policy.14

This is a useful distinction. It raises interesting questions about the relations between these two groups. Clearly, the sceptics would have nothing to work on were it not for the constructions of the constructivists. But, the constructivists would lapse into dogmatism were it not for the sceptics. Almost every economist contains elements of each of the two groups. On the one hand, the sceptics, when they go their classrooms or give practical advice, cannot do without the kit of the constructivists. On the other hand, some of the most distinguished members of the profession, when they give presidential addresses, sound the tone of the sceptics, though they return to constructivist activities in their daily work. Among these doyens of the profession are Henry Phelps Brown, David Worswick, Wassily Leontief, Ragnar Frisch, Frank Hahn, Kenneth Arrow, and Lloyd Reynolds.15 Could it be that this reflects a tension in their subversions between accepting and rejecting the orthodox paradigm?


It is possible to hold the view that the most important function of a
construction, be it a model, a paradigm, or a theory, is to show up the
limitations of other constructions and thereby add to the flexibility of our
intellectual muscles, rather than to shed light on reality. Their function is
therapeutic, not didactic. The introduction of institutional considerations
in the analysis of rural land/debt/wage relationships by neo-Marxists
shows up the limits of neoclassical analysis, but equally neoclassical
analysis shows that the crust of institutions can be broken, as well as
hardened, by market forces. An analysis of intrafamily relationships in
terms of time allocation and maximizing behavior can throw light on an
alternative analysis conducted in terms of power relations and force, and
vice versa. For reasons such as these, it is of the utmost importance to keep
the dialogue between different ideological schools in development studies
going, and not to permit a breaking up into noncommunicating groups.

Flat Earthers versus Round Earthers

Ian Little divides development economists according to a different
criterion. He says (in private correspondence with me) that he does not
regard stages of growth and W. W. Rostow (the division suggested by me)
as being very important or dominant. "At least until fairly recently I see the
story as one of a battle between structuralists who see the world as
bounded and flat, and consisting of stick-in-the-muds, who have to be
drilled—and neoclassicists who see it as round and full of enterprising
people who will organize themselves in a fairly effective manner!"

Little's distinction is an important one and underlies much of the
dispute between neoclassicists and structuralists. If one believes that re-
sources, in response to the right incentives, flow easily and quickly, at
minimal costs, from one line of activity into another, so that the economy
is rather like toothpaste or syrup, the implications for policymaking and
for mutual benefits are quite different from what they are if one believes
that the economy consists of hard, specific pieces of capital goods and
individuals trained in specific skills and located in specific areas, who can
be remolded only at great cost, or after a long time, or not at all.

The neoclassicists stress the importance of getting prices right. Peter

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16. The distinction has been elaborated in I. M. D. Little, Economic Development:
Theory, Policy, and International Relations (New York: Basic Books, 1982).

Assumptions and Non-Observed Facts," American Economic Review (1971); Ken-
neth Arrow, "Limited Knowledge and Economic Analysis," American Economic Re-
Economic Review (1973); Sir Donald MacDougall, "In Praise of Economics," Eco-

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Timmer’s remark remains valid: “Getting prices right is not the end of economic development, but getting prices wrong frequently is.” Everybody would agree that other things are necessary for efficient and equitable management of an economy, but there is disagreement about the relation between the correct prices and these other measures. According to one interpretation, getting prices right without the other measures is better than nothing. According to the other, the combined set of measures is necessary and the “right” prices by themselves may leave things unchanged or make them worse. Overvaluing a single element in a complex system such as that of prices (in this view) is worse than overvaluing the currency.

If a country suffers from one type of evil (such as very unequal land distribution) the addition of another evil (such as the “distortion” of low food prices) may improve things. An early formulation of the theory of the second best by Pigou during the Great Depression is apt: “A man ordered to walk a tight rope carrying a bag in one hand would be better off if he were allowed to carry a second bag in the other hand, though of course if he started bagless to add a bag would handicap him.”

A difficulty with the distinction between neoclassicists and structuralists is that, though their arguments are inspired by different visions of the world, the debate is often about instruments. In this debate, instruments that form part of a complex kit are then singled out and identified with the ultimate purpose they serve. Thus the success stories of the Republic of Korea and Taiwan are used by orthodox economists to proclaim export promotion as the key to equitable and rapid growth. And export promotion in turn is often identified with the absence of government intervention and the free play of market forces. But the reasons for the success of Korea and Taiwan are much more complex. The countries promoted labor-intensive import substitution as well as exports; early import substitution led to later exports; the labor force employed in exports is a small proportion of the total labor force; and government intervention as well as the public sector played a very important part. In my view, the singling out of export promotion through liberal trade policies is a false account of the success stories.

