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To 'almost see the world': Hierarchy and strategy in Hymer's view of the multinational

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Abstract

The paper firstly describes how, using the two laws of 'increasing firm size' and 'uneven development', Hymer characterises the multinational corporation (MNC) as a geographically segmented hierarchy. In this structure HQs in a limited number of core countries exercise authoritarian control over global operations through the centralised generation of competitive advantages and determination of strategy. Poor hinterland countries then execute static and dependent low-value roles. The paper then discusses a number of changes to the practical configuration of MNCs since Hymer wrote. Notably the use of integrated supply networks, decentralisation of innovation and R&D and even of strategic decision making. The new organisation is seen in terms of Hedlund's heterarchy. But it is also noted that Hymer foresaw the potential of supply networks and showed the technological feasibility of heterarchical 'grids'. The predicted persistence of hierarchy, for Hymer, was therefore a choice taken by MNCs to secure the continuation of core-country control and the ability to appropriate surplus from the periphery.

Keywords: Stephen Hymer; Hierarchy; Heterarchy; Strategy

1. Introduction

Hymer introduces one of the key texts of his later analysis (Hymer, 1970, p. 441) by adopting Robertson's view of firms as 'islands of conscious power in an ocean of unconscious cooperation'. Thus he suggests that MNCs 'are a substitute for the market as a method of organising international exchange'. One mode of later analysis consonant with the latter view is,

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of course, internalisation theory (Buckley & Casson, 1976; Hennart, 2000). As recent work has argued and documented (Casson, 1990; Horaguchi & Toyne, 1990; Pitelis, 2002), Hymer (1960, 1968, 1976) was himself fully cognisant of the issues raised by internalisation analysis and of how Coase's formulations could be co-opted to resolve this area of MNC theorising. This then predominantly addresses reasons why MNCs *reject* various markets for intermediate goods. Hymer, we argue here, was also concerned with the adopted alternative, in the sense of analysing and questioning how and to what ends the 'conscious power' was exercised. Two strands of the analysis of his later years address this, in ways that to some degree reflect ideas now seen as central to the conceptual breakthroughs of the PhD research (Hymer, 1960, 1976).

Firstly, one strand of Hymer's later argument emerges in the empirical analysis of the growth of the world's leading enterprises (Hymer & Rowthorn, 1971) and its interpretation of emerging patterns of internationalised oligopoly. This can be seen (Yamin, 2000, p. 65) as relating to the 'removal of conflict' explanation for MNC expansion found in the PhD. Secondly, other perspectives emerge in papers (Hymer, 1970, 1972a,b) which trace the emergence of MNCs as an organisational form and define their format as globally-segmented hierarchies. The ability of a dominant centre to control such stratified hierarchies is seen to derive from the possession of centrally-derived 'advantages', and to reflect the need to retain dominance of their dispersed use and to appropriate the benefits from doing so.

In the next section we start our interpretation of this second strand of Hymer's later work by outlining his argument that the globalised hierarchical MNC serves to impose 'core' (home-country) control over a weakened and static poor-country 'hinterland'.

2. The hierarchical MNC and uneven development

Hymer develops his characterisation of the MNC as a centralised hierarchical system of authority and control through two complementary lines of argument; applying respectively what he terms the laws of increasing firm size and of uneven development. In the first of these laws he describes the tendency for firm size to increase as the organisational form developed from the *workshop* of the industrial revolution, through the *factory* to the *national corporation* and from the *multidivisional corporation* to the *multinational corporation* (1970, pp. 442–443; 1972a, pp. 115–122; 1979, pp. 145–147). Though quantitative size per se affects parts of his argument Hymer, in fact, sees the most systematically influential aspects of this growth as qualitative.

We need not trace the detail of Hymer's exposition of the ever evolving organisational structures that led to the MNC of the mid 20th century. But what is crucial to those parts of his overall argument that are assessed here is his emphasis on the persistent need for ever more complex administrative structures to coordinate diverse activities and a larger centralised planning facility ('brain' in his favourite analogy) to organise growth and survival. Thus Hymer's narrative shows that each widening of the firm's base through new dimensions of product and/or geographical diversification also adds an extra level of administration, but with a unique 'all seeing' centre still retaining ultimate control.

Having outlined the historical roots of a strongly hierarchical organisation operating internationally Hymer moves the analysis to the normative level and the potential for uneven development. Thus it becomes vital 'to analyse the spatial dimension of the corporate hierarchy', in terms of effect 'on international specialisation, exchange and income distribution' (1972a, p. 122). To develop his view that centralisation of control in MNCs imposes a matching centralisation of control within the global economy Hymer (1970, p. 442; 1972a, pp. 122–125) applies location theory to Chandler and Redlich's (1961) categorisation of 'three levels of

business administration, three horizons, three levels of task, and three levels of decision making … and three levels of policies'.

