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Keeping the eclectic paradigm simple: a brief commentary and implications for ownership advantages

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# Keeping the eclectic paradigm simple: a brief commentary and implications for ownership advantages<sup>1</sup>

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**Abstract**: The eclectic paradigm as developed by Dunning evolved over time, responding to changes in the way international business has been conducted as well as to link it with other related academic disciplines. I argue that if the paradigm continues to try and be a 'big tent' and a *de facto* theory of the firm that internalises every MNE-related phenomena, it will be in danger of becoming a tautology without a 'gatekeeper'. Continual expansion to address new lacunae begins to have decreasing returns, either because the gatekeeper cannot expect to have the specialised knowledge to meet each market need equally well, or because the growing number of extensions makes the final product unwieldy. I propose a return to a basic eclectic paradigm ('EP-lite') consisting essentially of the OLI framework. This can then be complemented by other frameworks, theories and concepts as needed, rather than the continuous expansion to internalise their use. In a similar vein, increasing the number of sub-categories of ownership advantages does not in itself provide greater clarity. Besides, the 'correct' definition of what constitute O advantages is relative to the purpose for which it is being used.

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#### Introduction

As a former student, research assistant, and co-author of John Dunning's, the reader will expect me to be an enthusiastic proponent of the eclectic paradigm. They will expect too, that this article will proclaim its continuing validity and value to all.

I will do neither.

My own relationship with the eclectic paradigm— to put it simply— is a troubled one. I discovered early on that the eclectic paradigm may look simple, but it is anything but. My early collaborations with John quickly made it apparent that there are more complexities to its understanding and application than are immediately obvious. Appreciating its complexities took many years, helped it must be said, by numerous conversations with its progenitor, although I did not always feel as comfortable with some of its nuances. These discussions also made me realise its limitations, and eventually led to my belief that there is no definitive eclectic paradigm, nor, I believe, should there be. Indeed, I considered very briefly entitling this article, 'how I learnt to stop worrying and love the eclectic paradigm' (with due apologies to Stanley Kubrick). My belief is that the eclectic paradigm has become increasingly complex, and now needs to be contrasted with a simpler version, which I call EP-lite, which is essentially the OLI framework augmented with the discussion on motives. For most academic purposes, this continues to suffice as a conceptual framework<sup>2</sup>, except for specialists. In addition, the EP-lite is much more plausible as a paradigm, because it insinuates no predictions.

I believe that the analytical and intellectual elegance of the eclectic paradigm as initially proposed in 1976, derived from its simplicity. Yet, over 40 years of evolution, this simple elegance has given way to a more complex organism. This has happened sequentially for two overlapping reasons. First, it has been modified in response to changes that have taken place in the ways in which international business is conducted, which itself has been an outcome of changes in the political and economic milieu in which they operated – what is best described as

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<sup>&</sup>lt;sup>2</sup> I have no way of confirming this empirically, but my own experience in reviewing submissions to journals suggests that a majority of scholars continue to refer to earlier versions of the paradigm, even where they have 'updated' the reference they cite. In areas such as development economics, the most common references are Dunning (1977), Dunning (1988), and occasionally Dunning (1993).

changes in the meta-paradigm (Nightingale 2008). Second, developments and breakthroughs in other related fields within economics, political science and management have been co-opted and 'internalised' within the eclectic paradigm, either as a means to provide texture, or as a response to critics, or to demonstrate the eclectic paradigm's relevance to various circumstances, purposes and functions. As Eden (2003) notes, this has led to a series of 'turning points' in its development, with each successive version maintaining a key core set of building blocks and principles, but addressing certain questions 'du jour'.

Eden classifies four versions<sup>3</sup>, and I presume she will have no objections to my extending the classification to include the latest (and last) version as Mark V:

**Mark I:** Focused on why firms invest overseas, rather than through arms-length mechanisms such as trade and licensing, and what are the determinants of the amount and composition of international production.

**Mark II**: Responded to criticisms by internalization theorists, the development and application of the eclectic paradigm to macro/country-level/ development issues, applications to different industries, incorporating and clearly defining the role of geography.