19. Sukhamoy Chakravarty has pointed out that both grossly oversimplify the problems posed by the costs of information in implementing economic policies.
The structuralists tend to be equally guilty of oversimplification. Having correctly observed and analyzed numerous occasions when the market malfunctioned, they immediately jump to the conclusion that central state action must replace it, in spite of evidence that some state interventions have produced results worse than the market. Instead of concluding that the state should incorporate the market as a powerful instrument of planning, and prices as useful instruments of policy, they dismiss them.

There is a deeper issue underlying Little's distinction. It is whether measures introduced to cushion the victims of the competitive struggle, or measures to ensure fairness in the allocation of resources, may be not merely ineffective, but counterproductive. There has been a large literature on the detrimental effects of social security on incentives, the misallocation caused by equitable controls that encourage “rent-seeking” activities, and the way monopolies are reinforced by what Raj Krishna has called “first-round socialism.” There is a smaller body of literature on the detrimental effects of international aid, although a good deal has been written on food aid. The advocates of the compassionate society and world solidarity have to think harder about how to achieve their objectives in these areas without cutting away the ground on which they stand.

This is the place to remember two pioneers of development economics, now dead, who were both opposed to state intervention, central planning, and protectionism, but whose vision of the world was quite different. We owe them many now widely accepted ideas.

Ragnar Nurkse wrote at a time when the accumulation of physical capital was considered to be of strategic importance in the development process: “The problem of development is largely . . . a problem of capital accumulation.” He analyzed carefully not only the limits then generally recognized to be set by the supply of savings, but especially those set by demand: “The inducement to invest is limited by the extent of the market.” Allyn Young’s reinterpretation of Adam Smith’s famous dictum that the division of labor was limited by the extent of the market was the starting point of Nurkse’s analysis of balanced growth. Together with its obverse—that the extent (size) of the market is limited by the division of labor; that is, by the application of capital—the two propositions provide the basis of economic progress.

Nurkse was interested in the links between international trade and development. He was pessimistic about international trade as an engine of growth and therefore stressed the balanced expansion of domestic markets in accordance with income elasticities of demand. But he did not draw protectionist conclusions from his trade pessimism, nor did he believe that balanced growth necessarily called for central planning. He thought that

prices could be allowed to do their work in guiding the allocation of factors of production.

Some of Nurkse’s doctrines have not survived the test of time. Although his emphasis on capital accumulation and industrialization has been confirmed by experience, until the 1970s trade turned out to be much more buoyant than he had expected. The international demonstration effect, which he took over from James S. Duesenberry and applied to international trade, was not as powerful a course of balance of payments deficits as he had thought. Disguised unemployment, implying zero marginal productivity of agricultural labor, was found flawed both logically and empirically. But Erik Lundberg was insightful when he wrote in his introduction to Nurkse’s Wicksell Lectures (1959) about “the delicate manner in which he uses—but does not overuse—available statistics, as well as his sense for finding balanced proportions between theory and historical fact in interpreting the trends of economic development.”

As other pioneers have shown, in economics it is not important to be right.

The second pioneer is Jacob Viner. Though he had his odd quirks—working with a model based on perfect competition and full employment and insisting on the prevalence of increasing unit costs, dismissing all forms of state planning and intervention, and passionately advocating free trade—he was prescient in his emphasis on agricultural improvement as a precondition for development. He was also a lone, early voice stressing the need to pay attention to reductions in absolute poverty as a test of development. In fact, he is a very early advocate of basic needs.

Were I to insist, however, that the reduction of mass poverty be made a crucial test of the realization of economic development, I would be separating myself from the whole body of literature in this field. In all the literature on economic development I have seen, I have not found a single instance where statistical data in terms of aggregates and of averages have not been treated as providing adequate tests of the degree of achievement of economic development. I know, moreover, of no country which regards itself as underdeveloped which provides itself with the statistical data necessary for the discovery of whether or not growth in aggregate national wealth and in per capita income are associated with decrease in the absolute or even relative extent to which crushing poverty prevails.

In discussing obstacles to development Viner writes: “The first requirements for high labour productivity . . . are that the masses of the population shall be literate, healthy, and sufficiently well fed to be strong and energetic.” He is thus a pioneer of the basic needs approach, both in its

humanitarian and in its human productivity aspects. He also clearly saw
the problems caused by population growth and argued that the rate of
growth will decline only after higher income levels have been reached.