At the bottom of the hierarchical pyramid level-III is concerned with managing day-to-day operations of the MNC, keeping it going within an established framework of competitive aims and competences that it is not expected or entitled to change. Level-III activities are, therefore, the most widespread 'according to the pull of manpower, markets, and raw materials' (1972a, p. 124). Hymer accepts that MNCs' command of 'capital and technology and its ability to rationalise their use on a global scale' could help spread production more evenly over the world's surface. Thus it 'may well be a force for diffusing industrialisation to the less developed countries and creating new centres of production' (1972a, p. 124).

The intermediate level-II is concerned with the coordination of the managers at level-III, essentially assuring the effective regional application of a particular part of a wider strategic framework that it does not help to formulate. The need for trained and skilled white-collar workers and effective communications infrastructure tended to lead certain cities to become regional centres for MNCs' level-II activity.

Level-I is then the apex of the pyramid, where top management, concerned with goal determination and strategic planning, sets the framework within which the lower levels operate. Even more than level-II these general offices tend to be concentrated in a very limited number of metropolitan centres where they have close access 'to the capital market, the media and the government' (1972a, p. 124).

Such a functional hierarchy in MNCs is then innately associated with the developmental stratification of the world economy (Hymer, 1970, p. 446; 1972a, pp. 124–125; Hymer & Resnick, 1971, pp. 493–494). The unique strategic-planning centres of an MNC will be located in one of a very small number of major capital cities. The most powerful and highly-rewarded MNC personnel will, therefore, be located there, providing spillover benefits in strengthening the competitive infrastructure and cultural life of these metropolises. A wider range of still powerful and influential secondary cities will host level-II HQs of MNCs, learning the strategic priorities from level-I and organising their implementation throughout a significant regional component of the group's operations. Personnel here still possess distinctive tactical responsibility, in that they will need to address any problems relating to applying level-I strategies to the specific (market or production) conditions of their region. Finally, at level III, a very large number of facilities routinely fulfil particular production responsibilities in a strategically totally dependent status.

In the central metaphor of this part of his analysis Hymer (1970, p. 442; 1972a, pp. 120–121) suggests that while the 19th century Marshallian capitalist had 'ruled his factory from an office on the second floor' and the turn of century president of a national corporation might have been lodged on the seventh floor of a higher building, the managers of the MNCs that emerged in the second half of the 20th century 'rule from the top of skyscrapers; on a clear day they can almost see the world'.

Alongside the obvious income implications of MNCs' global hierarchy Hymer (1970, pp. 445–446; 1972a, p. 129; 1979, pp. 161–162) also indicates the presence of social (or psychological) forces that may suppress impetus toward independent local-economy development at level-II and, certainly, at level-III. The 'subsidiaries of MNCs are typically amongst the largest corporations in their country of operations and their top executives play an influential role in the political, social and cultural life of the host country' (1972a, p. 129). But these MNC personnel themselves only occupy strategically dependent positions in their group hierarchy and, it is implied, develop attitudes and mindsets that reflect their limited authority

and decision scope. Yet the local government and elites respect these MNC personnel as informed and influential leaders (reflecting the global power of their *parent* MNCs) and thereby absorb the, in fact, submissive and unenterprising middle-management attitude. Therefore, Hymer argues, 'one can hardly expect such a country to bring forth the creative imagination needed to apply science and technology to the problems of degrading poverty' (1972a, p. 129).

3. Strategic diversity in the contemporary MNC

In his use of the two laws Hymer firstly distinguishes growth processes in firms that led to their eventually needing to become MNCs and, secondly, asserts that the organisational structures that are innate to the effective control of such geographically-dispersed operations will then be decisively hierarchical. It is this view of MNCs' *organisational* format that is dominant in this phase of Hymer's work, since from it he is able to derive particular conclusions about the way in which a geographical stratification of the firms' operations affect issues of growth, development and equality/distribution. However, we can suggest that the implications of the growth of overseas operations in MNCs derive not only from how they are controlled, but also from what they do; i.e. how they fit into the (now globalised) *strategies* of these firms.

One important facet of the development of the study of MNCs subsequent to Hymer's work has been a growing focus on the role played by individual subsidiaries. An aspect of this is that what particular subsidiaries are required to do reflects a *range* of strategic motivations encompassed within an MNC's overall programme for sustained international competitiveness.