**Mark III:** Brought within the fold of the eclectic paradigm the understanding and application of alliance capitalism.

Mark IV: How developments in strategy relate to the eclectic paradigm.

Mark V: Incorporates institutional economics within the eclectic paradigm.

I believe that while these 'upgrades' have enriched our understanding of international business as a discipline –indeed have helped define international business as a discipline – in trying to be relevant and applicable to an ever-broader set of subjects and applications, it has become cumbersome. To use an analogy from computer software, The eclectic paradigm – like Microsoft's flagship operating system Windows -has continued to expand for greater functionality 'internalising' tasks that were originally provided by third-party suppliers. Simpler

<sup>3</sup> Eden followed Dunning's lead in this matter, who distinguished various versions during the 1980s in a similar way.

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systems like Linux have become popular because they are small and compact, and allow you to expand when and if needed from third party-suppliers. Similarly, a stripped-down eclectic paradigm is a preferable option, with the added functional elements available for optional download and use from third party software developers. In short, I propose a return to pared-down eclectic paradigm ('EP-lite') consisting essentially of the basic building blocks of O, L and I advantages (but including the important discussion on motivations, which was developed later), used in whatever way one needs to utilise them. These can then be complemented by other frameworks, theories and concepts as needed, rather than the continuous expansion to internalise their use. For those of a more philosophical and theoretical persuasion, the full eclectic paradigm is there to tinker with, expand, and contribute to. For those who wish simply to have tools to analyse a problem at hand, the EP-lite will suffice.

#### The evolution of the eclectic paradigm and its relationship to the meta-paradigm

I will not discuss how the eclectic paradigm evolved. Rather, I will look to explaining why the eclectic paradigm evolved in the way it has done. It is worth emphasising that the eclectic paradigm (thus far) is largely indivisible from John Dunning, having been associated with the intellectual efforts of one individual for much of this time. Therefore, it also reflects the academic issues and challenges prevalent during his career. Returning to Mark I of the eclectic paradigm, the central questions faced by scholars of the MNE in the 1970s was this: why should firms engage in FDI rather than trade or licensing? Or in another variation, why do MNEs exist and why can't trade theory explain their existence and growth?

Mark I was oriented to primarily address these issues, and it addressed them well. But if we fast forward to the current time, it is easy to understand that it would not have remained relevant had it not been reconsidered as a theory (as originally labelled<sup>4</sup>). Today's younger IB scholars do

<sup>&</sup>lt;sup>4</sup> I will not enter into the as-yet unresolved question of whether it is a paradigm or a theory (even though I have stated otherwise in the past [Narula 2006]). However, I am not certain that the assertion that the eclectic paradigm does not have a predictive element to it rings completely true. Indeed, as EP-lite this may well be the case, but in its 'fuller' versions, it certainly seems to offer prescriptions. See Tolentino (2003) for an interesting discussion.

not regard these issues as contentious; they may even find them somewhat superfluous. FDI exists. MNEs function, and neither seems in danger of extinction. It is also important to remember that most scholars studying FDI were economists (including Dunning) and as such their analyses tended to be couched within existing mainstream economics frameworks, theories and concepts. They also needed to answer these questions with sufficient rigour so as to convince the more sceptical of their economist colleagues. This too has changed. The mainstream trade literature has reconciled itself to both FDI and the MNE, although not always with the enthusiasm that IB scholars may have wished for.

My point here is that this makes Mark I of the paradigm less relevant today, with economics having reconciled itself to MNE activities. IB has also changed in its identity from being a bridge between economics and business studies towards a more management-flavoured discipline. The typical IB doctoral student is less likely to have an economics background or be based in an economics department, and in all likelihood knows little or nothing about Hecksher, Ohlin or Samuelson. She may also not remember a time where MNEs were not ubiquitously discussed in the popular press as symbols of progress and modernity, or recognise that pre-globalisation world where business was more likely to be domestic than cross-border, and where trade was the prevalent form of activity.

