The Centre-Periphery Paradigm and Indigenisation in Education

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Abstract

This paper explains the meaning of paradigms and how they have dominated our way of looking at social phenomena. The paper will then draw attention to what has been called the centre-periphery paradigm in development education and discuss the relevance of this paradigm to education in Singapore today in the light of the cross-cultural perspective and the indigenization process taking place. The move from dependence on Western models to a cross-cultural perspective and indigenization will be further illustrated in education with special reference to the process of curriculum planning and development and language education in Singapore.

Keywords: paradigm, cross-cultural, indigenization, curriculum development, language education.

Introduction: Paradigms

What is a paradigm? The term is often associated with Thomas Kuhn and his book entitled *The Structure of Scientific Revolutions* (1970), in which he explained that revolutions in science occur when the shared set of intellectual assumptions that form the tradition of a discipline (which he called a paradigm) is challenged by observed anomalies, leading to the provision of an alternative view of things, causing dissensions and controversy. In his view, a scientific paradigm is a way of perceiving and understanding the world that scientists as a community have adopted as their world view. For the scientists, a paradigm acts as a lens through which they view problems in their field and find solutions to them. However, when the existing paradigm cannot accommodate certain anomalies which keep recurring in the observed data, at the same time giving rise to confusion and insecurity among the scientists, there is a period of transition or what is now called a paradigm shift. Consequently, after the period of transition, a new paradigm, subscribed to by a number of scientists, will take the place of the old one. In other words, in the view of Kuhn, science does not progress in a simple, linear fashion leading to the final truth. There are crises and interruptions along the way, which make the path of scientific progress less smooth than was expected.

Although Kuhn was explaining his thesis strictly in the context of science (eg. physics, chemistry and astronomy) and scientific revolutions, those in other disciplines, like social science and the humanities, have extrapolated the concept for their own use. So today the term is used rather loosely to mean traditions and ways of looking at social phenomena in a general sense. So, in
the parlance of educational research, in the last ten years there has been talk of the quantitative paradigm, the qualitative paradigm, and the war of the paradigms. [Steven Spielberg should enjoy this one.]

For example, in the field of political science, more recently, in a now famous article published in the 1993 issue of Foreign Affairs, Samuel Huntington (1993a) of Harvard University proposed another paradigm to replace the Cold War paradigm. As everyone knows, between the building and the demolition of the Berlin Wall sometime in 1989, the world was seen in terms of a division between a group of largely rich countries, subscribing to democracy and led by the US, and another group of much poorer, communist countries, led by the Soviet Union. The two groups were engaged in a political, ideological conflict of a very serious dimension. The Cold War picture was, indeed, a highly simplified view of world politics. A paradigm is in a sense a simple model, highlighting certain crucial features of what it intends to represent; nonetheless, in this case, the Cold War paradigm influenced our way of looking at the world for a pretty long time. But there have been dramatic changes in the last five years. Given the break-up of the Soviet Union, the reunification of Germany in 1990, the rise of religious fundamentalism, and the shift of economic power to the Asia-Pacific, the old paradigm has to give way to a new one. And Huntington (1993b: 187) calls the new scheme of things the civilization paradigm. He thinks that at the macro level "world politics are likely to involve conflicts and shifting power balances of states from different civilizations". In the last five years, in particular, you would have noticed a new cultural consciousness in the world defined in terms of ethical-religious ties, which cut across territorial borders.

The Centre-Periphery Paradigm

To deal with unequal power relationships and other inequalities in the world order, the centre-periphery paradigm has been used to apply to different types of societal relationships. The concept has been extrapolated from Shils (1975:3), who in his essay, "Centre and Periphery", discussed the macrosociology of societal relationships and identified the idea of centrality in the context of values and beliefs and also in the realm of actions. For Shils (1975:3), however, the centre has little to do with geography (it is not a location) but with symbols, values and beliefs which govern a society; the centre is the central zone of values. "It is central because of its intimate connection with what society holds to be sacred; it is central because it is espoused by the ruling authorities of society" (Shils, 1975: 4). He explained further: "It is a structure of activities, of roles and persons, within the network of institutions. It is in these roles that the values and beliefs which are central are embodied and propounded" Shils, 1975:3). Affirmation of this central value system is one characteristic element of society. However, the intensity of this affirmation varies - "as we move from the centre of society... to the hinterland or the periphery... attachment to the central value system becomes attenuated" (Shils, 1975:10).

