



The Heffalump Revisited

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Abstract. Professor Peter Kilby is the author of “Hunting the Heffalump,” a classic in the entrepreneurship literature. In this opening article he returns to the propositions he set forth more than 30 years ago. He refines his earlier notion of the entrepreneurial task and probes more deeply into non-economic factors that can create a deficiency of the supply of requisite entrepreneurial services at the national level. Once again, Professor Kilby provides the reader with a wealth of insights and once again his major argument is sure to stir controversy.

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Introduction

Over 30 years ago, I undertook a survey on the subject of entrepreneurship, specifically focused on its application to contemporary underdeveloped economies. “Hunting the Heffalump” was published at the end of a decade that had seen major contributions on the subject—McClelland (1961), Hagen (1962), Kilby (1962), and Leibenstein (1966), to name but a few. These authors had argued that, holding economic incentives constant, the performance of those individuals who direct firms varies from one society to another, and from one group to another; they further contended that these variations could be a major factor in the economy’s rate of development. The decade also saw a host of empirical country studies, which greatly enriched the discussion (see Kilby, 1971: 29). The initiatives that came out of this in the policy arena, from the mid-1960s to the mid-1980s, were the multiplication in Africa, Asia, and to a lesser extent Latin America of nursery industrial estates on the Indian model, and entrepreneurship development centres based on David McClelland’s achievement motivation training.

In recent years, the policy orientation of bilateral and multilateral donors seems to have moved away from a focus on augmenting the supply of entrepreneurial abilities to one aimed at the provision of finance and strengthening the microeconomic environment in which entrepreneurs and their firms operate.

The inauguration of the *Journal of International Entrepreneurship* presents a happy occasion for the writer to look back on some of the propositions set forth in that essay. It is worth noting, however, that by extending the invitation to revisit the

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Heffalump, Professor Leo Paul Dana has secured a second benefit. The contrast between this paper and those that follow, in terms of conceptual framework and geographic focus, illustrates, in part at least, how the scholarly study of entrepreneurship has evolved since the 1970s. Here my attention is directed primarily to the capacity of the entrepreneur; in the subsequent papers the focus is on the organisational capabilities of his firm. My arena is that of the individual country; for my fellow contributors it is across-nation activity. I operate at a somewhat abstract level, segregating phenomena into a box called “demand” or another called “supply”; they describe a more articulated reality whose furniture is market structure, the organisational configuration of the firm and underpinning institutions. Finally, my concern is with entrepreneurs based in countries on the lower end of the development ladder, theirs primarily with countries on the middle and higher rungs. So if we achieve a measure of success, it is likely to be one of complementarity rather than convergence.

This prelude completed, we begin with those elements of the 1971 paper that the writer still subscribes to. Certainly, Milne’s (1993, 2001) Heffalump metaphor remains apposite. An enormous animal, not observed directly, is offered as bait by those who seek to trap him their own favourite dishes; these hunters then try to persuade others that what they have caught is the Heffalump. We still can not quantify entrepreneurial services, but only infer them from their consequences; investigators improvise proxies drawn from their discipline, assert that the motivating appetite is the maximand of that discipline and then claim to a somewhat sceptical audience that they have captured the determinants of entrepreneurial performance.

A second carry-forward from three decades ago is the perspective that there is indeed an entrepreneurial problem at the macro-economy level. In particular, that in countries on the lower rungs of the development ladder one observes a performance bottleneck that prevents most entrepreneurs from advancing their firms beyond a certain size and complexity. Consequently, indigenous entrepreneurs may well remain minority players in their own manufacturing economy for significant periods of time.

But more evidence and advancing age also bring new learning. Thus, in the current essay, a fuller exposition of the entrepreneurial task will be presented, with greater care in specifying the situations to which it does and does not apply. If cross-section is the mode of analysis of youth, that of greater age is time-series. As is true for most empirical research in the entrepreneurship area, my own early studies and those I drew upon involved samples of firms observed at a single point in time. Comparative analysis based on a cross-section of firms uncovers many causal relationships. Yet the cross-section may still fail to predict what will actually happen over time, even if there are no changes in external conditions. Those forces that resulted in firm closures are not captured; firms that close are by definition excluded from the sample, they leave no footprints. There is a similar lacunae where the highest rungs of performance are unoccupied. Cross-section analysis is thus incomplete, and possibly misleading. Fortunately, greater age brings greater interest in the long-term perspective and also supplies the scholar with the means—resurvey of his sample of participants of 30 years earlier—to undertake the called for time-series analysis. It is

the insights into how the entrepreneur's firm evolves and how he navigates the succession to the next generation that is the main contribution of the final section of this paper. It is in this time-series perspective that the sources of the entrepreneurial bottleneck—disinclination to delegate authority and the pursuit of non-pecuniary objectives—most clearly come into view.