Similarly, in its original formulation, it was the eclectic paradigm of *international production*. Mark II of the paradigm deepened the eclectic paradigm to explain a variety of new phenomena. As trade and FDI in services became significant, the eclectic paradigm was modified to explain them. Likewise, the growing use of cooperative agreements (both equity and non-equity) rather than wholly-owned subsidiaries prompted Mark III of the paradigm. Mark IV saw an attempt to link the paradigm to strategy, and Mark V – the latest version – has been seen to expand the paradigm to include institutional factors more systematically.

These extensions have been systematic, intentional and gradual. Most importantly, they have drawn from other social sciences, and, in many instances, have also fed back into the fields from whence they came. The eclectic paradigm, in other words, was drawn into the narrative in

these other areas that also sought to reconcile the growing importance of MNE activity to political science, geography, and development (to name but a few).

This change of focus and switch of emphasis in the eclectic paradigm is shared across other social science theories. These changes reflect adjustments and response to changes in what Nightingale (2008) defines as the meta-paradigm which is taken here to be the background of certain observed facts and behavioural patterns about the universe we are studying. The nature of the meta-paradigm shapes the received theories, which those that best explain the metaparadigm (also known as 'reality'). As the meta-paradigm shifts, this requires a change in the core assumptions that supports the theory. When core assumptions shift sufficiently, the theory consequently requires revision or replacement. It would seem to be natural that the eclectic paradigm also responds to changes in the meta-paradigm. In this regard, it is important to remember that the social sciences differ from the natural sciences in that our theorising acts as an exoskeleton, rather than an endoskeleton. That is, observable facts about the manner in which economic and social units interact are observed, and explanations are derived that allow us to generalise. The natural sciences are based around inviolable laws which are universal. Observations simply confirm these laws, and it is rare that new laws completely supersede old ones – Newtonian physics and the laws associated with it are still valid for most purposes, and exist in complementarity to quantum physics or relativity.

In our exoskeletal world, the way in which interactions take place requires us to develop a specific structure, because our focus is on explaining what happened in the past, and we presume that all things being equal, these same explanations will work in the future. Metaparadigm changes require us to revise our assumptions, and therefore, *all is not equal*, necessitating us to identify new external contours that accord with the facts as they are currently observed. Social science theorising thus has a continually temporary nature, because our assumptions are continually shifting.

#### The problems of path-dependency in its expansion

This evolution is significant for our discussion here, not just because the world as know it shifts, but because there is an important 'gatekeeper' function in responding to these shifts. Much of the seminal empirical work in IB has depended upon a large number of contributors, but integrating them together within the 'big tent' that Dunning wished the eclectic paradigm to be (Dunning 2000) has been done - until Mark V - by Dunning himself. It has been Dunning's Eclectic Paradigm, and not *The* Eclectic Paradigm. This distinction is an important one, because while the expansion of the paradigm has mirrored many of the changes in the meta-paradigm, the caveats that it has responded to reflect the interests, biases and background of Dunning himself. This is not a criticism, but a general character of path-dependency that governs much of knowledge creation. It is especially relevant here, because there are few conceptual arguments (or indeed disciplines) that have been shepherded by one individual so consistently for such a long period. This is evidenced also by the fact that few non-Dunning contributions exist that evaluate and explicitly update the eclectic paradigm, with the possible exception of those published Cantwell and Narula [eds] (2003). To use another software analogy, the eclectic paradigm is only partially open-source: while others have theorised on numerous extensions, and many more scholars have used it, tested specific aspects, and identified important caveats and empirically-derived lacunae, the choice of what has been fed back into the received version has always been determined by its progenitor.

Dunning's singleness of purpose and dedication to a field that he helped establish has been crucial to this task, and his selection of the important issues has, by and large, been accurate. His contributions to the location of the MNE helped define the debate within economic geography. Less successful were his efforts to develop ideas about moral capitalism within the same rubric. Attempts to expand the eclectic paradigm to take strategy into account also proved less popular, with the now-forgotten OLIS framework. Other variations and efforts to integrate the eclectic paradigm with strategy exist outside Dunning's efforts, such as Benito and Tomassen (2003), Devinney et al (2003) and Madhok and Phene (2003) but have also not made much more headway, nor have these been included in the canon.

