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O'NEILL, Michael Patrick, 1949-
AN ANALYSIS OF ENTREPRENEURSHIP IN ECONOMIC DEVELOPMENT: A SYNTHESIS OF SCHUMPETER, HAGEN, AND McCLELLAND.

The University of Oklahoma, Ph.D., 1977
Economics, theory

Xerox University Microfilms, Ann Arbor, Michigan 48106

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GRADUATE COLLEGE

AN ANALYSIS OF ENTREPRENEURSHIP IN ECONOMIC DEVELOPMENT: A SYNTHESIS OF SCHUMPETER, HAGEN, AND McCLELLAND

A DISSERTATION

SUBMITTED TO THE GRADUATE FACULTY

in partial fulfillment of the requirement for the

degree of

DOCTOR OF PHILOSOPHY

BY

MICHAEL PATRICK O'NEILL

Norman, Oklahoma

1977

AN ANALYSIS OF ENTREPRENEURSHIP IN ECONOMIC DEVELOPMENT:

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ACKNOWLEDGEMENTS

This study was done in connection with graduate study at the University of Oklahoma. The author is deeply indebted to the supervisor of research, Dr. Alexander J. Kondonassis, Professor of Economics, for showing the patience and support which enabled the author to carry on this research. The author is deeply indebted to those members of the committee who were willing to serve, but due to unforeseen circumstances were unable; and to those who were able to serve, Dr. Paul A. Brinker, Dr. Robert A. Ford, and Dr. J. Kirker Stephens, for their time and guidance.

Thanks goes to many former teachers, both faculty and students, who have helped and encouraged in too many ways to list. The author is grateful to Dr. William R. Waters for the special materials and comments he provided.

A very special thanks to my loving wife, Jane, who, though sometimes very painfully, did all of my typing; and to my mother and father, for without their support the author could not have continued his education.

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CHAPTER I

INTRODUCTION

Economists have not had very encouraging results in theorizing and measuring economic development because of fundamental specification errors. Most economic theories have not been successful in explaining economic development (or growth) because they omit social, political, and cultural variables. Likewise, the measurement of economic development poses difficulties and is further complicated by the so called "residual factor." The residual factor may be defined as the unisolated source of growth, and it is felt to account for as much as 50 to 85 percent of the increase in total output.[1] Abramovitz refers to this residual as "the coefficient of ignorance."[2]

Perhaps the "coefficient of ignorance" can be reduced by introducing variables in the tools of analysis which contain social, political, and cultural characteristics. One theoretical tool used to explain development is the aggregate production function. On purely theoretical grounds, however, the use of the aggregate production function introduces a fundamental

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[1] T. Balogh and P. P. Streeten, "The Coefficient of Ignorance," Bulletin of the Oxford Institute of Economics and Statistics 25 (May 1963):99-107.

[2] M. Abromovitz, "Resource and Output Trends in the United States Since 1870," American Economic Review Papers and Proceedings 46 (May 1956):5-23.

specification error by ignoring the entrepreneur. It is true that traditional economics accepts the entrepreneur as a factor of production, but as W. J. Baumol states:

> . . . the entrepreneur has been read out of the model. There is no room for enterprise or initiative. . . . One hears of no clever ruses, ingenious schemes, brilliant innovations, of no charisma or of any other stuff of which outstanding entrepreneurship is made; one does not hear of them because there is no way in which they can fit into the model.[1]

Furthermore, Harvey Leibenstein states:

> The existence of and need for gap-filling and input-completing capacities could explain why standard inputs (labor and capital) do not account for all outputs and why capital absorption should be a problem. Economic planning experience in many countries reveals that there is frequently a considerable divergence between plan targets and results. This divergence may be partly explained by the fact that entrepreneurship is not a normal input whose contribution can be readily determined, predicted, planned for, or controlled.[2]

Leibenstein implies that the aggregate production function must be modified or totally discarded for a reason other than the Cambridge criticism. Hence the problem is the respecification of the aggregate production function, i.e., $O = f(K,L,Ld,R,E)$, where O is output, K is capital, L is labor, Ld is land, R is resources, and E is entrepreneur.

At this time it is appropriate to suggest a working

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[1]W. J. Baumol, "Entrepreneurship in Economic Theory," American Economic Review 58 (May 1968):67.

[2]H. Leibenstein, "Entrepreneurship and Development," American Economic Review 58 (May 1968):78.

definition of entrepreneur. The entrepreneur[1] is the factor of production,[2] whether a person or organization,[3] that may perform one, two, or all three of the following functions:

1. Routine management and coordination of the factors of production;[4]
2. Risk bearer of uncertainty;[5] and

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[1]The literature suggests that Ricard Cantillon was the first to make the entrepreneur a technical term. The bearing of uncertainty was the essence of the entrepreneurial function. See T. C. Cochran, "Entrepreneurship," International Encyclopedia of Social Sciences 5 (1968):88 and J. A. Schumpeter, History of Economic Analysis (New York: Oxford University Press, 1954), p. 222. However, it was not the earliest use of the word; according to B. F. Hoselitz, "The Early History of Entrepreneurial Theory," Explorations in Entrepreneurial History 3 (April 1951): 194 and 199, Bernard F. de Belidor (circa 1700) used entrepreneur to mean government contractors buying labor and materials at uncertain prices and selling the resultant at a contracted price. An example is the supplying of an army.

[2]From Adam Smith to Alfred Marshall there was no place for the entrepreneur, according to Cochran, "Entrepreneurship," p. 88 and to Schumpeter, Economic Analysis, pp. 554-556. The exception was the distinction made by J. B. Say that "the entrepreneur's function is to combine the factors of production into a producing organism." See Schumpeter, Economic Analysis, p. 555.

[3]Harbison argues that "organization is a broader concept than entrepreneurship." See F. Harbison, "Entrepreneurial Organization as a Factor of Economic Development," Quarterly Journal of Economics 70 (August 1956):378. In an effort to limit the scope of this thesis, the author will ignore the entrepreneur's function of coordinating the factors of production, i.e., routine management.

[4]J. B. Say, as stated earlier, was the first to specify this function of the entrepreneur. However, he does not discuss the entrepreneur in relation to innovation and capital creation, resulting in the fact that entrepreneurship was not a ponderable fact in his general economic theory. See Cochran, "Entrepreneurship," p. 88.

[5]F. Knight extended the concept of the entrepreneur beyond that of Cantillon. According to Knight, in Risk, Uncertainty, and Profit, Reprints of Economic Classics (New York:

3. Innovator of new ideas, new markets, and the like,[1]

Augustus M. Kelley, 1964), p. 268, "the primary problem or function is deciding what to do and how to do it."

M. Dobb, in "Entrepreneur," Encyclopedia of the Social Sciences 5 (1931):559, states that: "Economic theory in its classical forms has essentially been a theory of equilibrium concerned with the pricing of a collection of commodities and services, the unknown of the problem being determined by the requisite number of known constants in the situation. It is clear that in such a problem uncertainty, in the sense of the incalculable, has no meaning: the very possibility of a solution of the problem excludes any deviation of the actual from the calculable. In a system of economic equilibrium the work of the entrepreneur cannot be qualitatively different from that of any other agent of production. But insofar as a given set of historical circumstances necessitates that the work of management and coordination should be combined with certain other attributes, with the possession of capital and certain business connections and good will, a realistic theory of distribution must include a category of entrepreneur profit separate and distinct from the categories of wages, interest and rent. The entrepreneur function is in fact a composite function, the elements of which are not completely separable; and since the conditions of supply and demand for this composite function are different from those for its separate elements in isolation, the price of the whole is not equal to the sum of the prices of its separate parts. For this reason capitalist profit, as the historically conditioned income of the capitalist entrepreneur, is essentially an institutionally determined category, at least of all economic incomes it is a 'natural' category of distribution."

Again according to Dobb in Ibid., "to 'explain' the entrepreneur's function and his reward in terms of uncertainty is not an explanation in any deterministic use of the term, but rather the negation of it. There is no normal profit, since ex hypothesi profit is the incalculable deviation of the actual from the anticipated. Because the entrepreneur is simply a gambler in the economic lottery, one cannot interpret his actions in terms of any rational calculus; for in this lottery the size and number of the prizes as well as their distribution are unknown."

[1]J. A. Schumpeter specified innovation as a function of the entrepreneur in his The Theory of Economic Development (London: Oxford University Press, 1934). Leibenstein calls Schumpeter's entrepreneurship "new type" entrepreneurship (N-entrepreneurship). Following Leibenstein in "Entrepreneurship," p. 73, "by N-entrepreneurship we mean the activities necessary to create or carry on an enterprise where not all markets are well established or clearly defined and/or in which relevant parts of the production function are not completely known." Hence the entrepreneur must fill in for the market deficiencies.

which entitle the entrepreneur to a claim of the residual portion of the income.

According to Cochran, entrepreneurship is a definable function, while the entrepreneur is an ideal type and as such is not continuously applicable to a real person. Moreover,

> . . . the theoretical problem of finding a place for unmeasurable and socially influenced forces in a mathematically oriented theory has not been solved. . . . the difficulty is that entrepreneurial earning would have to be accounted for in a theory of profit, but no theoretical cost of entrepreneurship can be set.[1]

What are the motives for examining the entrepreneur? The primary motive behind modern theories of the entrepreneur has been "to rebut the Marxist estimation of the capitalist as an exploiter, performing merely a historically transitional role and receiving an income created by certain historical institutions and not be a natural or inevitable order of relationships."[2] As a result modern theories have postulated certain functions which are not merely institutionally and historically relative, but they would be required in any conceivable economic order. Hence the entrepreneur, because of these functions, deserves a portion of the distribution of income.

The main concern of this study is to examine the role that the entrepreneur plays in the development process. Of particular interest is the formulation of a theory of entrepreneurial supply for the development process. To aid in this

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[1]Cochran, "Entrepreneurship," p. 90.

[2]Dobb, "Entrepreneur," p. 560.

task, three theories of entrepreneurial supply, taken from the works of Joseph A. Schumpeter, Everett E. Hagen, and David C. McClelland, will be synthesized. Hence the purpose of this study is to examine, explain, and synthesize into a common model the theories of Schumpeter, Hagen, and McClelland on entrepreneurship in economic development.

The value of this study is that it will point to the entrepreneur as a significant variable in the development process. By changing the abilities, values, and attitudes of man, it may be possible to accelerate the process of development. Hence the policy prescription would be to make the necessary changes, whether institutional or economic, to stimulate the emergence of the entrepreneur. One example is the institution of training programs to teach parents how to raise their children. Another example is to make the creation of new combinations of the factors of production a rewarding experience.

In particular, the contributions of this thesis are: (1) to provide a workable definition of the entrepreneur; (2) to review a variety of positions concerning the role of the entrepreneur in the development process; (3) to formulate a theory of entrepreneurial supply from Schumpeter, Hagen, and McClelland; and (4) to examine a variable that contains not only economic but also political, social, and cultural characteristics--the entrepreneur--the kind of variable usually ignored. By ignoring such an important variable it may become evident why a residual exists in the explanation of growth. This is an attempt to overcome this bias or problem.

The methodology used in this study will be of the descriptive and analytical variety. Quantitative methods will not be utilized. There will not be an actual testing of hypotheses. However, it is anticipated that this study will provide a framework for future hypotheses testing.

Chapter II will review the literature in terms of (1) a selective discussion of the entrepreneur in economic development since Joseph A. Schumpeter, naturally omitting Schumpeter, Hagan, and McClelland since their theories will be discussed at length elsewhere; (2) a selective review of the literature on human capital as it applies to the development process; and (3) a selective review of the literature on the economics of education as applied to economic development. One chapter each will be dedicated to a detailed description of the entrepreneurship theories of Joseph A. Schumpeter, Everett E. Hagen, and David C. McClelland. These will be, respectively, Chapter III, Chapter IV, and Chapter V. In Chapter VI the above mentioned three theories will be compared and contrasted. Moreover, these three theories will be synthesized and distilled into a common model. Chapter VII will present a summary and the conclusions of the study.

CHAPTER II

A REVIEW OF THE LITERATURE

This chapter represents a summary of background information on the concepts of the entrepreneur and human capital and on the economics of education as they pertain to economic development. It provides a basis and perspective for a detailed view of the entrepreneurship models of Joseph A. Schumpeter, Everett E. Hagen, and David C. McClelland.

Entrepreneurship in Economic Development

N. G. Butlin[1] argues that entrepreneurial behavior is basically conceived as the interplay of role and sanction. He also asserts that change is not generated in the community by entrepreneurship, but rather that the entrepreneurs change their roles and behavior patterns. Butlin further argues that change arises from deviance--that disturbing element injected into an assumed equilibrium system of roles and sanctions which serves to point up the essentially static character of these concepts. Change further is explained and defined in terms of the interaction of roles and sanctions, referring to the alteration of roles and the emergence of new ones. The policy implication

[1]N. G. Butlin, "Entrepreneurial Biography: A Symposium," Explorations in Entrepreneurial History 1 (May 1950):223-230.

for economic development is to create roles that will lead to deviance and thus to change.

According to B. F. Hoselitz[1] there are considerable differences between managerial activity and entrepreneurship. The two activities not only perform a different functional role but also are motivated differently; they may even be different personality types. Hoselitz draws the conclusion that attention must be paid to these differences in less developed countries. Hoselitz feels that the chief characteristic of the entrepreneur is his leadership of the introduction of innovations.

Hoselitz also states that the creation of a "climate for entrepreneurship" depends on two things: (1) "establishing social institutions which make possible objectively the exercise of independent individual enterprises" and (2) "allowing the maturation and development of personalities whose predominant orientation is in the direction of productivity, working, and creative integration."[2]

V. V. Bhatt[3] asserts that in economic development the entrepreneur may be either a single person or a social group such as the state. Bhatt appears to favor the state because

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[1]B. F. Hoselitz, "Entrepreneurship and Economic Growth," American Journal of Economics and Sociology 12 (October 1952): 97-110.

[2]Ibid., p. 108.

[3]V. V. Bhatt, "Motor Force of Economic Development," Indian Economic Journal 1 (July 1953):31-43.

of historical evidence. For the entrepreneurial ability to come to fruition, social, political, and economic conditions must be such that the prospective entrepreneur feels confident and encouraged about his chances of success. The role the state plays in establishing such favorable conditions is necessary for economic development to be put into play. At this same time the state should establish a set of external stimuli by which the economic system could thereafter generate its own impetus to economic evolution.

According to T. C. Cochran[1] process or change must be defined with respect to some existing social structure. Social roles and sanctioning expectations that form those roles create a framework of social norms that is extremely flexible in reality.

At least two sources of modification in social roles exist. First, a change in environment can force readjustment. Second, through successful individual innovation, imitators are attracted, and the role is thus modified.

Cochran concludes that there should be an understanding of normal and unusual behavior in the study of entrepreneurship. Moreover, he suggests that role theory may be a part of the paradigm for explaining change.[2]

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[1]T. C. Cochran, "Social Attitudes, Entrepreneurship, and Economic Development: Some Comments," Explorations in Entrepreneurial History 6 (February 1954):181-183.

[2]Ibid., p. 183.

F. Harbison[1] agrees with Marshall's concept[2] of the entrepreneur, that is, the entrepreneur performs three functions--risk-bearing, innovation, and management. Marshall's concept may be the most practical interpretation of the activities of modern, complex business enterprises, yet its primary flaw is the implicit assumption that the entrepreneur is an individual person. Only in a very small firm could a single person carry out all of Marshall's entrepreneurial functions.

This is where Harbison argues that the entrepreneur should be an organization comprised of all the people necessary to perform the entrepreneurial functions. Whether it is publicly or privately owned and operated, the entrepreneurial functions of a modern enterprise can be classified in the following manner: (1) undertaking and managing risk and economic uncertainty; (2) planning and innovation; (3) coordination, administration, and control; and (4) routine supervision. Harbison defines organization as an integrated accumulation within an enterprise of those persons who are primarily involved in the four classifications above. They are referred to by Harbison as managerial resources.

For the analysis of the problems of economic development, Harbison states that organization is probably a more exact and significant idea than entrepreneurship in its

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[1]F. Harbison, "Entrepreneurial Organization as a Factor in Economic Development," Quarterly Journal of Economics 70 (August 1956):364-379.

[2]As his source, Harbison cites Alfred Marshall, Principles, 1st ed. (London: Macmillan and Co., 1890), pp. 334-335.

traditional sense! Organization is indicative of a cohesive institution which describes practical associations between functions and functionaries; whereas entrepreneurship is oft-times a rather obscure abstraction which is subject to changing interpretations. Also organization seems subject to quantitative measurement. This is likely to permit one to set forth a sequence of relationships between the quantities of capital or labor and the quantities of managerial resources. For example, the explanation of the process of economic growth and development may be aided by the substitution of labor and organization. Entrepreneurship, however, tends to be nonquantifiable.

L. Mark, Jr.,[1] contrary to the previous discussion by Bhatt, argues against the state being the entrepreneur on the grounds that the state contains a built-in prejudice which funnels investment funds to government-owned concerns at the expense of private entrepreneurs. He asserts that decisions favoring the state as an owner-operator rest on the state's appearing as a viable, ongoing enterprise. This appearance stems from the state's ability to subsidize factor costs and thus operate under inferior factor combinations. The private entrepreneur usually does not have this option! Thus we get a viable enterprise creating a misallocation of resources and very misleading additions to the overall output of the country involved. Mark suggests comparing state and private enterprises

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[1]L. Mark, Jr., "The Favored Status of the State Entrepreneur in Economic Development Programs," Economic Development and Cultural Change 7 (July 1959):422-430.

on the basis of realistic factor costs. Hence Mark is arguing for private entrepreneurs as opposed to state entrepreneurs.

According to W. A. Lewis[1] "[real] growth rates exceeding 4 percent suggest that the shortage of entrepreneurship cannot have been the major obstacle it is normally thought to be."[2] It is generally accepted knowledge that these less developed countries do not lack for small-scale entrepreneurship; for the most part the desire to make money and the willingness to gamble are inborn. The experience necessary to organize large-scale businesses, however, is lacking. Assuming that this lack of experience is spawned from lack of desire or from institutional inhibitions, historians and social psychologists have spent much time considering what social ideological climate generates successful large-scale enterprises.

Stimulated by the shortage of entrepreneurs, governments have assumed some of the attributes of entrepreneurship. The government, however, can play a role more important than simply that of entrepreneur by creating a favorable climate for private entrepreneurship, that is, by improving infrastructure, conducting market research and feasibility studies, and offering technical advice and financial aid.

Lewis suggests that since the agricultural sector has traditionally been the most neglected, it is the sector to which government initiatives could contribute most. But before

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[1]W. A. Lewis, "Richard T. Ely Lecture. A Review of Economic Development," American Economic Review 60 (May 1965): 1-16.

[2]Ibid., p. 4.

much progress can be made, agriculture must be seen as an important economic sector. The problem is that agricultural stagnation causes a shortage of foreign exchange.

A. P. Alexander[1] suggests why economists are reluctant to get involved in the study of entrepreneurship in economic development:

> First, entrepreneurship includes a qualitative dimension which accounts for a variety of possible patterns of performance and therefore of effects upon the economy. Entrepreneurs can be innovating, conservative, aggressive, willing to live and let live, and so on. These patterns . . . cannot easily be formulated in terms of precise, quantifiable relationships. Second, while entrepreneurship in one way or another affects the economic environment, its own growth is only in part determined by economic facts. This calls for an examination of the significance of noneconomic factors for entrepreneurial growth.[2]

As a result, economists have avoided these issues and have assumed that the maximizing entrepreneur is given data.

Alexander hypothesizes that the development of industrial entrepreneurship is a function of the growth of income per capita, the anticipated rate of growth of income per capita, and the level of income per capita. The key variable affecting the development of industrial entrepreneurship thus emerges to be income per capita.

The supply of industrial entrepreneurship is also affected by a country's economic-occupational structure in at least two major ways. First, different economic-occupational

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[1]A. P. Alexander, "The Supply of Industrial Entrepreneurship," Explorations in Entrepreneurial History (Winter 1967):136-149.

[2]Ibid., p. 136.

groups produce different quantities of industrialists. Simply put, the size of the total working population relates to the supply of industrialists. Second, the economic-occupational backgrounds of industrialists may relate to the growth and efficiency of their industrial operations.

Given varying economic opportunities, entrepreneurship may have diverse responses due to social values and psychological motivations. Alexander then analyzes the significance of noneconomic factors for entrepreneurial growth by using (1) Talcott Parson's theory of action, (2) David McClelland's need achievement, and (3) Everett Hagen's withdrawal of status respect.

W. P. Glade[1] supports Alexander's findings but extends them so that the long-run task of theory building in the entrepreneurial field is centered on the developmental or process-focused aspect of the growth of industrial entrepreneurship. Glade differs from Alexander in his method of explanation. Glade uses situational analysis.

The two main propositions of A. H. Cole's[2] discussion of the entrepreneur are that (1) the continuous inflow of knowledge tends to aid the entrepreneur's technical expertise and (2) entrepreneurs are likely to be shaped by the dominant contemporary ideas of religion, morality, and politics.

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[1]W. P. Glade, "Approaches to a Theory of Entrepreneurial Formation," Explorations in Entrepreneurial History 4 (Spring/Summer 1967):245-259.

[2]A. H. Cole, "The Entrepreneur. Introductory Remarks," American Economic Review Papers and Proceedings 58 (May 1968): 60-63.

H. Leibenstein[1] attempts "to suggest a theory of the economy and of entrepreneurship in which entrepreneurship has a unique and critical role and to use this theory to indicate why entrepreneurship is a significant variable in the development process."[2] Leibenstein defines two kinds of entrepreneurship. Routine entrepreneurship--a type of management--is at one pole while Schumpeterian or "new type" entrepreneurship--so called N-entrepreneurship--comprises the rest of the spectrum. Routine entrepreneurship deals with the coordinating and carrying-on activities of a deeply rooted, ongoing enterprise in which the parts of the production function in use are widely recognized functions in well established and clearly defined markets. N-entrepreneurship describes the activities necessary to form or make ongoing a concern in which not all of the markets are well established or clearly defined and/or in which the pertinent parts of the production function are not completely known.

Leibenstein criticizes the basic assumptions of the production function, that is, "that the complete set of inputs are specified and known to all actual or potential firms in the industry, and that there is a fixed relation between inputs and outputs."[3]

The characteristics usually attributed to the entrepreneur include gap-filling as one of the essential, underlying

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[1]Leibenstein, "The Entrepreneur," pp. 72-83.

[2]Ibid., p. 72.

[3]Ibid., p. 73.

qualities. The basic point is that the condition of perfect markets and the nature of some commodities are inconsistent with each other. It should be pointed out that market structure flaws are not the only things to give impetus to entrepreneurial activities. This is due to the fact that (1) all markets inherently have some gaps; (2) the entrepreneur sometimes has to employ some vaguely natured inputs which yield indeterminate outputs, i.e., in situations calling for leadership, motivation, and the solving of crisis situations; and (3) the entrepreneur has to possess what might be termed an "input-completing" capacity, e.g., if a product requires seven inputs to bring it to a marketable state, then putting together only six of these inputs serves no purpose.

According to Leibenstein the entrepreneur is defined as:

> . . . an individual or group of individuals with four major characteristics: he connects different markets, he is capable of making up for market deficiencies (gap-filling), he is an "input-completer," and he creates or expands time-binding, input-transforming entities (i.e., firms).[1]

To be sure, entrepreneurs are a scarce resource because gap-filling and input-completing are scarce talents.

Entrepreneurs are motivated by the following three things: (1) a system of monetary rewards for effort, some of which may relate directly to the quantity of output and some of which may not; (2) a reward/punishment system related to elements of behavior other than the productive ones; and (3) an interpersonal approval/disapproval mechanism between individuals

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[1]Ibid., p. 75.

and groups in different relative hierarchical ranks that usually have a bearing on productive behavior.

In a different article, Leibenstein[1] argues that "there is a significant relationship between the entrepreneur's perceptive capacity and the fact that firms operate at some degree of slack,"[2] i.e., allocative efficiency versus X-efficiency.

Leibenstein states that two important elements in the development process can be specified even though a single theory has not been generally accepted. First, as income per capita rises, it is essential that workers be shifted to more efficient techniques, that new products, new markets, new forms of organization, new materials, and new skills be created or adopted, and that new knowledge be accumulated. Second, there needs to be interaction and equilibrium between capacity growth and the creation of demand and its growth.[3] Thus, the entrepreneur in his role of gap-filler and input-completer is probably the major force of the capacity creation part of these elements of the growth process.

In brief, Leibenstein attempts to explain how some of the basic elements of his theory behave. These are all on a ceteris paribus condition. First, larger quantities of input-completing and gap-filling capacities are required for faster

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[1]H. Leibenstein, "Allocative Efficiency vs. X-Efficiency," American Economic Review 56 (June 1966):392-415. See also H. Leibenstein, Beyond Economic Man (Cambridge, Mass.: Harvard University Press, 1976).

[2]Leibenstein, "The Entrepreneur," p. 76.

[3]Ibid.

rates of growth. Second, opportunity cost is a determinant in the supply of active gap fillers. Third, the size of the entrepreneur's gap-filling capacity is determined by the quantity of assets held by the group closest to the gap-filler, whether that group is one of kinship or of friendship. Fourth, the reason for differential profits is likely to be the differential gap-filling and input-completing capacities of entrepreneurs. And fifth, the rewards of entrepreneurs tend to be reduced when gap-filling and input-completing activities become routine.[1] Leibenstein's basic assumptions are:

> (1) Motivation internal to the firm is a basic input that is not marketed; (2) there always exists some degree of slack (or excess capacity) due to low X-efficiency; (3) to bring any enterprise into fruition requires the marshalling of a minimum quantum of inputs; and (4) some inputs are "nonexhaustible" in the usual sense; that is, they do not necessarily decrease with use.[2]

Leibenstein suggests some interesting conclusions concerning the development process. First, even though some entrepreneurial characteristics such as input-completing capacities may be scarce, others may be in surplus, e.g., they are unused because of the lack of the input-completing capacity or because the motivational state does not bring forth an adequate entrepreneurial response. As a result, it is possible in some cases for entrepreneurial scarcity to be turned into an abundant supply. Second, since investment can alter the market obstacles and therefore modify the supply of entrepreneurship,

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[1]Ibid., p. 81.