Earlier work (Behrman, 1984, pp. 101–106; Dunning, 1993, pp. 56–61; Manea & Pearce, 2004, pp.3–5) has distinguished four strategic motivations that can be included within the scope of a subsidiary. The predominant early motive for firms' overseas operations was *natural resource (or primary product) seeking*. Indeed, Hymer himself saw this need as central to much of a first wave of US FDI in the late 19th and early 20th centuries, though he interprets this as being mainly a support for continued home-country competitiveness rather than a systematic harbinger of any more generalised global strategy.

By the time of Hymer's writing, in the early 1970s, we would now consider (Papanastassiou & Pearce, 1999, pp. 24–30; Pearce, 2001) the major motivation of FDI (i.e. the dominant subsidiary role) to have become *market seeking* (MS). Here an MNE would have invested in a particular economy as the most effective way of supplying its existing products to the market of that country. The dominant conditioning factors for this were the continuation of high levels of developed country protection stemming from the interwar years, and import-substitution strategies implemented by many developing countries in their early industrialisation programmes.

By the 1970s, however, two forces were emerging that can now be seen to have fundamentally altered the competitive context for MNCs and to have required a broadening and refocusing of their subsidiaries' strategic positioning. Firstly, the moves towards regional and global free-trade agreements removed the essential protectionist support for (usually inefficient) MS facilities. Secondly, an increasing range of countries emerged as possessors of high-quality and distinctive scientific and technological capacities alongside other types of creative scope (e.g. insightful market-research detecting unique local product needs and ideas). These two factors manifested themselves in two additional strategic motivations in MNCs.

Firstly, *efficiency seeking* (ES) in which an MNC's operations in a particular location are expected to supply certain parts of the group product range to its international markets in a highly cost-competitive manner. Here, of course, emerging freedom of trade is now seen

positively as allowing MNCs to build competitive global supply networks. Secondly, *knowledge seeking* (KS), in which MNCs respond to growing international scientific and market heterogeneity by decentralising and networking their learning, technology-generation and creative processes. Central to KS have been increasingly globalised approaches to R&D and innovation in MNCs.

The next three sections address two questions. Firstly, to what extent and in which ways did Hymer perceive the possibilities of ES and KS behaviour in the periphery (level II and level III) operations of MNCs? Secondly, how does an MNC that encompasses significant ES and, especially, KS behaviour (as well as residual elements of the two earlier motivations) differ from Hymer's hierarchy?

4. Global supply networks—efficiency seeking

In a section on 'the dynamics of corporate expansion' Hymer (1972b, pp. 95–96) indicates how capitalism gains its forward momentum from the twin competitive priorities that constitute the 'dialectic of the product cycle'. Through a successful innovation a business enterprise builds its immediate growth and profitability 'around some special discovery or advantage'.[1] This new product then succeeds by both attracting new customers and by displacing other longer-established goods. This quasi-monopoly position is, however, itself inherently vulnerable to both market saturation and 'new entrants who may discover a new technology, a new product, a new form of organisation, or a new supply of labour' (1972b, p. 95). Once the initial profitability has attracted rivals with alternative technologies or product variants production costs begin to dominate, especially where the newcomers are prepared to accept a lower rate of profit or can utilise a source of cheaper labour.

There are then two ways of dealing with this competitive threat. Firstly, by pursuing a new source of high-profit-margin growth through new products; i.e. by, in effect, institutionalising the process of innovation. Secondly, by prolonging the original product cycle by secrecy (i.e. slowing diffusion of the competitive advantage) and/or 'by gaining control of marketing outlets, searching for and moving to places of cheaper labour'. The latter, of course, also serves to facilitate the former, since a wider market spreads the costs of innovation and allows more to be spent on R&D. Thus successful large-scale cost-efficient supply of existing products not only moves these goods towards the vulnerable stage of their cycle but (dialectically) supports the parallel commitment to creation of their successors. For Hymer, therefore, 'the incessant revolutions in production and the depreciation of the existing capital [that] this implies spur them on to new methods and new places' (1972b, p. 96). From this he defines three motives for international expansion. Firstly, the rapid growth of the *markets* for the goods in which the firm specialised. Secondly, *cheaper* (i.e. more cost-effective) *labour* which made overseas production more profitable. Thirdly, the assertive growth of *foreign competitors*.