My propositions in 1971

What were the major propositions put forward in “Hunting the Heffalump” three decades ago? My first proposition was about how the subject is treated by my fellow economists. With but a few exceptions—P. T. Bauer comes to mind—both in what they write and in the policies they design, economists work under the unstated assumption that the entrepreneurial capacity to act is similar across societies and is abundantly available. Specifically my disciplinary colleagues claim that virtually all problems of entrepreneurial performance—and they may be many—flow from distorted economic incentives, defective regulatory environment, constrained availability of complementary inputs, and incomplete information. The problem is not with the *capacity* to act, but the *opportunity* to act; the problem is not with the supply of entrepreneurial services, but with the demand for entrepreneurial services. I argued (implicitly siding with development analysts from other disciplines) that this conception incorrect, that both blades of the Marshallian scissors have significant gradients. Furthermore, in the absence of foreign investment, an outward shift in indigenous entrepreneurial supply might indeed be requisite for sustained development.

A second proposition I advanced was related to the role of the entrepreneur in these late-developing societies. A major portion of the essay was devoted to a review of seven theories of entrepreneurial supply. Four of these theories were based on psychological constructs (Joseph A. Schumpeter, David McClelland, Everett Hagen, and John Kunkel) and three on sociological constructs (Max Weber, Thomas Cochran, and Frank Young). Five of the seven theories predict that critical variations in entrepreneurial capacity will be observed, depending upon societal conditions; Schumpeter and the behaviourist Kunkel are the exceptions. But with respect to the entrepreneur's role, the constitutive set of activities that he or she must perform, all theorists posit but a single unchanging task. I argued that this identification of a unique set of entrepreneurial activities, irrespective of time or place, represented a serious subtraction from the applicability of several of these theories to third-world conditions c. 1970.

Because this notion of the entrepreneurial task was, and remains fundamental to my thinking, it is worth pausing to spell it out in some detail. The full array of *possible* entrepreneurial functions might be said to encompass perception of market opportunity; technical and organisational innovation; gaining command over scarce resources; organising the firm; acquiring and assembling the physical production facilities; overseeing the management of the ongoing entity in terms of coordination and control of the production process, industrial engineering, financial management, staff recruitment, and human relations within the firm, customer and supplier

relations, and relations with the regulatory public bureaucracy; the design and execution of competitive marketing strategies; and, finally, the willingness to bear all the non-insurable risks entailed. In any particular time and place, intensive involvement and skilled performance in certain of these functions is critical, while the others can be safely delegated to competent and trusted subordinates or, in some cases, contracted out. A corollary of this construct is that different settings may well call for markedly dissimilar entrepreneurial abilities.

What is the context that a native industrial entrepreneur faces in a contemporary Bolivia or Cambodia or Ghana? The dominant macro conditioning factor for such countries is that of "being late." In contrast to the Schumpeterian (1934) context where there are no prototypes waiting to be adapted, these businessmen face an immense backlog of new products and production techniques. Virtually every market that local entrepreneurs might serve has been mapped out and tested by an array of products of varying cost and quality from Taiwan to Japan, and from Brazil to Germany. On the production side, off-the-shelf embodied technology is available through equipment sales representatives, short-term training of key engineering staff at the suppliers home plant, technical partnership, service agreements, industrial consultants, and joint ventures. What is called for in this context is solutions to a host of operational problems—of matching advanced technology with qualitatively ill-fitting local factors of production, of adapting techniques and the organisation to maximise factor productivity and minimise unit costs, to secure working capital finance, and to improvise substitutes for non-available skills and materials. The skills and personality attributes apposite in this context are very different from the Schumpeterian situation where products, technology, and organisation have to be hammered out *de nouveau*.

The skills and attributes required in the Schumpeterian context stand in sharp contrast to those associated with the adaptive behaviour required of the third-world entrepreneur. To conceive his innovation in the first place, Schumpeter's entrepreneur must be endowed with extraordinary intuitive powers to grasp the essential fact from the infinite number of facts present for all to see and to visualise things in a way, which afterwards proves to be true. To carry out his "new combination," this entrepreneur, beyond a narrow focus on the immediate chance, must be able to draw upon a surplus force of the will to overcome fixed habits of thought and extraordinary mental energy to plan consciously each step of the venture without any guideposts to assist him. And finally, because the actions of this upstart threaten the financial ruin of established commercial interests, this individual must be possessed of surging egotism in order to withstand the powerful forces that will be directed against him.

The third proposition of 1971, derived from a scrutiny of the inventory of country case studies, was a characterisation of observed entrepreneurial behaviour. Applying the multiple-function framework, one found that there was (1) an ample sufficiency of potential businessmen willing to risk a substantial portion of their personal wealth in an industrial venture, (2) the entrepreneurs surveyed were alert to changing market opportunities, (3) relations with their labour force, with suppliers, customers, and the

public bureaucracy were handled with tolerable success. Areas where performance was markedly wanting were in the managerial realm and in introducing technological improvements. Levels of capacity utilisation were very low, plant layout and work methods were often inefficient, supervision was sporadic, and raw material wastage, pilferage, and clerical embezzlement were extensive. This picture of impaired role performance in the managerial area was supported by other types of research. A United Nations study in Latin America found that, in a sample of 18 cotton-spinning mills, the average operational efficiency was 54% of best-practice performance, with two-thirds of the shortfall attributable to managerial factors. In seven Asian countries, International Labour Organisation Productivity Demonstration Missions achieved labour and capital savings averaging 35% in firms from a wide range of industries, by virtue of implementing standard industrial engineering procedures.

