



Organizing knowledge processes in the multinational corporation: an introduction

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Abstract

This Introduction discusses the contrast between, on the one hand, the current popularity of addressing MNC organization in knowledge terms and, on the other, the lack of adequate understanding of many of the causal mechanisms and contextual factors in relations between knowledge processes and organizational factors. A number of the relevant research challenges are identified, and it is clarified how the five articles in this Focused Issue addresses some of these.

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Introduction: why this focused issue?

It is a truism that scientific curiosity is evoked by *contrasts*, and that most scientific activity means solving the puzzles implied by those contrasts (Laudan, 1977). Contrast-driven puzzles take many forms. For example, they may emerge from contrasts between theories designed to explain the same phenomenon, or contrasts (clashes) between a theory and an observed phenomenon, or they may consist of ‘digging deeper,’ that is, identifying explanatory mechanisms on deeper levels, constructing micro-foundations and the like. Special issues, such as the present one, are often published in order to take stock on puzzle-solving activity, to account for how a field has progressed so far, to identify the remaining puzzles, etc.

This Focused Issue is different: it represents an attempt to define and partially answer a set of puzzles for research in the MNC that while they may occasionally have emerged in various discussions have not yet been clearly framed and have in no way been given the attention they require. It is thus an attempt to carve out a distinct research program within MNC research, although one that seeks to take existing research streams in new directions rather than entirely redefining these. The effort has been prompted by a number of those contrasts just alluded to. These relevant contrasts may be conceptualized in terms of, on the one hand, the widespread acceptance and dominance of knowledge-based approaches to the MNC¹ and, on the other, the apparent lack of a micro-foundation in much of this work, as well as an absence of an adequate understanding of many of the causal mechanisms and contextual factors that mediate between knowledge processes and administrative and other organizational arrangements.



This contrast has an *observational* dimension: we can observe managers pulling levers of organizational control in MNCs to influence processes of sourcing, combining, creating, deploying, leveraging, etc. knowledge. This leads to the *explanatory* dimension of the contrast, for our theoretical knowledge about which levers should be pulled under which conditions is scant and meager. In fact, we are pretty much in the dark about the extent to which MNC managers can pull levers of organizational control at all in order to successfully influence knowledge processes. Finally, it has a dimension that relates to *contrasts between theories*, specifically theories of the MNC. Consider this final point.

Tallman (2003) has recently drawn attention to a '...transition of the dominant conceptual model of the multinational firm from the market failure approach of internalization theory and transaction cost economics theory to the market imperfections approach of capabilities or knowledge-based theories of the firm' (Tallman, 2003, 495) that took place during the 1990s. This changed lens has arguably produced a host of new insights. A fundamental one is the conceptualization of the MNC as a knowledge-sharing network whose existence can be understood in terms of its ability to transfer, create, integrate and deploy certain kinds of knowledge more efficiently than markets are capable of (Kogut and Zander, 1993). A more specific insight concerns the importance of stickiness for knowledge transfer in MNCs and (some of) the cognitive and motivational characteristics of such stickiness (Szulanski, 1996; Gupta and Govindarajan, 2000), an insight that has come to define a whole cottage industry in MNC research.

However, at least one baby was thrown out with the bathwater of 'the market failure approach of internalization theory and transaction cost economics theory', namely the concern with mechanisms of *organizational control* (broadly conceived) that characterizes these approaches.² A strong indication of this is that the main research interest in the management of MNC knowledge processes has been on cognitive aspects, such as absorptive capacity, tacitness, complexity, etc., and on how these may influence the costs of transferring, combining and deploying knowledge.

Considerably less attention has been devoted to how the delegation of authority (and decision rights more generally), the provision of incentives, the monitoring of managers and employees, etc., may impact MNC processes of sourcing, transfer-

ring, integrating and deploying knowledge. To put the matter in general terms that are perhaps reminiscent of the market failure/transaction cost approach, there is little theory-based understanding of how mechanisms of organizational control are aligned with knowledge transactions in an economizing manner. This would seem to be a serious lack in understanding, because there are many *a priori* reasons, as well as substantial anecdotal evidence, to support the argument that organizational factors affect knowledge processes as well as the relation between knowledge processes and MNC performance.