It is of course another matter- and one that deserves some comment – that the plurality of the IB milieu should spawn a theoretical framework that specifically aims to be a 'big tent'. Big tent theories are few and far between in the social sciences<sup>5</sup> (and indeed in the natural sciences), and even more so in IB, because the boundaries are continually shifting, especially so where the aspects of economic activity affected by cross-border effects and the MNE in a globalising world is ever-expanding. An analogy in other fields is hard to come by because of their rarity, but one can argue that this would be similar to expanding Darwin's theory of evolution to subsume evolutionary biology as well as almost all of biological sciences all of whom take the principles expounded in *On the Origin of the Species* as their fundamental underlying framework of reference. That is, ideas from Darwin's work provide the tools to understand a variety of different subject matters from biology to anthropology to economics, but they are not integrated into a single unit, internalising all new discoveries into its fold. There is a clear distinction between Darwin's pioneering work, and the work that others have done subsequently.

Let me be explicit: the eclectic paradigm – in its basic form – provides us with the basis to understand many things, but it should not seek to be an envelope that expands to include everything, a tendency that will require large and ever-growing lists of categories and sub categories, sub-paradigms and extensions, because these lists have the potential to be so interminably long if they are exhaustive, and therefore ultimately tautological.

#### Keeping ownership advantages simple

This special issue of *Multinational Business Review* pays special attention to O advantages and the need to revisit its structure. This is an important debate, not only because it lies at the heart of the eclectic paradigm, but also because it is utilised in so many different ways, applied often as a synonym for competitive advantages and firm-specific knowledge assets. My first inclination is to return to first principles to fully understand its meaning. However even the idea

<sup>&</sup>lt;sup>5</sup> Other exceptions in the social sciences include the Chandlerian School and New Institutional Economics.

of first principles is a relative one. I will explain with a Zen  $k\bar{o}an$ . A group of monks are asked to jump. The first immediately starts jumping, while another asks, 'how high?' a third wonders, 'why do you want me to jump?' while yet a fourth enquires, 'who is asking?' Likewise, ownership advantages can depend upon the purpose for which they are to be used, and the background of the enquirer.

I will explain with an example. Ownership advantages — in my understanding - are the answer to the question, 'What is likely to give firms a *sustainable* advantage over other firms in their (foreign) operating milieu?' This is different from asking, 'what firm-specific assets in their portfolio of capabilities allow them to generate economic rents? The second question points us to firm-specific capabilities, because several firms may possess generally similar assets, produce similar outputs, but are still able to generate a rent. I picked the definition I used here for ownership advantages carefully, including the use of the word 'sustainable'. A firm may have an advantage over other firms over short periods, say, because an entrepreneur has a rich uncle, implying cheap (or even free) capital. This generates an ownership advantage, but it is rarely sustainable unless the money is invested in developing or acquiring other firm-specific assets. I use the term 'operating milieu' deliberately as well, because it is no longer the case that an advantage need be relative to the *current* activities of competitors in the host location, because a growing number of these competitors are MNEs as well, and have other subsidiaries within the MNE network that make an apparent advantage of the focus firm a temporary advantage, that can be readily eroded by future intra-MNE knowledge flows by the rival MNE.

My definition of O advantages is a general one, and while it shares the spirit of the definition of O advantages as used in all 5 official versions of the eclectic paradigm, I have specifically picked the phrasing to reflect my own research needs. This does not negate its value, but on the other hand – in my quest to apply it to the process of asset-augmentation–I have made it current and immediately useful as a tool, because I am not restricted to a received version. The concept of O advantages largely derives 'backwards' from variables that have been proven to be true in

<sup>&</sup>lt;sup>6</sup> See Tallman and Chacar (2010) for a discussion

empirical work. As discussed earlier, this is essentially a creation of a laundry list, for which there is no end.