Viner remained an inveterate nineteenth-century free trader and resisted
the claims of the central planners, the protectionists, and to a large extent
even the Keynesian revolutionaries. He was an opponent of official de-
velopment assistance. Viner is critical of the moral basis of development
aid. International charity he saw as an inferior instrument of international
cooperation: "Unlike private charity, intergovernmental gifts on a recur-
rent basis are bound to accumulate protocol, conditions, limitations,
humiliating to the recipient to comply with and ungracious of the donor to
exact."

"As an economist, I revert to the ungracious role of my predecessors of
the nineteenth century, and insist that whatever may be the case in the field
of domestic charity, or even of regional charity within national bound-
aries, it is bad economics, bad politics and, perhaps, even questionable
ethics, to make one-sided gifts a substantial and permanent element in our
relations with the outside world, no matter how superior our resources
may be to theirs." Viner did, however, draw a distinction between charity
and payments resulting from obligations, injustice, morality, or solidarity
and acknowledged that these had their place at least in domestic relations.

He gave perhaps the best reply to Keynes's famous dictum about the
long run:

A brilliant English economist discovered a few years ago that in the long
run we are all dead, and ever since economists have been somewhat
apologetic and shamefaced about their ancient habit of taking the long
view. It has been suggested, however, that the "we" in this epigram is
somewhat ambiguous, and that in its ambiguity resides all its force. It is
the special function of the social scientist to attract attention to the
policies necessary if assurance is to be had that there shall still be life, if
not for us, then for our descendants, after the short run is over."

Hedgehogs versus Foxes

"The fox knows many things, but the hedgehog knows one big thing,"
wrote the Greek poet Archilochus in the seventh century B.C. Development
economics also has its hedgehogs and its foxes.

Knowing many things or knowing one big thing may refer to causes and
obstacles or it may refer to aims and objectives. We have had a large
number of theories explaining the absence of development, or too slow or
distorted development, in terms of a single cause, or rather a single barrier,
the removal of which would release the natural forces of progress. Neo-

Marxists and dependency theorists see in neocolonialism and imperialistic exploitation the chief barrier. Early non-Marxist writers stressed a shortage of savings. Low savings in turn have been ascribed (for example, by Ragnar Nurkse) to low incomes or to the international demonstration effect. Others, including Nurkse, see the main obstacle in the lack of incentive to invest. Still others see it in the difficulty of constructing overhead capital which requires large, indivisible investments. A more recent group of writers has shifted attention from inadequate physical capital to lack of human capital. Others have identified deteriorating terms of trade and the rules of the international game as the villain.

It would not be difficult to show that none of these theories holds water, though many point to obstacles that have stood in the way in some regions at some periods. Countries have failed to develop well in which these obstacles were not present, and others have successfully developed in spite of their presence.

It would be normal for an economist not to emphasize a single barrier but to analyze the social system in terms of a set of interacting conditions. Few economists would nowadays maintain that it is only land or only labor or only capital that produces output (though the history of thought shows that such views were held). Could one not apply an extension of the production function to the “product” development, and show that it depends on the cooperation and interaction of several variables, some economic, others noneconomic, which are complementary to some degree but also to some extent substitutable for one another? By training, if not by instinct, economists are foxes rather than hedgehogs.

A similar division applies to the definition of objectives. Some define them in terms of national product and its growth, or only material product excluding services; others in terms of life expectancy or other human indicators; still others in terms of participation, quality of life, or liberation. The pluralists see a blend of many objectives and tolerate different visions of the good society.

**Linear versus Nonlinear Paradigms**

I have suggested another dividing line. Allegiance to one of two schools of thought is most easily tested by a response to the Lewis test: if the advanced countries were to sink under the sea in the year 2000, would the developing countries (after a period of adjustment) be better or worse off? As in a litmus test, those who say “worse” are the Blues, those who say “better” are the Reds.


The distinction is, of course, related to the mutual interest thesis. According to the doctrine of the Blues, development is a linear path along which all countries travel. The advanced countries have, at various times, passed the stage of take-off and the developing countries are now following them. The prime concern of governments is to organize the march along the development path.