A final proposition from 1971 related to the source of this differential role performance. Almost all of the authors of the cross-sections case studies, while they identified managerial deficiencies as the critical bottleneck, speculated that the increasing availability of professionally trained local managers (including returning children with MBAs from Europe and America), along with accumulated learning-by-doing under competitive conditions, could be expected to dissolve the bottleneck over a 5–10-year period. The writer dissented, arguing that there were a variety of sociological factors that would likely make experiential learning a considerably slower process. In traditional society, in both agriculture and manufacturing crafts, there is an absence of *simultaneous* division of labour. Rather the farmer or craftsman carries out all the steps of production *sequentially* without cooperative interaction with others. Thus, there are few role antecedents vis-à-vis modern enterprise for the managerial function of synchronising the specialised operations of individuals and groups, and of controlling for rate of throughput, materials wastage, and product standardisation. Moreover, in contrast to this *role discontinuity*, other features of traditional social structure, especially those related to superior–subordinate relationships, often created *role incongruity* with regard to issues of supervision and delegation of authority. In short, in view of possible deficiencies in the capacity to coordinate and control, I speculated that the supply of requisite entrepreneurial services might be hindered as a result of social structural factors.

The silent majority

Is there a problem of entrepreneurial supply in the Third World? In posing this question, my interest is in economic development, and in entrepreneurial performance as it is reflected in the growth of value added at world prices. Thus, it would seem axiomatic that where high rates of GDP growth prevail there is no shortage of entrepreneurial services. Indeed, Leff (1979) made just this argument over two decades ago. Can we safely draw the opposite inference of inelastic supply when confronted with stagnating GDP? We cannot. Since economic stagnation is usually associated with maladroitness policies that raise producer costs and reduce

consumer demand, lacklustre entrepreneurial performance could be wholly attributable to the market environment.

Consider an assertion that the stagnation of most larger Nigerian firms during the 1970s and early 1980s, when national expenditure was surging, signals limitations on the entrepreneurial capacity to act. Acute under-provision of infrastructural services during the second half of the 1970s meant that firms had to raise their capital intensity via the purchase of electricity generators, that the transport of materials and finished product was disrupted and that workers (in Lagos) spent as much time commuting as they did labouring, giving rise to the “16-hour work day” with all the efficiency reduction it entailed. Oil-driven exchange rate appreciation cut the price of competing high-quality foreign goods, only partially neutralised by import quotas sporadically (and illegally) lifted for the benefit of favoured individuals. As law and order weakened, burglary from without and pilferage from within mounted. Most pervasive, every transaction involving a government purchase, sale, or approval entailed a “commission” of unpredictable magnitude. Erratic fiscal policy, the sudden expulsion of hundreds of thousands of foreign workers in 1983 and uncontrolled contraband trade from surrounding francophone countries added to the turmoil. Clearly, one needs no recourse to deficiency in the capacity of business leaders, in order to explain the observed outcome. Nevertheless, as we shall see in the final section, there were entrepreneurial supply problems whose consequences would have been more visible if the external turbulence had been less extreme.

There are, however, instances where the separate effects of supply and demand can be disentangled. Occasionally a situation can be identified where external conditions are notably favourable, such that the observed performance of firms can be attributed to the quality of the entrepreneurial input. From 1970 to 1985, Kenya provided such an experiment. Growing consumer incomes, an absence of foreign exchange problems, adequate protection and the generous provision of finance, accommodation, and technical assistance for existing and start-up firms in the 10–50-employee range provided the laboratory conditions. The result was an average increase in graduation and start-ups of less than 2% per year, with a fall in share of manufacturing value-added (Kilby, 1988). A second circumstance that resolves the identification problem occurs in those industries where different types of entrepreneurs are producing the same product with the same make of equipment, and drawing on the same labour force and raw material source. Such an instance was the 1960s rubber-creping industry composed of firms directed by British, Lebanese, Greek, and Nigerian entrepreneurs (Kilby, 1962). Large differentials in productivity—Greeks at the top separated from Nigerians at the bottom by 150%—signalled an entrepreneurial supply problem.

This last perspective of comparative performance brings us to the issue of the “Silent Majority.” This is an issue not directly tied to the GDP growth rate. Take a fast growing country such as Indonesia prior to 1997. Who were the investors making the requisite entrepreneurial contribution to that growth? Investment by source breaks down into state enterprise, multinational corporations (MNCs), resident minority family firms, native entrepreneurs, and a constellation of joint

undertakings involving two or more of the four groups. If one further specifies in joint undertakings who is responsible for the controlling management, the overwhelming bulk of industrial market activity is being directed by resident minorities and MNCs. Looking just at citizens, the 3% Chinese minority controls more than 90% of industrial assets. In Malaysia while reported ownership of limited companies by the Malay population has grown from less than 2% in 1969 to 21% in 1995 (one-half the Chinese share), almost of all of this increase is passive equity holdings driven by affirmative action legislation under the New Economic Policy. In Malaysia, as in Indonesia, the direction and control of large-scale productive units is overwhelmingly in the hands of MNCs and citizens of Chinese extraction.¹

This pattern, wherein the bulk of entrepreneurial services comes from minority ethnic groups—Chinese, Indian, Lebanese, Greek, and Syrian—and MNCs is prevalent in much of the Third World. The results of a rough-and-ready calculation based on the writer’s perusal of a variety of country sources are presented in Figure 1. In each of these 10 countries, firms directed by businessmen and women from majority ethnic groups contribute less than 5% of industrial value-added. Since the reigning statistical conventions limit the manufacturing sector to those establishments engaging 10-or-more wage-paid employees, this measurement excludes micro-enterprises in which these majority groups almost always dominate. Virtually all of the 40-odd Sub-Saharan African economies would qualify for inclusion in Figure 1.