[2]Ibid., p. 82.

possible side effects in our investment criteria must be considered. For example, a lower profit investment which releases entrepreneurial energies and capacities may be more fertile in the long run than a higher profit investment, if profit is figured separately from the side effects just mentioned. Third, in light of the above side effects, some types of normally functioning input creation may, in fact, function abnormally. For example, the opportunity cost to a potential entrepreneur may be increased when he is provided with some types of higher education. As a result, the supply of entrepreneurs is decreased. And fourth, the theory asserts that training can help increase the supply of entrepreneurship. Obviously not all entrepreneurial characteristics are trainable, yet training can eliminate some of the gaps necessary in carrying out the input-completing aspect of the entrepreneurial role. For example, training in intangible aspects such as spotting economic opportunities may be difficult; however, training in the assessing of such opportunities once perceived is possible. Hence the importance of human capital and the economics of education becomes obvious. Accordingly, the policy implications of the theory suggest:

> . . . development economists focus their attention when concerned with specific countries on studying the gaps, obstructions, and impediments in the market network of the economy in question and on the gap-filling and input-completing capacities and responsiveness to different motivational states of the potential entrepreneurs in the population.[1]

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[1]Ibid., p. 83.

As defined by H. H. Schloss[1] the entrepreneur has three subfunctions: "entrepreneurship in the Schumpeterian sense (that is, seeing and seizing an opportunity for a new economic venture), financial risk-taking, and the managerial function."[2] In effect Schloss argues for the above three-part definition because it is useful in examining at least two of the problems of entrepreneurship in economic development.

The first problem is the professed scarcity of entrepreneurs in developing economies. In the Schumpeterian sense, a relatively small number of people can perform the entrepreneurial function, and it will result in a major impact. Schloss has doubts that this scarcity is as grave as most writers intimate. Where equity financing is concerned, at least domestic financing is frequently more available than has been indicated. Again, this allows a relatively small number of entrepreneurs to carry out the bulk of this subfunction. Similarly, local governments can play an important role in raising capital even though the imaginative use of government funds is oftimes slow in coming. In contrast, however, the management subfunction of entrepreneurship does require great quantities of people, as it must cover from top management to the supervisory levels. Since a relatively few entrepreneurs may suffice to accomplish the first subfunction, to a great extent outsiders such as foreign advisers could be employed to help

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[1]H. H. Schloss, "The Concept of Entrepreneurship in Economic Development," Journal of Economic Issues 2 (June 1968): 228-232.

[2]Ibid., p. 228.

mitigate the scarcity of managerial personnel. It is here, then, that the scarcity of entrepreneurs creates a bottleneck. The policy implication is to train people to perform the managerial functions.

The second problem illustrates the pertinence of the three-way breakdown of entrepreneurship. It is concerned with the issue of the relative merits of the public and private sectors in sustaining the entrepreneurial function. With reference to the first subfunction, the private sector probably has the advantage because of its flexibility and less constrained nature. With reference to the second subfunction, the public sector probably has the advantage, especially when large sums of money are required for sizable projects. Finally, with reference to the third subfunction, Schloss has attempted to indicate elsewhere that many components other than ultimate legal ownership (private or public) are important. In other words, when it comes to management, a quasi-independent, publicly owned corporation may be more effectual than a family-owned and -controlled private enterprise.

P. Kilby[1] argues empirically that there are identification problems in the demand and supply functions of entrepreneurship.[2] In particular he measures the quantity of entrepreneurial services in standard units using a proxy variable-output.

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[1]Chapter 1 of P. Kilby, ed., Entrepreneurship and Economic Development (New York: The Free Press, 1971), pp. 1-40.

[2]Ibid., pp. 23-26.

On the vertical axis in Figure 1 Kilby uses the entrepreneurial wage, that is, the residual profit per standard unit of entrepreneurial service. The proxy here is the rate of return on investment. This assumes a uniform risk. The supply schedule is a function of socio-psychological variables and, to some extent, the past amount of entrepreneurial training. The derived demand for entrepreneurial services at any point in time is a function of the price of all the cooperating factors of production, the stock of known or transferable technology, the level of managerial organization, and consumer income.[1] Given the data, we are never able to observe whether demand or supply schedules shift. All we have are equilibrium points. To be sure, there is an identification problem.

The major problem with the economist's model appears to be that the inordinately limited definition of the entrepreneurial function is reduced to decision making under uncertainty. This definition is founded upon implicit assumptions about the characteristics of a smoothly operating less developed country's economy. Kilby states:

> These assumptions are that the factors of production possess a relatively high degree of mobility; that inputs and outputs are homogeneous; that producers and consumers and resource owners have knowledge of all the possibilities open to them; and that there are no significant indivisibilities. These assumptions conveniently produce a situation where risk and uncertainty are minimal, where change is continuous and incremental, and where the influence of social institutions is neutral. When the assumptions are relaxed, and ignorance, heterogeneity

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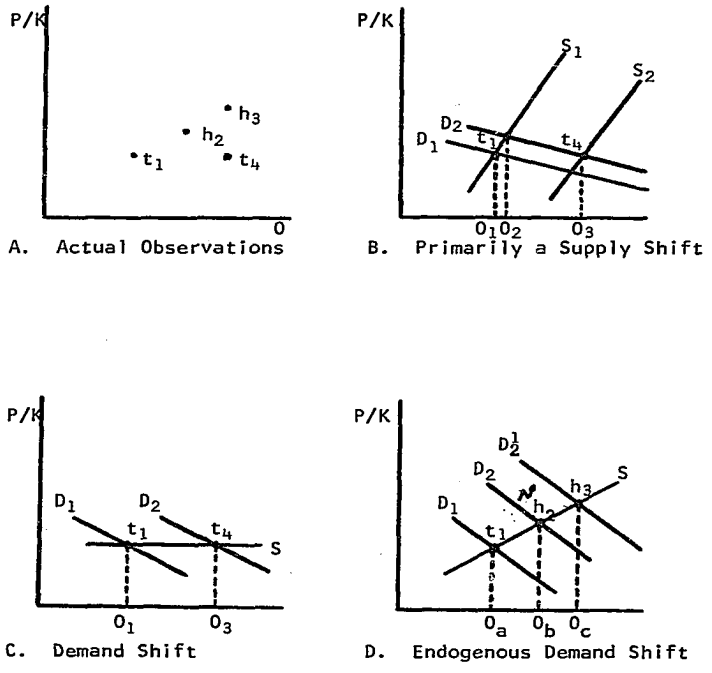
[1]Ibid., p. 23.

FIGURE 1

ENTREPRENEURIAL SERVICES: DEMAND AND SUPPLY



Source: P. Kilby, ed., Entrepreneurship and Economic Development (New York: The Free Press, 1971), p. 25.

> (segmented markets), impeded factor mobility, lumpiness, pervasive administrative controls, and input nonavailabilities are brought into the model, then the extraordinary qualities required of the entrepreneur--and the possibility of their limited supply--become apparent.[1]

This leads to Kilby's contribution--a wider definition of the entrepreneur. In his description of the entrepreneur, Kilby has four subcategories. They are exchange relationships (Activities 1 through 4), political administration (Activities 5 through 7), management control (Activities 8 through 9), and technology (Activities 10 through 13). The activities are listed below.

1. Perception of market opportunities.
2. Gaining command over scarce resources.
3. Purchasing inputs.
4. Marketing of the product and responding to competition.
5. Dealing with the public bureaucracy.
6. Management of human relations within the firm.
7. Management of customer and supplier relations.
8. Financial management.
9. Production management (control by written records, supervision, coordinating input flows with orders, maintenance).
10. Acquiring and overseeing assembly of the factory.
11. Industrial engineering (minimizing inputs with a given production process).
12. Upgrading processes and product quality.
13. Introduction of new production techniques and products.[2]

The strict assumptions of the economist's model only permit the entrepreneur himself to perform Activities 1 and 2; the skills for the remaining eleven functions may have to be acquired in the market place by the firm. Thus it appears from

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[1]Ibid., p. 26.

[2]Ibid., pp. 27-28.

Kilby's discussion that if we are going to define entrepreneurship for development purposes, there must be economic, sociological, and psychological variables.

The main themes from the literature concerning the entrepreneur in economic development seem to attempt to answer three basic questions: (1) what are the functions of the entrepreneur, (2) how does the entrepreneur arise, and (3) what is the method for analyzing the motives of the entrepreneur?

The function of the entrepreneur that reappears in the literature is that of being an innovator. On that point, the literature seems to be in agreement; however, there is disagreement as to whether the entrepreneur is a person or an organization. Also, for policy purposes, there is disagreement as to whether the state should be the entrepreneur or should foster private entrepreneurs.

In the literature reviewed here, the entrepreneur seems to arise because of social, cultural, and personality factors rather than economic factors.

There have been several methods for analyzing the motives of the entrepreneur discussed in the literature. Some of these methods deal with role theory or personality theory; some are purely economic.

The entrepreneur--the concepts and the implications for economic development--have been discussed in terms of several selected authors. A brief discussion of the role of human capital now seems appropriate.

The Concept of Human Capital in Economic Development

First some background on the concept of human capital[1] is necessary. As mentioned in Chapter I, some statistical investigations show that output has increased at a higher rate than can be explained by an increase of only the inputs of labor and physical capital. Hence we have the residual[2]--the difference between the rate of increase in output and the rate of increase in physical capital and labor. This encompasses many unidentified factors. One important element may be the improvement in the quality of inputs. The quality of human capital is a relevant consideration here.

Total capital stock is physical capital stock plus human capital stock. Hence capital formation must look at the net addition of both human and physical capital. For example, according to Kuznets only 40 percent of the increases in real earnings per worker are due to interindustry shifts; this

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[1]See T. W. Schultz et al., "Investment in Human Beings," [A Symposium], Journal of Political Economy Supplement 70 (October 1962):1-157; G. S. Becker, Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education, 2nd ed. (New York: National Bureau of Economic Research, 1975); T. W. Schultz, "Investment in Human Capital," American Economic Review 51 (March 1961):1-17; and G. M. Meier, Leading Issues in Economic Development: Studies in International Poverty, 2nd ed. (New York: Oxford University Press, 1970).

[2]For more information on the residual, see Fabricant, Basic Facts; M. Abramovitz, "Resource and Output Trends in the United States Since 1870," American Economic Review Papers and Proceedings 46 (May 1956):5-23; E. F. Denison, The Sources of Economic Growth in the United States and the Alternatives Before Us, Supplementary Paper No. 13 (New York: Committee for Economic Development, 1962); and E. F. Denison, Why Growth Rates Differ: Postwar Experience in Nine Western Countries (Washington, D.C.: Brookings Institution, 1967).

leaves a 60 percent increase unexplained.[1] Kuznets asserts that the concept of capital and capital formation should be expanded to cover investment in health, education, and training of the population itself, i.e., an investment in human beings should be made. From this viewpoint the concept of capital formation pursued by traditional economists is too limited.[2]

The unsuccessfulness of handling human resources solely as a form of capital, as a produced means of production, or as a product of investment has actuated the preservation of the classical idea of labor. Fundamentally, the classical conception is the ability to do manual work which requires little knowledge and/or skill, an ability with which laborers are endowed about equally.[3] Schultz, to the contrary, argues that economic capabilities are not given at birth, but that a person's economic capabilities may be improved by investing in himself (or herself).

In economic growth the ratio of capital to income should remain constant, but empirically the ratio has been declining. Schultz proposes that the concept of human capital is a way to explain this quandary. If the stock of human capital has been rising relative to income, then the ratio of all capital to income remains approximately the same. Differences

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[1]S. Kuznets, National Income: A Summary of Findings (New York: National Bureau of Economic Research, 1946), p. 48.

[2]T. W. Schultz, "Reflections on Investment in Man," Journal of Political Economy Supplement 70 (October 1962):5.

[3]Schultz, "Investment in Human Capital," p. 3.

in earnings are likely to be a result of differing amounts of investments in human capital; this excludes the case of pure rent for differences in inherited abilities. By using the human capital concept, the inequality of the distribution of personal income may be reduced if the rise in the investment in human capital relative to that invested in nonhuman capital increases earnings relative to property income.[1]

Human capital is nothing more than explicitly recognizing that human resources are a form of capital. Just like physical capital, an economy can achieve a higher level of gross national product by technical advances in the improvement of human capital. Thus an economy can improve its human capital and increase gross national product because people can increase their capabilities as producers by investing in themselves. Human capital can be improved by formal education, on-the-job training, fuller information about job opportunities, migration, and better health care.

On-the-job training is a process that raises future productivity and differs from school training in that an investment is made on the job rather than at an institution that specializes in teaching. Most on-the-job training presumably increases the future marginal product of workers, but general training would also increase their marginal product. Training has an important effect on the relation between earnings and age.

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[1]Schultz, "Reflections," pp. 1-2.

A school can be defined as an institution specializing in the production of training, as distinct from one that offers training in conjunction with the production of goods. Some schools specialize in one skill while others, like universities, offer a large and diverse set.

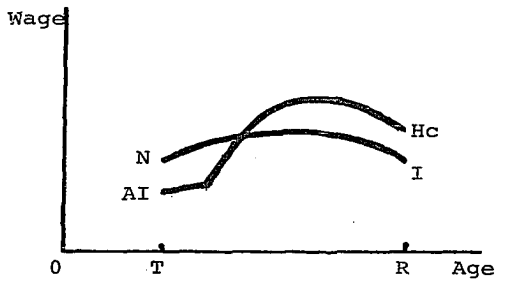
The above two activities are not the only activities that can raise real income permanently. Increasing knowledge such as information about the prices charged by different sellers would enable a person to buy more wisely, thereby raising his command over resources.

Another way to invest in human capital is to improve emotional and physical health. In western countries today's earnings are much more closely geared to knowledge than to strength. However, health, like knowledge, can be improved in many ways. A better diet adds strength and stamina and thus earning capacity. An improvement in working conditions and coffee breaks may improve morale and productivity. The productivity of employees depends not only on their ability and the amount invested in them both on and off the job, but also on their motivation.

Human capital is a scarce resource and individuals, firms, and society presumably wish to maximize the use and allocation of such a resource. This can be shown by earnings curves in Figure 2. Assume that workers are rational, specifically that they only invest when they expect a positive return in excess of investment costs. The NI curve represents the lifetime earnings profile of a worker who did not invest in

FIGURE 2

INVESTMENT IN HUMAN CAPITAL[1]



himself. Age T represents the beginning of his work life, and Age R represents his retirement. Now, if this same worker were to invest in improving his productivity, e.g., on-the-job training, his earnings curve would probably look like AIHc. Most investments in human capital cause the worker to earn less during the first years of his working life, but then his lifetime earnings will rise above his noninvestment profile. Naturally the exact relationship between the two earnings functions depends on the particular investment. For example, a migration investment--the cost of moving--would probably be made up in one year; whereas an investment in a college degree would cost at least four years of foregone income plus tuition and books, but it would yield a higher return.

Thus one would expect that most investments in human capital--formal education, on-the-job training, migration, or

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[1]Adapted from E. B. Jakubauskas and N. A. Palomba, Manpower Economics (Reading, Mass.: Addison-Wesley Pub. Co., 1973), p. 16.

health--would raise observed earnings at older ages because returns would then be part of earnings and would lower observed earnings at younger ages because costs would be deducted from earnings at that time.

In dealing with human capital it must be noted that many of the benefits of investing in human capital cannot be easily measured. This cannot hinder us from continually investing in idle human capital and constantly upgrading human capital.

The critiques of the concept of human capital are very numerous. There are some that indicate that the concept is foolish, that it is following a dead-end path, and their suggestion has been to perhaps follow a different path. An example of this is the article by Melton[1] which, in effect, gives an institutionalist view that changes in growth income have been caused by a conflict between technology and science (major cultural achievements of mankind). This is based on the theories of resources introduced by Veblen,[2] Zimmermann,[3] and Ayres.[4]

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[1]R. B. Melton, "Schultz's Theory of 'Human Capital,'" Southwestern Social Science Quarterly 46 (September 1965):264-272.

[2]T. B. Veblen, The Place of Science in Modern Civilization (New York: B. W. Huebsch, 1919), especially the two essays on capital, pp. 324-386.

[3]E. W. Zimmermann, World Resources and Industries, rev. ed. (New York: Harper & Brothers, 1951).

[4]C. E. Ayres, The Devine Right of Capital (Boston: Houghton Mifflin Company, 1946); The Industrial Economy (Boston: Houghton Mifflin Company, 1952); Toward a Reasonable Society (Austin: University of Texas Press, 1961); and The Theory of Economic Progress, 2nd ed. (New York: Schocken Books, 1962).

Other critiques of human capital center on the problem of estimating human capital. The literature is extensive on this. Below are a selected few of these criticisms.

Human resources have obviously both quantitative and qualitative dimensions. The number of people, the proportion who enter into useful work, and the number of hours worked are essentially quantitative characteristics. Schultz neglects the quantitative dimensions and considers only such qualitative components as skill, knowledge, and health that affect human beings and their productive work.

How can we estimate the magnitude of human capital? How are we going to distinguish between expenditures for consumption and investment? Are we going to depreciate the value of a human being in the same manner as we depreciate capital goods, machinery, houses, tools, etc.? What kind of depreciation method should be applied? These questions bring in conceptual and practical difficulties. G. M. Meier states:

> The problem of measurement presents several difficulties: is it possible to separate the consumption and investment part of expenditures on these activities? Can the particular resources entering into each of these components be identified and measured? Can the rates of return from these activities be identified and measured? And can the rate of return on investment in education be compared with the rate of return on investment in some other alternative use?[1]

Meier concludes that:

> As yet, no completely satisfactory empirical procedure for answering these questions has been devised. . . . no empirical study of investment in human capital

[1]Meier, Leading Issues, p. 601.

> is yet free from some arbitrary elements, and more statistical evidence is needed.[1]

A major source of growth in advanced countries has been the investment in human beings; however, this is not true for the less developed countries because the insignificant amount of human investment has been inconsequential in developing people's capacity to meet the challenge of hastening development. Some of the characteristics of a less developed country take several different forms: (1) lower labor efficiency, (2) factor immobility, (3) scarcity of entrepreneurship, (4) limited specialization in occupations and in trades, and (5) customary values and traditional social institutions that minimize the incentives for economic change. Thus the economic quality of the inhabitants stays low when there is only a scant awareness of the available resources and the possible production technique substitutes. As a result the quality of the human factor and the investment in physical capital must be improved. These two are not substitutes but rather are complementary.[2]

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[1]Ibid. In N. W. Chamberlain, ed., Contemporary Economic Issues, rev. ed. (Homewood, Ill.: Richard D. Irwin, 1973), p. 217, it is suggested that T. W. Schultz in "Human Capital: Policy Issues and Research Opportunities," Human Capital Paper 70:10, University of Chicago, Department of Economics, January 7, 1971, has emphasized a number of diverse research opportunities such as (1) equity in schooling and higher education, (2) efficiency in schooling and higher education, (3) postschool investment in human capital; (4) preschool investment in human capital, (5) the human capital approach to migration, (6) health as a human capital investment, (7) the role of information systems, and (8) human capital aspects inherent in the acquisition of children.

[2]Meier, Leading Issues, p. 599.

Some policy implications for development of human capital include the following. If human capital is viewed as manpower, then a less developed country might attempt to improve its human capital *via* manpower programs. These manpower programs must be designed so that (1) tax laws would not discriminate against human capital; (2) there would be no human capital deterioration during idle periods due to unemployment (unemployment impairs the acquired skills as well as causing a loss of earnings); (3) the society must be free from obstructions to the free choice of profession; (4) flaws in the capital market must be reduced by providing funds for human investment as opposed to physical goods investment (for example, long-term public or private loans to students); (5) internal migration, especially of agricultural people to industry, would require substantial investment; and (6) the causes of low earnings of particular people must be examined. Development economists and politicians should be aware that among their valuable resources are the knowledge and skills necessary to take on and to use efficiently the superior techniques of production.

To summarize, manpower policy[1] involves decisions as to the investments in human capital and the choices among alternative occupations for training. This involves (1) choosing the occupations and industries to receive the scarce investment in human resource development and (2) choosing among the manpower target groups which should receive the investments. The ultimate aim of any manpower program is to make selective

[1]Jakubauskas and Palomba, *Manpower Economics*, p. 291.

investments in manpower target groups in order to make possible a reduction in unemployment without an increase in the price level and/or increased productivity which will bring about increased productivity which will bring about an increase in output.

A closely related issue to the discussion on human capital has to do with the economics of education. In the next section the economics of education will be discussed as it applies to the development process.

The Economics of Education in Economic Development

One might think of the economics of education[1] as a subset of human capital. Harbison and Myers in Education, Manpower, and Economic Growth[2] constructed a human resources development index based on a composite of factors including the portion of school age population enrolled in various levels of education, the number of doctors, engineers, and teachers in relation to population, etc. Their empirical results indicate that there is a strong association between education and economic development; and, in fact, the correlation coefficient is .89. Thus, at least among the contemporary nations, there

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[1]M. J. Bowman, "Educational Outcomes, Processes, and Decisions: Frontiers of Economic Research and Development for the 1970's," Report prepared for the National Institute of Education, Washington, D.C., December 1, 1971; T. W. Schultz, ed., "Investment in Education: The Equity-Efficiency Quandary: A Symposium," Journal of Political Economy 80 (May/June 1972): 1-293; and W. L. Hansen, ed., "Symposium on Rates of Return to Investment in Education," Journal of Human Resources 2 (Summer 1967):291-374.

[2]F. Harbison and C. A. Myers, Education, Manpower, and Economic Growth (New York: McGraw-Hill, 1964), p. 6.

appears to be a sizable correlation between human resource development and the gross national product.

E. F. Denison[1] has tried to ascertain how much of the increase in gross national product in the United States can be attributed to the usual kinds of capital formation, arguing that a large rise left unaccounted for in this way might legitimately be ascribed to improvements in human resources.

> Denison . . . estimated the contribution of various factors to American economic growth in the recent past (1929-1957) as follows: the increase in persons employed, 34 percent; increase in education, 23 percent; increase in capital involved, 15 percent; advances in knowledge, 20 percent; and increase in returns to scale, 9 percent. Denison's projections for 1960-1980 growth using the high employment rate are as follows: the increase in persons employed, 40 percent; the increase in education, 19 percent; the increase in capital, 15 percent; the advances in knowledge, 23 percent; and the increase in returns to scale, 8 percent.[2]

The complete figures of Denison's results are shown in Table 1.

W. L. Miller[3] looks at the normative aspects of the economics of education as applied to economic development but is not concerned with statistical measurement and the like. Miller states that education does promote economic growth and agrees with Max Weber that:

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[1]Denison, Sources of Economic Growth, Chapter 23; and "Long Run Growth: Prospects and Problems," Conference of Savings and Residential Financing 1963 Proceedings, ed. L. T. Kendall and M. D. Ketchum (Chicago: U.S. Savings and Loan League, 1963).

[2]Denison, "Long Run Growth," p. 14.

[3]W. Miller, "Education As a Source of Economic Growth," Journal of Economic Issues (December 1967):280-296.

TABLE 1

CONTRIBUTION OF SOURCES OF GROWTH TO GROWTH RATE OF TOTAL REAL NATIONAL INCOME
Estimated, 1929-57, and Projected, 1960-80

	Estimated, 1929-57		Projected, 1960-80 (High-employment rate)	
	Percentage Points	Percent of Growth Rate	Percentage Points	Percent of Growth Rate
Total growth rate	2.93	100%	3.33	100%
Increase in employment	1.00	34	1.33	40
Shortening of hours	-0.20	- 7	-0.35	- 11
Increased education	0.67	23	0.64	19
Increased experience and better utilization of women workers	0.11	4	0.09	3
Changes in age-sex composition of labor force	-0.01	0	-0.01	0
Quantity of capital	0.43	15	0.49	15
Advance of knowledge	0.58	20	0.75	23
Change in lag in application of knowledge	0.01	0	0.03	1
Reduced waste of labor in agriculture	0.02	1	0.02	1
Economies of scale due to automobile and concentration of population	0.07	2	0.05	2
Industry shift from agriculture	0.05	2	0.01	0
Increased restrictions against optimum use of resources	-0.07	- 2	0.00	0
Economies of scale due to growth of the economy	0.27	9	0.28	8

Source: E. F. Denison, "Long-run Growth: Prospects and Problems," Conference of Savings and Residential Financial 1963 Proceedings, ed. L. T. Kendall and M. D. Ketchum (Chicago: U.S. Savings and Loan League, 1963), p. 14.

> . . . not just any kind of education will give the desired result. Education is a source of economic growth only if it is anti-traditional to the extent that it liberates and stimulates as well as informs the individual and teaches him how and why to make demands upon himself.[1]

The growth-producing capacities of the type of education that Miller advocates arise from the following.

First, by investing in human beings, the proper education contributes in several modes to the evolvement of a broad environment favorable to economic progress: (1) societal prohibitions and individual ignorance are removed; (2) individual ability to make use of formerly neglected or ignored changes and imminent developments or to receive, evaluate, and use information is expanded; (3) societal mobility is made possible; (4) communications efficiency is improved; (5) literary and arithmetical competencies are maintained at a level necessary for recordkeeping and deposit-banking; (6) general improvement of the discipline, reliability, and efficiency of the individuals make the task of organizing and operating business enterprises easier; and (7) cultural integration and a willingness to change are necessary.[2]

Second, by means of human investment, education aids in the development of complementary resources for factors which are relatively abundant and of substitutes for factors that are by comparison scarce. Education raises the quantity and quality of researchers and probably managers and entrepreneurs

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[1]Ibid., p. 281.