Applied to the area of international relations, this view led to the call on rich countries to provide the missing components to developing countries and thereby to help them break bottlenecks and overcome obstacles. These missing components may be capital, foreign exchange, skills, or management. The doctrine provided a rationale for international financial aid, technical assistance, trade, and private foreign investment. By breaking bottlenecks, rich countries could contribute to development efforts a multiple of what it cost them and thus speed up the development process in less developed countries at minimal cost to themselves. The two-gap models were a rationalization of foreign assistance. Moreover, the ultimate purpose of aid was to be rid of aid when, beyond the point of take-off, indigenous efforts are sufficient for further advance.

The linear view ruled out options of different styles of development. Inexorably, all countries were bound to pass through the five Rostovian stages. Historically, the view can be criticized as excessively determinist. Even Germany and Russia followed different paths from the English Industrial Revolution, and the differences were greater for the recently industrializing countries. Economically, the doctrine is deficient because it ignores the fact that the propagation of impulses from the rich to the poor countries (and among the poor countries) alters the nature of the development process; the latecomers face problems essentially different from the early starters, and the late latecomers find themselves in a world of demonstration effects and other impulses, both from the advanced countries and from other latecomers, which present opportunities and obstacles, incentives and inhibitions, quite different from those that England or even Germany, France, and Russia faced in their preindustrialization phase.

The Red response to the Lewis litmus test has gained adherents with the spreading disenchantment about development and about the international contribution to it. According to this view, the international system of rich-poor relationships produces and maintains the underdevelopment of the poor countries (the rich “underdevelop” the poor, in André Gunder Frank’s phrase). In various ways, malignly exploitative or benignly neglectful or simply as a result of the unintended impact of events and policies in rich countries, the coexistence of rich and poor societies renders

more difficult or impossible the efforts of the poor societies to choose their style of development. The dominant groups in the developing countries—politicians, entrepreneurs, salaried officials, employees—enjoy high incomes, wealth, and status and, since they are subservient to the international system of inequality, conformity, and underdevelopment, they perpetuate it. International integration leads to national disintegration. Not only Marxists but also a growing number of non-Marxists have come to attribute a part of underdevelopment and of the obstacles encountered in the process of development to the existence and the policies of the industrial countries of the North, including Japan and the U.S.S.R.

According to one line of this second view, aid is not a transitional phenomenon to be ended after take-off, but a permanent feature claimed as a matter of right, and paid like an international income tax. According to a more radical line, aid is itself part of the international system of exploitation essential to maintain reactionary regimes, and self-reliant, independent development has to rid itself of it.

The conclusion drawn from this perception is that the developing countries should put up barriers between themselves and the destructive intrusions of trade, technology, transnational corporations, and educational and ideological influences, and should aim at "delinking" or "de-coupling," at pulling down a poverty curtain, at insulating and isolating themselves from the international system. It is paradoxical that the socialist or radical advocates of delinking propose something that was triggered off by capitalist hostility to the U.S.S.R., China, and Cuba.

Proponents of the Blue perception point to Singapore, Hong Kong, Taiwan, Korea, and West Africa as outstanding examples of areas that benefited from commercial integration into the international system of trade, aid, investment, and money; and they cite the introduction of export crops into the colonies—rubber into Malaya, cocoa into the Gold Coast and Nigeria, tea into India—as powerful stimuli to their progress. Central Asia, large parts of Africa, and the interior of South America, however, lacked contact with the West and are among the least developed areas.

Proponents of the Red perception point to Indonesia, India, China, and Japan. The country with the greatest degree of contact with the West is Indonesia, where the Dutch were present for more than 300 years. Next comes India, where the British gradually expanded their foothold; then China, where trade along the coast created enclaves from which trade with the interior was forced on the country; last, Japan where the Tokugawa enforced a policy of no contact with the West except through a small Dutch trading group. Yet, they point out, Japan started to grow first and made rapid progress; China is well on the way; India comes next, and Indonesia last. The order of economic advance is the reverse of the degree of contact with the West.28 Albert Hirschman observes that in Latin

America "industrial progress was particularly vigorous during the World Wars and the Great Depression, when contacts with the industrial countries were at a low ebb." 2

Inevitably, a brief summary of the two views is bound to oversimplify. Rostow for the first kind of perception, and Frank for the second, are the popular rather than the academic models. Jacob Viner, Gottfried Haberler, Ragnar Nurkse, Harry Johnson, G. M. Meier, Hla Myint, I. M. D. Little, Maurice Scott, Jagdish Bhagwati, Anne Krueger, Bala Balassa, and others espoused the view that countries have much to gain from linking themselves up with the international system, and particularly from pursuing trade policies that avoid discrimination between exports and import substitution. Raúl Prebisch, Hans Singer, Gunnar Myrdal, Albert Hirschman, and François Perroux, not to say anything of Marx and List, had long ago developed approaches to development that separated "spread" or "trickle down" effects from "polarization," "backwash," "domination," or "immiserization" effects. And many raised doubts from the beginning as to whether everything would be fine if all countries would only pursue free trade policies and establish competitive markets. But probably because of their more careful formulations, the impact of their thinking, important though it was, was peripheral, not mainstream. More recent proponents of the second perception include Samir Amin, E. A. Brett, F. E. Cardoso, Franz Fanon, Celso Furtado, Johan Galtung, Colin Leys, Ann Seidman, Osvaldo Sunkel, and Tamas Szentes.