Up to his time of writing, however, Hymer had not observed significant separation between the markets and the labour supply in US MNCs' strategies. Thus it was specifically European and Japanese markets, their competitive emergent firms and (with the transfer of people between agriculture and industry and out of declining industries) a growing and productive labour supply

[1] This, of course, correlates to Hymer's (1960, 1976) earlier insight that firms seeking to become MNCs would need to possess a unique form of firm-specific comparative advantage. This was developed analytically as the ownership-advantage element of Dunning's (1977, 2000) eclectic paradigm.

in those locations, that provided the integral focus for the initial MS expansion of these US firms. But looking forward to the 1970s and 1980s Hymer (1972b, pp. 97–98) most precisely (and presciently) predicts changes in, in particular, MNCs' strategic accessing of labour. In Europe and Japan labour shortages were now beginning to emerge, whilst in the US 'resistance to work seems about to reach acute proportions from capital's point of view'.[2] In the face of this firms from all these developed regions were beginning to look towards an untapped cheap-labour supply in the Third World. This large surplus of potential industrial labour, he suggested, was readily accessible to foreign enterprise, since the local capitalist class was weak (in reflection of the restraints that had been placed on it during the colonial period). In the early stages MNCs had employed local labour in developing countries as part of MS import-substitution strategies, thereby replicating their position in developed countries in the sense of not separating the market and efficiency objectives. But by the early 1970s Hymer saw these low-cost-labour operations turning to expansion of exports. In this they were becoming parts of globalised networks through which MNCs were increasingly addressing the current-supply part of their survival strategies.

Interestingly, though, Hymer did not seem to expect the competitive exhaustion of these country-level cost advantages and then 'footloose' migration of MNCs, since they would instead exploit these 'sources of future growth … in an oligopolistic rather than a cutthroat way … [recognising] their mutual interdependencies and [striving] to share in the pie without destroying it' (1972b, p. 98). Elsewhere in his exposition (1972b, p. 105), however, he does see the development of ES supply networks as a threat to *advanced country* workers, with the growth of international competition placing the burden of adjustment on labour.[3]

5. Innovation and R&D—knowledge seeking

Hymer adopts a strongly centralised view of the innovation process (1970, pp. 444–445; 1972a, pp. 125–126) but then finds particular benefits to MNCs from the way new goods 'trickle down' to dispersed markets through 'an international demonstration effect spreading outward from the metropolis to the hinterland' (1972a, p. 125). Indeed speeding this process can be a significant motive for direct investment, through MNCs' control of marketing channels and communication media. Hymer sees the companies gaining two types of benefit from this.

The first relates to the characteristics of the competitive advantage which provides the MNC with the ability to expand internationally. Thus the development of a new product, through the high expenditures of innovation and invention, is a very substantial fixed cost but, once the 'ownership advantages' that define this new source of competitiveness are fully defined, they can be applied at very low marginal cost. With the actual cost of production, therefore, usually well below selling price, the problem of growth is likely to be that of finding new markets (rather than rising costs). Then 'the marginal profit on new foreign markets is thus high, and corporations have a strong interest in maintaining a system which spreads their products widely' (1972a, pp.125–126).

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[2] This could reflect a particularly '1960s' influence on Hymer's thinking, as may the terminology (1972b, p. 97) that 'the greening of Europe is about to begin'.

[3] The departure of the textile industry from the Northern US led to 'a cycle of depressed areas and depopulation [that] … might now be occurring on a world scale'. When 'capital leaves one group of workers for another, in a process resembling slash and burn agriculture, the advanced group is forced to lie fallow in unemployment for use later when their resistance has been weakened' (Hymer, 1972b, p. 105).

Secondly, the trickle-down system is also seen as helping the centre to reinforce patterns of authority and control. Thus when, after some period of delay, people in subordinate countries in the global hierarchy do receive new goods (through MNC marketing and production) this provides them with an illusion of upward mobility, even though their *relative* position actually remains unchanged.[4] From this 'it is little wonder' (Hymer comments) 'that those at the top stress growth rather than equity' (1972a, p. 125).

In the positioning of innovation Hymer also acknowledges the Schumpeterian association of oligopoly with the dynamic dimensions of competition, in which 'creative destruction' allows for the introduction of new technology and new products. Even where an oligopolistic market structure may interfere with static optimal resource allocation it may contribute to dynamic optimum allocation in a private enterprise system. It may, thus, provide a competitive situation in which innovators can capture some of the benefits of their inventions and thereby underpin the incentives for R&D expenditures and programmes. Then 'one can expect international oligopoly via MNCs to provide the same kind of dynamic environment for the world economy as a whole' (1970, p. 444). Nevertheless Hymer doubts whether this situation is likely to allow consumers to choose from the full range of inventive/innovative options possible. Only a large number of independent decision centres would allow all creative avenues to be explored.