This lack of understanding of how organizational design issues relates to knowledge processes in MNCs has a theoretical, an empirical and a managerial dimension. Theoretically, little work exists on how MNC managers can best orchestrate knowledge processes by means of designing and implementing mechanisms of organizational control. This means that although some empirical work exists on the relevant issues, this work seems somewhat *ad hoc*. In the managerial dimension, MNC managers are left without much theory-based guidance when it comes to organizational design in knowledge-intensive MNCs.³

In the remainder of this introductory paper, we further briefly discuss the 'knowledge movement' in the MNC literature and its relative lack of attention to organizational mechanisms, as well as outline some of the research challenges ('Knowledge and Organization in the MNC: Research Challenges') before we finally explain how the articles in this Focused Issue take steps toward bridging the gap between knowledge and organization in the MNC ('*Bridging (Some of) the Gaps: The Articles*').

Knowledge and organization in the MNC: research challenges

Knowledge and organization in the theory of the MNC

It is to the lasting credit of the theory of the MNC that it recognized knowledge as a key factor shaping economic organization long before the mainstream economics of organization did this (e.g., Buckley and Casson, 1976; Dunning, 1977).⁴ As late as 1998 Holmström and Roberts (1998, 90), two leading mainstream organizational economists, observed that

Information and knowledge are at the heart of organizational design, because they result in contractual and

incentive problems that challenge both markets and firms ...In light of this, it is surprising that leading economic theories ...have paid almost no attention to the role of organizational knowledge.

At the time that this statement was made, organization-specific knowledge had already been a key construct in the international business field for more than a decade, complementing (Buckley and Casson, 1976; Dunning, 1977; Rugman, 1981; Caves, 1982; Hennart, 1982), and later challenging (Kogut and Zander, 1993) the 'leading economic theories' in that field. The idea that economic organization – specifically, the comparative contracting issue of whether to export, license or establish foreign operations – may be influenced by the characteristics of firm-specific knowledge assets had been around much longer (Hymer, 1960; Vernon, 1966).⁵

Thus, the impression is easily gained that the theory of the MNC enjoys significant lead-time with respect to understanding how knowledge and economic organization connects relative to the more generic economic theories of the firm. This is perhaps not so surprising, because the issue of coordinating knowledge processes may be more pressing in the full-blown MNC than in firms that have more of a national orientation. However, a general problem is that thinking about how to govern knowledge transactions inside firms is not a very advanced field. In economics, as well as in the strategy field, theories of the firm are either fully concerned with knowledge issues to the neglect of organizational issues (i.e., the 'knowledge-based view of the firm') or fully concerned with organizational issues (governance, incentive, etc.), but suppress knowledge issues (i.e., organizational economics).

The theory MNC does slightly better. In particular, the recent emphasis in the differentiated MNC literature on orchestrating knowledge flows between MNC units has brought some – although largely empirically based – insight into the organizational requirements of knowledge transfer. Thus, the most comprehensive study published on this topic, Gupta and Govindarajan (2000), observed that the knowledge inflows into a subsidiary are positively associated with the richness of transmission channels, motivation to acquire knowledge, and capacity to absorb incoming knowledge. Minbaeva *et al.* (2003) found that use of HRM-practices as training, performance appraisal, promotion, compensation and communication have a positive impact on the transfer of knowledge.

The upshot is that important parts of the MNC literature are indeed concerned with knowledge flows between MNC units and often explicitly considers the role of organizational mechanisms in the process of knowledge transfer. However, even this literature is still in the early stages of understanding the central aspects, mechanisms, and contextual factors in the process of managing knowledge in MNCs.