If we stipulate that a country is achieving a satisfactory rate of growth in per capita income, what are the consequences of micro-enterprises directed by majority ethnic groups failing to graduate into medium and large-scale firms, or of direct entry? Three quickly come to mind. First, the country’s growth rate would rise and, more importantly, it would be more stable as the sociopolitical tension derivative from ethnic inequality was reduced. The Indonesian experience 1997–1999 is a case in point. Second, it would almost surely be associated with greater equality in the

<i>Country</i>	<i>Ethnic group</i>
Bolivia	Indian
Cambodia	Khmer
Chile	Mestizo
Ecuador	Mestizo & Indian
Indonesia	Malay
Laos	Thai
Malaysia	Malay
Mexico	Mestizo
Thailand	Thai
Venezuela	Mestizo

Figure 1. The Silent Majority—Ethnic groups constituting more than half the national population contributing less than 5% of mfg. Value-added.

Source: *Encyclopedia of Global Population and Demographics*. Author’s estimates.

distribution of income and more balanced regional development. Third, as no highly developed country comes to mind, which would qualify for inclusion in Figure 1, it is possible that the entry of the Silent Majority into the entrepreneurial ranks may be a prerequisite for long-term sociopolitical development. In short, the supply of entrepreneurial services may not be a bottleneck to growth for many developing countries, yet it is likely to be a matter of concern for almost all.

The task

Let us return to the notion of a critical entrepreneurial task, especially as it manifests itself in an early-stage industrialising economy. In contrast to the NICs, in these economies we observe import substitution of products whose characteristics and production technologies are for the most part many decades old. Ongoing technological collaboration with foreign firms is rare. Competition in the home market typically does not entail product differentiation, extensive advertising, or sophisticated marketing strategies; after-sales service is minimal. Thus, the major element in the final price is the manufacturing cost.

Several numerical diagrams help to illuminate the nature of the cost minimisation problem within the context of import substitution. My example portrayed in Figure 2, is motorbikes, with Japan being the most competitive supplier to Bangladesh. The ex-factory price is \$800; with packaging and conveyance to the Japanese port, its f.o.b. price is \$830. Ocean freight, insurance, and internal transport cost to the modal market area in Bangladesh, shown in panel (b), brings us to the price that a potential local manufacturer must meet, \$960. This 20% subsidy from natural protection is not sufficient to cover the anticipated cost of production. In panel (c) a 30% tariff (T) is granted—bringing total protection to 55%—and profitable production is achieved. Consumption of motorbikes has fallen from 75 to 40. We have commercial success combined with a reduced real GDP. Nominal entrepreneurial services are being rendered.

To achieve economic success, the entrepreneur must bring costs down. The histogram in Figure 2 describes the desired path. From an initial cost-price at B_1 of \$1,240, unit cost is brought down to the world price (B_2) at \$960, at which point the resources in this venture are just covering their opportunity cost and the entrepreneurial endeavour no longer represents a subtraction from GDP. “Real” entrepreneurial service is now being rendered. Finally at B_3 Bangladesh’s comparative advantage of abundant labour is realised and the ex-factory price falls below that of Japan. Not only is the rate of return now very high, but also with the door to exports open the stage is set for genuine entrepreneurial success on a vast scale.

How are these costs in Bangladesh minimised, and how is productivity increased? It is not mainly by investing in new technology or more advanced capital equipment. Rather it is by increasing the rate of materials-to-product throughput within the existing facilities. How potential throughput gains, that exist by virtue of