[2]Ibid.

too. Educated entrepreneurs should be more cognizant of opportunities for innovation and should be able to make expedient use of them. They should be more accommodating to change and thus better able to survive. Further, education helps technological knowledge grow and be perpetuated. Increases in knowledge definitely reduce the dependence upon natural resource bases. Miller states:

> By reducing the burden of diminishing returns and opening new markets, the increase of knowledge helps maintain or raise the marginal efficiency of investment in material capital and thereby encourages its accumulation. By raising income education tends to increase saving and in this way to encourage further the accumulation of non-human capital. If the scarce resource is unskilled or skilled labor, education helps train for research, innovation and management people who can be allocated toward the development and introduction of labor-saving equipment and procedures.[1]

Third, education seems to have more durability than most types of nonhuman reproducible capital, especially in advanced countries where life expectancy is long. Equally important, "education is a source of complements and substitutes for other factors of production."[2]

Fourth, education is an option to consumption, private investment in nonhuman capital, or government outlay for other than educational ends.

Miller concludes his study by indicating that to date the role of education in economic growth has not been quantitatively

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[1]Ibid., p. 282.

[2]Ibid.

isolated. No one has been able to set forth a context which removes all normative components from the mensuration of the internal rate of return and the effect of education on economic growth. Also, most economists are too engrossed in the problems of statistical measurement and hence have neglected questions of reform. By indicating substantial gains from education, the requirement for an increased level of efficiency in existing educational systems may have been obscured. Furthermore, economists have failed to make a comprehensive statement as to why they think education promotes economic growth.[1]

A. C. Bolino[2] states that empirical studies since 1929 indicate that labor contributed more to economic growth than capital. Furthermore, these studies confirm that both individual productivity and earning power are increased by additional schooling.

Most assessments of the rate of return to education emphasize only the return of education to earning capacity and to material gains. There are, however, four primary types of direct returns: (1) a higher income on the average accrues to the better educated; (2) the better educated suffer less unemployment; (3) being a professional worker generally lengthens

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[1]Miller states that: "Perhaps the best that can be said about statistical work is that ideally and potentially it can help solve the problem of which type of educational reform is most attractive. Consequently, further quantitative work is welcome even when its results are disappointing, particularly if we can prevent misuse. In the meantime we can, and should, do much with our existing knowledge and weapons." Ibid., p. 296.

[2]A. C. Bolino, "Education, Manpower, and Economic Growth," Journal of Economic Issues 2 (September 1968):322-341.

average life expectancy; and (4) social status accrues to the better educated.

To be sure, this emphasis disregards some important cultural, religious, and social effects. The result of high returns to education definitely increases its demand. Both the individual and the national well being gain from education. Today, even though there is a great awareness of this contribution, important elements of the nation's manpower are underutilized--just study unemployment rates, dropout rates, training needs, and hiring practices. It is generally agreed among manpower officials that all educational institutions are necessary to sustain continued economic growth through education and training. Yet to reach the correct balance of manpower supply and to smooth the transition from school to work, the present system for educating adults and youths needs to be restructured.[1]

E. O. Edwards and M. P. Todaro[2] begin with a caveat to the less developed country: "The education of large numbers of people will not alone create jobs for them."[3] They state further that societies themselves largely determine their educational systems, and thus those systems cannot be expected to fundamentally reshape their societies. Yet education may

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[1]Ibid., p. 341.

[2]E. O. Edwards and M. P. Todaro, "Education, Society and Development: Some Main Themes and Suggested Strategies for International Assistance," World Development 2 (January 1974):25-30.

[3]Ibid., p. 25.

push its society in useful directions, even though educational systems usually respond quantitatively, structurally, and qualitatively to society's aggregate private demand for education.

High rates of growth and aggregate and per capita incomes are generally associated with development. Yet this is only one dimension. Other dimensions to be included are employment opportunities, income distribution, the provision of social services, and the alleviation of poverty. Consequently, to truly assess its contribution to growth, education must be evaluated alongside of its effects on poverty, employment, and income distribution.

Education and development interact in the following manner: at any stage of development the educational system may strengthen the existing social constraints and inequities, or it might prompt a broadened participation in the benefits of growth. Nevertheless, a direct influence expected of the educational system itself is unrealistic. It cannot possibly redress inequities stemming from factors outside of its control, e.g., distorted incentive systems, malfunctioning labor markets, and abused political power.

The long-run policy implication is that less developed countries should engage in noneducational projects encouraging an extensive geographic and occupational apportionment of economic opportunities, thus changing its society's incentive framework and affecting the orientation of the educational system in more lasting, progressive ways.

Edwards and Todaro also suggest ways of improving education and employment:

1. Minimizing imbalances, incentive distortions, and socio-political constraints will improve both education and employment.
2. Where politically feasible, educational budgets should grow more slowly and be more oriented towards primary education.
3. Work-sharing arrangements should be encouraged.
4. Job-rationing by educational certification must be modified.
5. Subsidies for upper-level education should be reduced.
6. Inequities and discrimination in both education and employment should be minimized.[1]

It must be apparent that the economics of education is a subset of human capital since formal education can be looked upon as investment in human capital. On the policy side this deals with manpower economics. If you are going to have a full analysis of the manpower needs of a nation, you must study all levels of education, that is, formal education at the primary, secondary, and college levels as well as vocational-educational programs and on-the-job training projects. This naturally assumes that the less developed country will devise a job placement service so as to match employees with employers.

Some developing countries at their stage of development may not need extensive formal education. They do, however, need informal education and on-the-job training. In particular, one sector of the economy in which this should be emphasized is agriculture. The developing country needs to have manpower surveys which will furnish it with the information needed to

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[1]Ibid., pp. 29-30.

determine principal skill shortages and the type of training activities to be emphasized. This, of course, will vary with the country. Probably in the immediate future, agricultural extension services should be provided along with training in mechanical and technical skills and supervisory and administrative skills.

A suggestion to fulfilling manpower requirements is that the educational system should be devised in such a way as to provide a balance between general education, vocational education, vocational preparation, and training. Naturally, in a less developed country, a rapidly growing population places a burden on development until the workers reach an age at which they are able to join the labor force and thus participate in the development process. It is important for each less developed country to recognize that the development of manpower through the education of its youth and older people is necessary in the investment of resources and the development of human capital. One technique for evaluating educational programs, manpower analyses, etc., is cost-benefit analysis.

In this chapter the concepts of the entrepreneur and human capital as they apply to economic development have been reviewed briefly. The implications of the economics of education for economic development have also been briefly explored. In the next three chapters the entrepreneurship theories of Joseph A. Schumpeter, Everett E. Hagen, and David C. McClelland will be explained and analyzed.

CHAPTER III

JOSEPH A. SCHUMPETER'S MODEL

This chapter is concerned with Schumpeter's theory of the entrepreneur[1] and its relevance to economic development. The discussion on the theoretical aspects of the model will be followed by a number of critical comments.

Background

Joseph A. Schumpeter was the first major "modern" writer to place man at the center of the process of economic development. Schumpeter most clearly stated the idea that through innovation the entrepreneur plays a crucial role in economic development. Historically Schumpeter synthesized the innovator (as developed in the empirico-historical environment of nineteenth century Germany by Schmoller and the German Historical School) and the deductive economics of the Lausanne and Austrian Schools to explain economic development.[2] Stated differently, Schumpeter said that the entrepreneur was a significant variable in the development process.[3]

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[1]Schumpeter, Theory of Economic Development.

[2]W. R. Waters, "Entrepreneurship, Dualism, and Causality: An Appreciation of the Work of Joseph A. Schumpeter" (Ph.D. dissertation, Georgetown University, 1952).

[3]Baumol in "Entrepreneurship," p. 65 supports this assertation in the following manner: "It has long been

By answering four questions[1] Schumpeter's theoretical device may be summarized. The first question is: What is the original state? Specifically, what is the position of the economy before any change takes place? The circular flow of economic life[2] answers this question. The circular flow is the condition where economic change is absent, and it will be affected when change is introduced.

The second question is: How is this change brought about? Innovation disrupts the static repose of the circular flow. The innovation is financed by the creation of credit, and at that point an interest rate comes into being to remunerate the flow of capital. The new enterprise will employ workers and also produce something additional--the rise of employment and production. Finally, if the new enterprise is successful, profits will appear for the first time. The economy of the "disturbed circular flow" differs from the static circular flow in the importance of credit and capital and in the appearance of interest and profits.

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recognized that the entrepreneurial function is a vital component in the process of economic growth. Recent empirical evidence and the lessons of experience both seem to confirm this view. For example, some empirical studies on the nature of the production function have concluded that capital accumulation and expansion of the labor force leave unexplained a very substantial proportion of the historical growth of the nation's output."

[1]Ideas for these questions came from Waters, "Entrepreneurship," pp. 137-139.

[2]The translator of Schumpeter's Theory of Economic Development, with Schumpeter's approval, translates the German word "Kreislauf" into "circular flow" (1934). In his later books Schumpeter calls it the "stationary flow" (1939).

The third question is: Who or what brings about this change? In the pure model of Schumpeter this is accomplished through the act of innovation by the entrepreneur. Hence the entrepreneur personifies innovation. Actually, the request for funds is the first physical thrust to disequilibrate the economy, and the plan of the entrepreneur does not affect circular flow in itself. Credit, however, can never be more than an instrument under the influence of the planning entrepreneur.

The fourth question is: Why was the change brought about? This requires an examination of the intentions of the entrepreneur. Most traditional economists would begin as Schumpeter did by responding that the answer is the maximization of profits. Notwithstanding, profits are not enough to explain the actions of the restless entrepreneur. Consequently, Schumpeter speaks of the delight of venturing and the job of creating.

In summation, these four answers combine to give a solution to the problem of the source of economic change. A more elaborate discussion of Schumpeter's Theory of Economic Development will follow.

Schumpeter's Theory of Economic Development

The starting point of analysis is the circular flow[1] of economic life. This is essentially Walras's concept of general equilibrium.[2] To be sure, Schumpeter extended the Walrasian

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[1]Some of the ideas on general equilibrium are from Waters, "Entrepreneurship," p. 140.

[2]P. M. Sweezy, "Professor Schumpeter's Theory of Innovation," Review of Economics and Statistics 25 (February 1943): 94.

notions because the general equilibrium situation was used as the starting point for the explanation of economic change. Simply put, Schumpeter's model is a generalization of Walrasian general equilibrium.

The Walrasian situation "is not a generalized situation from which all economic process may be logically derived."[1] Rather it is a special case which may be generalized by the addition of the disrupting entrepreneurial act and its resultant monetary surpluses, profits, and interest. It has been found that the Walrasian model satisfactorily analyzes only those economic processes which are stationary or steadily growing, i.e., exogenous changes such as population (labor force) or saving (supply of capital).[2]

These changes are due to external disturbances to which the system is able to adapt itself smoothly. The contribution of Schumpeter's model is that it explains the effects of introducing internally active elements, e.g., innovation by the entrepreneur, into the circular flow or the original state of general equilibrium.

Schumpeter defines the circular flow as "an unchanging economic process which flows on at constant rates in time and merely reproduces itself."[3] Thus economic life flows in a

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[1]Waters, "Entrepreneurship," p. 140.

[2]Ibid.

[3]J. A. Schumpeter, Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process, vol. I (New York: McGraw-Hill Book Company, 1939), pp. 35-36.

definite and constantly recurring pattern. The economy is an isolated community where private property, division of labor, and free competition prevail; where everyone lives on goods produced in the preceding period; where market possibilities are known by experience; and where there are no changes except in response to external factors.

As stated earlier, general equilibrium conditions are assumed. If any element within the system is dislocated, then there will be forces within the system which will move in such a way as to react to the disturbance and absorb it. The factor responsible for the retention of this equilibrium is the Walrasian entrepreneur.

The Walrasian entrepr[illegible]his position in the center of the circulatio[illegible] He buys natural resources and services [illegible]lls products to consumers. Yet the ov[illegible]also the buyers of the products. If i[illegible]should be any deviation of price or q[illegible]rium conditions, then the Walrasian entrep[illegible]buy and sell to eliminate the resultant tempo[illegible]t and loss. Diagram 1 by W. R. Waters[1] illustrates the role of the Walrasian entrepreneur.

DIAGRAM 1

ROLE OF THE WALRASIAN ENTREPRENEUR



[1]Waters, "Entrepreneurship," p. 142.

definite and constantly recurring pattern. The economy is an isolated community where private property, division of labor, and free competition prevail; where everyone lives on goods produced in the preceding period; where market possibilities are known by experience; and where there are no changes except in response to external factors.

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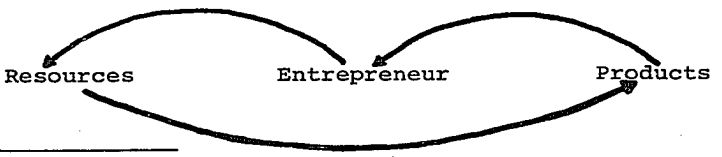
The Walrasian entrepreneur takes his position in the center of the circulation of economic goods. He buys natural resources and services from their owners and sells products to consumers. Yet the owners of the resources are also the buyers of the products. If in the circular flow there should be any deviation of price or quantity from its equilibrium conditions, then the Walrasian entrepreneur will move to buy and sell to eliminate the resultant temporary profit and loss. Diagram 1 by W. R. Waters[1] illustrates the role of the Walrasian entrepreneur.

DIAGRAM 1

ROLE OF THE WALRASIAN ENTREPRENEUR



[1]Waters, "Entrepreneurship," p. 142.

Thus, as one would expect, the Walrasian entrepreneur is the preserver of equilibrium and, as the result, lacks an income.

In contrast, the disrupter of equilibrium is the Schumpeterian entrepreneur and is the recipient of an income flow, i.e., profit, resulting from his disruptive function. As one can easily see, the Walrasian entrepreneur is thus diametrically opposed to the Schumpeterian entrepreneur.

The needs of individuals are the decisive factors of the circular flow. If we assume that consumers are rational, then the wants of individuals will be satisfied by the two laws of Gossen.[1] Unfortunately, the initiation of economic change is traced most frequently to production.

Price theory states that the satisfaction of wants (utility) is the end of all production. Stated differently and very simplistically, changes in consumer demand may cause changes in production. To the contrary, Schumpeter points out that the entrepreneurial producer initiates economic activity and teaches the consumer to want his new products.[2] As the

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[1]These are the well-known laws of diminishing utility and the principle of rational consumption. (1) The principle of diminishing utility is that the amount of satisfaction derived from the consumption of a good decreases with each additional unit of the same commodity until the point of satiety is reached. (2) The principle of rational consumer choice is as follows: "A person maximizes his utility when he distributes his available money among the various goods so that he obtains the same amount of satisfaction from the last unit of money spent up on each commodity," i.e., $MU_1/P_1 = MU_2/P_2 = \ldots = MU_n/P_n$. Quotation from M. Blaug, Economic Theory in Retrospect, rev. ed. (Homewood, Ill.: Richard D. Irwin, 1968), p. 324. See any price theory book for more explanation.

[2]Schumpeter, Theory of Economic Development, p. 65.

result the direction of causality may be reversed! Correspondingly it might be said that the omnipotence of consumer demand is destroyed.[1] This is the first thrust of the motionless tranquility of the circular flow, and it means that traditional value theory may not apply in the new, changing situation.

In order to clarify the differences between growth and development, definitions and explanations of each term are presented. Both growth and development are progressive or changing economic processes. By definition growth is a response of the economic process to external factors; hence, it is never autonomous. The growing economy adapts itself to the steady outside pressures. One example is a monetary accumulation which disturbs the economy by increasing the supply of capital. Another example is an increase in population which disturbs the economy by increasing the labor supply. Growth is adaptive activity which involves a quantitative increase that is continuous (mathematically).

Schumpeter defines development in the following passage.

> By "development" . . . we shall understand only such changes in economic life as are not forced upon it from without but arise by its own initiative, from within. . . . [if] the data change and . . . [if] the economy continuously adapts itself to them, then we should say that there is no economic development. . . . Development . . . is spontaneous and discontinuous change in the channels of the flow, disturbance of equilibrium, which forever alters and displaces the equilibrium state previously existing. Our

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[1]Ibid., p. 65.

> theory of development is nothing but a treatment of this phenomenon and the processes incident to it.[1]

The crux of the preceding quotation is that development is caused from within and that it is a qualitative, discontinuous, creative change. To be sure, the response of the economy to innovation is development.

Development occurs when new combinations of the factors of production emerge discontinuously. A la Schumpeter, development is "defined by the carrying out of new combinations."[2] There are five cases of new combinations: (1) the introduction of a new good or a new quality of good, (2) the introduction of a new method of production, (3) the opening of a new market, (4) the conquest of a new source of supply of raw materials or half-manufactured goods, and (5) a new industrial organization.[3]

It is to be expected that new combinations will be embodied in new firms which generally do not arise out of old firms but begin producing alongside the old firms.[4] However, new firms may arise out of the old firms. This process involves a discontinuous change, and the following situations emerge: (1) the elimination of old firms, (2) the economic and social rising and falling of individuals and families, (3) the phenomena of the business cycle, and (4) the formation of private

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[1]Ibid., pp. 63-64.

[2]Ibid., p. 66.

[3]Ibid.

[4]Ibid.

fortunes.[1] Moreover, new combinations never use unemployed resources, but rather they use existing supplies of resources already employed.

The entrepreneur is able to obtain the means of production for new combinations by the use of credit. With credit he is able to and simple does outbid the other producers in the circular flow for the required means of production.[2]

Where does the money come from that is used to divert and transfer the factors of production to new productive use by the entrepreneur? One might expect that it comes from total savings, but this is not the case either before or during development. Before development the funds come from the well-known bank creation of money, i.e., the multiple expansion of deposits. Loans (or credit) at this point do not have any collateral backing. After development is underway, however, because of successful innovations, entrepreneurial profit exists. This profit is defined to be surplus over costs and constitutes a source of funding.

As one would expect, credit for the running of a business in the circular flow is not an element of economic development, but rather "every kind of extension of credit for the purposes of 'innovation' is by definition the granting of credit to the entrepreneur."[3] Thus the entrepreneur needs

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[1]Ibid., p. 67.

[2]Ibid., p. 106.

[3]Ibid., p. 103.

credit in the sense of a temporary transfer of purchasing power so that he will be able to carry out his new combinations and produce his product. This is essential if he is to be an entrepreneur.

According to Schumpeter, capital is "that sum of means of payment which is available at any moment for transference to entrepreneurs."[1] Capital is the money that the entrepreneur uses to carry out the new combinations of production, that is, the money "to divert the factors of production to new uses or of dictating a new direction of production."[2] This function of capital provides the entrepreneur with the means to be able to produce.

As mentioned earlier, through credit the banker provides the entrepreneur with needed capital. The banker is thus important in the development process:

> Since all reserve funds and savings to-day usually flow to him [the banker], and the total demand for free purchasing power, whether existing or to be created, concentrates on him, he has either replaced private capitalists or become their agent; he has himself become the capitalist par excellence. He stands between those who wish to form new combinations and the possessors of productive means. He is essentially a phenomenon of development, though only when no central authority directs the social process. He makes possible the carrying out of new combinations, authorises people, in the name of society as it were, to form them. He is the ephor [overseer] of the exchange economy.[3]

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[1]Ibid., p. 122.

[2]Ibid., p. 116.

[3]Ibid., p. 74.

Hence the banker acts as a middleman between the entrepreneurs (the demanders of capital) and the capitalists (the suppliers of capital). The banker must forecast the chances of financial success of the entrepreneur's innovation.

The introduction of new combinations, credit, and the entrepreneur as a whole form the "fundamental phenomenon of economic development." To be sure, the individuals who carry out new combinations are called entrepreneurs. The individual need not be permanently connected with the individual firm. Only those heads of firms, managers, or industrialists who actually perform the function are included as entrepreneurs; the rest are not.

Schumpeter[1] accepts only the notion of Say's entrepreneurial function when the factors of production are combined for the first time; after that occurs, Schumpeter does not accept the routine work in running a business. Schumpeter builds on the work of Mataja, who indicates that the entrepreneur receives profit, and of Walras, who indicates that there is no profit in the circular flow. Rather than accept one and reject the other, Schumpeter reconciles the two concepts by (1) indicating there is no profit in the circular flow and (2) allowing profit to flow to the entrepreneur when there is a disruption of the circular flow.

Schumpeter rejects the broad Marshallian definition of the entrepreneurial function as being management. Hence Schumpeter's entrepreneur includes individuals only when they are

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[1]This section draws heavily from Ibid., pp. 76-79.

actually carrying out new combinations of the means of production. As one would expect, the moment the business has been built up and the entrepreneur settles down to run the business (as other people run their businesses), there is no more Schumpeterian entrepreneurship.

Furthermore, the entrepreneur is not a risk bearer. That function always falls on the owners of the means of production, i.e., the capitalists, or on the owners of the money capital which was paid for the means of production.

Some observations concerning Schumpeterian entrepreneurship are: (1) it is not a lasting condition, (2) entrepreneurs do not form a social class, and (3) the function of entrepreneurship cannot be inherited.[1] Schumpeter explains:

> While in the accustomed circular flow every individual can act promptly and rationally because he is sure of his ground and is supported by the conduct, as adjusted to this circular flow, of all other individuals, who in turn expect the accustomed activity from him, he cannot simply do this when he is confronted by a new task. While in the accustomed channels his own ability and experience suffice for the normal individual, when confronted with innovations he needs guidance. While he swims with the stream in the circular flow which is familiar to him, he swims against the stream if he wishes to change its channel. What was formerly a help becomes a hindrance. What was a familiar datum becomes an unknown. Where the boundaries of routine stop, many people can go no farther, and the rest can only do so in a highly variable manner.[2]

Thus the carrying out of new combinations is a special function for a special type of person, and only a few of all the people who have the capability do it.

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[1]Ibid., pp. 78-79.

[2]Ibid., pp. 79-80.

The entrepreneur's success depends on his intuition, foresight, and selectivity of essentials.[1] Moreover, he is mentally free, willing to try new methods. Socially he is a deviant. The entrepreneur copes with the resistance from all groups threatened by innovation, finds the necessary cooperation to do the innovation, and at last, wins the consumers. In short, he possesses a rare form of leadership!

Entrepreneurs may be inventors by coincidence, but they are not by nature. The entrepreneur seizes the intermediate chance or "strikes while the irons are hot."

Psychologically the entrepreneur is self-centered, but not culture-bound. He is not hedonistic; for if he were, his conduct would be irrational. Schumpeter expounds on this:

> Then there is the will to conquer: the impulse to fight, to prove oneself superior to others, to succeed for the sake, not of the fruits of success, but of success itself. From this aspect, economic action becomes akin to sport--there are financial races, or rather boxing-matches. The financial result is a secondary consideration, or, at all events, mainly valued as an index of success and as a symptom of victory, the displaying of which very often is more important as a motive of large expenditure than the wish for the consumers' goods themselves. . . . And again we are faced with a motivation characteristically different from that of "satisfaction of wants" in the sense defined above, or from, to put the same thing into other words, "hedonistic adaptation."
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> Finally, there is the joy of creating, of getting things done, or simply of exercising one's energy and ingenuity. . . . Our type seeks out difficulties, changes in order to change, delights in ventures. This group of motives is the most distinctly anti-hedonist of the three.[2]

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[1]Ibid., p. 75.

[2]Ibid., pp. 93-94.

The difference between receipts and costs is profit. Hence "entrepreneurial profit is surplus over costs"[1] and is income due to the entrepreneur for changing the production function. The entrepreneur renders a service and deserves income just as wages accrue to the laborer, rent to the landowner, and interest to the capitalist. If development results, then these new combinations are necessarily more advantageous than the old ones; hence, total receipts must be greater than total costs.[2] In this sense, profit is not a cost but a residual of total revenue minus total cost.

This surplus is only temporary because competitors begin slowly to change their production functions to gain profit. The process of changeover of production functions continues to the point of common usage. Profit falls to zero because total receipts equal total costs.

Unlike profits, interest to the entrepreneur is a cost of production. It is "a premium on present over future purchasing power."[3] Schumpeter expects the circular flow economy to have a zero interest rate[4] without entrepreneurial behavior.

With entrepreneurial behavior, interest is paid out of anticipated profits from the new combinations of the factors of

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[1]Ibid., p. 128.

[2]Ibid., p. 129.

[3]Ibid., p. 157.

[4]This is not to say that frictional elements could cause an interest rate greater than zero. But this is not the normal state of affairs. Ibid., p. 172.

production. Hence interest is greater than zero. Interest is reduced to zero when, through the common usage of innovation, competition reduces profits to zero. Hence the entrepreneur is the demander of funds and is willing to pay interest because of his expectations concerning the new combinations of the factors of production. Furthermore, interest is productive because it helps the entrepreneur and development. In this sense "interest is an element in the price of purchasing power regarded as a means of control over production goods."[1]

Both productive interest and entrepreneurial profits move together because of new combinations appearing in a discontinuous sequence. Hence there are fluctuations in industrial activity, i.e., business cycles.

Schumpeter's theory of economic development contains an explanation of the business cycle. The entrepreneur plays a central role in the formation of business cycles. Since "new combinations are not evenly distributed through time, but appear, if at all, discontinuously in groups or swarms,"[2] there are fluctuations in prices, output, and employment.