However, I am told by an esteemed colleague interested in strategy that my definition of O advantages has a fundamental flaw, because I am taking an equilibrium and a long-term view (apparently I am also a closet-Hayekian). I have implicitly assumed that the firm makes decisions under circumstances of full rationality, because they must have information about the life of a project in my definition. How else would any firm (or government) know ex ante that an advantage can be sustained? From a strategy point of view, O advantages are the answer to the following: 'what gives a firm the conviction they need to make the decision to enter a foreign market? Even if their belief is wrong (because competitors possess superior assets, or because it turns out that these advantages are quickly eroded), they will act on their belief of superior relative assets and internationalise, and in this sense because they are boundedly rational, and possess with imperfect information, they conform to the expectations of firm behaviour proposed by Neo-Schumpeterian economics (see e.g., Nelson and Winter 1982). Strategy is interested in why a decision to enter a market is made, even if this turns out later to be made on false premises. My definition, while useful for making policy decisions relating to FDI-assisted development, serves no purpose to strategy. The point I am trying make is this: the definition and detail of O advantages required depends upon the purposes for which it is used the appropriate subcategories of O advantages is a function of the question it is being used to address. It is nigh impossible to have one 'standard' definition that meets all needs.

Increasing the number of sub-categories of ownership advantages does not in itself provide greater clarity, and in my view is more of an accounting trick, albeit one that allows plurality, because it permits multiple theoretical frameworks to live in (delineated) harmony with each other. The newly-introduced  $O_i$  advantage simply establishes a clear grouping of O advantages that might ordinarily have been categorised as transaction-type O advantages. Knowledge of institutions, whether formal or informal, does, after all, reduce the coordination costs, shirking costs and other transaction costs. In a sense, therefore, introducing new sub-categories provides theoretical order (and intellectual satisfaction), but does not help improve its

applicability. It allows the formal integration of new institutional economics within the eclectic paradigm. O<sub>i</sub> advantages have always been around, although perhaps not so explicitly so.

It is significant that the eclectic paradigm was initially conceived as a means to reconcile IB with mainstream economics. Although it is naturally more compatible with Schumpeterian and evolutionary economics this linkage has not been pursued actively, at least within Dunning's revisions (and indeed, doing so may have made mark IV of the eclectic paradigm more successful in reconciling with strategy). Intuitively and intellectually the basis to link them together is obvious: a large literature on the innovation activities of MNEs provides the basis to do so, and indeed a number of scholarly works have provided the raw material to create such a 'bridge'. My own experience in using the concept of O advantages from the eclectic paradigm (of whatever version) is that it misses rather important nuances about the nature of knowledge, technology and innovation which limit its efficacy for my purposes. For instance, the work pioneered by Nelson and Winter (1982), Dosi et al (1990), Freeman and Soete (1997) would seem to emphasise that capabilities cannot easily be classified in terms of asset-type and transaction-type O advantages. As an example, tacit knowledge can be embedded in organisational routines, which can be simultaneously a transaction type advantage (reducing intra-firm coordination costs), an asset-type advantage (uncodified technology that is complementary to physical plant and equipment) and an institutional-type O advantage (informal routines, which are also institutions). Similar problems of structural fit exist with the dynamic capabilities school pioneered by Teece and others (Teece et al 1986, Teece 1992, 1996). In fact, the concept of dynamic and/or evolutionary processes of learning, knowledge creation and upgrading generally fit uncomfortably with the eclectic paradigm, and this reflects the path dependency of the eclectic paradigm (and Dunning) from within a mainstream economics background, where these processes have generally always been regarded as 'black boxes', although understanding the processes that cause certain firms/industries/countries to more competitive seems rather crucial (Cantwell 2005). On another level, the current classification of O advantages limits our ability to understand and comparatively evaluate

<sup>&</sup>lt;sup>7</sup> Discussed at some length in Cantwell (1989), Pearce (1989), Narula (1996), Chesnais (1992, 1995), Kogut and Zander (1993). Hagedoorn and Narula (2001), Cantwell and Narula (2001) and a variety of former Reading School graduates and co-authors.

knowledge transfer and innovative capability, absorptive capacity, and consequently the potential for MNEs to affect industrial development. A much more useful framework developed by Lall (1992), Bell and Pavitt (1995), and refined by Figueiredo (2002) creates a typology that identifies levels of novelty and complexity of a firm's capabilities going beyond the simple classification based on R&D intensity.