Problems and research challenges

In the following, we briefly outline on an abstract level some of the – rather closely related – research challenges that face research in how MNCs may influence knowledge processes by organizational means.

The MNC as a knowledge-based entity

It has become almost axiomatic that knowledge and learning are at the root of understanding how competitive advantage is gained and sustained. The 'knowledge-based view' of the firm encapsulates this position (e.g., Kogut and Zander, 1992; Grant, 1996) and an explicitly knowledge-based view has been adopted in much recent MNC research (e.g., Martin and Salomon, 2003). While there are reasons to be sympathetic to the knowledge-based conceptualization, it is also hard to dispute that the view appears to be rather incomplete in the basic conceptual dimension. In particular, very little research has been devoted to systematically understanding and theoretically framing the ways in which heterogeneous knowledge elements may be stratified, distributed, partly overlapping, complementary or, in other words, *structured* inside MNCs (see Lyles and Schwenk, 1992; Foss and Pedersen, 2003).

An indication of this is that most recent research on the differentiated MNC has given much more attention to understanding knowledge *flows* between MNC subsidiaries than understanding the stratification of knowledge *stocks* across the MNC. While the examination of MNC knowledge flows is an important undertaking, the existing neglect of the MNC stratification of knowledge stocks is not satisfactory, for flows emerge from stocks and flows change stocks.⁶ Moreover, costs of transfer arise because firms control heterogeneous knowledge elements that they wish to somehow integrate with other knowledge elements or at least deploy in different contexts. In other words, the costs and benefits of knowledge transfer (and integration, deployment,



creation, etc.) can only be systematically comprehended through an explicit understanding of how heterogeneous knowledge elements are dispersed across an MNC. However, the field seems far from a consistent understanding of what it means that the MNC is a knowledge-based entity. Some of the research challenges implied by these observations are:

- What is the unit of analysis in a knowledge-based approach to the MNC? Subsidiary-level capabilities? Lower-level routines? What about patents and other IPRs?
- What are the dimensions of the knowledge units other than tacitness that helps us to understand the costs of knowledge transfer?
- What are the dimensions of the knowledge units that help us to understand the benefits of integrating knowledge? Complementarities? If so, which kinds of complementarities are relevant?

Absence of micro-foundations

Like the knowledge-based literature in general, research on knowledge in MNCs often work with notions such as 'capabilities', 'knowledge assets', 'knowledge processes', etc. These are aggregate concepts. Such concepts are, of course, not illegitimate *per se*, but it is desirable that they come equipped with a micro-foundation, that is, there is some understanding of how they are related to individual behavior. However, this is hardly the case for a notion such as firm-level 'competence.' Definitions of these terms, to the extent that they are given at all, tend to 'define' these ill-defined concepts in terms of other ill-defined concepts (e.g., defining competence in terms of 'capabilities' and 'routines'). This makes empirical work on knowledge transfer inside MNCs difficult to undertake (because operationalization is hampered). However, it also makes it hard to link knowledge processes, such as knowledge transfer, to behavior: what exactly does it mean in terms of the knowledge of individual agents to 'transfer a competence' from one MNC unit to another one? While this is a theoretical problem, it has obvious managerial implications.

More generally, because there is little disciplined attention to individual behavior in recent work on knowledge transfer in MNCs, arguments pertaining to intra-MNC knowledge transfer acquires an *ad hoc* character and, indeed, the literature seems to be

very much empirically driven. This raises challenges such as:

- How are individuals motivated to share knowledge, that is, what are the micro-foundations of knowledge-sharing within and between MNC units? Does knowledge sharing raise particular concerns about intrinsic motivation, and may the proper balances between intrinsic and extrinsic motivation be at least partly culturally determined?
- On which models of behavior should research on knowledge processes in MNCs be founded? Is the rational choice paradigm sufficient (as advocated by Buckley and Casson, 2001) or are more sociological models appropriate?