Beginning with the circular flow, there is a state of equilibrium. There are no profits, no capital, and no interest. An entrepreneur appears on the scene discontinuously with an idea for a new combination of the factors of production and goes to a banker for financing. With his borrowed money the

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[1]Ibid., p. 184.

[2]Ibid., p. 223.

entrepreneur has the purchasing power to bid resources away from other firms and can thus begin forming his new combinations of the factors of production. This is the beginning of inflation. As the products are produced and sold, receipts flow to the entrepreneur. These receipts are large enough to pay the interest (the price of purchasing power) and the principal as well as all other costs. The difference between receipts and outlays is entrepreneurial profit. This entrepreneurial profit invites other firms to change their production functions. As this happens, interest and entrepreneurial profit fall to zero and that particular innovation would tend to become commonplace.

The turning point in the business cycle begins when the entrepreneur begins to repay his loans. The withdrawal of funds exerts a deflationary force and makes recession more pronounced. With deflation, entrepreneurial activity slows down and leads the economy back toward the equilibrium of circular flow. The end result is that equilibrium is now on a higher level; hence, a higher social product. Here the process begins again.

A Critique of Schumpeter's Model

The Schumpeterian model has received both support and criticism. A number of supportive and critical comments are presented below.

P. M. Sweezy[1] supports Schumpeter's argument: "It appears to me indisputable that on its own assumptions his

[1]Sweezy, "Professor Schumpeter's Theory," pp. 93-96.

theory of the mechanism of economic change is unassailable."[1] Sweezy states that innovation is:

> . . . a central feature of economic development; . . . anyone who denied this part of his theory would be flying in the face of an overwhelming mass of obvious and indisputable facts.[2]

However, the idea of the entrepreneur--a special sociological type as the essence of change--might be questionable. Sweezy especially questions if profits result from the innovating process and whether accumulation is a derivative phenomenon.

C. S. Solo[3] argues that innovation is more realistically analyzed as an ordinary business activity as opposed to the extraordinary efforts of entrepreneurs. Solo concludes that:

> . . . if innovation is a regular part of normal business procedure based upon deliberate incentive effort on the part of the firm, the resources used in this activity are a form of productive factor.[4]

It would seem logical that if research and development costs are costs of production, then the circular flow can include receipts from successful innovations and expenditures from unsuccessful invention and innovation. Solo concludes that "Schumpeter's emphasis on innovation as a disturbing occurrence to which adjustments must be made can be revised."[5]

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[1]Ibid., p. 94.

[2]Ibid., p. 96.

[3]C. S. Solo, "Innovation in the Capitalist Process: A Critique of the Schumpeterian Theory," Quarterly Journal of Economics 65 (August 1951):417-428.

[4]Ibid., p. 427.

[5]Ibid., p. 428.

H. W. Singer[1] states that Schumpeter does not provide a theory of economic development in the sense of a theory that indicates how such development starts. The theory is "how economic development continues and proceeds. This is not a criticism of Schumpeter's system since it was never put forward as a theory of how economic development starts from very low income levels."[2]

Singer attempts to defend the Schumpeterian hypothesis from H. C. Wallich's[3] criticisms of the system: (1) the agents of economic development are not entrepreneurs but governmental agencies; (2) the method by which development is brought about is through the adaptation of old, established technologies to the production of old, established products, not changes in production functions through innovative techniques for new products; and (3) the generating force of economic development lies in the sphere of demand rather than supply.

Singer offers these rebuttals to Wallich. First, the agency of the government operating as the agent of economic development is not an independent function of economic development. Hence development requires good public administration; unfortunately, good public administration is itself a result

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[1]H. W. Singer, "Obstacles to Economic Development," Social Research 20 (April 1953):19-31.

[2]Ibid., p. 23.

[3]H. C. Wallich, "Some Notes Toward a Theory of Derived Development," in A. N. Agarwala and S. P. Singh, ed., The Economics of Underdevelopment (Bombay: Oxford University Press, 1958), pp. 184-204. Citation from Ibid., p. 20.

of economic development. Second, the factor endowment of a less developed country is defined by an acute shortage of capital and a relative abundance of labor. The less developed countries are copying the industrialized countries' technologies rather than using old technologies which they can handle. Third, Singer states that:

> Where non-Schumpeterian development starts off with higher consumption, it puts the cart before the horse (i.e., real income). In the Schumpeterian world the horse is before the cart, and it is not surprising that movement there is easier, and is indeed taken for granted.[1]

If the demonstration effect works to change desires of standards of consumption, it affects the individual desires through profits; and this is a supply concept.

According to S. Pal,[2] Schumpeter's theory of economic development is inapplicable to less developed countries because the observable facts violate the assumptions of the model. Economic development is a qualitative and structural change caused by "the setting up of new production functions (innovations) and absorbed by the economic system as a whole in ways which are not in the nature of continuous marginal adjustments."[3] The state is more likely to assume the role of innovators in the less developed countries. This is all right as long as response is creative and not adaptive.

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[1]Ibid., p. 31.

[2]S. Pal, "Notes and Memoranda: Significance of Schumpeterian Ideas for the Underdeveloped Countries," Indian Economic Journal 2 (August 1955):89-91.

[3]Ibid., p. 91.

G. M. Meier and R. E. Baldwin[1] criticize Schumpeter for emphasizing one particular set of relationships and thereby risking generality.[2] Furthermore, they question whether his theory works in reality since innovations (1) occur in large firms with high research and development funds and (2) are not always financed by credit-creating banks but out of retained earnings or issues of securities. Schumpeter appears to over-emphasize the determining power of economic factors in explaining the development of the Modern West. He is obsessed with the notion that capitalism is crumbling and socialism will follow. To be sure, Schumpeter, like Marx, sees capitalism being replaced.

R. J. Wolfson[3] states that Schumpeter's theory has two virtues: (1) the explanation of innovation and (2) the explanation of the business cycle with economic development. The Schumpeterian cycle and development theory, however, are not testable hypotheses, either in principle or due to the paucity of data. Wolfson considers this the main downfall of Schumpeter's theory. Other pitfalls are that the concepts are immeasurable and extraordinarily rich in noneconomic content. Moreover, Wolfson states that Schumpeter's model is "fundamentally

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[1]G. M. Meier and R. E. Baldwin, Economic Development: Theory, History, Policy (New York: John Wiley & Sons, Inc., 1957), pp. 95-99.

[2]Ibid., p. 95.

[3]R. J. Wolfson, "The Economic Dynamics of Joseph Schumpeter," Economic Development and Cultural Change 7 (October 1958):31-54.

unstable. Such a model requires some new approaches which have not be attempted yet."[1]

Wolfson ends his criticisms, however, on a positive note and states that interest will be aroused in Schumpeter's work when theories that rest on exogenous change have been weighed and found incomplete.

R. S. Bhambri[2] states that Schumpeter's Theory of Economic Development does not have any prescriptive value because the entrepreneur or innovator can neither be adequately explained or understood.[3] Bhambri does not think that Schumpeter advances our knowledge beyond classical economics by saying that innovations are essential for economic growth. Yet Bhambri argues that Schumpeter's theory may become valuable when:

> . . . we can recommend concrete steps which might enable policy makers to encourage the growth of a business elite. It is necessary to emphasize that an economist can help policy makers only if he is able to throw light on the operation of dependent variables which governments can reasonably be expected to manipulate to achieve desirable results.[4]

D. Rimmer[5] criticizes the Schumpeterian theory for its lack of practical usefulness, even though the characteristic features of this theory are very relevant to the study of the

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[1]Ibid., p. 54.

[2]R. S. Bhambri, "Enterprise, Initiative and Economic Policy," Kyklos 15 (1962):401-422.

[3]Ibid., p. 409.

[4]Ibid.

[5]D. Rimmer, "Schumpeter and the Underdeveloped Countries," Quarterly Journal of Economics 75 (August 1961):422-450.

economic development of less developed countries. Such features are the emphasizing of qualitative changes, the distinctive character and rareness of innovative ability, and the essentially disharmonious nature of economic progress.[1]

Rimmer argues that Schumpeter's system need not be inapplicable to less developed countries, however. First, Schumpeterian innovation is identified with technical novelty. To be sure, less developed countries rely heavily on existing knowledge. Second, government entrepreneurship instead of private entrepreneurship does not imply any fundamental difference. Third, the demonstration effect is a partial force, i.e., foreign influences or consumer tastes which do not eliminate the need for entrepreneurship. Fourth, emphasizing changes in data rather than the mechanism itself is not a successful method of controverting Schumpeter's economic theory, e.g., the expansion of knowledge and the growth of population.

Rimmer concludes that Schumpeter's model has a strongly institutional character. The evidence for this is that:

> . . . economic development in the model depends on a particular socio-psychological climate, on valuations that are commonly accepted, ambitions to which free rein is given, inhibitions in those in political authority, conventions observed, taboos respected.[2]

In Rimmer's opinion, the size of innovation is of no relevance.

P. S. Laumas[3] disagrees with Rimmer in that size of innovation is of no relevance. He argues that size of innovation

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[1]Ibid., pp. 448-449.

[2]Ibid., p. 450.

[3]P. S. Laumas, "Schumpeter's Theory of Economic Development and Underdeveloped Countries," Quarterly Journal of Economics 76 (November 1962):653-659.

is important--entrepreneurs who undertake small innovations indulge in a zero-sum game.[1] Furthermore, the size of the disturbance of the circular flow is of great relevance to Schumpeter's economic development. To have development, the disturbance must be large; if not, development will not result. A large disturbance may be created by a great number of small innovations or by a relatively small number of large innovations.

For financing of innovations in less developed countries, the entrepreneur has to resort to sources other than banks since he does not possess any assets to offer as collateral. The borrowing of funds from outside the country is a possibility, but this increases interest rates and risk. Deficit financing by the government is another possibility--but how much? Laumas argues that a high rate of profit is the most significant element in the social climate for the growth of private entrepreneurship in less developed countries.[2] As a result the government should pursue policies that make the social climate for entrepreneurs favorable.

R. C. Wiles[3] disagrees with Laumas in that the size of the innovation is significant for development. Rather Wiles agrees with Rimmer that it is of no consequence. Innovation does not have to be spectacular or of historical importance; all it has to do is appear in swarms and disturb the circular flow.

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[1]Ibid., pp. 658-659.

[2]Ibid., p. 657.

[3]R. C. Wiles, "Schumpeter and Underdeveloped Countries: Comment," Quarterly Journal of Economics 77 (November 1963): 697-699.

In a later article R. C. Wiles[1] agrees with the critics of Schumpeter who assert that the Schumpeterian system is inapplicable to the development of emerging areas because the assumption of full employment is violated in less developed countries.[2]

H. H. Schloss[3] states that the Schumpeterian entrepreneurial function can be performed by a relatively small number of people and still have a major impact. Schloss "doubts whether a shortage of this entrepreneurial function is as serious as most writers indicate."[4] He further states that the private sector is likely to have an advantage since it is more flexible and less constrained by bureaucracy.

B. Higgins[5] indicates that Schumpeter's theory is relevant even though it is a tautology. This tautology makes it difficult to set up a "refutable hypothesis" and thereby test his model.[6]

P. Kilby[7] criticizes Schumpeter's theory by stating that to the best of his knowledge this particular theory of

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[1]R. C. Wiles, "Professor Joseph Schumpeter and Underdevelopment," Review of Social Economy 25 (September 1967): 196-208.

[2]Ibid., p. 202; and Wiles, "Schumpeter and Underdeveloped Countries," p. 699.

[3]Schloss, "Concept of Entrepreneurship," pp. 228-232.

[4]Ibid., p. 231.

[5]B. Higgins, Economic Development: Problems, Principles, and Policies, rev. ed. (New York: W. W. Norton & Company, 1968), pp. 100-105.

[6]Ibid., p. 104.

[7]Kilby, Entrepreneurship, pp. 22-26.

entrepreneurial supply has not been tested. He further states that such testing "could be accomplished only by a team of biographers trained in psychoanalysis."[1] This Kilby feels is compounded by a supply-and-demand-type identification problem.

P. J. McNulty[2] challenges the interpretation of and wishes to end the idea of bigness as a major determinant of the firm's innovativeness. This, he argues, is a misunderstanding of Schumpeter. Rather, McNulty argues that firm size plays a decidedly secondary, if not a minor, role.[3] In fact, McNulty states: "the large firm plays no special role in The Theory of Economic Development, where the emphasis is wholly on the character and quality of the entrepreneur";[4] Schumpeter showed little interest in the really large firm and believed the newness of the firm was more significant. Even more important is the entry into the market so that innovation can take place.

E. E. Hagen[5] does not agree with the portrayal of the entrepreneur in Schumpeter's model. "It gives the impression of all or nothing. Either the entrepreneur is innovational or he is not. That is wrong."[6] Hagen wants more flexibility and variability as to what an entrepreneur can do.

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[1]Ibid., p. 22.

[2]P. J. McNulty, "On Firm Size and Innovation in the Schumpeterian System," Journal of Economic Issues 8 (September 1974):627-631.

[3]Ibid., p. 628.

[4]Ibid., p. 629.

[5]E. E. Hagen, The Economics of Development, rev. ed. (Homewood, Ill.: Richard D. Irwin, Inc., 1975), pp. 270-271.

[6]Ibid., p. 271.

It has been shown in the preceding pages that there are both supporting and critical views of Schumpeter's model. Next those views will be briefly pulled together.

It has been shown that the literature focuses on three main critical comments. First, Schumpeter's model is not relevant to less developed countries because the conditions in less developed countries violate the assumptions of the model. Also, the model itself does not adequately explain how development begins. Second, empirical testing of the model is virtually impossible for a number of reasons that have been discussed above. Third, there appears to be too much emphasis placed on the role of innovation as the cause of economic development, and other causes have been omitted by Schumpeter.

In contrast, favorable comments concerning Schumpeter's model include the following. First, the model provides a mechanism which simultaneously explains both economic development and the business cycle. Second, there is a plausible explanation of innovation. Third, Schumpeter provides a theory of how development continues and proceeds after it has been started.

Obviously there are a number of unresolved questions concerning Schumpeter's model. Some of these questions may be resolved by a synthesis of Schumpeter's model with some other economic development model(s).

CHAPTER IV

EVERETT E. HAGEN'S MODEL

This chapter concentrates on Everett E. Hagen's On the Theory of Social Change.[1] Specifically, the emphasis is on the theoretical aspects of Hagen's psychological theory of economic development. In addition, a critique of Hagen's model is offered.

Background

Everett E. Hagen has attempted a general theory of economic development based on sociological, anthropological, and psychological elements. He presents a model of society which is concerned with the interrelationships among elements of the physical environment, social structure, personality, and culture. Moreover, Hagen has:

> . . . a fully defined model of society, a model which stresses the chain of causation from social structure through parental behavior to childhood environment and then from that childhood environment through personality to social change. The model is applied first to traditional society and then to the process of transition from a traditional state to economic growth.[2]

For a bird's eye view of the process, the historical sequence seems to be: authoritarianism, withdrawal of status respect,

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[1]E. E. Hagen, On the Theory of Social Change: How Economic Growth Begins (Homewood, Ill.: Dorsey Press, Inc., 1962).

[2]Ibid., pp. 8-9.

retreatism, creativity, and finally the beginning of economic development.

Since Freud the study of personality formation has stressed the impact of the environment as opposed to inherited characteristics to explain the differences in individuals. Every event involved in a child's life is unconsciously observed in a general nature so that at a later date those general patterns can be recalled and matched to specific experiences. Each general pattern is associated with varying degrees of anxiety or anticipation which is also matched to specific experiences. During the first six to eight years a child's experiences can be fairly extensive and thus lead to some very broad generalizations about life. Such patterns persist and influence behavior long after adulthood has been reached.[1] From generation to generation, of greatest importance, however, is the impact of altered adult behavior on the personalities of the next generation of children rather than the altered adult behavior itself.

Hagen's Theory of Economic Development

Hagen's model begins with the discussion of the traditional society and the authoritarian personality. A traditional society has a tendency to be custom-bound, hierarchical, and unproductive. In addition, there is a causal connection among these characteristics. Because traditional societies are composed of the peasantry and other simple folk, the elite

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[1]Ibid., p. 128.

classes, and the trader-financiers, they are dual, or in a sense, triple societies. Both simple folk and the elite view the world as restricting and dominating their lives with uncontrollable forces.

Hagen defines authoritarian as being persons who are tradition-directed. Each individual finds his place in the authoritarian hierarchy of human relationships. Conflict is obviated by submission to persons of superior status and domination of inferiors. Domination over inferiors permits each individual to vent his aggressiveness. With the exercise of dominance increasing throughout their lives as their roles change, the simple folk can find satisfaction in both submissiveness and domination. Their personalities as well as those of the elite are authoritarian.

The uncreativity of the members of both groups stems from fear--of the world and of its problems--and from preferring to let superiors decide on the rightness of solutions to issues about them. Authoritarian parents do not see the events of the world as interacting in analyzable systems but rather as chance objects or events over which their only control is through the narrow area of traditional craftsmanship, within which their control is gained by the learning of traditional skills. This situation allows the development of the authoritarian personality.

The general characteristics of child rearing described below are a reflection of the authoritarian childhood environment. Generally parents regard their infant child as a fragile

object to be protected and possibly indulged. As the child grows older it must be guided in a detailed manner along a prescribed path. The early indulgence or protectiveness later becomes control. This is reflected in the set of rules the child is taught:

> . . . not to bother adults, but on the contrary to exhibit deference to them; to reflect the family's position in the community; not to get the family into trouble; to learn the traditional skills; to pay due respect to the spiritual powers. The parents subject him to a daily rhythm of directions. . . .[1]

Through the rage[2] brought about by his submission, the child learns need dominance--he vents some of his rage by dominating his juniors and those smaller than he and finds it satisfying.

The impact of authoritarian parents approaches a climax during the child's Oedipal period. The father, comfortable only in an authoritarian role, reacts to his son's new sexual rivalry for his mother's attentions with abrupt and severe training. The child "learns with a shock the penalty for daring to think himself equal to his father."[3]

The child reared by authoritarian parents finds three sources of satisfaction in his life. First, although the child was originally assumed to have no capacities of his own, the contradiction that he can learn traditional skills is also assumed. The child gains considerable pleasure in the satisfactory

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[1]Ibid., pp. 143-146.

[2]Rage occurs when a need continues to be unsatisfied to a level of intensity sufficient to cause anxiety. For example, a child will probably feel rage when separated from the intimate nurturance of his babyhood. The building of this rage can result in important elements of his personality; Ibid., p. 135.

[3]Ibid., p. 146.

performance of these skills. Second, the child feels pleasure and satisfaction at being able to vent his rage and aggression on his juniors. Third, since his parent's role is not overtly angry or tense, it appears as an integral part of a set of satisfying relationships. The child may look forward to playing his adult role in the same manner.

For a child in a traditional society, the problem of identity almost ceases to exist. By age six the child can understand most of the roles adults take in society. In the traditional society, class relationships are fixed and the structure persists because it is satisfying to all concerned. Any failure to observe these values that differentiate identities weakens the differentiation and therefore threatens the entire group. Thus threatened, the members of the elite may be counted on to take preventive or retaliatory action.

Through the framework of the traditional society, its members are prohibited from viewing either the social structure or nature from any new vantage point. Finding an explorable problem is forbidden; and if one were to be found, it would create such anxiety as to be inhibitory. The society itself contains interpersonal sanctions against change.

As has been shown, the framework of the traditional society makes it so stable that change can only come slowly. However, some slow cumulative change in the social structure such as a steadily increasing understanding and awareness of the world might in time break the system down. The society's

inclination to such slow cumulative change is tenuous for several reasons:

> . . . the forces for change are weak. The members of traditional society, unless something happens to affect their personalities, are low in need autonomy and need achievement. They have very little "capacity to be surprised," very little "openness to experience." Because their unconscious mental processes are inaccessible to them, they lack creative imagination with which to make the most of any unexpected phenomena which might come to their notice. Further, accepting roles in an authoritarian social hierarchy satisfies their need submission; and, conversely, in parenthood and other positions of authority in adult life they are able to exercise dominance over their subordinates and in that dominance vent their unconscious rage.[1]

Everything fits in the traditional society and thus recreates itself generation after generation. Without a powerful disruptive force these ways are perpetuated. The question now becomes what forces will cause a group within the society to break the shackles of traditional society and to concentrate on technological advance with a creativity that no prior group has possessed.[2] Hagen argues that the withdrawal of status respect is just such a force.

To Hagen, "one's status is one's identity; it includes one's purposes and values in life."[3] The status of each group within a society must be recognized as appropriate and good by each other group. When members of a group sense that their status is no longer respected by those whose opinions they

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[1]Ibid., p. 176. Hagen suggests "that in a culture which provokes rage (as all must) but provides no appropriate outlet the rage will burst forth in unsanctioned channels and the social system will change." From Ibid., p. 157.

[2]Ibid., p. 185.

[3]Ibid.

value and respect, tension is created within them. They cannot value both their position in life and the opinion of other groups.[1] This lack of respect for one's purposes and values in life is the central aspect of the withdrawal of status respect.

Some of the sources of the withdrawal of status respect may be: (1) a "change in the power structure," (2) the "derogation of institutionalized activity without change in the power structure," (3) a "contradiction among status symbols," and (4) the "nonacceptance of expected status on migration to a new society."[2]

Unquestionably the withdrawal of status respect causes extreme anxiety and alienation from traditional values as well as other personality changes. Its appearance in a society acts as "a powerful solvent of the cement which binds the society together."[3]

Hagen suggests that the conflict and therefore the frustration, the anxiety and therefore the rage created in individuals whose group is affected by the withdrawal of status respect:

> . . . will alter the home environment in predictable ways that will in turn affect the personalities of the next generation, and that these effects, in one generation or cumulatively over several generations, are of great importance for the theory of social change.

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[1]Ibid., pp. 185-186.

[2]For more detailed information, see Ibid., pp. 187-190.

[3]Ibid., p. 191.

> The first effect seems to be the appearance after one or more generations of a type of personality which [Hagen] terms "retreatist"; or, if the social tensions are more severe, a type which [Hagen] terms "ritualist." Out of ritualism, in turn, retreatism may develop. Later, the retreatist personality may give way to innovational personality, in some cases to a special type of innovational personality to be termed "reformist."[1]

The first noticeable behavioral effect of the withdrawal of status respect on individuals will be resentment, or after great degradation a stronger form of rage and anxiety may emerge. The course of action of the degraded group depends on the source of the degradation. If a new group from outside the society has assumed power and violates traditional values, the degraded group generally will attempt to gather enough power to overthrow the aggressors, assuming their system approves of such action. If a group from within the society originates the withdrawal of status respect, the degraded group does not always have a course of retaliation. The society as a whole may sanction the status of the new group, or its power may be unchallengeable. Hagen suggests that the difference between the two situations lies:

> . . . in the degree of moral acceptance of and regard for the offending group by the groups being injured, and in the limitations or comprehensiveness of the aspersion cast on the society's culture by the offending group.[2]

The ways and degrees of change in the home environment depend on the severity of the above. And although adult personalities are altered somewhat by the withdrawal of status respect, the

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[1]Ibid., p. 193.

[2]Ibid., p. 203.

far-reaching results are seen in the personalities of the children in their formative years--the first six to eight years of life--whose home environment has been altered. "This change in home environment is a crucial effect of withdrawal of status respect."[1]

Hagen suggests that the retreatist personality is brought about by forces which are created during the withdrawal of status respect. These forces in turn create counterforces which build upon one another until such time as a sufficiently large stream of creativity emerges to shift the social flow in a new direction. The safety behind the repression of the pain associated with the original withdrawal of status respect propels each generation farther and farther into apathy where their needs and values are concerned. Thus, with each generation of denial, the degree of retreatism increases.[2] Retreatism, however, is not an end in itself: "As retreatism deepens in successive generations, it creates circumstances of home life and social environment that are conducive to the development of innovational personality."[3]

The creative characteristics of the innovational personality are many times simply the negatives of the authoritarian personality. Innovation requires creativity and creativity is present in varying degrees. The innovational

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[1]Ibid., p. 207.

[2]Ibid., pp. 210-212.

[3]Ibid., p. 217.

personality is an autonomous individual as well as a creative person. Creativity's major characteristics are easily put into vague terms:

> . . . openness to experience, . . . ; creative imagination, . . . ; confidence and content in one's own evaluations; satisfaction in facing and attacking problems and in resolving confusion or inconsistency; a sense that one has a duty or responsibility to achieve; intelligence; energy; and, often, related to several of these, a perception that the world is somewhat threatening and that one must strive perpetually if one is to be able to cope with it.[1]

The capacity to be surprised and the openness to experience are equivalent; both are central to creativity. The creative individual's sense of an orderly world is deep. To him every experience in life is understandable and explainable; that phenomena will respond dependably is understood.

Two important elements of the creative imagination are: "the unconscious processes of the individual are productive rather than distractive in nature, and the individual is unafraid or little afraid of them."[2] Hagen believes that innovation is a response to anxiety; that incessant anxiety is the driving force. To some individuals the world is seen as threatening and only activity will calm their fears. While in others, their incessant anxiety relates to a rage and causes them to seal over their unconscious processes for fear of what might be found in them--thus creative activity is blocked.[3]

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[1]Ibid., p. 88.

[2]Ibid., p. 90.

[3]Ibid., pp. 94-95.

To the contrary, central to the development of the innovational personality can be a sense of trust in both oneself and the world. "Parents who intuitively understand themselves and therefore their child may give him just the aid and guidance that will make the process of exploration most satisfying to him."[1] They encourage without pushing; they close off danger areas so that his ventures do not cause him trauma; when assistance is needed, it is provided; when he succeeds, love is his reward; and he is restrained if his new abilities go to his head. As the perception of the world as an understandable place is strengthened, so is the child's perception of his own self-worth. It is this "set of perceptions that creates in the individual the 'openness to experience' or 'capacity to be surprised' that is at the heart of creativity."[2]

The creative individual reacts imaginatively to the new phenomena and deals with the substance of the problem in his unconscious and not with magic solutions. He does not fear what he will find in his unconscious, therefore his findings are made consciously available to him.