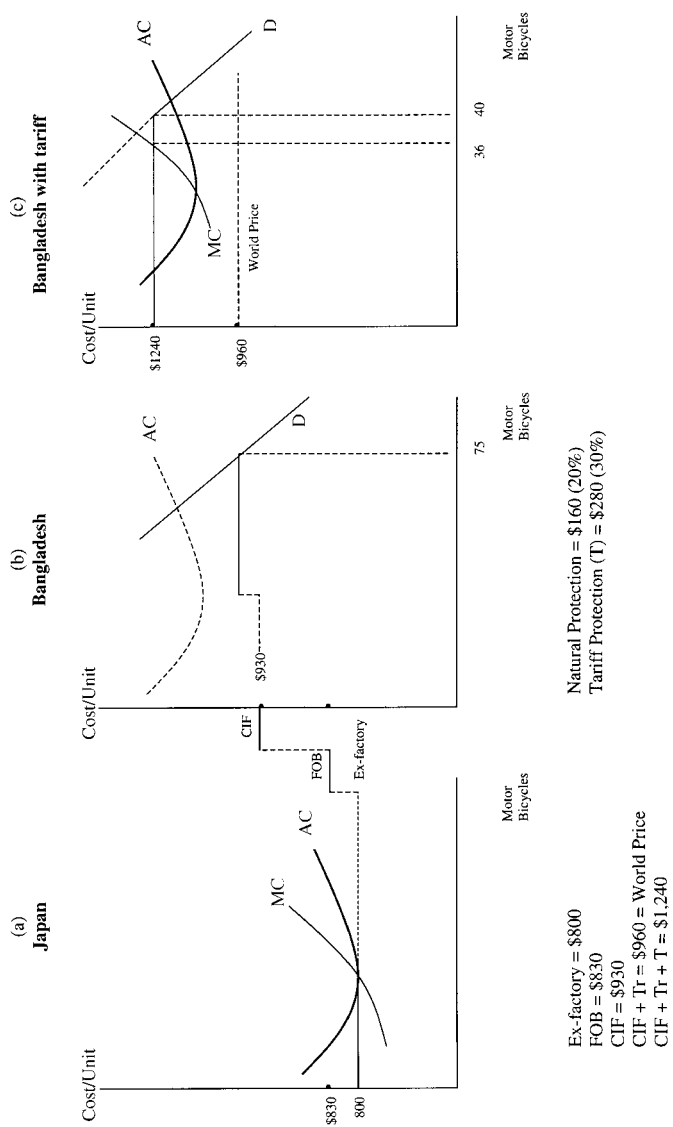


Figure 2. Entrepreneurship: replacing imports.

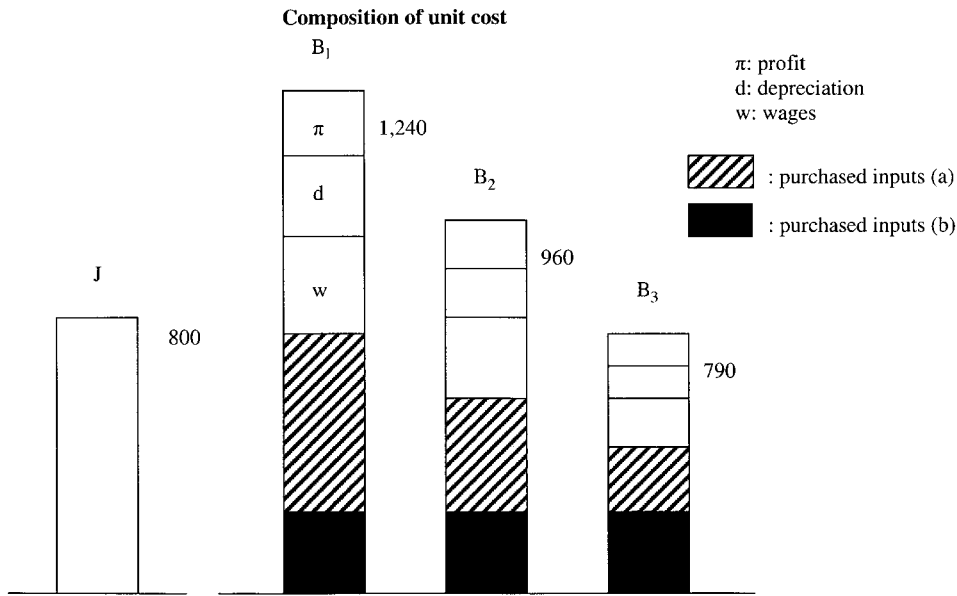


Figure 3. Entrepreneurship: from nominal to real.

organisational inefficiency, translate into reduction in the various components of unit cost is seen in the changing composition of the unit cost bars shown in Figure 3. Let us postulate a situation, starting from B₁, where with the accumulation of experience, the introduction of payment by results and perhaps closer supervision, machine operatives are able to increase their hourly rate of throughput by 50%. At a first approximation, labour cost falls by a third, as does depreciation and the profit margin. Those purchased inputs that are “fixed costs,” marked (a)—electricity, insurance, rent, office staff, security, property taxes—also fall by a third as the output denominator rises. By contrast purchased inputs, marked (b), that are rigidly linked to the volume of production—raw materials, components, packaging—are not compressible.

This process of rationalisation can go on for a long period and reach into most areas of the business enterprise. Replacement of one or two bottleneck items of equipment, alterations in plant layout, new material handling procedures, simple adjustment in work methods and better supervision all raise output for every hour that the plant is in operation. Increasing those hours, adding an additional labour shift, does not reduce unit labour cost, but it does so for most other inputs. More likely to catch the visitor’s eye, is the potential—via planned maintenance, spare parts inventories, closer supervision of work methods—for minimising within a given shift lost hours to work stoppage. Unrelated to the continuity and pace of production, application of the same principles of management coordination and

control can shrink materials wastage, prevent significant leakage to pilferage and theft, and insure uniformity in product quality. All of which reduce the cost of a standard unit of output.²

Here, at last, we have the Heffalump. In late developing economies the critical task of the entrepreneur is to achieve and maintain high rates of materials-to-product throughput in the ongoing enterprise. Described so graphically by Andrew Ure and Karl Marx, plumbed to its depths under the label of “Scientific ‘Management’ (Taylor, 1911), this approach to productive efficiency is known today as ‘industrial engineering.’” In the lexicon of the economist, these activities fall into the category of “managerial coordination and control.” We may note with some irony that Schumpeter repeatedly went out of his way to indict such “mere management” as strictly non-entrepreneurial—a task that requires only adaptive decision-making “which differs [only] in degree from the decisions of the cobbler’s apprentice (1934, p. 21).”