Insufficient attention to organization

An implication of the lack of proper micro-foundations is that it is unclear how knowledge processes may be influenced by mechanisms of organizational control, such as authority, the use of incentives, monitoring and the building of shared context. This is because there is rather little understanding of how these controls influence individual behavior with respect to accumulating, building, sharing and integrating knowledge. This is not to deny that many contributions to the MNC literature do recognize that the process of knowledge transfer is likely to be supported by different organizational means of control and motivation (e.g., Bartlett and Ghoshal, 1989; Gupta and Govindarajan, 1991, 1994; Buckley and Carter, 1999). However, knowledge characteristics and the transfer of knowledge itself are thus seldom consistently taken to be endogenous to organizational arrangements. This means that a host of research challenges are largely ignored. These are questions such as:

- How can incentive mechanisms be used to foster inter-subsidiary knowledge transfer? To what extent can organizational mechanisms that have been implemented to foster knowledge sharing within business units or within national firms be used to foster knowledge sharing between subsidiary units that may be placed in very different cultural spheres?
- How should decision-making authority be allocated across the MNC network if the aim is to optimize knowledge creation? Can we relate thinking on this issue to existing thinking on subsidiary mandates?

Unclear causality

A closely related and key problem in thinking about the interaction of knowledge and organization in the MNC has to do with the causal-temporal structure of managerial choice. To use the language of optimal control theory (Pontryagin *et al.*, 1962; Winter, 1987), the argument so far has been that organization variables may best be thought of as 'control variables', with knowledge-related variables partaking in the role of 'state variables'.⁷ However, it is also arguable that knowledge-related variables may be constraints on the control variables. For example, how much MNC headquarters know about a given subsidiary's normal performance may influence its possibilities of somehow rewarding the subsidiary in case it exceeds normal performance. Or some subsidiaries may control 'capabilities' that are so different from those controlled by other subsidiaries that MNC headquarters have difficulties benchmarking the subsidiaries against each other.

The tendency in the literature is clearly to take knowledge characteristics as something determining organizational arrangements. Thus, pondering the issue of what 'knowledge approaches can contribute to organizational theory,' Grandori (Grandori and Kogut, 2002, 225) recently observed that what has been added is 'a new 'contingency' factor for understanding organizational arrangements ... Knowledge complexity, differentiation and specialization, complementarity and interdependence are emerging as important contingencies affecting effective organization and governance solutions' (e.g., Kogut and Zander, 1993; Birkinshaw *et al.*, 2002; Foss and Pedersen, 2002). However, at least some of these knowledge characteristics may also be endogenous to organizational arrangements; for example, knowledge differentiation and specialization are partly endogenous to the choice of organizational structures.

Of course, the two positions are not necessarily inconsistent if understood in their proper causal-temporal context. It may very well be that what we think of as MNC 'capabilities' is a short-hand for those aspects of the existing MNC knowledge stock that both constrain and enable the MNC's shorter-run actions, including the choice of organizational mechanisms to influence knowledge flows. The problem is that the MNC literature does not provide much insight into this causal structure, partly because of the above problems of

inadequate conceptualization of the MNC as a knowledge-based entity, absence of micro-foundations and insufficient linking of knowledge and organization.

Bridging (some of) the gaps: the articles

The five articles in this Focused Issue are all occupied with the interaction between knowledge processes and organization. However, they differ substantially in a number of dimensions, such as the particular knowledge processes and organizational mechanisms that they investigate, as well as the theories that are applied and the empirical context that is chosen.

Table 1 presents some of the basic differences among the five articles. Although most of the articles focus on the transfer of knowledge, they look at different organizational mechanisms and structures, including MNCs, strategic alliances and joint ventures, and some apply the headquarter (or teacher) perspective while others make use of the subsidiary (or student) perspective. In terms of applied theories, the articles seem to mainly draw on two rather different branches of theorizing, namely organizational economics (e.g., agency theory) and perspectives that are closer to organizational behavior theory (e.g., organizational learning theory and socialization theory).