With detachment he examines both the reactions of the world to him and his reactions to the world. Since he feels his evaluations of the world are trustworthy, he looks forward to resolving a problem.

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[1]Ibid., p. 134.

[2]Ibid., p. 138.

Many effective innovators are burdened with a pervasive anxiety that they are not doing enough or well enough and that it is their duty to achieve. Their creative activities repeatedly offer a temporary sanctuary from this anxiety.[1]

As shown in the preceding discussion, the repression of conflicting values and needs leads after several generations to a retreatism attitude toward life. As the retreatism deepens, an individual emerges who has high need-achievement and need-autonomy. His creativity leads him to effect a solution to his problems.

The reformist personality also may emerge out of retreatism. If technological prowess is perceived by creative individuals as a promising path to need satisfaction, then the new generation's values will tend in this direction. The appearance of production innovations will begin, institutional reforms will be led in favorable directions, and economic growth will gain impetus. And thus, social change will initiate economic growth only if the "values conducive to technological innovation and other activities pertinent to economic growth . . . appear in personalities."[2]

Throughout the preceding pages Hagen has assumed all other conditions to be constant. He considered a change in social structure leading to a change in personality as the prime force leading to social change. The three parameters important

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[1]Ibid., pp. 96-97.

[2]Ibid., p. 232.

to that social change and thus to economic growth are (1) the state of knowledge, (2) the size of the markets, and (3) the supply of capital. "The more favorable these economic circumstances are, the more readily change in personality may bring about continuing technological progress."[1]

First, an individual's choice of career while depending mainly on his personality--both conscious choice and unconscious attraction--also depends on external factors. One such factor is the state of scientific and technical knowledge. Also, if knowledge is not available, changes in personalities will have no tools with which to work and thus cannot lead to economic growth. Today, however, the flow of scientific and technical knowledge from one society to another is easily accomplished. It is no longer justifiable to regard differences in the availability of knowledge as a source of differences in economic performance.

Second, the size of the markets is important. An expanding market which can create greater profits provides, if innovation has begun, greater earnings to put back into the innovational process. If innovation has begun, however, market size is not likely to be an important obstruction to economic growth since innovational activity itself almost automatically creates an expanding market.

Third, the supply of capital--the volume of the flow of savings available for investment--is important. To be sure, the possibility of technological progress is heightened when

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[1]Ibid., p. 238.

the flow of savings becomes increasingly available to businessmen who are interested in obtaining and using equipment necessary for technological progress. The majority of the savings flow must be domestic, as size is an important factor, although it may be augmented by external aid.

But Hagen minimizes the importance of these parameters:

> In a traditional society in which nothing else has yet occurred to change traditional personality and culture, an increase in the size of the market or in the flow of saving available is not apt to have a great effect in inducing continuing change in technology. . . . Similarly, there is reason to doubt that an increased supply of funds available for investment will stir a traditional society to economic progress. The funds are apt to be siphoned off into the pockets of the traditional elite as social and psychological changes conducive to economic growth have not already occured. . . . because change in personality seems empirically more important as the dominant factor initiating change, it is convenient to treat the economic situation, as we have treated the state of technological and scientific knowledge, as a given condition rather than as a variable, and to treat forces that bring about changes in personality as the factors that disrupt the stability of traditional society and initiate change.[1]

Other influences being equal in a group experiencing withdrawal of status respect, creative individuals will seek out the best opportunities for gaining or maintaining status. The direction in which these activities will be channeled at least partly depends on which channels are open and which are closed. The traditionally sanctioned channels are the first to be used if they are open. Thus, with status once again gained in the traditional society, economic growth is stymied.

> In short, a requisite for economic growth in a traditional society is not merely that upward social

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[1]Ibid., pp. 239-240.

> mobility by new means is possible but also that upward social mobility by traditional channels is not possible.[1]

Hagen further argues that although innovational individuals have appeared sporadically in traditional societies, the society's transition to continuing technological progress never seems to have been led by these individuals; rather this transition seems only to have occured after "innovational activity by many members of some distinctive and disparaged social group."[2] In a traditional society, conformity is a powerful enough force to overwhelm isolated individuals.

Although groups alien to a society are often disparaged, they do not usually become the leaders of technological change. There are two reasons for this: (1) because of their alien status, their activities are inhibited and they perceive hostility and fear attack; and (2) again because of their alien status, the society does not accept their alien leadership.[3]

In summation, where a transition to economic growth is involved, basic social change usually involves the withdrawal of status respect from a group well entrenched in a society. Over several generations the personalities of a group's members are changed in reaction to this loss of social recognition. These personality changes are conducive to innovation. Since they are reacting as a group and because of their place within the society, they are protected against many inhibiting factors.

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[1]Ibid., p. 242.

[2]Ibid., p. 245.

[3]Discussion from Ibid., pp. 247-248.

The question is why Hagen's model does not discuss a number of widely recognized forces for economic and political modernization such as:

> . . . the union of disparate regions into nationhood; urbanization; improvements in transportation and communication; nationalism; the influence of an expanding economic sector on others; the introduction of money, or of marketing, into a self-sufficient subsistence sector; the appearance of religious dogma favorable to modernization.[1]

In this regard Hagen argues that:

> All of these developments seem to be primarily of importance as incidents in the process of change once some other factor has caused change to begin but not as initial causal factors in change.
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> This does not make them less important. It is of no less importance to analyze the course of change than to analyze how it began. These forces are causal in the sense that each event in a sequence, caused by the event before it, in turn causes the next.[2]

A Critique of Hagen's Model

A number of authors have supported and others have criticized Hagen's views. A selective sample is presented below.

J. H. Kunkel[3] raises three questions concerning the position taken by Hagen's model:

> 1. What is the relationship between the individual and the social environment out of which he arises, and what are the paths and conditions of influence?

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[1]Ibid., p. 250.

[2]Ibid.

[3]J. H. Kunkel, "Psychological Factors in the Analysis of Economic Development," Journal of Social Sciences 19 (January 1963):68-87.

> 2. What kind of individual (type of personality) is created, and what is the nature of the process of creation of such an individual?
> 3. What is the relationship between the individual and the social structures which he influences; what is this influence, and how is it exerted?[1]

Assuming that entrepreneurial activity in less developed countries is to be explained and predicted, both the necessary and sufficient causes must be specified as well as the background conditions. Thus, any investigation such as this must consider first the numerous causal factors that determine the particular behavioral patterns and second that it is not sufficient that membership in a group explain the behavior of an individual.[2] Furthermore, Kunkel states:

> The analysis of social phenomena . . . and especially the delineation of the necessary and sufficient causes of human behavior, cannot but approach the method of experimentation under fully controlled conditions; yet it is true that to the extent that the relationship between individuals and social structure is not adequately explained the usefulness of any theory emphasizing individuals is called into question.[3]

Kunkel feels that Hagen's model has several problems in using psychoanalytic concepts and theories to analyze the process of economic development. A brief summary of these problems follows. First, unless one relies on faith, the combination of psychological concepts and theories used in the study of economic development may present serious problems in testing and accepting any causal generalization of those

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[1]Ibid., p. 69.

[2]Ibid., p. 70.

[3]Ibid.

theories. Second, the chains of causality may be weak and inadequate. Third, Hagen ignores the evidence that psychoanalytic theory may be culture bound. The implication is that a theory of social change which primarily relies on the Oedipus complex may be on shaky ground.[1]

Kunkel suggests that an alternative explanation of the relationship between individuals (their creation and existence) and social structure be sought. He states that "an approach which seems to meet these criteria [methods which can be validated and reproduced] is based on principles derived from a behavioristic psychology; more specifically, the operant-conditioning paradigm."[2]

D. C. McClelland[3] states that Hagen's book is not by any means alone in using social psychology with regard to economic development. Changes in personality structure are understood to be a factor in social change. However, McClelland feels that:

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[1]Ibid., pp. 72-73.

[2]It is beyond the scope of this dissertation to expand the ideas of Kunkel on the operant-conditioning paradigm, but Kunkel hypothesized that the extent of entrepreneurial activity in a nation was "a function of the extinction rate, of incompatible behavior, changes in reinforcement and communication patterns, rather than being a result of personality changes occurring over generations"; Ibid., p. 86. For more information on the operant-conditioning paradigm, see Ibid., pp. 74-77; J. H. Kunkel, Society and Economic Growth: A Behaviorial Perspective of Social Change (New York: Oxford University Press, 1970), pp. 90-94 and "Values and Behavior in Economic Development," Economic Development and Cultural Change 13 (April 1965):257-277.

[3]D. C. McClelland, "A Psychological Approach to Economic Development," Economic Development and Cultural Change 12 (April 1964):320-343.

> . . . [Hagen's] new-found tools of psychological analysis [carry] him much too fast, too far, and he runs the risk of making the whole enterprise seem like pretentious nonsense (an accusation many social scientists are ready enough to make anyway). . . . he leaves at least this clinical psychologist breathless, wondering how dynamic analysis can do so much so easily.[1]

The difficulties McClelland sees in this type of an analysis of economic development are:

> (1) Was there ever an elite group that did not suffer a loss of status respect at some time or other? In this sense, the hypothesis explains too much unless one can get a lot more precise about measuring the loss of respect, the time at which it occurred, and the time when its effects should become apparent. (2) More precision is needed in what constitutes rapid or slow economic growth. (3) More precision is needed on when the retreatist or innovative consequences of withdrawal of respect should occur. Otherwise, since the hypothesis predicts either inaction or action, depending on the time sequence, Professor Hagen is playing "heads I win; tails you lose." Any case can be made to fit his hypothesis, so long as it remains so flexible.
>
> This is not to say the hypothesis is uninteresting or implausible. It is to say that it has hardly yet been stated in a precise enough form to be clearly checked against the facts.[2]

McClelland also found some difficulties or defects in the theory part of Hagen's model. Furthermore, the importance of ideological and reality factors are underrated in psychoanalysis. Hagen continually disregards ideological explanations of his facts, even when they are more obvious than his own complicated ones. The reason is because, following Freud, religion and other such ideological systems came to be thought of as projections of childhood experiences.[3]

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[1]Ibid., p. 321.

[2]Ibid., p. 323.

[3]Ibid.

C. P. Kindleberger[1] attempts to match Hagen's theory with what he believes to be a widely accepted fact: ". . . economic development depends upon an open class structure, in which social mobility is possible, and in particular on the existence of a strong middle class."[2] Hagen, on the contrary, expresses the view that:

> . . . economic development is customarily led by a class or group in the society which has some reason to be dissatisfied. This "out-group," to use an expression from social psychology, must have been brought up to "achieve," and must sublimate its antagonism to the existing elite by pushing forward as entrepreneurs.[3]

H. J. Bruton[4] feels that Hagen's model makes a notable contribution to economic development in that it examines the social factor not usually included in the realm of economic policy. Bruton does feel, however, that the model has its faults. A la Bruton, it is impossible to solve the growth problem by isolating the origin of bright men, of men with high I.Q.'s, or of entrepreneurs, even though these men are of great interest in understanding economic change. Any approach which plays down the economics of development is limited. To be sure, there is a need for understanding problems associated with investment allocation, labor training, controlling

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[1]C. P. Kindleberger, Economic Development (New York: McGraw-Hill Book Company, 1958), pp. 60-62.

[2]Ibid., p. 60.

[3]Ibid., p. 62.

[4]H. J. Bruton, Principles of Development Economics (Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965), pp. 363-364.

inflation, increasing saving, etc. Moreover, any theory that eliminates or minimizes these factors should be given close scrutiny. A la Bruton, the Hagen policy implication "involves the training of children, and more accurately, the training of parents on how to train children."[1]

B. Higgins[2] supports Hagen's attempt at interdisciplinary research, but he feels that Hagen carried his model to extremes. Hagen relies entirely on socio-cultural and psychological factors to explain social change and economic growth. Higgins suggests a model which combines economic and noneconomic variables. Although Higgins credits Hagen's model with discussions of the interactions of personality change, capital accumulation, and growth of markets, Higgins states that the main weakness of Hagen's model is the relegation of the purely economic factors to a minor role.

J. M. Culbertson[3] views Hagen's model as rather restrictive in its approach to psychological theory. The particular psychological theory applied has significant influences on the interpretation of economic behavior. If one uses the psychoanalytic approach, for example, the result is that behavior is determined by childhood experiences and there is a limited response to later experiences. The bulk of psychology believes,

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[1]Ibid., p. 364.

[2]Higgins, Economic Development, p. 257.

[3]J. M. Culbertson, Economic Development: An Ecological Approach (New York: Alfred A. Knopf, 1971), pp. 287-290.

however, that the individual is an open system, that he may learn and modify his behavior even as an adult.

P. Kilby[1] illustrates Hagen's sequence of social change that begins with authoritarianism and ends with entrepreneurial behavior (Diagram 2). Kilby's criticism of Hagen's theory is that, laying aside any intermediate lags, the withdrawal of status respect is too broadly defined. Hence one might expect that it might occur in all societies frequently, perhaps once or twice a decade.[2]

T. Morgan[3] views Hagen's model as "attractive and in many areas plausible."[4] He feels that Hagen supports some of his facts with historical evidence and some of his interpretations with personal experience and causal observation. But he also feels that the book falls short because the explanation of growth or stagnation using personality types and personality changes ignores other possible explanations. Some of these are health and nutrition, material incentives, gaps in techniques, investment performance, and so on. Economic growth has occurred in history without a change in personality structure.[5]

There are some unifying supporting and critiqueing

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[1]Kilby, Entrepreneurship, pp. 1-40.

[2]Ibid., p. 21.

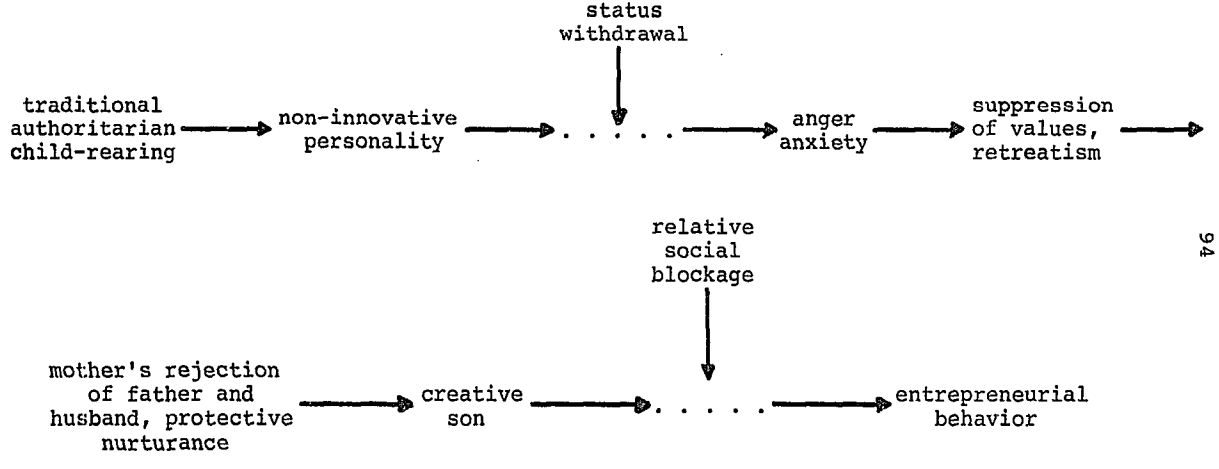
[3]T. Morgan, Economic Development: Concept and Strategy (New York: Harper & Row, Publishers, 1975), pp. 93-96.

[4]Ibid., p. 93.

[5]Ibid., p. 95.

DIAGRAM 2

HAGEN'S THEORY BY KILBY



Source: P. Kilby, ed., Entrepreneurship and Economic Development (New York: The Free Press, 1971), pp. 11-12.

comments of Hagen's theory of economic development. This will be an integration of some of those comments.

It will be remembered that the main critical comments regarding Hagen's theory center on three areas: the theory itself, the validity of the quantitative testing of the model, and his inadequate economic statement of the development process.

The comments supporting Hagen's theory are concentrated in one major area. Students of economic development appreciate Hagen's theory because it looks at economic development from an interdisciplinary point of view; and his model provides an explanation of personality change and social change, which in turn brings about an innovation personality and thus entrepreneurial activity, which then brings about economic development.

There are several unresolved questions connected with Hagen's model. Hagen's model may be synthesized with other development models so as to answer unresolved questions and to provide a more plausible explanation of economic development.

CHAPTER V

DAVID C. McCLELLAND'S MODEL

This chapter first discusses David C. McClelland's The Achieving Society.[1] Specifically, the emphasis is on McClelland's psychological theory of economic development. Furthermore, a critique of McClelland's model is presented.

Background

David C. McClelland has attempted a general theory of economic development based primarily on psychological and sociological elements. As a backdrop for his theory McClelland uses the work of Max Weber. The Weberian thesis is that "attitudes as economic rationality and the enterprising spirit of modern capitalism were consequences of certain religious world views stressed particularly by Protestant Calvinist sects."[2] Weber as a result provided a background for understanding the social and psychological origins of key economic forces--rapid technological advances, specialization of labor, population growth, and energetic entrepreneurship.

McClelland does not accept the traditional economist's model, that is, the "rational [model] in which enlightened

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[1]D. C. McClelland, The Achieving Society (New York: The Free Press, 1961).

[2]Ibid., p. 11.

self-interest of man converts pressures acting on the economic system from inside or outside into activities resulting in greater productivity or wealth."[1] McClelland seems to argue against the rational utilitarian model and proposes that the data be quantified and a hypothesis be tested or verified a number of times before it becomes a theory. In addition, he offers the well-known caveat that correlation is association, not causality.

McClelland's methodology[2] looks at measuring the individual differences in human motivation that are based on the psychoanalytic insights of Freud and the methodology of experimental psychology. McClelland's hypothesis is "that achievement motivation is in part responsible for economic growth."[3]

Achievement motivation or need achievement (n Achievement) is "a desire to do well, not so much for the sake of social recognition or prestige, but for the sake of an inner feeling of personal accomplishment."[4] Furthermore, n-Achievement

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[1]Ibid., p. 8.

[2]McClelland blasts the traditional economic measures of economic growth because the national income estimates are not internationally comparable because of price changes, different definitions, and different international currencies. Hence, to solve these problems he suggests electrical output in kilowatt hours. The reasons for selecting such a measure are basically: "(1) that the figures are expressed in internationally comparable units, as contrasted with, for example, national income figures which are very difficult to translate into one another, and (2) that electricity is a form of energy on which modern industrial civilization is largely based." Discussion from Ibid., p. 50.

[3]Ibid., p. 36.

[4]Kilby, Entrepreneurship, p. 110.

refers to the method of measuring achievement motivation by counting the number of references to "doing a good job" in imaginative material like stories, letters, and so on.

Specifically children's readers were used because they use the same kind of brief story to teach children to read in all modern countries. The advantages of children's stories are:

> First, they often derive from the same oral traditions that are represented in folk tales; second, they have existed (for at least the past generation) in more-or-less standard form in school books used by second- to fourth-grade children of all lands, [thus representing] popular culture; third, and most importantly, . . . children's readers, containing such brief comparable stories, could in fact be obtained from a generation ago for a representative sample of countries.[1]

These stories are imaginative, if they are chosen from the earliest grades, and usually are not influenced by temporary political events.

Winterbottom in 1953 was the first to suggest that there was a possible link between achievement motivation and economic development. His main conclusions are that mothers of sons with high n Achievement set high standards and expect self-reliance and mastery at an early age by their sons.[2] But also, Max Weber in 1904 attempted to explain the rise of capitalism. He hypothesized that the Protestant Reformation produced a new character type which inoculated a more vigorous spirit into the attitude

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[1]McClelland, Achieving Society, p. 71.

[2]M. R. Winterbottom, "The Relation of Childhood Training in Independence to Achievement Motivation," (Ph.D. Dissertation: University of Michigan, 1953), pp. 468-472. Reference here is from Ibid., p. 46.

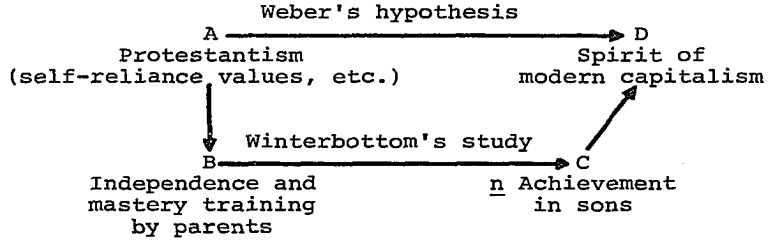
of both workers and entrepreneurs and climaxed in the development of modern capitalism.[1] According to McClelland:

> If the Protestant Reformation represented a shift toward self-reliance training and the new "capitalistic spirit" an increased n Achievement, then the relationship found by Winterbottom may have been duplicated at a societal level in the history of Western Europe [found by Weber].[2]

Diagram 3 shows the parallel.

DIAGRAM 3

COMPARISON OF WEBER'S AND WINTERBOTTOM'S STUDIES[3]



Hence the historical development described by Weber may have come about by the psychological means described by Winterbottom. The proposed sequence is as follows:

> The Protestant Reformation might have led to earlier independence and mastery training, which led to greater n Achievement, which in turn led to the rise of modern capitalism.[4]

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[1]M. Weber, The Protestant Ethic and the Spirit of Capitalism, trans. T. Parsons (New York: Scribner, 1930), pp. 70-71. Reference here is from Ibid., p. 47.

[2]Ibid., p. 47.

[3]Ibid.

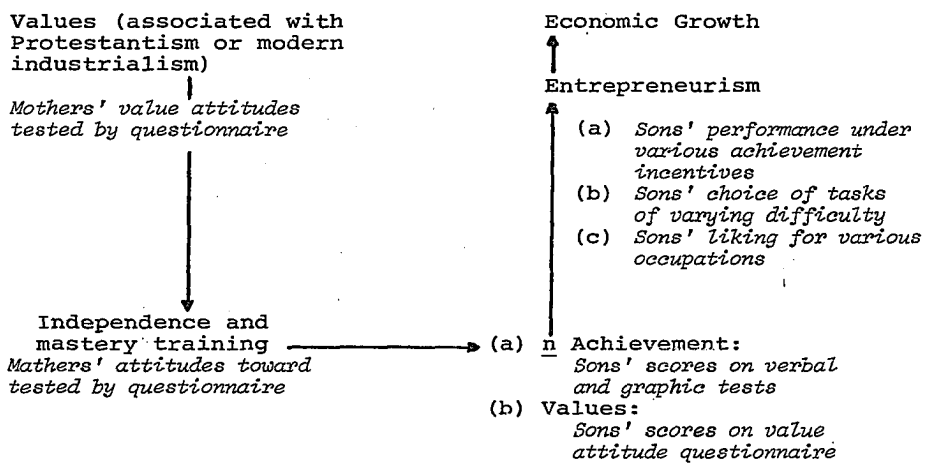
[4]Ibid.

McClelland's Theory of Economic Development

McClelland expands the sequence proposed by Winterbottom's and Weber's studies by allowing the entrepreneur to become the modus operandi of n Achievement, and thus it is the entrepreneur who helps bring about economic growth. Accordingly, "if the n Achievement level is high, there will presumably be more people who behave like entrepreneurs, acting to produce more than they can consume."[1]

DIAGRAM 4

McCLELLAND'S SEQUENCE[2]



The entrepreneur is the man who organizes the firm (the business unit) and/or increases its productive capacity. To be

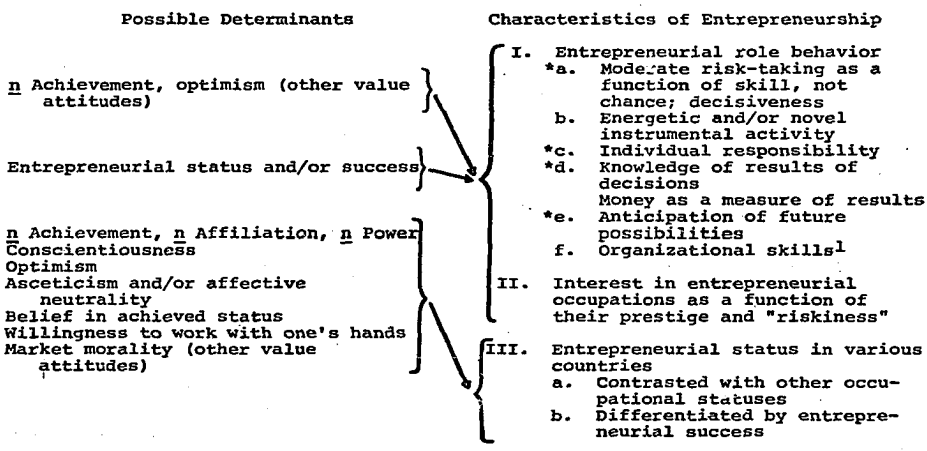
[1]Ibid., p. 65.

[2]Ibid., p. 58. The last arrow in the diagram is this author's.

sure, the entrepreneur produces more than he can consume so he can sell or exchange it for income. To be considered an entrepreneur he also must receive 75 percent or more of his income from his full-time entrepreneurial activities. Table 2 summarizes the possible determinants and characteristics of the entrepreneur.

TABLE 2

POSSIBLE DETERMINANTS AND CHARACTERISTICS OF ENTREPRENEURSHIP[1]



*Characteristics derivable from the psychological theory of n Achievement.

[1]Included for the sake of completeness, but not empirically studied in the present volume or discussed in this text.

A brief discussion of the components of entrepreneurial role behavior as shown in Table 2 will be presented below.

[1]Ibid., p. 207.