As an alternative to 'trickle down' of centralised developed-country innovations through MNCs, Hymer envisages 'a regime of national firms (private or socialised) … [so that] the pattern of output would almost certainly be quite different than the one that is now observed. There would be more centres of innovation and probably more variety of choices offered to the consumers, as each country developed different products suited to its particular characteristics' (1970, p. 445). The scope of choice would then be further extended when the products innovated in one country would be able to spread to other countries through trade or imitation in a manner that is 'coordinated by market competition rather than the planning decision of top management in a few corporations whose interest it is to foreclose competition, to restrict the choice offered, and to insure the survival of their own organisation'. Overall Hymer believes 'it does not appear to be socially efficient to allow corporations to monopolise information on new possibilities created by science' (1970, p. 445).

Nevertheless, much of the dispersed creativity Hymer prescribes has, after all, emerged from within MNCs over perhaps the past three decades, as they have moved toward globalised approaches to innovation and the generation and accessing of new technology (KS behaviour). Thus MNC innovation has become much more decentralised, with many locations emerging as capable of developing new products and with these new goods distributed globally within, often internally-competitive, group networks. At an idealised level this could improve the capability of countries to develop internationally-competitive goods reflecting distinctive local creative capacities (R&D; technology; market-research perceptions), increase the range of goods available to consumers worldwide and, at the same time, allow for increased responsiveness to distinctive localised tastes and conditions (including regulatory regimes).[5] Of course this geographical extension of innovation programmes in MNEs only spreads into countries as and when they achieve relatively high levels of development. However, as we describe below, the competitive dynamics in contemporary MNCs can provide level-III (developing-country)

[4] Hymer comments that if subordinates 'look forward and compare their standards of living through time, things seem to be getting better; if they look upwards they see their relative position has not changed' (1972a, p. 125).

[5] For more detailed evaluation of this idealised potentiality see Pearce (2002).

subsidiaries that have ES responsibilities with the scope to pursue product upgrading and competence enriching processes that move them towards a tipping point (creative transition) where they can embrace full product development (and attain level-II positioning)..

Central to MNCs' move to globalised innovation strategies has been the emergence of product mandate subsidiaries. Such product mandates (PM) receive formal authorisation (the mandate)[6] from the parent company to take full responsibility for the development, initial supply, marketing and further competitive evolution of a particular product. The mandate is secured on the basis of product ideas and creative inputs (R&D; engineering; marketing) available to the subsidiary from its local environment. PMs, thereby, leverage for their MNC's global competitiveness a range of local competences. Crucial to the genesis of PMs is dynamic, perceptive and ambitious local management, pulling together the concepts and competences to back a claim for this high-value role. Indeed, whereas Marshallian owner/managers of individual factories had used their talent to secure success in *external* markets, in the contemporary PM-type subsidiary entrepreneurial (Birkinshaw, 1997, 2000) local managers now secure their subsidiary's enhanced role and strategic positioning through successful lobbying[7] in the *internal* 'marketplace' of an heterarchical MNC (Birkinshaw, 1996, 1998).

The emergence of PMs, usually as the result of a 'creative transition'[8] in existing MS or ES subsidiaries, has important implications for the organisation and implications of MNCs. This subsidiary-level transformation moves the level-III dependency of MS or ES to the PM's acquisition of what can be considered as a more contemporary form of level-II status. The PMs take a distinct *strategic* responsibility for a particular geographic and/or product segment of an MNC's global operations. They thus do much more than the earlier level-II subsidiaries' implementation of a centrally-determined strategy. Though PMs do remain ultimately dependent on centralised permission to implement, and persist with, the generation and application of their own competences, this nevertheless changes the nature of the authority and control exercised by the level-I parent companies. Ultimately the interjection of PMs into MNCs' global networks quite fundamentally subverts the earlier three-level view of a vertical hierarchy.

In a similar vein Yamin and Forsgren (2006) note that the emergence of locally-embedded subsidiaries leads logically to 'federative' rather than hierarchical MNCs. Hymer's failure to foresee this also caused him, they suggest, to fail to perceive the threat to centralised 'power retention' and control over strategy in MNCs 'emanating from embedded subsidiaries'. Had he done so, Yamin and Forsgren argue, 'he would have recognised the rationale for limiting the MNE's geographical scope'. This leads them to an endorsement of Rugman's (2003) view of a current prevalence of 'regional' (rather than globally-federative) MNCs.

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[6] Such subsidiaries were originally detected in US firms' operations in Canada and subsequently included in wider typologies of subsidiary roles (D'Cruz, 1986; Pearce, 1989, 2001). Recent analyses have systematically investigated the positioning of PMs in MNCs' overall strategic development (Birkinshaw & Morrison, 1995; Birkinshaw, 1996; Roth & Morrison, 1992).