The first article, 'A Constrained Process Analysis of Knowledge Combination in Multinational Enterprises', by Peter Buckley and Martin Carter, is a purely theoretical piece that outlines a process model for knowledge combination within MNCs. Knowledge combination is seen as the process of creating value through the combination of different types of spatially separated knowledge in the MNC. The outcome of knowledge combination depends on how the process is designed in terms of allocation of decision rights, the determination of knowledge boundaries and the design of motivational measures. If not properly designed, the knowledge combination process will incur imperfections in the form of knowledge losses, decision objective losses and coordination losses. One way among many in which the authors take explicit steps towards creating a micro-foundation for thinking about organizational issues in knowledge processes is by introducing the 'initiator-entrepreneur' as the motor of the process and the agent responsible for anticipating potential gains as well as costly imperfections.

Table 1 Basic characteristics of the five articles

	<i>Knowledge processes</i>	<i>Organizational mechanism</i>	<i>Theoretical foundation</i>	<i>Sample</i>	<i>Statistical method</i>
Buckley and Carter	Knowledge creation in MNCs	<ul style="list-style-type: none"> ● Allocation of decision rights ● Coordination mechanisms ● Motivational measures 	Organizational economics		
Mudambi and Navarra	Transfer of knowledge from subsidiary to other MNC units	<ul style="list-style-type: none"> ● Decision rights determined by <i>de facto</i> power 	Agency theory and recent MNC theory	275 foreign-owned high-tech subsidiaries located in the UK	Simultaneous equation models (3SLS)
Simonin	Transfer of technological knowledge between international strategic alliance partners	<ul style="list-style-type: none"> ● Learning capacity ● Partner protectiveness ● Organizational culture 	Organizational learning theory	147 US MNCs involved in international strategic alliances	Structural equation modelling (LISREL) with group analysis
Dhanaraj <i>et al.</i>	Transfer of knowledge from a foreign parent to an IJV	<ul style="list-style-type: none"> ● Relational embeddedness (i.e., tie strength, trust and shared systems) 	Organizational learning theory and economic sociology	140 Hungarian joint ventures with foreign parents	Structural equation modelling (LISREL)
Björkman <i>et al.</i>	Transfer of knowledge from subsidiary to other MNC units	<ul style="list-style-type: none"> ● Corporate socialization mechanism ● Subsidiary objectives ● Compensation system ● Use of expatriate 	Agency theory and socialization theory	134 Western-owned subsidiaries located in Finland and China	Regression analyses

Ram Mudambi and *Pietro Navarra's* article 'Is Knowledge Power? – Knowledge Flows, Subsidiary Power and rent seeking within MNCs' takes its starting point in the literature emphasizing the increasing strategic independence of MNC subsidiaries. The strategic independence of subsidiaries gives a number of benefits to the MNC, such as tapping into local systems of innovation, integrating local competencies and introducing more dynamism into the parent MNC; however, too much subsidiary independence might be inefficient from the perspective of the MNC. This tradeoff is modeled in the following manner.

Subsidiaries are conceptualized as pursuing rent-seeking behavior within the MNC, that is, increases in subsidiary bargaining power will enable subsidiaries to appropriate rents within the MNC and

subsidiaries strive for achieving such bargaining power. A mechanism behind this is that subsidiary managers who gain bargaining power will be able to influence the distribution of MNC resources to their own advantage. Intra-MNC knowledge flows are the key source of subsidiary bargaining power. Subsidiaries that control knowledge that is vital to the rest of the MNC will be able to accumulate high levels of bargaining power. As rent seeking by subsidiaries with strong bargaining power is inefficient from the perspective of the firm, the headquarters' decision problem becomes one of increasing strategic independence in subsidiaries without provoking rent-seeking behavior. The main contribution of this article lies in the identification of the interplay between knowledge processes (subsidiary knowledge creation) and organizational

processes (subsidiary bargaining power) that foster rent-seeking behavior (i.e., the appropriation of MNC resources, including MNC knowledge).