A reconciliation between the two perceptions (that development can be speeded up by integration into the international system and that underdevelopment is caused and perpetuated by it) is possible along the following lines. The advanced industrial countries emit a large number of impulses of two kinds: those that present opportunities for faster and better development than would otherwise have been possible, and those that present obstacles to development and stunt growth. I submit that the Lewis test is not a helpful way of presenting the problem, however useful it is as a litmus test for sorting out ideologies. The developed countries propagate a large number of impulses to the developing countries. Reasonable men may differ about the net balance of these impulses; for example, whether any defects of admitting transnational companies are offset by the availability of a stock of scientific, technological, and organizational knowledge, or whether the harm done by the brain drain is greater or less than the benefits from foreign technical assistance, or whether the inflow of grants and loans at concessionary interest rates is counterbalanced by aid-tying, faulty project selection, hard terms and conditions, and flight of capital.

The interesting question then is not, Do the developing countries benefit or lose from their coexistence with developed countries? but How can they

pursue selective policies that permit them to derive the benefits of the positive forces, without simultaneously exposing themselves to the harm of the detrimental forces? Countries should scrutinize the details of the whole balance sheet, the entries on the credit and debit side, and not only the net balance. Looked at in this way, the question becomes one of designing selective policies for aid, trade, foreign investment, transnational companies, technology, foreign education, movements of people, and so on. Neither complete insulation nor wide-open integration but a policy of enlightened discrimination may present the correct answer.  

This approach does tend to take a somewhat Olympian or Platonic view of policymaking. If policies are regarded as a function of political interests and pressure groups, the picture changes. The Reds would say such policies are impossible and the Blues that they are unnecessary. My reply would be that although I regard policies as partly dependent variables, determined by all the other variables in the social system, a process of experience and learning, as well as of constituency building for reforms, is capable of bending policies in the right direction.

According to this view, not all transnational corporations would be welcomed on favorable terms, but only those deemed to make a positive contribution to development, and on terms that insist on fair sharing of the benefits. The contracts between host governments and foreign companies would be carefully drawn up so as to derive the benefits of direct investment without its drawbacks, while leaving sufficient incentives to the company to operate efficiently on the desired scale. The existence of oligopoly rents ensures that such bargaining is possible and fruitful. Trade would be neither completely free nor autarkic, but, combined with a system of excise taxes and domestic controls, would discriminate according to social priorities. Exports would be taxed where demand elasticities are favorable. Not all forms of foreign technology and foreign products would be adopted without modification, but only those suited to the needs of the country. Others would be adapted and, where adaptation is impossible or too costly, indigenous innovation would be encouraged.

30. Ian Little has criticized this position on the following grounds: “Of course, such a position always puts the critic at some disadvantage, because he seldom wants to advocate laissez-faire, and the policies described will usually contain some elements that he would himself advocate—for example, export taxes or hard case-by-case bargaining in the case of mineral exploitation. Nevertheless, the picture of ‘enlightened discrimination’ drawn by Streeten seems to me to come too close to Indian policy over the past twenty years, and too close to maximum surveillance and control for it to be likely to do anything but retard growth without any offsetting benefit. There is a mass of evidence, in works already cited and elsewhere, that discrimination is seldom very enlightened.” I. M. D. Little, “The Developing Countries and the International Order,” in R. C. Amacher, G. Haberler, and T. D. Willett, eds., Challenges to a Liberal International Economic Order (Washington, D.C.: American Enterprise Institute, 1979), p. 278.
lar principles of discrimination would be applied to subsidizing education abroad and inviting technical assistance at home. Multilateral clearing and payments arrangements with like-minded countries would be established, so that constraints on hard currency earnings would not prevent the expansion of mutually beneficial trade. International reserves would be held in the form of a diversified portfolio of currencies to minimize the risk of losses. All of this would require scarce administrative skills, but pooling can economize on these, international cooperation can help, and learning will improve performance.