I close this discussion of the entrepreneurial task by emphasising once again that the task is context specific. In technologically advanced economies, the scientific management paradigm of the first three-quarters of the twentieth century is being superseded by a new organisation of production geared to high-income markets of varied and changing tastes, where the premium is on product design, variety, quality, and timely delivery. While rationalisation of throughput, minimisation of waste and zero-defects are incorporated into the new “lean production” techniques, coordination and control from the top has given way to decentralisation of decision-making to teams of multi-skilled workers, overseeing re-programmable automated equipment. Linked to both customers and suppliers, these teams make significant inputs to the design of new products (Womack et al. 1990). The skills and attributes required of those orchestrating the firm, in such an environment, are very different from those required of their counterparts in low-income economies, characterised by mature technologies and standardised products (Taira, 1997).

Delegation of authority

How does social structure influence the execution of the variety of functions that make up the entrepreneur’s task?

It is commonplace that cultural values and social arrangements relating to consanguinity and affinity influence the behaviour of many economic actors. In the domain of enterprise and the firm, the most frequently mentioned such factor is kinship. Its contribution is typically very positive at the formation and in the early years of the entrepreneurial endeavour. But by mid-passage the subtractions come into play and increasingly they outweigh additions, and particularly so as the founding entrepreneur prepares his firm for succession to the next generation.

In the early life cycle stages we can identify four enabling features of the kinship system. The first contribution relates to capital mobilisation. My own, and every other investigator’s, field research shows that interest-free loans of unspecified

duration from family and relatives provides 5–20% of small enterprise start-up finance. Regarding marketing, close questioning of firm managers almost always turns up kinship connections that have been exploited to gain an extra contract here, additional customers there. As to technology, after-hours unremunerated help from highly trained relatives employed in the technical departments of expatriate firms is often a key resource for overcoming difficult production problems. Finally, as the firm grows and moves fully into the formal, regulated economy, connections to kinsmen in the public bureaucracy help protect the firm in myriad ways. These encompass obtaining licenses for imported materials and import-duty relief, priority for hook-ups to public electric, water, and telephone utilities, allocation of land in industrial areas, obtaining zoning variances, exemption of its product from price control regulations, avoidance of punitive fines for alleged municipal health violations, and matters pertaining to income tax assessment—to name but a few. Surely, without the support of the kinship system the number of small firms that successfully navigate the rapids of the start-up years would be far fewer.

The debit side of the ledger looms large in the middle and later phases of the firm's life cycle. Related to the earlier concept of *role incongruity*, patterns of delegation of authority associated with hierarchical societies with pronounced patriarchy can often handicap both the operation of the firm and its likelihood of surviving into the second generation. Specifically, the entrepreneur's concern in retaining and exercising power within the firm adversely affects achieving the goals of cost-minimisation and profit-maximisation. These are, of course complex matters and the presence of hierarchy/patriarchy does not by itself insure a major trade-off between pecuniary and non-pecuniary goals—witness the extraordinary attainment of Japanese, Chinese, and Korean entrepreneurs. Our analysis will be limited to the African case.³

Our first set of evidence that bears on the relationship between truncated delegation of authority and managerial inefficiency comes from a 1991 survey of firms in four states of south-eastern Nigeria. In this careful, in-depth study, Christian Ukaegbu addresses precisely the delegation of authority issue (Ukaegbu 1998). Ranging in size from 65 to 500 employees, these firms were engaged in automotive parts, machine tools, chemicals, and seven other industries. Of the entrepreneurs, three-quarters had been traders and contractors, and possessed of limited schooling; the other quarter were former employees of MNCs and civil servants, with university and graduate education. Of the 73 managerial staff interviewed in these 20 firms (total managerial staff was 114), 78% had higher education, with 91% trained in the sciences, engineering, and business administration. Despite the disparity in technical competence, in only a quarter of the firms did the managers feel that significant power had been delegated to them or to other supervisors; 44% of the managers reported that “the owner makes all of the decisions” and 22% that they “did not know what goes on in the company.” Managers were hired with no clear lines of promotion; opportunities for training were rare, with relatives constituting the exception. In most cases only the owner was authorized to approve expenditures above the equivalent of \$20—a key signal of failed delegation and one that is

ubiquitous throughout Africa.⁴ Managers, who unsuccessfully advocated the allowance of unions as the best way to promote healthy labour-management communications, often find their authority further undercut by the practice of “gossip,” wherein individual workers air their views about departmental and other matters directly with the CEO.