In the study by *Bernard Simonin*, 'An Empirical Investigation of the Process of Knowledge Transfer in International Strategic Alliances', the context is the process of knowledge transfer between international strategic alliances partners. The study presents an integrated model of knowledge transfer that accounts for the concurrent effects of learning intent (i.e., organizational motivation), learning capacity, knowledge ambiguity and tacitness, and partner protectiveness. The basic structure of the model applied by Simonin on the organizational level is: Learning intent–learning capacity–knowledge transfer, which has many similarities with a fundamental model of individual learning (motivation–capacity–learning).

Organizational mechanisms enter through the learning capacity construct, which is an expression for all the organizational resources dedicated towards learning. These resources include human resources and physical assets (resource-based learning capacity), institutional routines and rules inducing commitment to a learning objective (incentive-based learning capacity), and general attitudes and beliefs towards learning (cognitive-based learning capacity). Learning capacity is related to the more well-known concept of absorptive capacity, but while much of the discussion surrounding the absorptive capacity focuses on the complexity and takes the absorptive capacity for more or less exogenous given, Simonin brings back the focus on the firm-specific levers and resources that can be manipulated (the actionable side of absorptive capacity) as the key of learning capacity. Empirically, the study points to the import roles played by somewhat 'traditional' variables such as learning intent, knowledge ambiguity and tacitness. However, more distinctly organizational mechanisms such as incentive-based learning capacity and partner protectiveness gain support as, respectively, stimulating and hindering knowledge transfer.

The context of the paper by *Charles Dhanaraj*, *Marjorie Lyles*, *Kevin Steensma* and *Laszlo Tihanyi* on 'Managing the Dynamics of tacit and Explicit Learning in international joint ventures (IJVs): The Role of Social Embeddedness and the Impact on Performance' is knowledge transfer from a foreign parent to their joint ventures located in Hungary. Drawing on organizational learning theory and economic sociology, the authors identify

the relational embeddedness between the foreign parent and IJV as a key determinant of knowledge transfer. As a construct, relational embeddedness captures the social aspects of the relationship and facilitates the transfer of knowledge since it allows for clarification (i.e., proper interpretation and feedback), and ensures the foreign parent some kind of control and motivation to transfer. Relational embeddedness consists of three dimensions: strength of ties, trust and shared values and systems, and these can be seen as organizational mechanisms that can be applied by managers in order to facilitate the knowledge transfer, since they are all outcomes of managerial action.

The study gains support for the importance of relational embeddedness; moreover, it is found that relational embeddedness has a stronger impact on transfer of tacit knowledge than on explicit knowledge transfer. All three dimensions of relational embeddedness have a positive impact on the transfer of tacit knowledge, while only shared systems have an impact on the transfer of explicit knowledge indicating that these organizational mechanisms are particularly important for tacit knowledge transfer, which typically is the more difficult type of knowledge to transfer. While other studies primarily have focused on the impact of cognitive factors (e.g., the tacitness of knowledge), the contribution of this article is the endogenous view of organizational processes where relational embeddedness is constraining the transfer of different types of knowledge (rather than the other way around).

Finally, in 'Managing Knowledge Transfer in MNCs: A Comprehensive Test of Headquarters Control Mechanisms', *Ingmar Björkman*, *Wilhelm Barner-Rasmussen* and *Li Li* explore a comprehensive model based on agency theory and socialization theory that addresses organizational mechanisms used by MNC headquarters to control the inter-unit transfer of subsidiary competences. The organizational mechanisms that they include are, on the one hand, safeguards against potential subsidiary opportunism/moral hazard applied by the headquarters (i.e., specification of performance evaluation criterion, subsidiary management compensation, and use of expatriate subsidiary managers) and, on the other, the development of shared values, objectives and beliefs across MNC units (i.e., a corporate socialization mechanism). It turns out that MNC headquarters can influence the flow of subsidiary knowledge by tailoring the criteria used to evaluate subsidiary performance and