There are alternative styles of development, and one type of society may prefer to develop by adopting or adapting technologies and products from abroad, while another will find its identity by raising a curtain (it may be of bamboo or cactus) around its own frontiers or the frontiers of a group of like-minded countries with similar income levels and needs. A judicious selection of features of outward- and inward-looking strategies is likely to give the best results—such as drawing on foreign research and developing indigenous research or drawing on and adapting foreign technology and products. The lessons of industrializing Germany, France, Japan, and Russia, which used and adapted foreign ways, blending new institutions with old traditions, are not directly applicable because international income gaps were narrower then and the dimensions of the demographic problem, which determine the scale of the need for jobs, were quite different. In their early stages of development, however, these countries looked not at the established markets of England but at new opportunities and the growing markets of other newcomers. The main point is that there is a choice among styles of development which admit different blends of indigenous and foreign impulses. If the developed countries are enlightened, they will not feel threatened by the discriminatory features in such approaches but will cooperate with the developing countries in evolving their individual styles.

**Big versus Small**

There are those who believe that bigger is better, and those who think that small is beautiful. (We dismiss those who confuse big with great.) The spokesman of the former is the late P. C. Mahalanobis; of the latter, the late E. F. Schumacher. Both views have been influential.

The most influential advocate of “large planning” was Prasanta Chandra Mahalanobis (1893–1972). Although not an economist by training, he modified the simple Harrod-Domar model of growth in such a way as to justify investment in heavy industry in India. Multisector models with different capital-output ratios in each sector can easily be derived by modification of the Harrod-Domar model. Mahalanobis’s two- and four-
sector models have been among the most influential. These models have been criticized both on empirical grounds—that the sectors do not correspond to "fillable boxes"—and on logical grounds. Mahalanobis assumes that investment is distributed between two sectors, consumer goods (for example, looms) and capital goods (for example, machine tools). We thus have two capital-output ratios: investment/extra consumer goods and investment/extra capital goods. The former is assumed to be lower than the latter, but the rate of growth of investment depends now on the rate of growth of output in the capital goods sector and thus on the allocation of investment between the two sectors. There is an implicit assumption that foreign exchange resources for importing capital goods are strictly limited, so that foreign trade "productivity" is zero. Thus the proportion of total investment allocated to the capital goods sector (together with its capital-output ratio) becomes the crucial variable determining the long-term rate of growth of consumption goods. In his four-sector model the consumption sector is subdivided into modern industry, small-scale industry including agriculture, and services. This model was used by Mahalanobis to explore the employment implications of different investment patterns.

The two-sector model has been criticized from various points of view. It has been argued that no empirical meaning can be given to the distribution of investment between the two sectors, since most industries supply products to both. The model has also been criticized for implicit and unwarranted assumptions about exports; for neglecting supply limitations other than capital goods; for ignoring depreciation, raw materials, and all intermediate goods; for confusing a technological capital coefficient with an economic choice as to how much of the product of the capital goods sector should be used for investment; for treating the productivity of investment and the capital-labor ratio as independent; for inadequately considering the relation of demand to supply; for assuming capital-labor ratios to be constant; for neglecting the benefits to development that arise from expanding some types of consumption; and for not distinguishing


32. Since the statistics of planning require the planning of statistics, Mahalanobis's contribution to both sample surveys and the statistical techniques also make him a pioneer in development planning.

between capital goods in general, machine-making goods, and heavy and basic industries. When all criticisms are taken into account, certain valid conclusions still remain. In the absence of all other limitations on production if there is a machine that can either reproduce itself or produce other kinds of products, the production of other kinds of products can be raised at some later date by a greater allocation of capital now to the reproduction of the machine. (In addition to this versatility assumption a second assumption is necessary; that is, that the capital stock cannot be shifted between the two sectors.) Alternatively, if other limitations on production are postulated, the tautological proposition is left that if the growth of an economy is limited by a bottleneck in the production of capital goods (however defined), removal of this bottleneck will accelerate growth. In India's first development plan, emphasis was placed on the marginal propensity to save. It has been healthy to distribute the emphasis among other constraints, such as the availability of capital goods, and to show that these may prevent the savings potential from materializing. To raise the investment-income ratio is obviously not enough. Decisions will also have to be based on to how the investment is to be distributed among different activities. Not only the aggregate of savings but also its distribution is important. Any bottleneck—skilled labor, administrative ability, foreign exchange—could be selected as a constraint, and the proportion of expenditure (or effort) devoted to reducing this constraint could be made the determinant of development.