Disordered mechanisms of coordination and control were joined with a failure to align financial incentives of managers and workers with those of the firm. Remuneration was a fixed salary (about four times that of an operative) with no performance bonus or other element of payment-by-results. Housing and transport allowances were provided, but no pension. With such incentives and limited professional autonomy, one-third of the managers reported that they would leave given the opportunity. The commitment of the work force to achieving the goals of the firm was, for most companies, even less—no written agreement, no job security, no training, no promotion path—with a resultant annual labour turnover of 40%. While management practices such as these may minimize immediate factor payments, they are not conducive to achieving sustained high rates of throughput or minimum average cost.

The impairment of factor combination within the firm caused by the entrepreneur’s unwillingness to delegate authority slows the growth of the enterprise. At a later stage, as the founder’s energy wanes and his desire to mark out his own patriarchal status becomes urgent, the failure to have implemented effective delegation takes a greater toll—causing output and employment to shrink and creating unfavourable conditions for the upcoming inter-generational succession. In a group of some 50 firms with a peak employment of 30-and-above tracked by the writer since 1960, in 90% of the cases firms began to stagnate as the entrepreneur entered his early sixties. Similarly, in a study of some 200 Lagos firms discussed below, Heidi Willer found that there was a marked drop off in employment, sales, and profits after the age of 60. “New companies are no longer founded and established ones are slightly neglected. They will take up time-intensive hobbies or slide into a partial retirement without considering themselves retired. One furnished a large living room next to his office, so that friends could regularly visit him for hour-long chats” (Willer, 1998: 9). This pattern of declination can be discerned in what is currently Nigeria’s most publicized instance of high-wire entrepreneurial performance. Celebrated in the *African Development Report 1998* as a community-based model of industrial entrepreneurship, the experience of two dozen rapidly growing firms in the rural township of Nnewi is set forth as a paradigm to be emulated across the continent.

Scarred by the civil war and massacres of expatriate Igbos that preceded it, a group of auto parts traders and a few others collectively decided in the mid-1980s to establish manufacturing enterprises in their hometown.⁵ With virtually no help from the state and considerable cooperation among themselves, over two dozen factories owned by 20 individuals or families were producing a wide range of automobile parts, factory equipment, machine tools, electronic parts, and processed foods by the late 1980s. Help with equipment selection and 6-month technical assistance contracts from their

former Taiwanese suppliers played an important part in the start-up phase for a majority of the firms. When first surveyed by Tom Forrest in 1989, these 20 firms employed 2,250 workers. When surveyed by Debra Brautigam in 1994, a period of high turmoil in the national economy, one firm had closed following the death of its founder and a failed succession; however, the other 19 firms showed extraordinary growth under the circumstances, with employment up 71% to 3,850. But 5 years later, when the writer carried out his survey, managerial problems had taken their toll. There were two bright spots—one processor of palm fruit and kernel into soap and vegetable oil, Chicason, had diversified into three new industries with a jump in employment from 430 to 1,300, and a second large auto parts firm had expanded its employment by 16%. Otherwise the situation was one of stagnation and decline; six firms had closed and five others had suffered a 50% contraction relative 1994. With Chicason removed from the sample, total employment was down by 27%. After 15 years, the managerial laws of gravity appear to be catching up with the miracle of Nnewi.

A final vantage point from which to observe the effects of incomplete delegation of authority is the period prior to the firm's demise. Bad management can and does contribute to firm closure at any time, but it becomes of paramount importance at the time of inter-generational succession. If the founder has not brought in, trained, and truly delegated responsibility *and power* to a successor, the death of the firm is probable.

Two investigations from Nigeria bear on this point. In a carefully designed 1997 field study in the major cities of Aba and Port Harcourt, Monibo Sam traced the fate of 127 firms that had been incorporated during the booming 1970s (Sam, 2002). The closure rate over 20 years was 71%. Of these 90 business deaths, *half* were succession related.⁶ Based on an analysis of closure over successive 5-year intervals, the author found that university education and other family members in commercial pursuits were associated with lower rates of succession failure. When asked to list future problems, only one respondent of the 127 reported that arranging for a successor was a significant concern. Sam does not tell us how many successful hand-overs occurred. This is not the case for our final study by Heidi Willer, which is by far the richest and most probing investigation of this issue to date (Willer, 1998). From a sample of 221 firms first interviewed in 1984, Willer was able to trace 191 companies in her 1996 follow-up. Firms still operating were 149, with 42 closures (22% over 12 years). Of the closures just over one-third were succession-related. Of the operating firms, 16 had completed a hand-over, another 9 were in transition, and 124 were still directed solely by the founder. Of these founders only half those over 65 years of age had given any thought to planning for their succession, and only a handful had made a provision in their will. Yet 80% of all founders stated they wished to see the firm survive them, and most had been able to persuade their children (especially their sons, who constitute four-fifths of the successors) to pursue university education or job experience related to the family business.