#### **Conclusions and implications**

I am not unhappy with the way in which the eclectic paradigm has evolved over time. Explaining and integrating new ideas and developments is a large task, given that the social science world is a moving target. Its success in doing so thus far has largely been dependent on Dunning himself, and his dedication, breadth and experience. It is also complex -I am hesitant even now, after so many years, to claim a complete understanding of the eclectic paradigm. My personal reaction has always been to return to the use of the EP-lite when using it for an application, and the full version when commenting on conceptual issues and IB theory in general. I have argued here that it is too broad, and in expanding further it is in danger of being tautological. The eclectic paradigm has continuously been in danger of metamorphosing into a theory of the firm<sup>8</sup>, especially since its application has become broader than that of MNE activity. I have deliberately avoided using the metaphor of a 'broad church', because I do not like the insinuation that this is a faith-based thought school, but it is easy to do so, especially since there is still the idea of a 'received', official version of the eclectic paradigm. How it will evolve in the future is unclear in the absence of a gatekeeper.

The issue of a gatekeeper is an important one, if there is a wish to have a single eclectic paradigm. Such a person would need Solomon's wisdom to adjudicate fairly, Pericles' sense of purpose, Da Vinci's polymathic talents, and a Buddha's absence of ego. I respect and admire a number of my colleagues (both within and without the Reading School) but each of us comes with our own biases and research agendas defined by our own backgrounds that we wish to

<sup>&</sup>lt;sup>8</sup> Indeed Dunning (2003) compares the eclectic paradigm with 'other theories of the firm'.

promote. This commentary -for instance- clearly reveals mine. I do not believe that decision-making (and gatekeeping) can work by consensus, but at the same time I also do not believe that we should have a single gatekeeper, because we are not in a world where there can or should be revealed truths adjudicated by one person, no matter how gifted or well-published that person may be. Dominant ideas will reveal themselves through their adoption, not by the title, timbre, influence or reputation of the voice that declares them. There should be no high-priest to interpret the runes, the gizzards, or the scrolls, nor should there ever be, either here, or in any other academic discipline.

Turning now to the specific case of Mark V, and even more specifically to the O advantage theme. This shares much with Mark IV, in that the implicit aim of both is to extend itself to micro, firm-level analysis, which in my opinion, is not something the eclectic paradigm has been especially suitable for.

However, my larger concern is with the attempt to make the eclectic paradigm a one-stop shop for all things MNE-related. Such a theory must be simultaneously general enough to be an envelope, yet specific enough to meet the needs of everyone. This is an impossible task, made more difficult by the day. Dunning (2000) spoke of the paradigm as an envelope, an idea I know he believed in deeply. The great advantage of an envelope that can be readily expanded is a seductive one, but it is also a downside: such a proclivity to being all-inclusive and comprehensive in its coverage has no obvious limits, and a consequent declining utility as the list of internalised empathetic ideas becomes longer. This inevitably deprives it of its usefulness. I believe that the majority of firms behave in certain predictable ways when faced with (say) a decision to internationalise. The facts may not always line up exactly as theory would predict, and although adding longer checklists and options may reduce the uncertainty of the outcome, but it will never reduce it beyond a certain point. No matter how intricate we make the rules, a social science framework will never have the relative certainty and infallibility of a scientific law.

Firms are complex, unique and idiosyncratic, because they are economic units that comprise of people, who individually are complex, unique, idiosyncratic and path dependent. It is therefore difficult to identify a single theory of the firm, or to explain how strategic choices will play out

for specific firms, because there is no 'the' firm (Nightingale 2008). Industries and countries, by definition, are even more complex, but they have the advantage of averaging out large variations within the constitutive participants. Thus, discussions about 'average' or 'typical' behaviours works better at the meso- and macro-level, an area where the eclectic paradigm has proven most popular and successful. On a firm-level, I am a sceptic about the possibility that we are converging to a one-world, single best-practice milieu where there is an optimal 'right' way. Nonetheless, this does not mean that we live in a post-modern world where each economic unit's unique features makes general explanations futile, although I remain greatly cynical about scholarly work on strategy that focuses on a few examples (of exceptional firms) and generalising there from.