The Mahalanobis model also adds a constraint set by savings, though it is an odd and rather special constraint. If it is assumed that savings can be raised only by introducing capital-intensive methods of production, then emphasis on heavy industry and capital goods becomes a means of enforcing savings. In terms of the Harrod-Domar model, in which the growth rate \( g \) equals the savings-income ratio \( s \) divided by the capital-output ratio \( k \), \( s \) becomes a function of \( k \), and \( k \) is a function of the distribution of investment; by changing the direction of investment we can increase the average \( k \), thereby raising \( s \) more than proportionately and thus raising the growth rate \( g \). The main reason seems to be that people cannot eat machines. But before choosing this method of increasing \( g \) we should be certain that there are no ways of reducing \( k \) that would reduce \( s \) less than proportionately.

In spite of the numerous criticisms advanced against the Mahalanobis model, his conclusions and recommendations were broadly right for India at the time, the major exception being his neglect of foreign trade opportunities. The principal reason he gave for encouraging the

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35. See T. N. Srinivasan, "P. C. Mahalanobis," in International Encyclopedia of the Social Sciences, vol. 18. There can be little doubt that the neglect of manufactured
machine-making sector is to reduce, in time, the unit cost of making capital goods through learning effects, economies of scale, and specialization. For a country the size of India, this was the most important ground for building up the capital goods sector. In his *A Theory of Economic History*, Sir John Hicks attributes the mainspring of the Industrial Revolution not, as is commonly thought, to the textiles sector, but to the capital goods sector, in which ever cheaper ways were found to make machines to make machines.\(^3\)

Ernst Friedrich Schumacher (1911–77) stands at the opposite pole from that of P. C. Mahalanobis. It is ironical that the Indian disciple of Tagore from Bengal enthusiastically advocated large-scale facilities to produce cement, electricity and steel, while the product of the high-technology education of Germany, Great Britain, and the United States emphasized, above all, the need to protect the process of organic growth and foresaw spiritual disaster in any attempt to speed up development through a program of large-scale industrialization.\(^3\)

To the economic content of Schumacher’s message the neoclassical economist might reply that, with proper pricing policies that reflect the relative scarcities of the factors of production, the right combinations between capital and labor would emerge. But the scale of the problem is such that tinkering with prices would not help. Incomes per capita in the poor countries are perhaps one-tenth of what they are in rich countries; savings rates are about one-half; and the rate of growth of the labor force is three times as high, say, 3 percent instead of 1 percent. This means that investable resources per worker are only one-sixtieth what they are typi-

37. In the 1960s, when capital accumulation was the rage on both the left and the right, and when the “stages of economic growth” dominated official thinking, Schumacher argued that countries with large labor surpluses and capital shortages should adopt “intermediate technology,” at a cost of between $100 and $1,000 per workplace; neither $10,000, nor $10. Village tools were too primitive, Western machines too complex. “Modern man has built a system of production that ravishes nature and a type of society that mutilates man,” he wrote, in an essay on “Economics as if People Mattered” (*Small is Beautiful* [New York: Harper and Row, 1973]). He wanted technology to have a human face. What initially was developed for the poor countries found application in the advanced industrial countries of the West and he had a wide following among the young, especially in America.

The notion of an intermediate or appropriate technology was applied not only to manufacturing industry and agriculture (simple power tools, not tractors and combine harvesters), but also to the social sectors (health, sanitation, water supply) and to the scale of institutions: small, decentralized, participatory. In his later writings he emphasized the unity of man as consumer and producer. His thought had been developed when he was economic adviser to Burma and India, where Buddhist and Gandhian philosophy had impressed him. But the policy of previous Indian governments to replace large firms by small establishments in the production of textiles and footwear was misguided.
cally in an advanced, industrial country \((1/10 \times 1/2 \times 1/3)\). Assuming, unrealistically, completely fixed coefficients between capital and labor, the transfer of rich-country technology would create jobs for only between 1 and 2 percent of the extra labor force streaming into the market every year, without making an impact on the large pool of already existing unemployed. Even with a considerable degree of flexibility, it is impossible to remove unemployment. And the appropriate technology for these countries just does not exist. Only 3 percent of research and development (R&D) expenditure is spent in the developing countries containing three-quarters of humanity (and by no means all of this expenditure is on problems specific to them); 97 percent is spent in the rich countries with only one quarter of mankind. This amounts to a ratio of 100:1 of R&D expenditure per capita between rich and poor countries. No wonder appropriate technology for low-income societies does not exist.