In development education, for instance, this paradigm provides a simplified picture of the perceived relationship between the developed world and the developing (particularly, post-colonial) countries in terms of a knowledge dependency. According to one school of thought, prevalent in the 1960s, such "knowledge dependency is reinforced by political and economic relationships especially in situations where knowledge metropoles are located in advanced industrial societies and knowledge peripheries coincide with less developed states", as Mclean (1985:52) put it. Altbach (1981) used it to describe the power relations between the central institutions and the peripheral institutions in higher education within and across countries. Across countries participating in the universal academic system, the central institutions are those universities, like
Harvard and Princeton, that provide the direction and produce the research. They have a recognised standard of excellence. The peripheral universities are at the receiving end; they take their examples from the mainstream, produce very little original research and disseminate what they receive from abroad within their own country. These universities are mostly found in what was then called the Third World. According to Altbach (1981:609), the differences are probably rooted in "deep historical and contemporary inequalities" in wealth, power and resources. But, according to Altbach, there are signs of change with "the development of regional centres of research and higher education in the Third World", although he did not quite elaborate on this point.

The centre-periphery paradigm has also been used to structure the transfer of ideas and skills from the metropolitan centres to the peripheral countries. Melean (1983:25) has warned of the dangers of the direct transfer of ideas from one culture to another. For one thing, the conceptual factors may be different in important ways in the two (donor and recipient) settings to allow for effective transfer; for another, the recipient country may fail to take into account the debate about the theory and the modifications made within the parent theory itself after the transfer has already taken place. Melean (1985:53) also asked whether all types of knowledge are "allocated within power and dependency relationships". But it was Raggatt (1983), in criticizing this theory of dependence on a foreign source for ideas, who noted that "there is no space in the paradigm to explore how important ideas and models, as they pass through different levels in the system, interact with deep-seated cultural commitments and notions of cultural identity". In other words, there is a concomitant process of adaptation and indigenization taking place, which is often ignored. Raggatt (1983:3) called for detailed studies of "how educational ideas and actual reforms are transmitted through the system, how they are negotiated with different audiences and at different levels and how they are modified in the process". Like Altbach (1981), Raggatt (1983) also suggested that the centre-periphery mechanism can be modified with the development of regional centres and local initiatives.

So, putting the suggestions of Altbach and Raggatt together, I would like to suggest that modification of the paradigm can take place (and has taken place) in three modes, namely, 1. through the agency of regional centres, 2. from a cross-cultural perspective, and 3. through a process of indigenization.

Role of Regional Centres

The role of regional centres in moderating the centre-periphery paradigm is best illustrated through the work of the Southeast Asian Ministers of Education Council (SEAMEC) (originally comprising ministers from Indonesia, Khmer Republic, Laos, Malaysia, Philippines, Singapore, Thailand, and Vietnam), which established a number of regional centres. Among the centres, three are directly concerned with education, namely, the Regional Centre for Educational Innovation and Technology (INNOTECH), Regional Centre for Science and Mathematics (RECSAM), and the Regional Language Centre (RELC). Separately, RIHED (the Regional Institute of Higher Education and Development) was established in 1970 by several countries in the Asean region. The three centres and RIHED were originally conceived to play the role of clearinghouse for new ideas, conduct research in their relevant areas or disciplines, train key personnel from participating countries, sponsor conferences and meetings of experts, and disseminate research findings.

Probably the most well-known of these centres to local colleagues would be INNOTECH and RELC. Started in 1970 and based temporarily in Singapore and now permanently in Manila,
INNOTECH was set up to meet the classroom instructional needs of the participating countries and the development of alternative, indigenous delivery systems. Two of its major projects were called Non-traditional Roles of Teachers (in which Singapore participated) and Indigenous Learning Systems.

RELC, established in Singapore in 1968, has had the main aim training 'key personnel' in language education and to organise seminars on various issues of concern to the region on linguistic, psycholinguistic, sociolinguistic and language education topics. In particular, over the years, RELC's regional seminars are known internationally in the applied linguistics community as important occasions for scholars from important centres of research and language educators from the region to meet for the purpose of, among others, exploiting "the results of research and to synthesize the efforts of an international community of scholars in related disciplines in an attempt to search for solutions to present day language teaching and language learning problems in Southeast Asia". More specifically, in its 1992-96 blueprint, RELC reaffirmed its mission "to promote the pursuit of excellence in all the relevant areas of language education in the region through a continuous process of developing effective programmes of training, research and information dissemination, to benefit the language educators of the region who can in turn become catalysts and agents of change in their respective countries" (p 6).