It has been my view that the difference between EP-lite and the eclectic paradigm can be likened to a coat hanger and a Swiss army-knife respectively. My own view has been that the eclectic paradigm in its simplest form - the EP-lite - is a coat hanger - an elegant and simple classic which performs a particular function well- it may be used to hang a shirt, a skirt, a trouser, providing a frame, anonymous and with no complex 'baggage' to the job at hand (Cantwell and Narula 2001). However, the full eclectic paradigm, with its five versions, is now more of a Swiss army knife. Although one can spend many an hour admiring the creativity of the inventors of the Swiss Army Knife, unless your intention is to come up with a better knife (or write a history of knives), it matters not at all how the device has evolved since 1897, or whether your own multi-purpose tool is of genuine Swiss manufacture. If your objective is to reassemble (say) the carburettor on your classic Ducati, it need only concern you that your chosen multi-purpose tool has all the appropriate attachments (unless you seek to make a knife with special carburettor related functions). But at what point are the advantage of convenience lost with growing complexity? Adding additional tools to meet new applications begins to have decreasing returns at some point, either because the toolmaker cannot expect to have the specialised knowledge to meet each market need equally well, or because the growing number of tools makes the final product unwieldy.

We can slice and dice the O, L and I into evermore fine categories, but why do so if there are diminishing returns? Some worry that — with John's demise — there is no gatekeeper to determine what is received and what is not. But the up-side will surely be that there will be a lot more eclectic paradigms about, and variety is never a bad thing!

#### References

- Bell, M. and Pavitt, K. (1995). The development of technological capabilities, in Haque, I. U. (Ed.), Trade, Technology and International Competitiveness, The World Bank: Washington.
- Benito, G. and Tomassen, S. (2003) 'The micro-mechanics of foreign operations' performance: an analysis based on the OLI framework', in J. Cantwell and R. Narula [eds] International Business and the Eclectic Paradigm: Developing the OLI framework, London: Routledge
- Cantwell, J and Narula, R. [eds] (2003) International Business and the Eclectic Paradigm: developing the OLI framework, London, Routledge.
- Cantwell, J. and Narula, R. (2001) 'The eclectic paradigm in the global economy', *International Journal of the Economics of Business*, Vol 8, pp 155-172
- Cantwell, J. (1989) Technological Innovation and Multinational Corporations, Oxford: Basil Blackwell.
- Cantwell, J. (1991) 'The Theory of Technological Competence and its Application to International Production', in McFetridge, D. (ed.), Foreign Investment, Technology and Economic Growth, Calgary: University of Calgary Press.
- Cantwell, J. (2005) "Innovation and Competitiveness", in J. Fagerberg, D. Mowery and R. Nelson (eds) Oxford Handbook of Innovation. (Oxford University Press)
- Cantwell, J. and Narula, R. (2001) 'The eclectic paradigm in the global economy', International Journal of the Economics of Business, Vol 8, pp 155-172
- Chesnais, F. (1992) National Systems of Innovation, Foreign Direct Investment and the Operations of Multinational Enterprises, in B. Lundvall (ed), <u>National Systems of Innovation: Towards a Theory of Innovation and Interactive Learning</u>, London, Pinter Publishers
- Chesnais, F. (1995) Some relationships between foreign direct investment, technology, trade and competitiveness, in J. Hagedoorn (ed.), <u>Technical change and the world economy</u>, Aldershot, Edward Elgar, pp. 6-33.
- Devinney, T., D. Midgley, and Venaik, S. (2003) managerial beliefs market contestability and dominant strategic orientation in the eclectic paradigm, in J. Cantwell and R. Narula [eds] International Business and the Eclectic Paradigm: Developing the OLI framework, London: Routledge