### Utopians versus Pedants

Finally, there is my favorite division between utopians and pedants. There is, on the one hand, an admirable species of man and woman: professional, dedicated, conscientious, with fine minds and great attention to details. They are, without derogatory connotations, the pedants. But they have come to know so much about how things are and how they work that they have acquired a vested interest in preserving the status quo. When faced with proposals for reform, they are like inverted Micawbers—waiting for something to turn down. They can always think of ten very good reasons why it cannot be done. If we think that there must be a solution to every problem, they have at least two problems to every solution.

On the other hand, there is another group of people with fewer but more vocal members. They present us with visions of different possibilities of the future. Just as the first group is passionately devoted to preserving things as they are, so this group passionately dislikes precision, both in analyzing what exists today and in drawing up the blueprints of their ideas for a better society in the future. They are the utopians. They are careless about details but they are the visionaries, the keepers of our faith.

The division of humanity into pedants and utopians is, as the sociologist Peter Berger has said, deplorable.\(^3\) What we need is to marry the two: pedantic utopians or utopian pedants—who cultivate, with informed fantasy, imaginative but carefully worked-out visions of alternative social possibilities.

The pedants tend to advocate models that have, by their standards,

worked: export orientation, reliance on market forces, reduced interventions by the central government. The utopians want to experiment with a wide range of institutional arrangements: socialist communities with complete common ownership; cooperatives with some private property and shared services; completely private ownership of the means of production; even institutions where nobody owns assets and groups of trustees administer the productive activities. The pedants think in linear terms, the utopians wish to adopt many options. The blend between the two is necessary because the objectives and the technology often prescribe the social institutions, and some options are ruled out. But there is not complete rigidity between technology and institutions, and the marriage of the utopians and the pedants would explore the available range.

Conclusions

Some of the foregoing discussion can be criticized for being too compromising. Eclecticism and compromise are not attractive to scholars. And it is true that two different scientific paradigms cannot coexist for long. But the declension is: I (and Hegel) synthesize, you compromise, he/she is anemic. The intention was not compromise but to show either that the alternatives were wrongly posed or that only a double-pronged attack will achieve the objective.

What lessons can be learned for the future course of development economics should it turn out that the news of its death has been exaggerated?

1. The transition of development economics from the economics of a special case to a new global economics of shared problems, but with greater differentiation of approaches and analyses, both unifies and differentiates the subject. It calls for a much finer typology of countries and regions, according to the questions posed.

2. The call for an appropriate intellectual technology that is rigorous within the bounds permitted by the subject calls for a unification of the formal and informal intellectual sectors.

3. The need for multidisciplinary work at the deepest level, where nonconventional but relevant variables are incorporated in the models, is generally accepted. The precise way of doing it is much more difficult to specify.

4. A selective policy of discrimination or alternating phases is capable of producing a synthesis between those who advocate total linking to the international market system and those who advocate delinking. The purpose would be to make use of the beneficial impulses propagated by the world system, without admitting the detrimental impulses, and to build a base on which external influences could be used.

5. Three dimensions now somewhat neglected need strengthening. One
is the historical dimension, so that we understand how things came to be what they are, so that we may know the limits of and opportunities for desirable changes. The second is the global dimension, so that we view international relations in a manner that transcends the boundaries of the nation state. The interaction of national policies and the international system, alliances of interests across national boundaries, appropriate institutional responses to global problems are all issues that should have a higher place on our research agenda than they have now. The third is the dimension of what Harvey Leibenstein has called Micro-Micro Theory. It covers not only what goes on inside the firm, but also inside the farm, the household, and possibly inside any one individual with conflicting desires. The basic needs work has shown that institutional arrangements are very important in meeting basic needs, and of the three institutions—market, public sector, and household—the household has, until recently, been neglected by economists. In addition, the origins and diffusion of technological innovation deserve more attention.

6. Large-scale and small-scale activities should not be regarded as alternatives, but should be made mutually supporting or at least not mutually destructive—Mao's strategy of walking on two legs. Large-scale, modern activity should not destroy the small-scale, informal sector. The difficulty is to design policies which enable the small-scale sector to grow, without depriving the large-scale sector of resources that would have a higher productivity there: these may be capital, managerial talent, wage goods, or foreign exchange.

7. Finally, we need a combination of careful attention to detail with visions for alternative ways of arranging and managing our affairs. This implies exploring institutional options and their dependence on certain technological processes and economic objectives.