Entrepreneurship involves risk-taking, thus the executive or entrepreneurial role calls for decision making under uncertainity. The entrepreneur will tend to favor moderately risky situations where the outcome depends more clearly on his skill or on his achievement.

Energetic, innovating activity is the second component of the entrepreneurial role. Entrepreneurship almost by definition involves doing things a new and better way. Only when a sense of personal accomplishment can be gleaned will a challenge provoke diligent effort in an entrepreneur. This sense of achievement satisfaction arises from being responsible for having initiated an action that is successful rather than from public recognition for an individual accomplishment.

The knowledge of having made correct decisions or successful actions business-wise are well known to the entrepreneur, as the achievement is shown in definite and tangible ways--profitability, percentage control of the market, size of the firm, and rate of growth.

People with high n Achievement are not influenced by the introduction of a monetary reward, but they are interested in achievement. People with low n Achievement are influenced by money and can be made to work harder for money or other such external incentives. As a result money becomes the measure of success.

Both long-range planning and organizational abilities relate to the planning activities of the entrepreneur. The successful entrepreneur by definition is someone who considers

more alternatives and their consequences before they actually happen. Hence he anticipates future possibilities (long-range planning) and does not have to react to emergencies as they arise. It goes without saying that if an entrepreneur is to accomplish more than he can do by his own efforts, he must organize the activities of other people.

Some possible sources for the development of n Achievement may be race, climate, and child-rearing practices. The belief that genes or body type are directly responsible for variations in n Achievement may be unfounded because changes among nations in n Achievement levels have occurred much too rapidly to be attributed to genetic factors.

To be sure climate is an important factor affecting the vigor of a people's response. Those who subscribe to the race and climate explanation would disagree with the concept of n Achievement as a measure of energy. McClelland attempts to answer these objections:

> First, if they don't want to measure energy this way, they can provide some alternative objective measure. Secondly, n Achievement does in fact appear to be associated with many of the energetic characteristics such theorists have talked about. And thirdly, it is a fact that high n Achievement level has often been associated with those peoples and climates that it should have been associated with if it were the source of energy that the climatic theorists were talking about.[1]

Child-raising practices are definitely a source of n Achievement. Psychoanalysis teaches that rooted in early parent-child relations are the inner concerns of fantasy life.

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[1]Ibid., p. 302.

Conscious beliefs and attitudes are shaped by infantile images of parents, jealousies, and competitive strivings which appear to persist into adulthood. The differences in n Achievement levels appear to be caused by something that happens in the family as early as the fourth or fifth year of life. Much research has been directed toward trying to find out exactly what.

The child-rearing factor which most promotes high n Achievement seems to be: "early mastery training, provided it does not reflect generalized restrictiveness, authoritarianism, or 'rejection' by the parents."[1] Parents' expecting a child to "make decisions for himself" at an early age can be indicative of two things: (1) the parents are genuinely interested in self-reliance and mastery on their son's part or (2) with self-reliance and mastery attained, their son will not be a burden or trouble to his parents. In the latter case, higher n Achievement does not develop. The predominantly lower-class, early caretaking families tend to put a child on his own too early, whereas the predominantly middle-class families expect achievement and independence quite late. Neither condition is optimal for producing high n Achievement. The desirable condition is ideally somewhere between the ages of six and eight when standards of high achievement are neither too early for the child's abilities nor too late for internalization of those standards.

A very high level of n Achievement in mothers tends to lead to lower n Achievement in their sons. Demands too early

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[1]Ibid., p. 345.

may be made by such a mother or, concerned with her own success, the mother's interest in her son's achievements may wane. On the other hand, achievement standards which are not high enough may be set by a mother with too low a level of n Achievement. Low n Achievement can also result from having careless or indulgent parents who do not expect great things from their child.

n Achievement generally appears to be related to three child-rearing variables: (1) high standards of excellence set by parents, (2) warmth within the family, and (3) low authoritarianism. "By way of summary one can conclude that moderate child-rearing pressures on several dimensions are optimal for producing n Achievement."[1] McClelland presents data from which:

> The picture emerging as to the type of parental attitudes which facilitate development of n Achievement is quite clear and consistent, although it is obscured at times by the crudity of the measuring instruments that have been applied to develop it. . . . [The picture is of] reasonably high standards of excellence imposed at a time when the sons can attain them, a willingness to let him attain them without interferences, and a real emotional pleasure in his achievements short of overprotection and indulgence.[2]

The preceding discussion has been concerned with the intrinsic factors affecting the development of n Achievement. Elements which modify child-rearing practices are the extrinsic factors: parental values (having the most direct effect); birth order, family type, father's occupation, and climate (having more remote effects).

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[1]Ibid., p. 356.

[2]Ibid.

The four indirect influences that may affect n Achievement are: physique, family structure, type of economy, and physical environment. McClelland indicates that a causal relationship between physique and n Achievement is not likely since changes in group n Achievement levels occur fairly rapidly. He does state, however, that preliminary data indicate that "n Achievement is significantly positively associated with mesomorphy (strong, muscular physiques) and negatively with ectomorphy (thin, fragile physiques)."[1] A straightforward interpretation of this result may not be possible.

Family structure also has an indirect effect. Variations in family type cause modification of the key factors responsible for the development of n Achievement, e.g., high standards of excellence, warmth, and low father dominance. Mother-son families (the father is absent) seem most likely to have consistent effects in this respect. The absent father cuts down on father dominance, and mother-son relationships tend to lower stress on high standards of excellence for the son.

McClelland states that the environment--particularly the type of economy--may indirectly determine the level of n Achievement in a society and thus determine the level of economic activity. The level of n Achievement is not determined, however, "in the sense of opportunity automatically creating the n Achievement needed to exploit it."[2] McClelland examines

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[1]Ibid., p. 373.

[2]Ibid., p. 376.

the institution of slavery to illustrate his point since slavery has been a key instrument in organizing economic activity for thousands of years.

Slavery mutually lowers n Achievement both in the slave and in the slaveholder, though the psychological reasons are to some extent different. Child-rearing practices developed through slavery produce obedience and responsibility, not n Achievement. Even though descendants may be free, the effects of such training continue to lower n Achievement. The American Negro slave exemplifies this.

McClelland states that "clearly, socioeconomic status of the parents is an important determinant of n Achievement in children."[1] n Achievement is meaningfully higher in middle-class children than in lower-class children. The nature of their fathers' occupations seems to condition children. Middle-class occupations generally require more planning ahead (as in small business), require a longer period of education (as in school teaching), and may even require more household financial planning ahead since pay for such occupations tends to come only once or twice a month (lower-class occupations usually pay weekly).

Inasmuch as socioeconomic status is extrinsic and only indirectly affects a child's development of n Achievement, theoretically then it should be quite possible to find occasions (perhaps in a less mobile society) where the n Achievement

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[1]Ibid., p. 377.

of the lower class may exceed that of the upper or middle class. Here McClelland offers the caveat that:

> We must always be cautious about assuming that a particular environmental condition (here the entrepreneurial role) will automatically produce the type of child-rearing that produces the type of child best suited to functioning in that environment.[1]

The most indirect factor determining human achievement is man's physical habitat. "Climate influences health and energy, and these in turn influence civilization."[2] McClelland indicates that in climates where the mean annual temperature is between 40°F and 60°F, the n Achievement level averages the highest. As the mean annual temperature increases to say between 75°F and 85°F, the n Achievement level declines steadily until a nadir is reached in tropical climates. The same relationship holds as temperatures get colder. With a lack of temperature variation and with tropical heat also comes rainfall. Hence it too shows the same general effect.

High n Achievement tends to relate to moderate, dry climates generally having poor soil conditions, thus agricultural conditions are not optimal. It may be inferred that:

> . . . the connection between climate and n Achievement, and ultimately energy, may be quite indirect and almost accidental in the sense that climate affects household living arrangements, which in turn affect child-rearing practices that modify n Achievement.[3]

McClelland sums up the evidence he has presented on the development of the level of n Achievement by stating:

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[1]Ibid., p. 380.

[2]Ibid., p. 383.

[3]Ibid., p. 386.

> The motivational effects of particular environmental events--physiological, historical, political, or economic--have often been much too easily inferred on the basis of what seems "reasonable."
>
> All our evidence suggests that external events affect motivational levels primarily as they affect the family, or more specifically the values and child-rearing practices of the parents. The family as the nucleus of the social structure is a little like the nucleus of the atom; it is harder to influence by external events than one might expect and it is often influenced in quite unexpected ways. Certainly tribes that practice or permit polygamy have no intention of lowering n Achievement levels.[1]

As has been shown in the preceding pages, before self-sustained rapid economic growth is plausible, certain psychological changes must occur within a country. Economic development must be given priority over other desires by at least a significant portion of a country's elite. To all persons concerned with economic development--economists, politicians, government officials, or others--the psychologists have a simple suggestion:

> Pay attention to the effects that your plans will have on the values, motives and attitudes of people because in the long run it is these factors that will determine whether the plans are successful in speeding economic development.[2]

In and of itself this suggestion is neither new nor very helpful. To be sure the importance of values and motives in accelerating or decelerating the process of economic development has always been known to and stressed by economists, sociologists, and the like.

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[1]Ibid., p. 387.

[2]Ibid., p. 393.

If the psychologist's frame of reference is the starting point, then what should be the psychological objectives of plans and policies geared toward speeding up economic development? What should an agency or a government do to hasten economic growth in a less developed country? McClelland suggests it should attempt:

> (1) To break orientation toward tradition and increase other-directedness, (2) to increase n Achievement, and (3) to provide for a better allocation of existing n Achievement resources.[1]

That traditional norms must give way to new norms first must be recognized. Concurrently, that the resistance to such a change will probably be great must also be recognized. In order to have the benefits of the advanced material culture of modern civilization, a people must adopt many of the values and other cultural patterns which support such a civilization. Traditional ways have to be broken if a nation expects to enjoy the fruits of economic development.

As soon as the need for change becomes unquestionable, the means of change are readily available. The first step should be to expand communications--roads, cheap public transportation, electricity, radios, telephones, newspapers, even public speeches where no other means are available. Also of importance is the ability of the community to digest the alteration.

Modern ideas are usually in direct opposition to religion or to much valued family behavior. As the consequence

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[1]Ibid., pp. 393-394.

they very often are strongly resisted. One such source of resistance may be organized religion since modernization or any social change threatens its traditional sources of strength. Likewise the traditional family structure may feel threatened by modernization. Evidence is available that industrialization has the tendency to increase freedom of marital choice, decrease marriages within kin groupings, increasing control of fertility, and introduce or maintain high divorce and remarriage rates.

Since there appears to be no really good evidence on specific methods of increasing other-directedness or market morality, McClelland argues that we must be satisfied with proposals that arise from theoretical considerations. First, an informed public opinion as created by a free press could be important. Here the public media becomes the tool with which to undermine resistance to modernization by informing people and preparing them for change.

> It [a free press] not only provides a guide as to what new norms are in its editorials, letters, columns, and even its comic strips [but] it also can contribute to a developing conscience as to how to behave in the market place where the traditional sanctions against "immoral" or "asocial" behavior are no longer strong.[1]

Second, the emancipation of women can be crucial in bringing about a break with tradition. Such a movement can be a strong indicator that modernization is breaking through in a country. This action is indicative because women are generally the most conservative members of a society. "They must be

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[1]Ibid., p. 399.

influenced by the mass media or somehow to adopt new values and new norms, if their children are to be effectively brought up in a different way in the next generation."[1]

Third, the matter in which other-directedness is learned is important. Since group participation in extra-curricular activities plays an important role in teaching children to be responsive to the wishes of others, and since it is in the primary grades that children learn the value attitudes that will guide their behavior toward others throughout their lives, a new kind of teacher training should be introduced that emphasizes the key significance of group participation.

Finally, what economic policy is suitable to increase market morality or other-directedness? The psychologist would argue that development of centralized employment rather than "cottage industries" would more probably cause the psychological changes necessary to further economic development because drawing people out of their homes would probably break up traditional values. New ones would be gained based on wage contracts, uniform standards of quality, and the like and thus have an influence on the worker's values and beliefs.

The question now becomes: Investment in light or heavy industry? The psychologist favors heavy industry since motors can be assimilated less easily than simple tools into traditional ways of doing things. Thus motors would be almost certain to

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[1]Ibid., p. 400.

induce the desired changes in attitudes. Motors are also a symbolic representation of the new age, thereby introducing a new kind of social mobility and ultimately spreading attitudes typical of the modern era.

An argument could be developed for electricity as an important "instructor" in new values:

> It runs motors, gives mild punishment for mistakes, and above all brings in new information over the radio cheaply, even to nonliterates. Investment in the production and use of electric power may not only be an important index of the speed of economic development, it may also be an important agent in producing that development.[1]

How can a country raise n Achievement levels so as to speed up economic development? Unfortunately, as has been previously shown, the entire culture of a society is imbued with its level of n Achievement--its religion, its life style, and, most important, its child-rearing patterns. A large-scale change, whether intentional or accidental, of child-rearing practices cannot be easily accomplished since the family, the social nucleus of the society, is the primary vehicle of the basic motives and values of the culture. It has been changed by accident, however, when major social events have had far-reaching effects on the family and ultimately on n Achievement levels.

There are two major social forces that can have such effects--wars and mass ideological conversions. Wars have a distinctive and abrupt effect on n Achievement by removing authoritarian fathers from the home environment.

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[1]Ibid., p. 403.

A country cannot just "decide" to nurture Protestant or Communist missionary movements in order to raise n Achievement levels. A strong achievement-oriented nationalist ideology is important though. The management training courses given largely by or under the guidance of Americans in many underdeveloped countries today may help. But the difficulty arises:

> . . . that the educational influences which might produce higher n Achievement occur too late in life after character has already been formed. Both psychological theory and research reported strongly suggest that the crucial period for acquiring n Achievement probably lies somewhere between the ages of 5 and 10. Perhaps exposure to high standards of excellence and the like will have a lasting effect on n Achievement only if it occurs early in life.[1]

Nursery schools may be able to have a negligible effect on increasing n Achievement.

Social influences accompanied by ideological conversion may increase n Achievement levels. Yet if they lead to mixed or confused loyalties they may lower these levels. Consequently "changes [introduced] gradually or indirectly without strong ideological conviction and fervor may do more harm than good."[2] This therefore stymies a government or an outside agency in its efforts to increase national n Achievement levels on this plane. McClelland states that:

> The methods available are either too uncertain in their effect, require an ideological fervor that must be "real" rather than artificial, or involve actions that would be unacceptable on moral or political grounds. Furthermore, the effects, even if they could

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[1]Ibid., p. 415.

[2]Ibid., p. 417.

> be induced, would ordinarily be long-range, affecting the next generation primarily, and most policy makers want to know what they can do now to accelerate the rate of economic growth in the next five years.[1]

If n Achievement is low in general, some methods must be perceived to discover and aid those entrepreneurs who are nevertheless high in n Achievement within a country. Realistically, a country should more efficiently use those persons who already have high n Achievement, that is, entice more young people with high n Achievement into business or productive enterprise. A mechanism must be designed to sway these young people from electing professions such as the humanities, law, and medicine, leaving only those with low n Achievement to reluctantly pursue a business career.

Policies calling for the conservation of n Achievement or entrepreneurship must also be pursued. This could be done through the centralization of productive enterprise. Perhaps the most obvious way of conservation is through the centralization of production functions by putting these scarce resources under the government's umbrella.

To effectively control a program for economic development, psychologists assert that the excellence of the men selected to execute the program is more important than the excellence of the plan itself. Good tools are needed both to select the best man to run the plan and to "weed out" or retrain those not performing up to standards within the plan. Performance criteria may be the hardest to apply in many less

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[1]Ibid., p. 418.

developed countries because ofttimes government and business are controlled by a small number of families. These families may be disinclined to have their sons expelled merely for poor performance. Even though performance criteria may be hard to apply for these governments, foreign aid programs could mandate as strict criteria for managerial and entrepreneurial talent as they do for the other criteria in the project.

All the important economic and social variables such as population growth rate, balanced growth, investment criteria, urbanization, natural resources, terms of trade, monetary and fiscal policies, etc., have been ignored to this point. McClelland says this is due to the fact that:

> It is what man makes of his environment that is real capital. . . . It is the human resources that count--in particular the level of achievement motivation. . . . It makes good theoretical sense that entrepreneurship can substitute for capital.[1]

Simply put this means that if entrepreneurial talent is deficient and/or if the motivation is lacking to be efficient and to find shortcuts, then any given increase in output will be more costly. Human resources make a large difference in the capital requirements needed to accelerate economic development.

A reduction in the population growth rate is a "simple" and logical means to accelerating economic development. With fewer people to divide the existing income, it follows that each one will have a somewhat larger share. One plausible reason for this is that population, like resources, must be evaluated in terms of its quality.

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[1]Ibid., p. 422.

The values, motives, and social institutions of less developed countries have long been recognized as deterrents to rapid economic growth. The expansion of trade and commerce has historically been the most powerful factor in reorienting and reshaping the socio-cultural environment.

> It is "the market," opportunity for trade, which creates the entrepreneurial class. Then it is this class which, in the pursuit of its objectives, destroys the old social order and introduces new values, new motives, and new social institutions.[1]

Hence, there needs to be a favorable economic environment.

Particularly challenging to economists has been the possibility that development is accelerated by some types of investment more than others. But McClelland feels that:

> . . . if psychological changes are of key importance, the question shifts to what kind of investment is likely to have the greatest "psychological multiplier effect."[2]

Concerning foreign aid, two other types of priorities have been widely accepted. They are (1) technical assistance to agriculture and community development for rural areas and (2) technical and managerial training. First, agricultural aid seems to be the simplest way to raise the real income of the largest number of people. Higher income means higher saving which permits higher investment in capital improvements which increases income, and so on. The following diagram summarizes the sequence.

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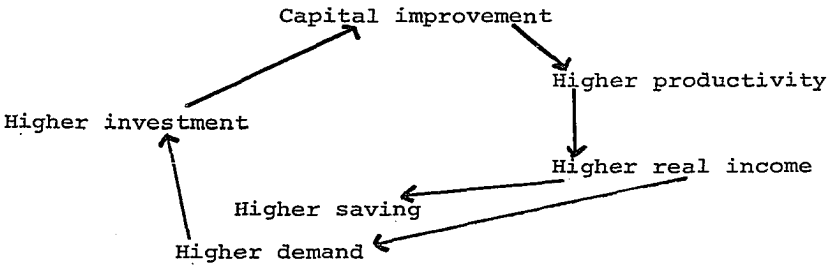
[1]Ibid., p. 425.

[2]Ibid., p. 427.

DIAGRAM 5

THE CIRCULARITY OF ECONOMIC DEVELOPMENT[1]



Capital improvement can be most easily produced through agriculture because a small thing such as improved seed can have relatively large effects with very little disruption of the farmer's normal methods. The largest number of people are affected for two reasons. First, in less developed countries the greatest percentage of the work force is primary producing (in agriculture). Second, a maximum number of people can be involved since capital improvements in agriculture are relatively cheap.

Since less developed countries are very deficient when it comes to adequate manpower to carry out economic development, priority in aid programs is given to technical and managerial training. Hence less developed countries will concentrate on the training of these needed skills since foreign agencies have felt that the motives and values of the country's people were none of their business.

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[1]Ibid.,p. 428.

In summation, less developed countries must work through political and economic implications of the plans for economic development. For any development program to succeed, it must take into account the great importance of highly motivated manpower. To give a lasting boost to the less development economy, the plan should concentrate on the focal point of the development--the entrepreneur and the productive enterprise--rather than on aid to health, welfare, and agriculture.

A Critique of McClelland's Model

A brief, selective statement of supporting and critical comments on McClelland's model will now be offered.

B. F. Hoselitz[1] praises McClelland's The Achieving Society for its primary emphasis on internal factors relating to psychology rather than concentrating on external factors. Hoselitz's main criticism of the work is that: "psychological tests could not be given to the business leaders (and others) of past periods, because these men were dead."[2] Hoselitz feels that even if McClelland's hypothesis is acknowledged--that high n Achievement relates to economic growth and certain child-rearing practices relate to high n Achievement--McClelland does not discover what the factors are that lead to changes in education and child-rearing practices that eventually lead to a dynamic or static economy.

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[1]B. F. Hoselitz, review of The Achieving Society, by D. C. McClelland, in American Journal of Sociology, 68 July 1962, pp. 129-130.

[2]Ibid., p. 130.

G. Katona[1] states that McClelland could have gone beyond the assertion that economic development is the consequence of human behavior. McClelland might have done this by examining and "measuring specific psychological factors and showing their correlation with subsequent economic processes."[2]

McClelland's hypothesis that the entrepreneur is the link between high n Achievement and economic growth may be suspect. He states that McClelland is fairly successful at demonstrating a relationship between n Achievement and economic growth, but does not do as well at establishing a relationship between either high n Achievement and entrepreneurs or entrepreneurs and economic growth.

Katona is also disturbed that McClelland haphazardly uses the terms entrepreneur, businessman, and manager; that trickery and dishonesty are sometimes emphasized; and that the routineness of business behavior was not considered.

W. A. Weisskopf[3] concludes that at best McClelland's study is inconclusive. He states that:

> Its main theses are quite plausible if one uses introspection and empathy, sharpened by a familiarity with modern depth psychology and the psychologically oriented social sciences. But their plausibility does not seem to be increased by the experimental and quantitative methods, because these cannot grasp the

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[1]G. Katona, review of The Achieving Society, by D. C. McClelland, in American Economic Review, 52 June 1962, pp. 580-583.

[2]Ibid., p. 581.

[3]W. A. Weisskopf, review of The Achieving Society, by D. C. McClelland, in Journal of Political Economy, 70 June 1962, pp. 311-313.

> totality or Gestalt of a society and because their validity is in doubt.[1]

Weisskopf also thinks McClelland's conclusions suffer from "post hoc ergo propter hoc."

S. N. Eisenstadt feels that McClelland "successfully demonstrated the possibility that the development of a certain type of personality structure may constitute an important ingredient of the process of economic development." expressed, just as Hoselitz, that the identification of those "social settings and mechanisms" causing the changes in economic growth were of special significance as indicators "of possible approaches to the more general analysis of the interrelations between motivation and social settings and processes. Even if we do not accept all his detailed conclusions, the general indications of his analysis are very important."[4]

Eisenstadt argues that McClelland's main analytical shortcoming is his neglect "of the influence of different social settings on the building of n achievement into different types of social activities."[5]

K. Hester[6] takes exception to McClelland's methods of

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[1]Ibid., p. 311.

[2]Ibid., pp. 312-313.

[3]S. N. Eisenstadt, "The Need for Achievement," Economic Development and Cultural Change 11 (July 1963):420-431.

[4]Ibid., p. 425.

[5]Ibid., p. 430.

[6]K. Hester, "The Achieving Society: A Review Note," Indian Economic Journal 10 (April 1963):440-444.

testing for n Achievement by stating that "from an economist's point of view . . . it provides an ordinal, not a cardinal, measure. Thus McClelland is forced to use rank correlation or chi-square techniques, rather than more powerful regression analysis."[1]

Hester seems to agree with McClelland and others that "economic growth is not merely a technical phenomenon, it is also a psychological and sociological one."[2] Hence, McClelland's contribution is the emphasis on the motives of people in a society.

S. P. Schatz[3] believes that through his book, McClelland "has become so attached to his own hypothesis that he has unconsciously selected and used data in a way designed to support rather than test his theory."[4] Schatz divides his criticism of McClelland's hypothesis into five specific areas: (1) the choice of data; (2) the method of analyzing the data; (3) the hypothesized causality of n Achievement and economic growth; (4) the apparent bias, in light of the deficiency in sampling and the unreliable nature of the data; and (5) the conflicting conclusions of McClelland's study and what economists think they know about economic growth.[5]

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[1]Ibid., p. 443.

[2]Ibid., p. 444.

[3]S. P. Schatz, "n Achievement and Economic Growth: A Critique," Quarterly Journal of Economics 79 (May 1965):234-247.

[4]Ibid., p. 236.

[5]Ibid., pp. 236-241.

F. Redlich[1] feels that when McClelland considers human motivation as a key factor to economic development, he isolates this factor to the point of "one-sided exaggeration and consequently . . . distortion of reality."[2] Redlich believes that in reality the actions of men (and in this case, therefore economic development) cannot be determined by any single motive. Perhaps this is due to the fact that personality theory is not rounded out, and therefore McClelland's motivation theory cannot be rounded out.

Redlich cites that Schumpeter in his History of Economic Analysis blasts people who define one function of the entrepreneur as risk-taking because decision makers of large-scale enterprises do not bear the financial risk brought about by their decisions. Since the providers of capital perform the risk-taking function, risk cannot be but "a minor element in crucial decisions of big business."[3]

Finally, Redlich criticizes McClelland for not integrating n Achievement with the totality of motivations, which leaves his findings on the theoretical level. Hence, there is a gap between theory and reality. Redlich feels that McClelland's policy prescriptions, therefore, might be dangerous.[4]

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[1]F. Redlich, "Economic Development, Entrepreneurship, and Psychologism: A Social Scientist's Critique of McClelland's Achieving Society," Explorations in Entrepreneurial History 1 (Fall 1963):10-35.

[2]Ibid., p. 13.

[3]Ibid., p. 26.

[4]Ibid., p. 33.

B. Higgins[1] argues that McClelland ignores awkward results and only keeps the ones that suit his purposes. Higgins is not sure what is being measured by the scoring of school readers and doubts that it is the cause of high rates of economic growth, regardless of what McClelland argues.[2] To be sure, Higgins also questions the measure of economic development that McClelland uses. Higgins further criticizes McClelland's experiments and statistical tests and claims that an econometrician's work would be more cautious.[3]

In order to make what Higgins considers a real contribution, McClelland's Achieving Society should have been able to devise a clearer definition and a uniform measure of n Achievement, show that there is a stronger link between n Achievement and entrepreneurship than between n Achievement and other variables, and provide an operational method for creating and directing n Achievement.[4] Otherwise, the implication is that McClelland's hypothesis may be regarded as "not proven."[5]

J. M. Culbertson[6] argues that McClelland's approach should be broadened in at least three respects because there

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[1]Higgins, Economic Development, pp. 241-249.