Willer probed the interactions between founders and their successors in 21 case histories. The dominant pattern was one where children enter the firm and work under their father, often for many years. They are not assigned line responsibilities,

but receive daily assignments on an *ad hoc* basis. In place of a regular salary they receive generous allowances, the title of Director and a Mercedes. Denied the opportunity to develop a deep knowledge of the management system and having no fixed responsibilities, dependence on the founder persists—a dependency that is nourished by the latter if two or more children are in the firm, carefully shifting the balance of his favor from one to another. When the entrepreneur finally hands over, usually in his late 70s, he uses his majority share ownership to veto innovation or other policy change changes he deems inappropriate. When death cuts the Gordian knot, a viable succession is yet to take place. But now the would-be successor must also compete with a host of contending parties, each ferociously asserting their claim to a share in the assets of the firm. In sum, few firms pass to the second generation without major damage, most do not make it all.

Conclusion

I have reviewed the conceptualisation of the entrepreneurial problem that was offered three decades ago. I have persisted in my claim, despite the scepticism of fellow economists, that there was, and is, a bottleneck regarding entrepreneurial supply. This problem is limited to a few functional areas—those related to managerial coordination and control—which are particularly critical elements of the entrepreneurial task for countries on the lower rungs of the development ladder. I contend that this problem is a matter of concern for many countries in the developing world, even though it may constrain economic growth for a much smaller number. In identifying the sources of this inability to act efficaciously within certain contexts, I have expanded my original explanation, based on the discontinuity and incongruity of role antecedents provided by traditional modes of production, to include a reluctance to delegate power and authority, a behavioural characteristic common to many traditional, patriarchal societies. This latter factor can play, as it has in Africa, a major role in raising costs and shortening the life cycle of the individual firm. In the entrepreneur's pursuit of joint-maximisation of power and wealth within the firm, the terms of the trade-off have proved highly unfavourable for economic growth. Finally, the intent of this paper has been to lay bare the problem and its sources; it is the task of another paper to set forth the remedies.

Notes

1. See also Dana (1999).
2. In gauging throughput, there is a wide spectrum of *ex ante* determinacy in the measuring rod. At the determinate pole would be a continuous process industry such as nitrogen fertiliser, where chemistry and physics fix a unique maximum-attainable capacity and a product of invariant specification. We are thus able to report, with certainty, that in 1984 Bangladesh's most modern fertiliser plant operated at 71% of 330-day throughput; a plant in Indonesia of similar design, but under superior management, achieved a throughput of 106% (Tomich et al., 1995: 236).

In contrast, the baking of bread in Nigeria lays closer to the indeterminate pole. Twenty-four hour oven capacity almost always exceeds the maximum attainable flow of work before and after the baking process; on the other hand, there is an effective craft tradition that each baker will mix neither more nor less than 100 lbs of flour per 8-h shift. In this situation, does the task of coordination and control become a less compelling description of what the entrepreneur needs to do? No. Tracking the throughput of flour to revenue per unit of output tells the story: Firms differed with respect to initial mixture lost to fermentation, dough scrapings left in the trough and on the dough brake, careless overweight scaling by the bakers and unrecorded sales by the clerk. With close supervision and a tight system of record-keeping, the best managed firm was able to realise 95% of optimum revenue per 100 lbs of flour input versus 77% for the least efficient (Kilby, 1965: ch. 5).

3. Owing to richness of the research on Nigeria, the author's comparative advantage and continuity for the reader, our illustrative data will be drawn from that country. Available monographic material from South Africa, Zambia, Zimbabwe, Kenya, Tanzania, Cameroon, Ghana, Sierra Leone and Ivory Coast indicates broadly similar patterns in those countries.
4. "One brewery," Ukaegbu reports, "suspended production for a week because the owner was on a business trip overseas and was not available to release funds for the procurement of raw materials. The production manager of the company, a highly experienced brewer who had been attracted from a leading multinational corporation, expressed extreme dissatisfaction. 'He never lets go,' he said. 'He will pick the best crop of managers but he never allows them to use their brains, particularly where money is concerned. . . . So for three or four days there will be no brewing operations, and none can start until he comes back from abroad.'" (p. 190) Unhappily other expenditures are sanctioned which undermine the competitiveness of the firm—"corporate expenditures are made on behalf of the Managing Director in connection with chieftancy titles, large sums for festivals and village ceremonies, social projects and political donations. In one instance a personnel manager related that the chief engineer needed 3,000 naira [about \$250] to buy parts to repair a broken machine. It took him two weeks to get it. Within the same period a political aspirant got 100,000 naira as a donation, yet at the end of the month workers had to wait for six days to be paid." (p. 191).
5. The sources for the Nnewi story are Forrest (1994), Brautigam (1997), and the writer's own investigation in 1999. The African Development Bank (1999) based its presentation on Brautigam. Several of the Nnewi firms were in Christian Ukaegbu's sample reported in the previous paragraph. The educational background of the former were roughly similar to those canvassed by Ukaegbu, with only two individuals boasting post-secondary education. For the two largest and fastest growing firms, years of education were 2 years of secondary and 6 years of primary. One firm, producing electric cables and switch gears, was a public company listed on the Lagos Stock exchange, founded and led by a Harvard MBA.
6. Other causes were "management problems/market conditions" at 37% and "personal and family misfortune" at 14%. As in the Ukaegbu study and the Nnewi case, the ethnic origin of a majority of the entrepreneurs was Igbo; in the Willer study cited later in the paragraph, most were Yoruba, with Hausa contributing 14% and the Igbo 12%.

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