Table 2 Examples of conceptual developments and empirical findings in the five articles

<i>Conceptual developments</i>	<i>Empirical findings</i>
<p>Conceptualization of the MNC as a knowledge-based entity <i>Buckley and Carter:</i></p> <ul style="list-style-type: none"> ● Explicit modelling of specific kinds of MNC knowledge, knowledge complementarities and knowledge combination <p><i>Mudambi and Navarra:</i></p> <ul style="list-style-type: none"> ● Subsidiary knowledge production treated as endogenously determined by the pattern of knowledge flows <p><i>Björkman et al.:</i></p> <ul style="list-style-type: none"> ● The stock of subsidiary knowledge and the scope of subsidiary activities (value chain) are related to the outflow of subsidiary knowledge 	<p><i>Mudambi and Navarra:</i></p> <ul style="list-style-type: none"> ● Inflow of knowledge from the corporation and local counterparts are positively related to subsidiary knowledge production <p><i>Björkman et al.:</i></p> <ul style="list-style-type: none"> ● The expected positive relationship is strongly confirmed for both the stock of subsidiary knowledge and the scope of subsidiary activities
<p>Steps towards creating a micro-foundation for knowledge processes <i>Buckley and Carter:</i></p> <ul style="list-style-type: none"> ● The model envisages an initiator-entrepreneur as the motor of the knowledge combination process ● Explicit modeling of individually based motivation and coordination costs <p><i>Simonin:</i></p> <ul style="list-style-type: none"> ● The model is a replication of a fundamental model of individual learning (motivation–capacity–learning) at the organizational level 	<p><i>Simonin:</i></p> <ul style="list-style-type: none"> ● The model gain support when controlled for ambiguity and tacitness of knowledge
<p>Introduction of organizational mechanism <i>Buckley and Carter:</i></p> <ul style="list-style-type: none"> ● Management <i>fiat</i> ● Allocation of decision rights ● Motivational measures <p><i>Björkman et al.:</i></p> <ul style="list-style-type: none"> ● HQ can apply safeguards (i.e., specification of performance evaluation criterion, management compensation and use of expatriate managers) and corporate socialization mechanism in order to control transfer of subsidiary knowledge <p><i>Dhanaraj et al.:</i></p> <ul style="list-style-type: none"> ● Relational embeddedness captures the social aspects of relationships and consists of tie strengths, trust and shared systems <p><i>Simonin:</i></p> <ul style="list-style-type: none"> ● Learning capacity is introduced as the actionable side of absorptive capacity and is decomposed into resource-, incentive- and cognitive-based learning capacity ● Partner protectiveness is hindering knowledge transfer ● Organizational culture has a moderating role 	<p><i>Björkman et al.:</i></p> <ul style="list-style-type: none"> ● Evaluation criteria for subsidiary performance and corporate socialization mechanism turn out to be significant drivers of subsidiary knowledge outflow <p><i>Dhanaraj et al.:</i></p> <ul style="list-style-type: none"> ● Relational embeddedness has a strong impact on the transfer of knowledge, particularly on tacit knowledge transfer <p><i>Simonin:</i></p> <ul style="list-style-type: none"> ● Incentive-based learning capacity is a significant driver of knowledge transfer, while the importance of resource- and cognitive-based are more mixed
<p>Causality between knowledge process and organizational processes <i>Mudambi and Navarra:</i></p> <ul style="list-style-type: none"> ● Knowledge processes (subsidiary knowledge production) are constraining organizational processes (subsidiary bargaining power), which again constrain rent-seeking behavior (that includes knowledge processes) <p><i>Dhanaraj et al.:</i></p> <ul style="list-style-type: none"> ● The organizational mechanism – relational embeddedness – is constraining the transfer of different types of knowledge 	<p><i>Mudambi and Navarra:</i></p> <ul style="list-style-type: none"> ● The causality knowledge output – subsidiary bargaining power – rent appropriation is supported in a simultaneous equation model based on cross-section data

implement corporate socialization mechanism (Table 2).