[2]Ibid., p. 243.

[3]See Ibid., pp. 248-249 for specific detail.

[4]Ibid., p. 249.

[5]Ibid., p. 245.

[6]Culbertson, Economic Development, pp. 287-289.

might be differences in definitions of achievement from one society to another.[1]

J. H. Kunkel[2] has a diagram (Diagram 6) showing the sequence of McClelland's model. He argues that the major problem with McClelland's theory is:

> . . . that only behavior--verbal and other types--is observed and counted. Need-achievement, as a characteristic of a person's internal state, is inferred from a large variety of actions. This leads to some circularity in the argument, for if high n-achievement is inferred from certain actions, and if other actions are assumed to be the consequence of high n-achievement, all that is said is that the two types of action have certain characteristics in common.[3]

Kunkel feels that McClelland has problems in his correlations between child-rearing practices and n Achievement and between n Achievement and subsequent behavior. "Little is said--perhaps little can be said at present--about the nature and operation of these links."[4]

Kunkel does feel that McClelland's new conception and treatment of n Achievement has resulted in substantial development of at least three major areas: "the nature of n-Achievement, the possibility of its alteration in later life, and the implications of such alteration for development programs."[5]

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[1]See Ibid., pp. 288-289 for specific details.

[2]Kunkel, Social and Economic Growth, pp. 94-101.

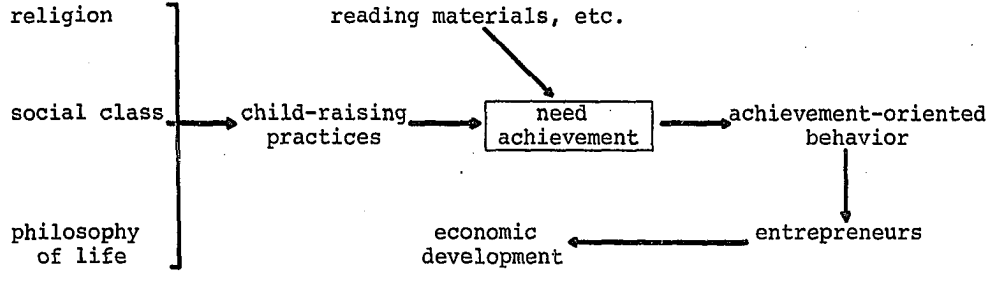
[3]Ibid., pp. 96-97.

[4]Ibid., p. 97.

[5]Ibid., p. 98.

DIAGRAM 6

McCLELLAND'S THEORY BY KUNKEL

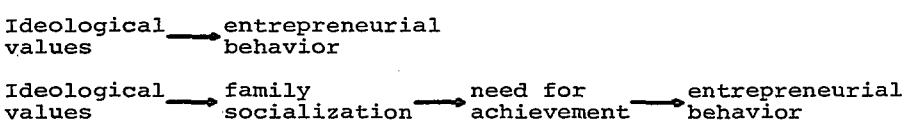


Source: J. H. Kunkel, Social and Economic Growth: A Behaviorial Perspective of Social Change. (New York: Oxford University Press, 1970), p. 96.

Another diagram of McClelland's theory is presented by P. Kilby[1] in Diagram 7:

DIAGRAM 7

McCLELLAND'S THEORY BY KILBY[2]



Kilby notes that:

> McClelland's theory makes fewer assumptions about values, cognitions, and motives other than the need for achievement, it is less open to the criticism of relying upon unverified psychoanalytical constructs concerning man's internal state.[3]

Kilby argues that McClelland attempts to systematically test hypotheses. Unfortunately, a la Kilby: ". . . closer inspection reveals that the indices that are correlated are not economic growth and need for achievement."[4] McClelland has "ingeniously manufactured proxi-variables and his interpretation of results do not stand up to the most sympathetic scrutiny."[5]

E. E. Hagen[6] discusses McClelland's statistical weaknesses which diminish the impressiveness of his conclusions.

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[1]Kilby, Entrepreneurship, pp. 1-40.

[2]Ibid., p. 8.

[3]Ibid., p. 11.

[4]Ibid., p. 19.

[5]Ibid., p. 20.

[6]Hagen, Economics of Development, pp. 271-273.

Hagen criticizes McClelland for using simple regression instead of multiple regression "[because] the two independent variables may themselves be related causally, [and therefore] the method may lead to invalid results."[1]

T. Morgan[2] finds McClelland's hypothesis to be a conclusion simply made. "Since human work and management input into production is more important than any other kind of input, it would seem very likely that some kind of psychological shift would be correlated with growth changes."[3]

Morgan criticizes McClelland on three grounds: one, statistical grounds (as mentioned by Hagen); two, because of varying time lags between changes in n Achievement and the resulting changes in economic performance; and three, his measure of economic growth. Morgan does not elaborate further on these criticisms.[4]

In summary, the main criticisms on McClelland seem to concentrate on the adequacy of his psychological explanations, and on the validity of his quantitative testing of the various hypotheses, of the role of psychology in explaining economic development, and of his conclusions.

The main support for McClelland's model is for his placement of man as the key to economic development. In

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[1]Ibid., p. 272.

[2]T. Morgan, Economic Development: Concept and Strategy (New York: Harper & Row, Publishers, 1975), pp. 92-93.

[3]Ibid., p. 92.

[4]Ibid.

addition, he provides a model that attempts to test empirically for the personality formation of the entrepreneur. While his work is marred by errors, especially statistical errors, he has made an attempt to combine theoretical and empirical study, and this has stirred considerable interest in the topic.

As has been the case with Schumpeter and Hagen, there are several unresolved questions concerning McClelland. Is it possible to combine advantageously McClelland's model with any other models of economic development? This will be attempted in Chapter VI.

CHAPTER VI

A COMPARISON AND A SYNTHESIS

This chapter represents a comparison and a synthesis of the theories of Joseph A. Schumpeter, Everett E. Hagen, and David C. McClelland. It is hoped that the emerging composite model will be more useful than the separate models in explaining the process of economic development.

Similarities and Differences

It has been shown that all three authors, Joseph A. Schumpeter, Everett E. Hagen, and David C. McClelland, are vitally concerned with the discovery of the cause of economic development. Their approaches, however, differ. Schumpeter presents an explanation of development caused by discontinuous spurts of entrepreneurial activity and offers an explanation of the business cycle as an integral part of that explanation. Hagen explains economic development by presenting a model of society which deals with the interrelationships of the physical environment, social structure, personality, and culture. Moreover, McClelland presents a model to explain economic development with psychological and sociological elements.

Hagen's model is the broadest; it attempts to analyze the process by cutting across interdisciplinary borders--economics, sociology, psychology, and anthropology. McClelland's

model attempts to use sociology and psychology as primary tools to explain economic development. It is Schumpeter who relies primarily on economics to explain economic development.

Obviously each man has been affected by a variety of forces and people. Schumpeter appears to have been influenced by Walras and the Austrian School and, to a lesser extent, by Max Weber. Max Weber, Sigmund Freud, and the School of Experimental Psychology seem to have made an impact on McClelland. The influences on Hagen seem to have been Sigmund Freud and a host of other people in various disiplines.

An economic model is said to be "dynamic" if at least one observable variable in the equation contains a function of time such as a trend or seasonal fluctuation.[1] A dynamic model analyzes what happens from one equilibrium situation to another. A "static" model concentrates only on the definition of equilibrium positions and the requirements for equilibrium; it is not concerned with the path by which the equilibrium position is reached or the time it takes for equilibrium to be achieved.[2] Accordingly, all three theories are dynamic theories as opposed to static theories. Schumpeter's, Hagen's, and McClelland's models do contain variables which are functions of time, as one would expect in any development theory.

Another attribute of a model is its stability. A model is stable if through time, when there is a displacement in the

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[1]D. Greenwald and Associates, The McGraw-Hill Dictionary of Modern Economics, 2nd ed. (New York: McGraw-Hill Book Company, 1972), p. 183.

[2]Ibid., pp. 556-557.

model, it moves toward equilibrium. Take, for instance, the classic "ball in a bowl" example[1] situated as shown in Figure 3(A). If the ball is moved, it will roll until it finally finds a resting point, i.e., an equilibrium point. This situation illustrates a stable equilibrium. A stable model may also be characterized by smooth, continuous changes. A model

FIGURE 3

THE BALL IN A BOWL

(A)  (B) 

is unstable if through time, when there is a displacement in the model, it moves away from equilibrium. Again, using the ball in a bowl example, situate the ball on the bowl as shown in Figure 3(B). Move the ball from its equilibrium point, and it moves away from equilibrium. An unstable model may also be characterized by discontinuous jumps or spurts in the variables.

Schumpeter's model is stable in the sense that the economy is moving toward a new equilibrium, but is unstable in the sense that the movement of the economy is along a discontinuous growth path. Hagen's and McClelland's models are stable in the sense that the economy is moving toward a new equilibrium position. Unfortunately, no one among the three writers specifies a length of time required for the equilibrium to be reached.

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[1]This is an explanation of Dr. J. K. Stephens' classroom presentation of growth theory.

Schumpeter uses a priori theorizing to present his model while Hagen uses historical evidence. McClelland, on the other hand, uses as a theoretical backdrop the personality theory of Freud and then begins building his model by using the methods of experimental psychology. McClelland allows the data to control his theory, rather than a priori theorizing. Both Schumpeter and Hagen deal with ideal types (a mental construction of the entrepreneur) while McClelland specifies a real type--hence the entrepreneur is quantified.

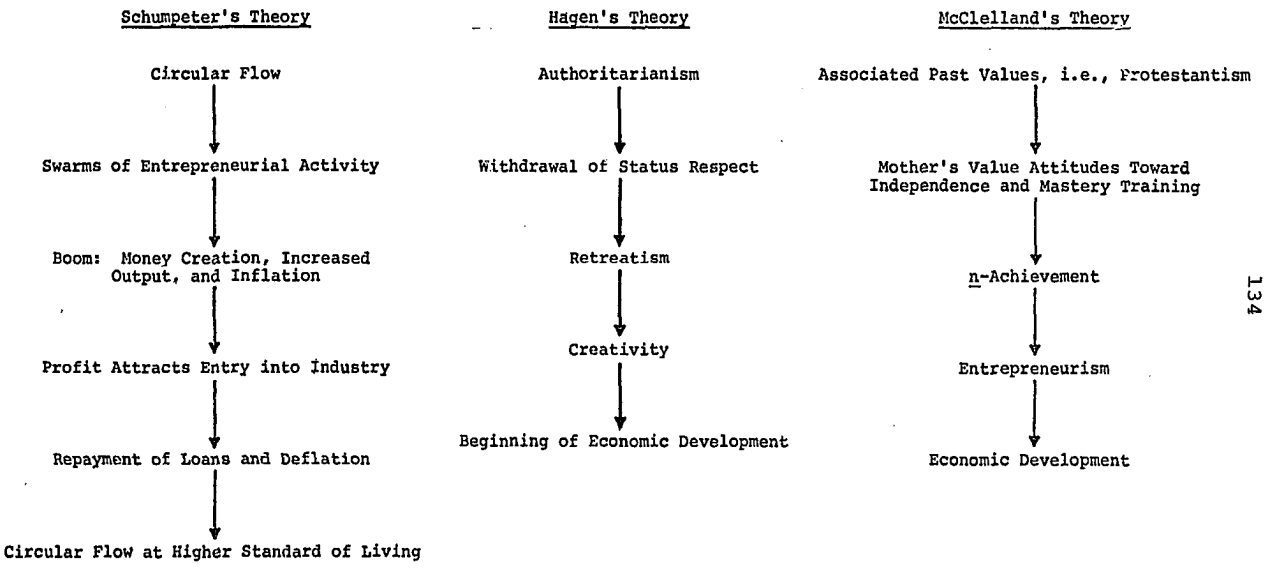
Schumpeter is the only writer of the three who seems to believe in economic determinism. Economic determinism is the Marxian belief that events in history are determined by the economic institutions of the time, as opposed to being determined by the wishes and wills of the individuals of that period. In contrast, Hagen and McClelland believe that historical events are determined by individuals, not by economic institutions. A case could be made that McClelland and, to a lesser extent, Hagen are "psychological determinists" since psychology plays such an important role in their theories of economic change.

In a sense each writer has used some historical sequence or economic stages. The sequence that each of the three theories follows can be seen in Diagram 8.

Schumpeter, although pessimistic about the future of capitalism, devotes more time to explaining development in a capitalist society, but not to the exclusion of other types of economic systems. Although Hagen's model does not specify any

DIAGRAM 8

THE SEQUENCE OF SCHUMPETER'S, HAGEN'S, AND McCLELLAND'S THEORIES



particular economic system, some form of capitalism, appears implicit. McClelland, who favors the capitalistic system, has had encouraging results on n Achievement from the communistic countries. Nevertheless, a basic and important commonality of all three models is that the economic system involved must allow enough economic freedom for the entrepreneur to innovate. Hence economic freedom is likely to be a prerequisite for each model.

Concerning the cause(s) of change, it must be observed that in each theory it is due to internal (as opposed to external) factors--increased entrepreneurial activity! Using the Walrasian framework, in no case are there any traditional, external economic factors, e.g., increasing population or increasing saving, causing economic change. Each theory might be referred to as a "spontaneous mechanism"--"spontaneous" because of its internal causes and "mechanism" because those internal changes are examined within the interrelationships of the whole system.

Equally important, the cause of change may be either accidental or deliberate. The initial cause of change in Hagen's model--the withdrawal of status respect--may develop because of some historical accident, or it may develop deliberately if there is a change in power by force. In McClelland's model the cause of change is an increase in need achievement. This may be accomplished either by a historical accident such as a change in the values of mothers or by deliberate means such as the use of motors in a primitive society. Schumpeter's causes

of change are the deliberate actions of entrepreneurs which, because of the definition of the entrepreneur, are never an accident. In summation, the cause of change in both Hagen's and McClelland's models may either by accidental or deliberate, while in the Schumpeterian model, it is always deliberate.

The instigator or perpetrator of economic change is the entrepreneur. Since the entrepreneur is a special person and the cause of change, all three theories may be considered elitist--elitist in the sense that only a select few, not the masses, bring about economic change.

Schumpeter apparently rejects hedonism--the rational utilitarian model--because the entrepreneur may act irrationally in his innovations. To the contrary, Hagen's personality theory relies on hedonism, and the model is a rational one, especially concerning the teaching of children. Rather than hedonism, McClelland relies primarily on need achievement, a different psychological motive, as the primary motive of his theory. McClelland does not reject the idea of utility--the relationship between goods and man's pleasure or pain. Rather he rejects the idea that man acts rationally. Man is thus motivated by reasons other than hedonism (utility), that is, need achievement. This rejection of hedonism is not meant to put a shaft through traditional demand theory. In fact, demand theory is accepted, and the implication of the rejection of hedonism does not seem to concern McClelland.

Schumpeter defines the entrepreneur essentially as the person who carries out new combinations of production. The

entrepreneur disrupts the circular flow and receives an income (profit). Moreover, the entrepreneur acts as the "Schumpeterian entrepreneur" when the factors of production are combined for the first time. The moment routine coordination of the factors of production occurs, the Schumpeterian entrepreneur disappears! Hence this eliminates the Marshallian function (management) of the entrepreneur. Schumpeter is quite emphatic in stating that the entrepreneur is not a risk bearer--that is a function of the capitalist. In summation, the Schumpeterian entrepreneur is the person who combines the factors of production with the expressed purpose of carrying out new combinations. Certainly, there is some decision making under uncertainity, some management responsibilities, and possibly risk bearing, but only when he provides the capital in the process of carrying out new combinations.

Hagen uses the term innovator to refer to the entrepreneur. His concept is similar to Schumpeter's in the sense that the innovator is the person who, upon arriving at a new mental conception, proceeds to convert that conception into action or into material form. Moreover, this person organizes reality into a relationship embodying a new mental or aesthetic concept which is better than the old concept. To Hagen a technical innovation may only involve the design or rearrangement of some items of physical equipment or may involve the reorganization of a group of human beings into a going concern that carries out a new concept. In the latter case, there is always the management of human beings. It appears that Hagen's innovator

corresponds quite closely to the Schumpeterian entrepreneur rather than to the Walrasian definition of entrepreneur--the coordinator of the factors of production. As a result, Hagen's innovator is entitled to a share of the distribution of income (profit). As stated earlier, both Hagen and Schumpeter have constructed an ideal type which does not lend itself to quantification.

Quite to the contrary, McClelland defines the entrepreneur as a person who exercises control over the means of production and produces more than he can consume in order to sell (or exchange) it for personal (or household) income. A full-time entrepreneur is one that receives at least 75 percent of his income from entrepreneurial activities. Thus this definition is specified in such a way as to be a statistical definition, and as such, it differs from Schumpeter's and Hagen's definitions. Although he provides a statistical definition, McClelland does not carefully delineate the functions of the entrepreneur as do Schumpeter and Hagen. In fact, in the functions of the entrepreneur, McClelland combines risk taking, coordination of the factors of production, and innovation of new ideas, all of which allow a residual claim on income. Moderate risk taking is important in McClelland's n Achievement.

All three writers agree that their entrepreneurs are innovators of new ideas; coordinators of the factors of production (to varying degrees); claimants of residual income; and risk takers, but not risk bearers.

Regarding the characteristics of the entrepreneur, Schumpeter describes the entrepreneur as one who possesses initiative, authority, foresight, intuition, mental freedom, leadership, and social deviance. He is self-centered--not culture bound. Moreover, he is irrational. Hagen's entrepreneur possesses creativity, is open to experience, is confident and content, gains satisfaction in facing and attacking problems, is intelligent and energetic, and has a sense of duty to achieve. McClelland's entrepreneur is a moderate risk taker (in that risk taking is a function of skill, not chance); is energetic and/or involved in novel, instrumental activity; faces individual responsibilities; desires knowledge of the results of his decisions; anticipates future possibilities; and possesses minimal organizational skills. McClelland's entrepreneur also possesses high need achievement. In fact, in varying degrees, all three writers agree with the entrepreneurial characteristic of the need to achieve.

What brings about these various entrepreneurs? Schumpeter's entrepreneur is brought about by the joy of creating or the delight in venturing. Hagen's entrepreneur is generated by anxiety in his (the entrepreneur's) personality, and the release of this anxiety takes the form of innovation. McClelland cites the values of the mother in child-rearing as fostering high need achievement which bears directly on entrepreneurial activity.

What will improve the climate for entrepreneurial activity? Schumpeter's entrepreneur appears in swarms or

discontinuously; therefore, it would be necessary to make a society such that there is joy in venturing and creating. Schumpeter, however, is rather vague regarding a policy prescription. Hagen and McClelland seem to be more clear on this question. In the case of Hagen there must be a change in the personality brought about by a withdrawal of status respect. This in turn results in anxiety and later in creativity and innovation. Thus the policy prescription is to cause a withdrawal of status respect by social engineering or planning. McClelland's idea of how to foster entrepreneurship is to develop values similar to the Protestant religion, which glorifies work. By glorifying work attitudes the mother can train her child to have high need achievement. Again, social engineering or planning would be required.

Each writer specifies a similar production function. The commonality is the specification of the entrepreneur in the production function. As a result, the production function would be:

$$Q = a[f(L, R, K, E, T)],$$

where a is the coefficient for technical progress, L is labor, R is natural resources, K is capital, E is entrepreneurship, and T is time. All three writers specify the production function with the entrepreneur as a factor. This is an attempt to reduce the residual in economic growth that was mentioned in Chapter I.

Schumpeter's model explicitly assumes a general equilibrium condition as the starting point of analysis. Hagen and

McClelland do not make this explicit assumption, but it is implicitly understood.

The roles of money, credit, and banking are important in the financing of the Schumpeterian entrepreneur. It is the banker and the creation of money that play an integral part in his business cycle and development theory. Hagen mentions that it is necessary to provide savings in the form of supplying capital to the entrepreneur, but goes on to minimize its importance. McClelland's model has no place for money, credit, and banking.

The explanation of the business cycle is one of the contributions of Schumpeter's theory. On the contrary, Hagen and McClelland do not discuss the business cycle at all.

The importance of education in the development process has already been discussed in Chapter II. Education becomes an important policy variable for both Hagen and McClelland. Education via social and economic planning provides an outlet for the training of parents in the techniques of child-rearing. Hence education is a critical variable for the personality formation of children in less developed countries in the models of Hagen and McClelland, while it is of little importance in Schumpeter's model. Schumpeter is not concerned with education in his model.

Class and status (one's position in society) are discussed in the context of the entreprenuer in Schumpeter's model. According to Schumpeter, a class is a social entity which can be observed, participated in, and characterized by a

class spirit.[1] It is a real social phenomenon. Class boundaries are established by the interaction between the members of society. Hence behavior determines class. The individual has no control over the class into which he is born. As a result, the individual's family ties determine his class position. Deviation or "rocking the boat" brings about class movement.[2]

To Schumpeter, there is a direct relationship between a class's social rank and its function in society. Hence, every class fulfills a specific function. The relative position of a class is determined (1) by the significance that society attaches to the function it fulfills and (2) by how well the class performs its specific function.[3]

Schumpeter indicates that the entrepreneurs do not form a social class because there are so few of them. He does indicate that they are social deviants, however. This is the essence of Schumpeter's comments on class and status.

Class and status play a very important role in Hagen's theory because it is the movement of class or the loss of status (withdrawal of status respect) which influences personality development through anxiety. Likewise, in McClelland's model, social class and status affect the formation of the child's values and desire to achieve. Money and wealth are measures of success. Achieved status is evaluated by the

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[1] J. A. Schumpeter, Imperialism and Social Classes (New York: Augustus M. Kelley, Inc., 1951), p. 140.

[2] Ibid., p. 158.

[3] Ibid., p. 179-180.

individual's accomplishments or achievements. Ascribed status is evaluated in terms of fixed characteristics acquired at birth. All three writers indicate that money is the reward for entrepreneurial activity. Status is received in recognition of innovation.

Religion provides the backdrop for McClelland's theory. In fact, the Protestant religion and the values it instills in people foster high n Achievement. High n Achievement is the link to entrepreneurial behavior. The religion does not have to be Protestant, but the religion should be conducive to high n Achievement. Hagen discusses religion in the context of looking for new values after the loss of status respect. Religion may provide the mechanism for new values. In Hagen's model, religion is not as central to the development of the entrepreneur as in McClelland's model. Schumpeter's model has no place for religion.

Values, as it has been alluded to earlier, play an active part in Hagen's and McClelland's models because of the nature of their models, i.e., personality models. On the contrary, values are of no importance in Schumpeter's model.

A major policy implication of the Schumpeterian model would be that the necessary inducements be provided to attract private entrepreneurs or to allow the government to act as the entrepreneur. Both Hagen and McClelland would use psychological variables to effect economic development such as changing educational programs or curriculums.

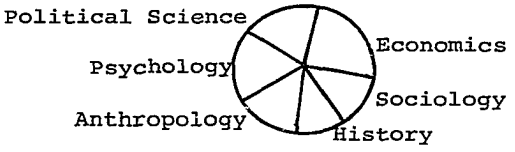
The policy prescriptions, if there are any, would be long-run oriented. Hence long-run planning would be required.

A Common Model

This section presents a common model of economic development based on the theories of Joseph A. Schumpeter, Everett E. Hagen, and David C. McClelland. One can think of explaining economic development by letting a pie represent the whole system. The components of the system include economics, political science, anthropology, psychology, history, and sociology.

