noon Tagalog class came each morning to help out as informants for the English class, and, conversely, some teaching in the Tagalog class was done by members of the morning English class. Thus when these Filipino and non-Filipino informants came together for the evening comparative culture course, a groundwork for understanding had already been laid by participation in the English or Tagalog courses.

The evening session on values in Philippine and American culture was an integral part of the language study. This course, a production of the staff and associates of the Institute of Philippine Culture under the direction of Father Frank Lynch, S.J., brings together the findings of anthropology, sociology, psychology, history, economics, and linguistics regarding the basic themes in the two cultures. By viewing as a whole the value systems of the two societies, the students were better able to understand the languages as expressions of their respective cultures.

It is difficult to assess "Teaching English as a School Language" by comparing it with similar courses in English since to my knowledge there are no comparable courses given elsewhere. Furthermore, despite the intensive nature of the course, six weeks is too short a time to master the technical aspects of second-language learning as well as the deeper meanings attached to the language.

But if success can be measured by the absorption of new ideas for presenting, drilling, and teaching a second language, by the amount of awakening interest in, and understanding of, one's own way of speaking and living, or by the grasp of the mentality and culture that is behind another's, then this course with its interdisciplinary approach can certainly be termed a success.

MICHAEL R. SASO

Changing Assumptions in the Theory of the Firm

With business increasingly employing the services of economists, a closer scrutiny has been and will continue to be made of the validity and sufficiency (especially for operational purposes) of assumptions employed in economic theory which up to recent times has been almost exclusively concerned with price-output problems. For example, there has been a growing dissatisfaction1 with the use

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of profit-maximization as a sufficient factor in determining the behavior of firms. Edith Penrose's *The Theory of the Growth of the Firm,* although it does not question the profit-maximization assumption in the long run, challenges the orthodox view of the determinants of firm size. Some comments on this book may be worthwhile even at this late date because it can be used to indicate some of the differences between traditional and the currently changing theory of the firm regarding some of their assumptions and the consequences of changing these assumptions.

The firm in traditional theory has been described by Kenneth Boulding as a "strange bloodless creature without a balance sheet, without any visible capital structure, without debts, and engaged apparently in the simultaneous purchase of inputs and sale of outputs at constant rates." That this "creature" is "bloodless" should really not be a cause for surprise since the firm in traditional theory serves not so much as an image of a dynamic firm in the business world as a convenient catch-all representing its interaction among market forces that affect the prices and quantities of particular products produced. Supply market data to this firm and it will, like a computing machine, grind out the prices and quantities of products that should be produced by the firm to attain equilibrium. Thus the optimum size of the firm is easily obtained by looking for the lowest point of the long-run average cost curve. The growth of the firm does not really enter into the analysis except by way of an increase in the output of given products.

But the growth of the firm in an advanced capitalist economy today is not characterized by an increase in the output of given products.

In an economy where the giant firm is a dominant feature, and innovation not so much a random event as a part of deliberate policy, Joseph Schumpeter's vision of the capitalist economy—growing in discrete and discontinuous steps, changing not only quantitatively but especially qualitatively—is more appropriate than Alfred Marshall's view of economic growth as a slow biological process where *natura non facit saltum.* Mrs. Penrose's proposed doctrine, as the title of the book suggests, is "dynamic" in the Schumpeterian sense of the word. In contrast to the assumptions made by the

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2 The term "traditional theory" is often used by writers in industrial organization as a whipping boy in much the same way that Keynes used the "classical" economists. The qualifying remarks made by subsequent writers regarding Keynes' rather unfair use of the term "classical" should be similarly made here.
traditional theory of the firm, she holds that (1) management is not a fixed factor and that (2) the firm is not tied to any given product. For her, the firm is both "an autonomous administrative planning unit whose activities are inter-related and coordinated by policies...framed in the light of their effect on the enterprise as a whole" as well as "a collection of productive resources the disposal of which between different uses and over time is determined by administrative decision." The administrative planning unit is the management team whose members are used not only for management but also for enterprise, not only to see the profitable possibilities of a new combination but also to take steps in introducing it to the economy. With innovation always as a possibility, the firm's non-managerial resources (physical assets such as plant, equipment, raw materials, etc. as well as human factors such as the clerical staff, skilled and unskilled labor, etc.) are viewed as a bundle of potential services which can be identified to a large extent apart from their actual use. Given a set of resources, a firm in this theory is confronted therefore with a whole spectrum of potential production functions.