[7] In an important contribution to the literature on subsidiary dynamics Birkinshaw and Hood (1997, 1998) distinguish between subsidiary, parent-company and host-country drivers in the process of subsidiary development.

[8] The process of creative transition (Papanastassiou & Pearce, 1994, pp. 201–203, 1999, pp. 96–97) is one where MS and ES subsidiaries, which had originally secured their role on the basis of host-country markets (MS) or supply characteristics (ES) and then been *allocated* the appropriate existing technology to play that role, then *create* their own original technology-based competences (through localised KS activity) and use this to *claim* their new individualised PM status. There is a transition from a situation (MS/ES) where the role determines the technology to one (PM/KS) where technology generates the role.

The concept of PMs involves a creative interdependence between a subsidiary and the more dynamic, development-oriented, elements of its host economy. This can counter Hymer's fear of a submissive and dependent subsidiary-level mindset inculcating and reinforcing stagnation and lack of developmental initiative in poor countries. Thus (Papanastassiou & Pearce, 1999, pp. 18–19) 'our interpretation of the contemporary MNE as a flexible and dynamic heterarchy can be seen to provide local executives with the scope to take a more positive view of host-country potentials and of their own ability to benefit from activating them within evolving group-level programmes. The interface between MNE executives and local decision makers *can* then be one of mutually-supportive development rather than one of shared resignation and defeatism'.

We noted earlier Hymer's view that anti-competitive behaviour of MNCs in oligopoly removed concern about 'footloose' closure by subsidiaries in low-wage economies. However, contemporary critiques of MNC behaviour in the intensified competition of globalisation do raise such concerns. Thus it is suggested that though the setting up of ES subsidiaries in labour-abundant low-wage economies can initiate development by generating many new jobs this will be a transitory benefit. Once effective growth leads to full-employment and rising real wages (and other input costs), this argument suggests, MNCs will close these ES operations and exercise the footloose option to move jobs elsewhere, thereby hollowing out the development process. It can be argued though that this need not happen (Pearce, 2001). If the development process improves local capabilities, notably in terms of human capital (training, retraining, improved education systems, ultimately a strong science and technology base) then MNCs can restructure (rather than remove) their subsidiaries and become an embedded part of a sustainable evolutionary process (Young et al., 1988; Young & Hood, 1994).

Alongside the growth of interest in creative subsidiaries (Pearce, 1999a) another emerging concern of the analysis of MNCs over the past thirty years has been the globalisation of their R&D strategies. One strand of this emphasises the different roles dispersed R&D labs can play for MNCs and the different types of work they can do (Ronstadt, 1977; Behrman & Fischer, 1980; Haug, Hood & Young, 1983; Pearce, 1999b; Papanastassiou & Pearce, 1999). Though not systematically discussed in terms of geographical hierarchy[9], Hymer (1979, pp. 156–157)[10] offers some insights on the 'peculiar features' of the research function that prefigure the later perspectives. At the lowest level some research is 'done at the plant level almost as a by-product of the manufacturing process'. At an intermediate level of scientific complexity research results need to 'be channelled into the highest levels of management where they can be coupled with marketing functions in an overall strategy for product development' (1979, p. 157). Finally, Hymer sees the 'higher levels of research' as concentrated in research centres away from firms' offices at central cities. This is to allow specialised professionals the autonomy to exercise their own scientific judgement; though, as just noted, mechanisms are also needed to pull their work towards practical innovation. In a way that anticipates later ideas on knowledge-driven clusters (Balasubramanyam & Balasubramanyam, 2000; Cantwell & Iammarino, 1998; Howells, 1999; Porter, 1998) Hymer also observes the importance in basic science of scientists being 'in contact

[9] Though he does (1979, p. 141) comment on the competition between the middle classes of different countries for managerial and scientific jobs, including the locations of scientific facilities.

[10] The quotes here are from a paper entitled 'The multinational corporation and the international division of labour', which was first published in an abridged version in French in 1971. The full English text was made available, as cited here, in the 1979 collected papers.

with other scientists and act as 'open cells' receiving and absorbing knowledge generated at the frontiers of science'.

Recent analysis has raised concerns regarding the implications of MNCs accessing selected elements of *national* systems of innovation as part of their global R&D and innovation strategies, whose results and benefits may then spread worldwide and not directly benefit countries (or local institutions) that contribute to them. Elements of this concern are suggested by Hymer (1979, p. 157). Even when the research function is located away from the 'high-density commercial centres' it is these centres to which it ultimately owes its allegiance and with which it communicates systematically 'rather than its local community [so that] it forms an enclave rather than an integrated part of the local economy'.