These annual seminars and the publications that came out of these seminars (in the form of occasional papers, monographs and anthologies) have benefited language educators in Singapore, and obviously in the region. It must be remembered that at the time when RELC was established, applied linguistics was a very new field, taking on board disciplines such as the psychology of language learning, psycholinguistics and linguistics. Linguistics, then, as an area of serious academic study was strongly influenced by the Chomskyan revolution and the idea of a transformational grammar, although traditional grammar and structural linguistics remained the mainstay of language teaching in the schools. Against this turbulent backdrop of what we may today call "a shifting paradigm", one publication, in particular, should be mentioned to illustrate a point. It is Lim Kiat Boey's An Introduction to Linguistics for the Language Teacher (1975), the draft version of which was first piloted in five SEAMEO countries for usability, readability and relevance, and it is an excellent example of how ideas from the powerhouses of applied linguistics in the West were made relevant and meaningful to language teachers in the region, and of how local scholars, through institutional support of the regional type, reinterpreted new ideas and theories in language teaching based on local experience. So, in brief, key characteristics of the transfer and indigenization process, as in the case of English language education in this region, have been publications, seminars, workshops and a network of scholars working outside and within the region. Before the process of indigenization is elaborated on, let us look at the cross-cultural perspective.

The Cross-Cultural Perspective

More recently, there has been a call to adopt a cross-cultural perspective in the way we look at phenomena in social life, questioning the extent to which social processes observed in one society are applicable or generalisable to other or all societies. This approach stresses the importance of getting findings from different cultural contexts, to improve cross-cultural replicability or validity. In particular, those in psychology and social psychology have in recent years been most sensitive to this problem of cross-cultural generalizability, giving rise to what is now called a cross-cultural psychology, an entity within psychology. Azuma (1984:50) writing on the development of psychology in Japan noted that "it took some years before we gradually realized
that we had to develop new concepts in Japanese psychology rather than totally depend upon concepts developed in the West to describe and analyse our thought and culture".

Even so, as Amir and Sharon (1987:385) have noted with regard to findings from experimental research often used in textbooks, "social psychologists utilize primarily student samples. For all intents and purposes, social psychology is the study of second-year American psychology students". They added, "the question naturally arises whether the psychological laws that are so firmly presented in our textbooks, though based on restricted laws, could very well be culture-bound, incorporating the US culture in general or the particular milieu of its second-year university students".

As an example, Azuma (1984:51) points to the incongruity in the interpretation of leadership in Western and Japanese societies. Leadership studies in the West have focused on leadership types, using dichotomies such as progressive/conservative, democratic/autocratic, while American small-group studies have been concerned mainly with the effectiveness of the group in attaining an extrinsic goal. In many cases, a group also has an intrinsic goal, i.e. for self-maintenance and perpetuation. So leadership effectiveness has to be defined in terms of two functions: a performance function and a maintenance function. Azuma (1984:52) observes: "With such modifications in concepts, psychological theories of leadership became more often acceptable to Japanese businesses and industries, and hence much more influential". According to Moghaddam et al. (1993:17), researchers in India have worked on the model of a 'nurturant task leader'.

Still on the concept of leadership, Zhang (1994) in Singapore has tried to study professional leadership in our schools from a Confucianist perspective. He cited studies to show that "effective leaders value collectivity and stress a group-oriented team spirit" and that "effective leaders act as moral exemplars.... To influence others effectively, example setting appears to be more forceful than leader's using positional and personal influence. This is upheld in Confucianism and Taoism for the cultural elite".

Writing from the comparative education perspective, Schwille (1993: 4) has suggested that in order to redress the shortcomings and imbalances in the study of teaching and teacher education (invariably from a Western perspective) more emphasis be given to "non-Western settings", such as examining the nature of teaching in China and the nature of large-class teaching for conceptual understanding in Japan. Schwille (1993) cited the work of Stevenson and Stigler in their book, *The Learning Gap* (1992) as an example, in which they studied teaching in large classes in Japan and China, using an approach leading to the students acquiring conceptual understanding of subject matter as distinct from rote memorisation. Schwille (1993) also cited the work of Paine and Ma (1993) on teaching in China which advances the concept of collegiality as understood in the Western literature. Paine and Ma (1993) have written of a kind of teacher collegiality informally established among teachers in schools in China through such structures as the jiaoyanzu (teaching research group), lao dai qing (old bringing along the young), and banzhuren (class director). The young teacher in China, besides being assigned to work together with a group of old, middle-aged and other young teachers, is also assigned a mentor, an arrangement representing learning from a master. They believe that these forms of collegiality in a school setting are direct expressions of "the cultures, subjective understandings and shared meanings" peculiar to teacher groups in China. Schwille (1993: 20) claims that by not taking this comparative or cross-cultural perspective, "international or Western journals have been impoverished by too little attention to Asian settings. This imbalance is being rectified but much remains to be done".
Indigenization