This combination of resources—the management team and the non-managerial resources—is the reason why theoretically, at least, there is no limit to the growth of the firm. At each period of time, there is a limit to the resources of the management team; this limit, however, continually recedes as the old and new members of the team acquire more experience. Experience in this context refers especially to better communications among the managers and to more familiarity with the non-managerial resources of the firm. This will permit an expansion of the firm as the productive opportunities are more fully exploited. With this expansion, however, there will probably result again an excess of non-managerial resources relative to the management team because there are usually some factors which, because of their property of indivisibility, lead to excess capacity when a combination of factors is used. The management team will then be enlarged again, and again there will be the initial lack of communication among the members of the management team and lack of familiarity with the non-managerial resources. In time, the new members will acquire more experience, with the consequent pressure on the firm to acquire more non-managerial resources as the management team grows disproportionately larger relative to the non-managerial factors. Thus the cycle repeats itself.

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7 Penrose, pp. 15-16.
8 Ibid., p. 24.
9 There is however a limit to the rate at which firms can grow. Some reasons given are: (1) with increasing size, oligopolistic competition takes more and more of management's time and energy from the task of expansion; (2) as the firm grows in size, uncertainty also grows in absolute terms although, perhaps, a relatively greater amount of uncertainty can be and is converted into risk, i.e. made statistically calculable. Thus the need for more information, research, diversification, etc. makes increasing demands on management's energies.
10 That is, the principle of multiples.
The problem of starting the cycle presents no particular difficulty because of the firm's tendency to be unbalanced. Even if the firm's resources at any time are in balance so that the size of the management team necessary to handle the non-managerial resources is just right, the management team will either grow disproportionately larger in relation to the non-managerial resources as it acquires experience, or it will discover hitherto unrealized productive opportunities made available by the non-managerial resources, thus making it disproportionately inadequate. In the former case, the increase in firm size will tend to take the form of an expansion in non-managerial resources; in the latter, it will tend to take the form of an expansion in the management team. In either case, a cycle of challenge and response is generated.

This concept of the firm provides useful insights into the actual behavior of firms. For example, the widespread phenomenon of giant firms—unexplainable in traditional theory because of its principle that any firm with output beyond what the lowest point in its average cost curve determines, must be operating inefficiently—is a natural consequence here of the firm's tendency to grow indefinitely. Another example: The direction of a firm's external expansion usually depends on the firm's particular non-managerial resources (otherwise the task of entry and of maintaining one's position in the new field will be more difficult) and on the management team (because it is needed to discover the appropriate firm for the merger, to negotiate the acquisition and to work out the necessary integration). A third example is Mrs. Penrose's explanation of coexistence between small and large firms. Instead of relying on the usual reasons given for this phenomenon, she develops her own: (1) the opportunities for expansion may be increasing at a faster rate than large firms can take advantage of them; (2) since the management team and the non-managerial resources are limited at any one period of time even for large firms, there is pressure on them, even if they have an absolute advantage in every activity over small firms, to choose only those activities in which they have relatively the greatest advantage, thus leaving interstices in the economy for the small firms; (3) small firms can produce some products without necessarily investing in research; large firms, on the other hand, are continually forced to search for innovations which, if successful, make obsolete the products or production functions, etc. replaced, and which, if unsuccessful, leave them vulnerable to the onslaughts of competitive firms whose own innovations have been successful.

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11 The usual reasons are: (1) some activities are more suited to large firms; (2) large firms strive to maintain good public relations and to avoid possible anti-trust suits; (3) the entry into some industries is so easy that the continuous replacement of unsuccessful firms by new ones gives the illusion of the permanent existence of small firms.

12 Similar to the principle of comparative advantage in international trade theory.
Useful as the insights provided by Mrs. Penrose's theory may be, its application to concrete cases is limited because it does not lend itself to statistical verification. The theory after all is admittedly a first approximation. This limitation should not thereby diminish the importance of the book especially in a field like industrial organization where much work remains to be done in what may seem such simple matters as asking the right questions or getting meaning out of a usually highly disorganized mass of hard-to-get facts. It is just as important to get one's bearings before starting to make the trip as to start driving.

ANTONIO V. AYALA

Possibilities of the School Theater

In "The Lost Art of Seeing Plays" (Tulane Drama Review, Autumn 1959), Theodore Hoffman laments in passing that academic theater, the theater in schools, is more academic than theater:

Drama departments have often had to begin as offshoots and stepchildren of speech and literature departments merely in order to exist and in the process have surrendered their rights to autonomy. They exist under the aegis of drama as the "spoken word". Their play programs are under the scrutiny of literature professors whose recognitions of drama rarely extend beyond a few English classics and whose hostility to contemporary anything has been notorious.


Before Hoffman, Francis Fergusson had pointed out that the theater in the university must be precisely academic if it is to do justice to its purpose. It is "a tool of liberal education" ("Note on the Academic Theater", The Human Image in Dramatic Literature, Doubleday and Co., Inc., 1958). This is not to say that it must necessarily be the bane of Broadway, for its service to the professionals is more than Mr. Hoffman seems to admit. Granting that the drama graduate may have to unlearn a lot of the refinements of the drama school