Conclusion

In this introduction, we have sketched an ambitious program for MNC research. In terms of the historical development of the MNC field, we applaud the strong focus on knowledge in the MNC literature of the last decade, but argue that it needs to be combined with a view of organizational mechanisms as instruments of influencing the sourcing, building, deployment and transfer of knowledge resources. In some ways, the transition from the market failure approach of the 1970s and the 1980s to the present knowledge-based view led to a Kuhnian loss of content (Kuhn, 1970). Thus, the earlier perspective had a view of the MNC as a contractual entity and a distinct governance structure (e.g., Teece, 1986). Moreover, it had clear micro-foundations, to a large extent derived from economics. And it had a clear, if somewhat crude, view of the function of various organizational mechanisms. Our argument has been that the knowledge approach to the MNC needs to be at least on par with the earlier approach in terms of conceptualization of the MNC, micro-foundations and treatment of organizational mechanisms. In line with this, we formulated a number of corresponding research challenges.

We also showed in which ways the articles that are included in this Focused Issue take steps toward meeting the challenges that we identified by suggesting micro-foundations, putting forward elements of a knowledge-based conceptualization of the MNC, pondering how organization and knowledge are related in the MNC, etc. It is noticeable that the articles are built on rather different theoretical positions, and therefore approach and answer the challenges very differently. Furthermore, the subject of organizing or governing knowledge processes is also addressed in different MNC contexts, from overall MNC organization to strategic alliances. This indicates that the issue of the organization of knowledge processes is an overarching one in MNC organization. Furthermore, it is one that probably needs to be addressed by different approaches, because of the inherent multidimensionality and complexity of the subject matter. This Focused Issue therefore only represents a first step in an immensely complicated set of issues. We are confident that future work on the MNC that addresses the governance of MNC

knowledge processes will prove not only challenging but also fruitful.

Notes

¹As signaled by the recent conferment of the 2003 Palgrave Macmillan/*Journal of International Business Studies* Decade Award to Bruce Kogut and Udo Zander for their article, *Knowledge of the Firm and the Evolutionary Theory of the Multi-National Corporation* (Kogut and Zander, 1993).

²This is not to say that the market failure approach of internalization theory and transaction cost economics theory have provided very detailed comparative treatments of issues of organizational control, but at least these issues are more clearly framed and conceptualized than in knowledge-based approaches.

³These gaps are not necessarily problems of complete neglect, and they are not absolute. The literature on the 'differentiated MNC' is, in fact, characterized by paying considerable attention to organizational mechanisms (e.g., Hedlund, 1986; Bartlett and Ghoshal, 1986, 1989; Birkinshaw, 1996; Gupta and Govindarajan, 1991, 1994, 2000; Holm and Pedersen, 2000; Foss and Pedersen, 2002, 2003). However, even in this literature the organizational dimension of MNC knowledge processes is not addressed, conceptualized and theorized in any coherent and systematic manner.

⁴It is perhaps somewhat overlooked today that the theme of MNC-specific knowledge comes prior to the advent of explicitly knowledge-based approaches to the MNC in the 1990s.

⁵The dominant knowledge-based approach to the MNC may therefore be a continuation with a different twist of existing themes in the MNC field rather than a radical theoretical discontinuity (as argued by Tallman, 2003).

⁶Cf. also Kogut and Zander's (1992) observation that much work on organizational learning (flows) has neglected organizational knowledge (stocks).

⁷Control variables are those that can be set quickly (in principle, instantaneously) at the various values within their feasible ranges, while state variables are those that change under the influence of the control variables.

⁸Forthcoming as an Introduction to a Focused Issue of *Journal of International Business Studies* on 'Organizing Knowledge Processes in the Multinational Corporation'.



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