Characteristically, what is called *indigenization* takes place within a country. The term, as used in the 1960s, carried a strident tone of anti-colonialism. I feel that the notion and process of indigenization would be best understood in terms of Kumar’s (1979:104) model, applicable to the social sciences. With reference to Kumar’s (1979:104) characterisation, there are three types of indigenization, which he called *structural, substantive* and *theoretical*. *Structural* indigenization refers to the "institutional and organisation capabilities of the nation for the production and diffusion of social science knowledge", while *substantive* indigenization has to do with the content focus of the social sciences.

In many senses, it was the late Dr Ruth Wong who, as the first Chairman of the Advisory Committee on Curriculum Development (ACCD, 1969-73) in the Ministry of Education here, who provided a very useful framework for an indigenized curriculum (see Wong, 1973). Dr Wong introduced a technical-rationalist approach to curriculum planning and the use of educational objectives. While the framework she proposed reflected Raph Tyler’s rationale as explained in his slim volume, entitled *Basic Principles of Curriculum and Instruction* (1950), Dr Wong went beyond Tyler. She grouped the objectives of instruction into four categories, namely, those of the *individual, society, the nation* and the *world*, reflecting Dr Wong’s understanding of the social purpose of schooling. With these objectives, Dr Wong saw curriculum development in terms of two dimensions: the *horizontal* (representing widening circles of concern between the individual and the environment), and the *vertical* (dealing with different aspects of learning such as knowledge, skills and attitudes). The use of educational objectives, at that time, was in many ways an innovation and therefore initially unfamiliar to many syllabus writers; the approach was certainly different from the more familiar and less taxing practice of merely listing the topics to be taught. Consistent with Dr Wong’s view of teaching and learning, the data for educational objectives were derived from three sources: the *learners* themselves (ie. those in our own schools), the *community* (her syllabus committees included those from outside the teaching profession as well), and the *content* of the school subjects.

The subject syllabuses themselves changed in form, too, from lists of topics to teaching schemes/strategies. In other words, the revised syllabuses carried not only the content to be taught but also the statements of objectives and the methodology to be used, which help to re-define the relationships among a syllabus, teaching, learning and their organisation. Much of this anticipated by almost ten years the strategy to be adopted by the new Curriculum Development Institute of Singapore (CDIS), set up in 1980.

The development of CDIS for the purpose of producing instructional materials represents an excellent example in Singapore of *structural indigenization*. Although the influence of the French system (such as the model of the Centre National Documentation Pedagogique) seems clear (see Lau *et al.*, 1980), but as the French system could not be copied as it was, the need to have a central role for curriculum in a centralised education system was confirmed. The main task of curriculum development (defined essentially as the elaboration of syllabuses and the production of teaching materials) was to be carried out by the newly established Institute, the CDIS. Certain indigenous characteristics of the CDIS set-up (eg. the project team model in curriculum development) made it a special innovation.
The project model of curriculum development, which CDIS initiated as soon as it was set up in 1980, represents a crucial stage of introducing substantive indigenization in the system here. Before 1980, the development of materials for subject teaching was confined largely to the production of guidelines and manuals for teachers and instructional materials for one or two pilot projects (eg. the Primary Pilot Project), while commercial publishers, some of them foreign, produced most of textbooks written to given syllabuses. For a long time, most textbooks were imported from major publishers in the UK, especially when all the secondary school subjects were tied to the requirements of external examinations conducted by the Cambridge Examinations Syndicate. It was then a world-wide trend reflecting the centre-periphery situation. Development of indigenous textbook publishing expertise in the private sector started only in the 1960s with the local adaptation of well-known texts, on a highly selective, cautious basis. As Altbach and Gopinathan (1985:15) commented on that period: "Colonialism structured an international system that emphasized the power of the metropolitan centres and a dominant-dependent relationship between these centres and their peripheries. The publishing entrepnee reflected this unequal distribution of material and intellectual resources". However, in Singapore, the 1980 innovation in the shape of CDIS altered much of that picture.