6. Heterarchy

The emergence of ES and PM subsidiaries can now be seen to have fundamentally changed MNCs' organisational structures. Initially, at a point in time, the coordination of variegated ES subsidiaries into a network actually makes hierarchical control more powerful and decisive than it would have been when most subsidiaries played the MS role. What goods a particular ES subsidiary produces, in what quantities and to which other part of the network it supplies them, will be determined by a regional or global (essentially, in Hymer's terms, a level-II) coordinating centre. However, such supply-network centres also need a much greater awareness of heterogeneity in level-III operations (different ES subsidiaries producing different goods reflecting different capacities in their host economies) and, ultimately, to understand forces for change in the network's configuration. Thus, even whilst retaining generic ES-status (i.e. before any creative transition to a PM), subsidiaries can develop by taking on supply of higher-value-added parts of an MNC-group's existing product range (Pearce, 2001). As skill levels improve in a country (better education and training) an ES subsidiary can improve its position by securing higher productivity technologies to produce better quality goods. Thus the relationship between an ES management and its coordinating centre should move away from submissive dependency, with subsidiaries allowed to lobby for accession to higher status within the existing network.

Once PM operations become part of MNCs' globalised scope the organisational challenges that took a muted status within hierarchical control of ES networks become more strident. The value of PMs to MNCs is precisely an allowance for locally-driven dynamism, the leveraging for group benefit of idiosyncratic creative capacities internalised from the local economy. This is beyond hierarchical control. Such units cannot be left totally beyond supervision, but too much control must not suppress the intrinsic generation of unique capacities that can only be effectively motivated by an entrepreneurial local management activating an internally-cohesive range of functional scopes. Thus a PM's value is its *individualism* in the form of distinctive new subsidiary-level knowledge and the managerial drive to take initiatives based around it. But this must contribute to the coherent progress of the MNC group and not proceed in directions that may unbalance overall strategic scope or that the subsidiary may not have the in-house capacities to fully develop (Pearce, 1999a). 'A degree of *interdependency* has to be retained that then supports the subsidiary and/or provides benefits to the group, but does not in the process stifle the subsidiary's capacity to exercise its creative scope' (Papanastassiou & Pearce, 1999, p. 43).

The generation, supervision and monitoring of such mutually-supportive interdependencies between dispersed creative activities in MNCs becomes the new role of HQs.[11]

The new world of MNC differentiation and organisation has been influentially categorised by Hedlund (1986, 1993) as a heterarchy. This has been formally defined (Hedlund & Rolander, 1990, p. 15) as constituting 'a geographical diffusion of core strategic activities and coordinating roles, a break with the notion of one uniform hierarchy of decisions as well as organisation positions, and an increased focus on normative control mechanisms'. From Hedlund and Rolander's (1990, pp. 25–26) full listing of the characteristics of heterarchy, six reflect on points covered here.

Firstly, there are 'many centres, of different kinds', with traditional HQ functions increasingly 'geographically diffused, and no dimension (product, country, function) uniformly superordinate'. This dispersion of key scopes requires a 'structure that is flexible over time' so that 'the heterarchical firm does not need to worry too much about logical consistency, but instead focuses on practical coherence'. This provides the basis for the second characteristic of 'a strategic role for foreign subsidiaries', which operates 'for the corporation as a whole [so that] corporate level strategy has to be both formulated and implemented in a geographically scattered network'

Thirdly, the heterarchical MNC uses 'a wide range of governance modes between pure market and hierarchy'. Indeed Birkinshaw and Morrison (1995, p. 737) observe that 'a heterarchical MNC could easily have certain subsidiaries that were controlled in a 'hierarchical' (i.e. bureaucratic) manner'. As we noted earlier this would encompass control and coordination of subsidiaries that continue to play an ES role. Fourthly, heterarchical MNCs encourage 'coalitions with other firms and with other types of actors … in order to utilise potentials for synergy in the global environment'. Fifthly, the heterarchical MNC encourages 'radical problem orientation, rather than starting from existing resources, or from competitive positions in narrow fields of business' so that, finally, they need 'action programmes for seeking and generating new firm-specific advantages through global spread'.

Elaborating the last point Hedlund and Rolander (1990, p. 26) comment that 'exploitation of given, home country based advantage is emphasised in the theory of the MNC, but this should not entrap the MNC in its action'. In a similar vein Hymer (1968, p. 24) notes a dual benefit to the internalised use of 'ownership advantages' in overseas operations. This not only achieves security and control over current sources of competitiveness, but also enables an MNC to 'at the same time get indications about future developments'. Through formation of a MNC 'the firm enters into direct and immediate communication with the foreign market and so receives a continuous flow of information about local conditions that it can use to develop new products and improve its overall position as seller, buyer and producer'.