- Dosi, G., Pavitt, K. and Soete, L. (1990) The Economics of Technical Change and International Trade, New York: New York University Press.
- Dunning, J.H. (1977) 'Trade, location of economic activity and the MNE: A Search for an eclectic approach', in B. Ohlin, P.O. Hesselborn and P.M. Wijkman (eds), *The International Allocation of Economic Activity*, London: Macmillan.
- Dunning, J.H. (1988) Explaining International Production, London: Unwin Hyman.
- Dunning, J.H. (1993) Multinational Enterprises and the Global Economy, Wokingham: Addison Wesley
- Dunning, J.H. (1998) 'Location and the multinational enterprise: A neglected factor?', *Journal of International Business Studies*, 29: 67-83.
- Dunning, J.H. (2003) The eclectic (OLI) paradigm of international production: past, present and future, in J. Cantwell and R. Narula [eds] International Business and the Eclectic Paradigm: Developing the OLI framework, London: Routledge
- Dunning, J.H. and Lundan, S. (2008) Multinational Enterprises and the Global Economy, Edward Elgar: Cheltenham, UK, 2<sup>nd</sup> ed.
- Dunning, J.H. (2000) 'The eclectic paradigm as an envelope for economic and business theories of MNE activity', *International Business Review*, 9: 163-90.
- Eden, L. (2003) a Critical reflection and some conclusions on OLI, in J. Cantwell and R. Narula [eds] International Business and the Eclectic Paradigm: Developing the OLI framework, London: Routledge
- Figueiredo, P.N. (2002) 'Does technological learning pay off? Inter-firm differences in technological capability-accumulation and operational performance improvement', Research Policy, **31**, 73-94.
- Freeman, C. and Soete, L. (1997) The Economics of Industrial Innovation, Third Edition, Pinter.
- Hagedoorn, J. and Narula, R. (2001) 'Evolutionary Understanding of Corporate Foreign Investment Behaviour: US Foreign Direct Investment in Europe', in Narula, R. (ed.), International Trade, Investment in a Globalising World, New York: Pergamon.
- Kogut, B. and Zander, U. (1993). 'Knowledge of the firm and the evolutionary theory of the multinational corporation'. *Journal of International Business Studies*, **24**(4), 625-46.
- Lall, S. (1992) 'Technological capabilities and industrialisation'. World Development, **20**, 165-86.

- Madhok, A. and Phene, A (2003) The Co-evolutional advantage: Strategic Management Theory and the Eclectic Paradigm, in J. Cantwell and R. Narula [eds] International Business and the Eclectic Paradigm: Developing the OLI framework, London: Routledge
- Narula, R. (1996) Multinational Investment and Economic Structure (London, Routledge).
- Narula, R. (2006) Globalization, new ecologies, new zoologies, and the purported death of the eclectic paradigm, Asia Pacific Journal of Management, 23, 2006, pp. 143-151.
- Narula, R. and Zanfei, A. (2005) "Globalisation of innovation: the role of multinational enterprises", in J. Fagerberg, D. Mowery and R. Nelson (eds) Oxford Handbook of Innovation. (Oxford University Press).
- Nelson, R. and Winter, S. (1982) An Evolutionary Theory of Economic Change, Cambridge: Belknap Press.
- Nightingale, P. (2008) Meta-paradigm change and the theory of the firm, Industrial and Corporate Change, 24, pp1-51
- Pearce, R. (1989) The Internationalisation of Research and Development by Multinational Enterprises, London: Macmillan.
- Shapin, S. (2010) The Darwin Show, London Review of Books, Vol 37, pp3-9
- Tallman, S. And Chacar, (2010) Knowledge Accumulation and Dissemination in MNEs: A Practice-Based Framework, Journal of Management Studies, forthcoming.
- Teece D.J., Rumelt, R., Dosi, G. and Winter, S.G. (1994) 'Understanding Corporate Coherence: Theory and Evidence', *Journal of Economic Behavior and Organization*, vol 23, pp. 1-30.
- Teece, D.J. (1986) 'Profiting from Technological Innovation: Implications for Integration, Collaboration, Licensing and Public Policy', *Research Policy*, vol 15, pp. 285-305.
- Teece, D.J. (1992) "Competition, Cooperation and Innovation. Organizational Arrangements for Regimes of Rapid Technological Progress" *Journal of Economic Behaviour and Organization*, 18, pp.1-26
- Teece, D.J. (1996) 'Firm Organisation, Industrial Structure and Technological Innovation', *Journal of Economic Behaviour and Organisation*, vol 31, pp. 193-224.
- Tolentino, P. (2003) From a theory to a paradigm. Examining the eclectic paradigm as a framework in international economics, in J. Cantwell and R. Narula [eds] International Business and the Eclectic Paradigm: Developing the OLI framework, London: Routledge

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