FIGURE 4

REPRESENTATION OF THE WHOLE SYSTEM



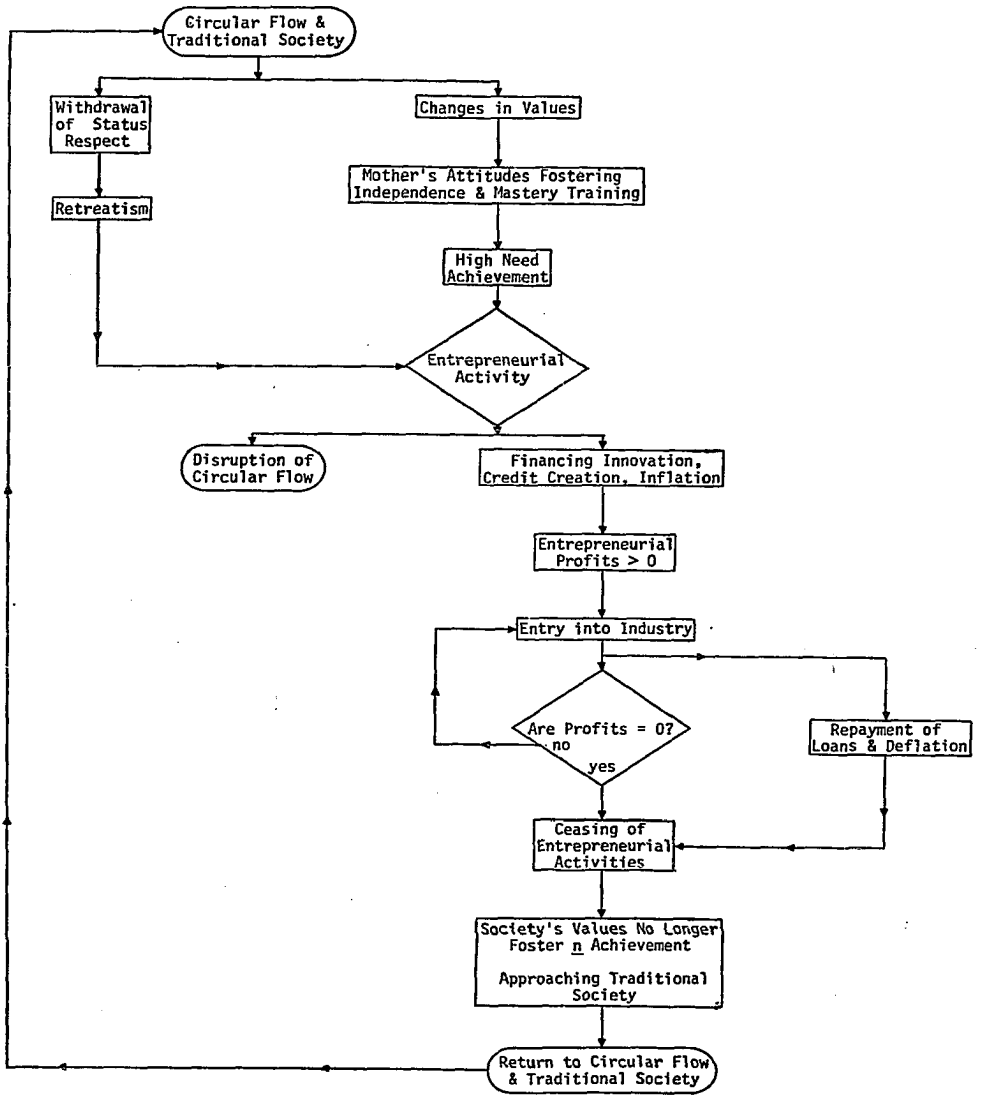
This model presents a reconciliation of the ideas presented by Schumpeter, Hagen, and McClelland. Specifically, the model presents a synthesis of historical sequence, a definition of the entrepreneur, the characteristics of the entrepreneur, and the personality theory of the entrepreneur. First, it is necessary to present a synthesized historical sequence. Diagram 9 shows a flow chart of this sequence.

The starting point of the synthesized analysis is Schumpeter's circular flow. As discussed earlier, the circular flow is "an unchanging economic process which flows on at a constant rate in time and merely reproduces itself."[1] Economic life

[1]Schumpeter, Business Cycles, pp. 35-36.

DIAGRAM 9

SYNTHESIS OF THE HISTORICAL SEQUENCE OF THE MODELS OF SCHUMPETER, HAGEN, AND McCLELLAND



flows in a definite and constantly recurring pattern. The economy is an isolated community where private property, division of labor, and free competition prevail; where everyone lives on goods produced in the preceding period; where market possibilities are known by experience; and where there are no changes except in response to external factors.

A general equilibrium condition is assumed. If any element within the system is dislocated, there will be forces within the system which will move in such a way as to react to the disturbance and absorb it.

Meanwhile, the society at this point is a traditional society and therefore is custom-bound, hierarchical, ascriptive, and unproductive. The people in the traditional society are authoritarian because they are tradition directed. Every person finds his place in the authoritarian hierarchy of human relationships. Conflict is obviated by submission to persons of superior status. Domination over inferiors permits each individual to vent his aggressiveness. The uncreativity which exists stems from fear--of the world and its problems--and from preferring to let superiors decide on the rightness of solutions to issues about them.

The authoritarian personality, like any personality, is determined during the first six to eight years of life. Parents of children in a traditional society regard the infant child as a fragile object to be protected and possibly indulged. The early indulgence or protectiveness later becomes control. The primary duties of the child are to learn a certain set of

rules.[1] These rules, which are brought about by submission, teach the child need dominance. Rage is the result. The child vents some of his/her rage by dominating his/her juniors and those who are smaller than he/she. Moreover, the child learns that it is satisfying. During the Oedipal period, due to harsh, abrupt, and severe training by the authoritarian father, a climax in personality formation occurs.

Class relationships are fixed, and the structure persists. Thus, in a traditional society everything fits and will be perpetuated unless there is a powerfully disruptive force. When members of a group sense that their status is no longer respected by those whose opinions they value and respect, tension is created within them. They cannot value both their position in life and the opinion of other groups. This lack of respect for one's purposes and values in life is the central aspect of the withdrawal of status respect. Unquestionably, the withdrawal of status respect causes extreme anxiety and alienation from traditional values as well as other personality changes. Its appearance in a society acts as "a powerful solvent of the cement which binds the society together."[2]

The conflict, the frustration, the anxiety, and later the rage created in the individuals by the withdrawal of status respect alters the home environment. This process changes the personalities of the next generation, and these effects, either

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[1]See Chapter IV for further explanation of these rules.

[2]Hagen, Social Change, p. 191.

in one generation or over several generations, are of crucial importance for the theory of social change. Although adult personalities are altered somewhat by the withdrawal of status respect, the far-reaching results are seen in the personalities of the children in their formative years--the first six to eight years of life. At this point the various possible personalities are (1) retreatist, (2) ritualist, (3) reformist, and (4) innovative.

The safety behind the repression of the point associated with the original withdrawal of status respect propels each generation farther into apathy where their needs and values are concerned. Thus, with each generation of denial, the degree of retreatism increases. "As retreatism deepens in successive generations, it creates circumstances of home life and social environment that are conducive to the development of innovational personality."[1]

Values that are associated with Protestantism and modern industrialism provide the backdrop for the mother's child-rearing practices. These values are translated through the mother's setting of high standards for her children into self-reliance and mastery. The result is the creation of high need achievement in those children. Need achievement--the desire to excel--is the link to entrepreneurial activity.

The entrepreneur is that person who arrives at a new mental conception and then converts it into material form by

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[1]Ibid., p. 217.

using new combinations of the factors of production. In the process of combining these factors of production for the first time, he disturbs the circular flow, and as a result, he is entitled to an income called profit. To be considered a full-time entrepreneur, he must receive at least 75 percent of his income from such activity. This entrepreneur possesses simultaneously the combined characteristics of Schumpeter's, Hagen's, and McClelland's entrepreneurs. These characteristics were discussed earlier in this chapter.

Entrepreneurial activity is a response to anxiety; specifically, incessant anxiety is the driving force of entrepreneurial activity as well as the joy of creating. The anxiety caused by the withdrawal of status respect and the demands the mother puts on her child during the training period. Innovational activity or need achievement is related to three child-rearing variables: (1) low authoritarianism, (2) warmth within the family, and (3) high standards of excellence set by the parents.

Entrepreneurial activity is not a lasting condition, but merely a temporary occurrence which disrupts the circular flow. Entrepreneurial ability is not an inheritable characteristic. Entrepreneurs may form a social class, but it is doubtful since there will be only a relatively few entrepreneurs.

Now Schumpeter's business cycle process of credit creation and inflation, entrepreurial profits greater than zero, entry into industry, and repayment of loans and deflation takes place as discussed in Chapter III. The values and

child-rearing practices tend to be commonplace and are no longer likely to be conducive to fostering high need achievement and, thus, entrepreneurial activity. The society begins to approach the traditional society it left. The end result is that the economy and the society are at a higher level than before. Here the process begins again.

CHAPTER VII

SUMMARY AND CONCLUSIONS

This study has discussed the coefficient of ignorance and suggested that the respecification of the aggregate production function might reduce the coefficient of ignorance. The variable to be added is the entrepreneur. In addition, a working definition of the entrepreneur and the entrepreneurial function have been offered. Next the role of the entrepreneur in economic development has been discussed. The literature agrees that the entrepreneur is a significant variable in the development process, but offers differences on the definitions, functions, and related policy prescriptions concerning entrepreneurship. The concept of human capital in economic development has been discussed. It has been pointed out that investment in human capital may provide the stimulus for an increase in entrepreneurship. Moreover, the economics of education as related to economic development has been discussed. The economics of education may be viewed as a subset of human capital theory. It has been suggested that less developed countries do not need extensive formal education now, but rather they need informal education and on-the-job training. In any case, the importance of manpower programs has been stressed in both the discussion of human capital and the economics of education.

Next the three theoretical models were discussed and critiqued. Joseph A. Schumpeter has shown us that when the "Schumpeterian entrepreneur" acts in discontinuous spurts, he disrupts the circular flow. This process is instrumental in bringing about economic development as well as a business cycle. The business cycle is an integral component of Schumpeter's theory of economic development. Everett E. Hagen has underscored the role of personality theory in economic development. Using Freudian theory he postulates that a withdrawal of status respect, through generations of personality changes, develops creative personalities. Creative entrepreneurship then causes economic growth to begin. David C. McClelland has used personality theory and experimental psychology to form his theory of economic development. The development of need achievement is a critical variable whereby the entrepreneur stimulates economic growth. To be sure, the literature on these models is extensive. A conclusion that can be drawn is that each theory is quite controversial.

A main thrust of this dissertation has been to point out the similarities and dissimilarities of the three entrepreneurship models of Schumpeter, Hagen, and McClelland. There have been enough similarities so that the models could be synthesized into a common model. The synthesized model is an interdisciplinary one. The three theories provide a theory of entrepreneurial supply, and in each case the entrepreneur is the critical variable that brings about economic development. Hagen and McClelland have primarily used psychological tools

to explain the process. The policy prescriptions are primarily long run, but that ought to be expected since economic development is a long-run phenomenon. Nevertheless, it might be advisable to suggest manpower training in the short run while simultaneously using social engineering to change the cultural values that will affect later generations and result in an increase in creative entrepreneurship.

The contributions of this study specifically include the following. First, the definition of the entrepreneur has been clarified and qualified. Likewise, the functions of the entrepreneur have been limited to specific circumstances. With this improved definition it may be possible to collect the necessary data on entrepreneurial activity in an effort to deal with this activity on more quantitative terms.

Second, the aggregate production function has been respecified to include the entrepreneur. In the synthesis of the models, several social sciences were combined in an attempt to theoretically reduce the residual or the coefficient of ignorance. Any attempt to explain the residual must necessarily look outside the economic determinants of growth. Thus this dissertation represents a step in the right direction toward breaking the traditional shackles of economic theory by considering noneconomic factors. The common model provides a more relevant explanation of the process of development in the real world.

Third, since development is a long-run process, the discussion of the entrepreneur provides a vehicle to speed up

and to sustain growth and development. Each of the three theories and the common model state that the entrepreneur is a significant variable and that it is the entrepreneur via his innovations who can stimulate the economy toward economic development.

Fourth, this study has presented the viewpoint that the society in its values, culture, and mores must be ready for economic development. This does not, however, take place overnight or by some exogenous shocks, and there are no instantaneous adjustments. It takes time for the process to occur.

Fifth, a number of policy suggestions have been offered. Notwithstanding that any policy prescription depends on the country and its resources, the process of economic development requires some intermediate and long-run social and economic planning. To be more precise, in the model, education is a critical policy variable which affects entrepreneurial behavior. There must be education for parents in child-rearing for the long term and whatever remedial education is necessary to get the people working productively for the short term. Any plan must look at how these changes affect entrepreneurial behavior, both now and in the future.

Sixth, on the practical side, this model does not suggest quick, rapid development because personality formation takes several generations. Nevertheless, it does provide a more realistic backdrop than previously offered. Because of the long-run orientation of the model, it is not likely that

the proposed theory will be politically popular since inhabitants of less developed countries want development now. Thus, the model needs to have incorporated into it some short-term policy prescription variables. To do this, more research is needed not only on the theoretical level, but also on the empirical level. It is anticipated that with the clarified definition of the entrepreneur and the respecification of the aggregate production function, a basis for additional fruitful research is provided.

In the final analysis, this study suggests that to understand the process of economic development, there needs to be more interdisciplinary research and a broadening of the economist's horizons by the inclusion of noneconomic variables.

BIBLIOGRAPHY

Articles

Abramovitz, M. "Resource and Output Trends in the United States Since 1870." American Economic Review Papers and Proceedings 46 (May 1956):5-23.

Alexander, A. P. "The Supply of Industrial Entrepreneurship." Explorations in Entrepreneurial History 4 (Winter 1967):136-149.

Atkinson, J. W. and Hoselitz, B. F. "Entrepreneurship and Personality." Explorations in Entrepreneurial History 10 (April 1958):107-112.

Balogh, T. and Streeten, P. O. "The Coefficient of Ignorance." Bulletin of the Oxford Institute of Economics and Statistics 25 (May 1963):99-107.

Baumol, W. J. "Entrepreneurship in Economic Theory." American Economic Review Papers and Proceedings 58 (May 1968): 64-71.

Bhambri, R. S. "Enterprise, Initiative and Economic Policy." Kyklos 15 (1962):401-422.

Bhatt, V. V. "Motor Force of Economic Development." Indian Economic Journal 1 (July 1953):31-43.

Belshaw, C. S. "The Cultural Milieu of an Entrepreneur: A Critical Essay." Explorations in Entrepreneurial History 7 (February 1955):146-163.

Bolino, A. C. "Education, Manpower, and Economic Growth." Journal of Economic Issues 2 (September 1968):323-341.

Butlin, N. G. "Entrepreneurial Biography: A Symposium." Explorations in Entrepreneurial History 1 (May 1950): 223-230.

Carlin, E. A. "Schumpeter's Constructed Type: The Entrepreneur." Kyklos 9 (1956):27-40.

Cochran, T. C. "Entrepreneurship." International Encyclopedia of Social Sciences 5 (1968):87-91.

_____. "Social Attitudes, Entrepreneurship, and Economic Development: Some Comments." Explorations in Entrepreneurial History 6 (February 1954):181-183.

Cole, A. H. "The Entrepreneur. Introductory Remarks." American Economic Review Papers and Proceedings 58 (May 1968):60-63.

Dobb, M. "Entrepreneur." Encyclopedia of the Social Sciences 5 (1931):558-560.

Edwards, E. O. and Todaro, M. P. "Education, Society and Development: Some Main Themes and Suggested Strategies for International Assistance." World Development 1 (January 1974):25-30.

Eisenstadt, S. N. "The Need for Achievement." Economic Development and Cultural Change 11 (July 1963):420-431.

Giacalone, J. A. "Entrepreneurial Theory and American Business History: A Survey." Review of Social Economy 26 (September 1968):156-167.

Glade, W. P. "Approaches to a Theory of Entrepreneurship Formation." Explorations in Entrepreneurial History 4 (Spring/Summer 1967):245-259.

Hagen, E. E. "Development Policy in Underdeveloped Countries: Discussion." American Economic Review Supplement 45 (May 1955):74-77.

_____. "Entrepreneurship and Development: Discussion." American Economic Review Supplement 58 (May 1968): 94-96.

_____. "Population and Economic Growth." American Economic Review 49 (June 1959):310-327.

_____. "The Process of Economic Development." Economic Development and Cultural Change 5 (April 1957):193-215.

Hansen, W. L., ed. "Symposium on Rates of Return to Investment in Education." Journal of Human Resources 2 (Summer 1967):291-374.

Harbison, F. "Entrepreneurial Organization as a Factor in Economic Development." Quarterly Journal of Economics 70 (August 1956):364-379.

Hoselitz, B. F. "The Early History of Entrepreneurial Theory." Explorations in Entrepreneurial History 3 (April 1951): 193-220.

_____. "Entrepreneurship and Economic Growth." American Journal of Economics and Sociology 12 (October 1952): 97-110.

Kendall, L. T. and Ketchum, M. D. "Long Run Growth: Prospects and Problems." Conference of Savings and Residential Financing 1963 Proceedings. Chicago: U.S. Savings and Loan League, 1963.

Kunkel, J. H. "Psychological Factors in the Analysis of Economic Development." Journal of the Social Sciences 19 (January 1963):68-87.

_____. "Values and Behavior in Economic Development." Economic Development and Cultural Change 13 (April 1965): 257-277.

Kuznets, S. "Schumpeter's Business Cycles." American Economic Review 30 (June 1940):257-271.

Laumas, P. S. "Schumpeter's Theory of Economic Development and Underdeveloped Countries." Quarterly Journal of Economics 76 (November 1962):653-659.

Leibenstein, H. "Allocative Efficiency vs. X-Efficiency." American Economic Review 56 (June 1966):392-415.

_____. "Entrepreneurship and Development." American Economic Review Papers and Proceedings 58 (May 1968): 72-83.

Lewis, W. A. "Richard T. Ely Lecture. A Review of Economic Development." American Economic Review 60 (May 1965): 1-16.

Macdonald, R. "Schumpeter and Max Weber--Central Visions and Social Theories." Quarterly Journal of Economics 74 (August 1965):373-396.

Mark, L., Jr. "The Favored Status of the State Entrepreneur in Economic Development Programs." Economic Development and Cultural Change 7 (July 1959):422-430.

McClelland, D. C. "A Psychological Approach to Economic Development." Economic Development and Cultural Change 12 (April 1964):320-324.

_____. "Business Drive and National Achievement." Harvard Business Review 40 (July/August 1962):99-112.

_____. "Does Education Accelerate Economic Growth" Economic Development and Cultural Change 14 (April 1966): 257-278.

McNulty, P. J. "On Firm Size and Innovation in the Schumpeterian System." Journal of Economic Issues 8 (September 1974):627-631.

Melton, R. B. "Schultz's Theory of 'Human Capital.'" Southwest Social Science Quarterly 46 (September 1965): 264-272.

Miller, W. L. "Education as a Source of Economic Growth." Journal of Economic Issues 1 (December 1967):280-296.

Morgan, J. N. "The Achievement Motive and Economic Behavior." Economic Development and Cultural Change 12 (April 1964):243-267.

Morgan, J. and David, M. "Education and Income." Quarterly Journal of Economics 77 (August 1963):423-437.

Nash, M. "Introduction: Approaches to the Study of Economic Growth." Journal of the Social Sciences 19 (January 1963):1-5.

Pal, S. "Notes and Memoranda: Significance of Schumpeter's Ideas for the Underdevelopment Countries." Indian Economic Review 2 (August 1955):89-91.

_____. "Schumpeter and His Ideas of Economic Development." Indian Journal of Economics 36 (July 1955):129-142.

Redlich, F. "The Business Leader in Theory and Reality." American Journal of Economics and Sociology 8 (April 1949):223-237.

Rimmer, D. "Schumpeter and the Underdeveloped Countries." Quarterly Journal of Economics 75 (August 1961):422-450.

Schatz, S. P. "n-Achievement and Economic Growth. A Critique." Quarterly Journal of Economics 79 (May 1965):234-247.

Schloss, H. H. "The Concept of Entrepreneurship in Economic Development." Journal of Economic Issues 2 (June 1968):228-232.

Schultz, T. W. "Capital Formation by Education." Journal of Political Economy 68 (December 1960):571-583.

_____. "Investment in Human Capital." American Economic Review 51 (March 1961):1-17.

_____. "Investment in Human Capital. Reply." American Economic Review 51 (December 1961):1035-1039.

_____. "Reflections on Investment in Man." Journal of Political Economy Supplement 70 (October 1972):1-8.

_____, ed. "Investment in Education: The Equity-Efficiency Quandary. A Symposium." Journal of Political Economy 80 (May/June 1972):1-293.

Schultz, T. W. et al. "Investment in Human Beings." [A Symposium.] Journal of Political Economy Supplement 70 (October 1962):1-157.

Schumpeter, J. A. "The Creative Response in Economic History." Journal of Economic History 7 (November 1947):149-159.

Singer, H. W. "Obstacles to Economic Development." Social Research 20 (April 1953):19-31.

Solo, C. S. "Innovation in the Capitalist Process: A Critique of the Schumpeterian Theory." Quarterly Journal of Economics 65 (August 1951):417-428.

Strauss, J. H. "The Entrepreneur. The Firm." Journal of Political Economy 52 (June 1944):112-127.

Sweezy, P. M. "Professor Schumpeter's Theory of Innovation." Review of Economics and Statistics 25 (February 1943): 93-96.

Wiles, R. C. "Professor Joseph Schumpeter and Underdevelopment." Review of Social Economy 25 (September 1967): 196-208.

_____. "Schumpeter and Underdeveloped Countries: Comment." Quarterly Journal of Economics 77 (November 1963):697-699.

Wolfson, R. J. "The Economic Dynamics of Joseph Schumpeter." Economic Development and Cultural Change 7 (October 1958):31-54.

Wright, D. M. "Mr. Keynes and the Day of Judgment." Science 128 (1958):1258-1268.

Book Reviews

Hester, K. "The Achieving Society. A Review Note." Indian Economic Journal 10 (April 1963):440-444.

Hoselitz, B. F. Review of The Achieving Society, by D. C. McClelland. American Journal of Sociology, 68 July 1962, pp. 129-130.

Katona, G. Review of The Achieving Society, by D. C. McClelland. American Economic Review, 52 June 1962, pp. 580-583.

Redlich, F. "Economic Development, Entrepreneurship, and Psychologism: A Social Scientist's Critique of McClelland's Achieving Society." Explorations in Entrepreneurial History 1 (Fall 1963):10-35.

Weisskopf, W. A. Review of The Achieving Society, by D. C. McClelland. Journal of Political Economy 70 June 1962, pp. 311-313.

Books

Adelman, I. Theories of Economic Growth and Development. Stanford, Calif.: Standford University Press, 1961.

Adelman, I. and Morris, C. T. Society, Politics and Economic Development--A Quantitative Approach. Baltimore: Johns Hopkins Press, 1971.

Anderson, C. A. and Bowman, M. J., eds. Education and Economic Development. Chicago: Aldine Publishing Co., 1965.

Ayres, C. E. The Devine Right of Capital. Boston: Houghton Mifflin Company, 1946.

_____. The Industrial Economy. Boston: Houghton Mifflin Company, 1952.

_____. Toward a Reasonable Society. Austin, Tex.: University of Texas Press, 1961.

_____. The Theory of Economic Progress. 2nd ed. New York: Schocken Books, 1961.

Becker, G. S. Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education. 2nd ed. New York: National Bureau of Economic Research, 1975.

Blaug, M. Economic Theory in Retrospect. Rev. ed. Homewood, Ill.: Richard D. Irwin, 1968.

_____. The Economics of Education. London: Oxford University Press, 1966.

Bruton, H. J. Principles of Development Economics. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1965.

Chamberlain, N. W. Contemporary Economic Issues. Rev. ed. Homewood, Ill.: Richard D. Irwin, 1973.

Culbertson, J. M. Economic Development: An Ecological Approach. New York: Alfred A. Knopf, 1971.

Denison, E. F. Why Growth Rates Differ: Postwar Experience in Nine Western Countries. Washington, D.C.: Brookings Institution, 1967.

Hagen, E. E. The Economics of Development. Rev. ed. Homewood, Ill.: Richard D. Irwin, 1975.

_____. On the Theory of Social Change. Homewood, Ill.: Richard D. Irwin, 1962.

Higgins, B. Economic Development: Problems, Principles and Policies. Rev. ed. New York: W. W. Norton & Co., 1968.

Harbison, F. and Myers, C. A. Education, Manpower, and Economic Growth. New York: McGraw-Hill, 1964.

Jakubauskas, E. B. and Palomba, N. A. Manpower Economics. Reading, Mass.: Addison-Wesley Publishing Co., 1973.

Kilby, P., ed. Entrepreneurship and Economic Development. New York: The Free Press, 1971.

Kindleberger, C. P. Economic Development. New York: McGraw-Hill, 1958.

Knight, F. Risk, Uncertainty, and Profit. Reprints of Economic Classics. New York: Augustus M. Kelley, 1964.

Kunkel, J. H. Social and Economic Growth: A Behaviorial Perspective of Social Change. New York: Oxford University Press, 1970.

Kuznets, S. National Income: A Summary of Findings. New York: National Bureau of Economic Research, 1946.

Leibenstein, H. Beyond Economic Man. Cambridge, Mass.: Harvard University Press, 1976.

_____. Economic Backwardness and Economic Growth: Studies in the Theory of Economic Development. New York: John Wiley and Sons, 1957.

McClelland, D. C. The Achieving Society. New York: The Free Press, 1961.

McClelland, D. C. and Winter, D. G. Motivating Economic Achievement. New York: The Free Press, 1969.

Meier, G. M. Leading Issues in Economic Development: Studies in International Poverty. 2nd ed. New York: Oxford University Press, 1970.

Meier, G. M. and Baldwin, R. E. Economic Development: Theory, History, Policy. New York: John Wiley and Sons, 1957.

Morgan, T. Economic Development: Concept and Strategy. New York: Harper & Row, Publishers, 1975.

Newman, P. C. The Development of Economic Thought. New York: Prentice-Hall, 1952.

Roll, E. A History of Economic Thought. 4th ed. Homewood, Ill.: Richard D. Irwin, 1974.

Schumpeter, J. A. Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process. New York: McGraw-Hill, 1939.

_____. History of Economic Analysis. New York: Oxford University Press, 1954.

_____. Imperialism and Social Classes. New York: Augustus M. Kelley, Inc., 1951.

_____. The Theory of Economic Development. London: Oxford University Press, 1934.

Veblen, T. B. The Place of Science in Modern Civilization. New York: B. W. Huebsch, 1919.

Zimmerman, E. W. World Resources and Industries. Rev. ed. New York: Harper & Brothers, 1951.

Miscellaneous

Bowman, M. J. "Educational Outcomes, Processes, and Decisions: Frontiers of Economic Research and Development for the 1970's." Report prepared for the National Institute of Education, Washington, D.C., December 1, 1971.

Denison, E. F. The Sources of Economic Growth in the United States and the Alternatives Before Us. Supplementary Paper No. 13. New York: Committee for Economic Development, 1962.

Greenwald, D. and Associates. The McGraw-Hill Dictionary of Modern Economics. 2nd ed. New York: McGraw-Hill Book Company, 1972.

Waters, W. R. "Entrepreneurship, Dualism, and Causality: An Appreciation of the Work of Joseph A. Schumpeter." Ph.D. dissertation, Georgetown University, 1952.