In fact Hymer quite explicitly recognised that, by the early 1970s, the electronic and transport revolutions, which were greatly reducing the cost of communications, opened up the possibility for much more flexible, less determinate and dependent, organisational structures in MNCs. The new technology, of itself, certainly did not impose hierarchy but instead would allow communication linkages to be arranged in a grid in which all parts *could* connect to each other. The de facto limitation to only vertical communication links in hierarchy constituted an

[11] For a subsidiary to commit resources and risk its intra-group goodwill in developing and putting forward a case for PM status, it needs to expect fair and informed judgement from a central management known to be capable of taking an open and flexible view of change in the group. Thus the perceived availability of procedural justice (Kim & Mauborgne, 1991; Taggart, 1997) is crucial.

organisational *choice* to impose 'a ritual judicial asymmetry on the use of intrinsically symmetrical means of communications and arbitrarily creates unequal capacities to initiate and terminate exchange, to store and retrieve information, and to determine the extent of the exchange and the terms of the discussion' (Hymer, 1972a, p. 126). This centrally-determined hierarchical choice served precisely to strengthen central control[12] by (as for earlier colonial powers) weakening peripheral operations, by preventing lateral communications and inhibiting the growth of independent centres of creativity and decision making. Alternatively, Hymer predicted (1972a, p. 126), if lateral as well as vertical communication was permitted then each point in the MNC could 'become a centre on its own; and the distinction between centre and periphery would disappear'. This is, indeed, the heterarchical world.

7. Conclusions

The central breakthrough of Hymer's PhD research can be seen (Dunning & Rugman, 1985) as the inadequacy of attempts to explain FDI flows at a macro level, and the need to place explanations of the international operations of firms at the micro level. In thereby initiating the analysis of MNCs Hymer also supplied the foundation insights of 'possession of advantages' and 'removal of conflict'. In terms of the analysis of the *effects* of FDI Hymer's ideas were reflected in a movement away from a purely capital movement approach (MacDougall, 1960) to the assessment of a 'package' of resource flows. Important perceptions then emerged (e.g. Dunning, 1994) from a 'gap-filling' approach (Pearce, 2001) in which MNCs' technology, management and marketing techniques, etc., as well as capital, provided the potential to close resource gaps that were holding back the developmental potentials of host countries. An alternative approach (Pearce, 2006) has indicated that the implications of MNCs' behaviour can be traced to the understanding of *why* resources are moved; i.e. the motivations reflected in firms' global strategies. This paper has found the roots of that approach in Hymer's assessment of the MNC as a globally-stratified hierarchy.

Two key presumptions underpinning Hymer's view of MNC organisational structures were decisively-centralised innovation and a predominantly market-seeking positioning of subsidiaries (or, at least, the absence of systematically-integrated efficiency-seeking supply networks). Our interpretation of subsequent developments in MNCs focused around changes in both these circumstances, leading to the emergence of heterarchy as the overriding organisational form. But we have also indicated that Hymer was aware of at least two of these developments, at least as possibilities. Firstly, he foresaw the eventual separation of where goods were produced and where they were sold in MNCs' supply networks (i.e. ES). Secondly, he acknowledged that alternatives to the vertical referral of hierarchy were technologically available and, in effect, suppressed in the interests of a controlling centre. The weakening of central control and the emergence of heterarchy, that derived from MNCs' need to internalise increasingly dispersed creative capacities (including entrepreneurial subsidiary management), was not foreseen, however.

[12] This is achieved (Hymer, 1979, p. 155) by strong horizontal communication at level I (the core of the MNC) 'so that important decision makers do not work at cross purposes but have an opportunity to exchange information and reconcile differences', and very limited horizontal links at level III (periphery operations) 'so as to prevent alliances and interchanges that lead to actions counter to those prescribed by higher management'. Yamin and Forsgren (2006) discuss these organisational concerns of MNCs under the heading of 'divide and rule'.

Hymer, the preceeding points suggests, sees hierarchy not as the natural or immutable form of MNC organisation, but as one *chosen* and *imposed* by core country (level I) decision makers to centralise the benefits of a stratified global economy.[13] In this he may well have been overrating its ideological bases, and underrating the pragmatism of late 20th century capitalist enterprise. Nevertheless providing the first holistic attempt to relate MNCs to global political economy is one of the enduring and undervalued aspects of Hymer's work.

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[13] Thus Yamin and Forsgren (2006) suggest that 'the whole tenor of Hymer's analysis suggests that the retention of control over corporate strategy would be the overriding consideration determining the extent of multinationality'.

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