The story of the development of the English curriculum in Singapore (see Ho, 1994) shows how exogenous influences, particularly from the West, have been adapted and indigenized in the process. Materials writers at CDIS (see Lim, 1988) have to work under certain "givens" (eg. national policies) and "constraints" (eg. realities of the local classroom situation), and in the process, many of the ideas have to be adapted. The indigenous response was most evident in the case of REAP (Reading and English Acquisition Programme), a language-based project directed by local specialists through a Ministry of Education initiative. It ceased to exist as a project sometime in 1992, but it was certainly a successful project, which made a great impact on English language teaching here. Given the language learning situation in Singapore, it took over and adapted a number of concepts from abroad. It used a strategy called the Modified Language Experience Approach (adapted from LEAR - Language Experience Approach to Reading). MLEA was different from LEAR in two ways: (a) the local version offered more structural elements in language than would be warranted in LEAR, originally meant for children whose home language was English), and (b) the incorporation of features from the teaching of English as a second language.

Etic/Emic Distinction

Within the concept of indigenization, it would be useful to think in terms of what are universal and what would be specific to a particular culture. This distinction is expressed by the two terms, etic and emic, derived from linguistics: phonetics dealing with aspects of language that are common across languages, and phonemics, focusing on sounds used in a particular language. Cross-cultural researchers take this distinction quite seriously. There are etic features across cultures, which do not (or need not) change.

In the discussion of indigenisation in the preceding paragraphs, it seems clear that structural and substantive indigenisation is more achievable than theoretical indigenisation. There are two reasons for this. Firstly, some of the theories and concepts, irrespective of their geographical origin are probably etic; they need not be reshaped to support approaches in recipient settings. Secondly, until we are in a position to set our own agendas to develop theories specific to the local context, we will continue to make use of theories developed elsewhere. In the real world, it is too simple-minded to think that in the social sciences, the vast resources of prestigious
research centres in the West and what they can produce will continue to exert an influence on the thinking of scholars in the so-called periphery.

Concluding Remarks

This paper has been written in response to Raggatt's (1983:3) call, as noted earlier, to study how in the recipient countries ideas from the West are transmitted through the system, how they are negotiated with different people and at different levels, and how, in the process, they are modified. However, I have tried to explain the need to look at the larger picture in order to understand the stages of transfer of ideas and skills from one culture to another. I suggested three modes: (1) the provision of regional centres, (2) providing a cross-cultural perspective, and (c) indigenization. For indigenization, I have used Kumar's (1979) conceptualisation as a framework to discuss the points I was making. While I have illustrated how structural and substantive indigenization has brought about changes in curriculum planning and development in Singapore, theocratic indigenization, as Kumar (1979) defined it, was difficult to achieve for different reasons. Given the extensive use of English in Singapore and in many other countries, which makes many ideas generated in the mainstream of education most accessible, there will always be a flow of ideas from the main centres of learning in the West to the periphery. Also, in the social sciences in particular, important research centres in the West will continue to have an influence on the thinking in the peripheral countries. However, given the cross-cultural perspective now prevailing and the realisation that the West does not really have all the answers to some of the problems in education even in their own countries (see Harold Stevenson's The Learning Gap as an example), the flow of ideas will no longer be one-way. In other words, the centre can also learn from the periphery.

As Nash (1994:48) in the last issue of Time has observed, there is some evidence of this new phenomenon in the hard sciences now: "While the Tigers' forays [collectively of Hong-Kong, Singapore, South Korea and Taiwan] into research and development have begun to produce some first-rate scientific papers, they have yet to generate the trailblazing innovations that have streamed out of American laboratories. But the energy and exuberance alone of the Asians make them worth watching. Not tomorrow, perhaps, but a few decades from now, the US may rue the policy drift that is eroding its research infrastructure as slowly and as surely water rusts the steel girders of a bridge. For if political leaders in such places as Taiwan and Hong Kong are sufficiently patient and nurture the seedling research efforts they have planted, the scientific breakthroughs of the 21st century - and the market opportunities that follow - may be born on the Pacific Rim".

So, at the level of ideas, there is already a two-way transfer, but the flow from the periphery to the centre has been gradual and highly selective. The main point of this paper is that we must be conscious of this need to re-interpret the traditional centre-periphery paradigm, and following this, we should understand that the implications of this new perspective for education are most important in the long term.

References


