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FDI motives redux: Exploring behavioral assumptions in international business research

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Abstract

Purpose – The issue of motivation for FDI is central to IB theory and empirical research. The most common starting point is Dunning's four motives framework (4M): market seeking, natural resource seeking, efficiency seeking and strategic asset seeking. We explore the genesis, development and application of the 4M framework and demonstrate how it has developed from an abstract typology and heuristic device unsupported by empirical evidence into a set of concrete behavioral assumptions with theoretical and methodological consequences for IB research.

Design/methodology/approach – The paper is mainly conceptual, based on relevant theoretical work on FDI motives, and partly methodological, concentrating on the importance of realism for behavioral assumptions in IB.

Findings – We demonstrate that the shift in the 4M framework from abstract typology to a set of concrete behavioral assumptions has important implications for the development of IB theory and methodology. A critical issue has largely been ignored: the role of realism in the assumptions on which theory and its empirical testing are based, and the possible consequences of unrealism in key behavioral assumptions. We show that attempts to 'fix' the problems inherent in the 4M framework will inevitably fail, and suggest ways in which it is possible to inject more realism into behavioral assumptions underlying FDI motivation.

Originality – The paper offers both theoretical and methodological insights for IB scholars interested in FDI motivation.

Key words: FDI motives, Behavioral assumptions, Realism, Microfoundations

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Close reading of leading IB journals shows that internationalization motives are rarely explicitly discussed, habitually classified according to one theory or taken as a control variable in otherwise quantitative studies. Motivations are presupposed. (van Tulder, 2015: 36-37)

It is generally acknowledged that there are four main motives for [foreign direct] investment: to seek natural resources; to seek new markets; to restructure existing foreign production through rationalization; and to seek strategically related created assets. (Narula and Dunning, 2000:150)

The discussion of motives remains important because they are indicative of the potential consequences of MNE activities (Narula and Dunning, 2010:278)

1. Introduction

It would be difficult to imagine a more fundamental question in international business (IB) than what motivates firms to engage in foreign direct investment (FDI). However, despite the abundance of evidence that different motivations may affect *inter alia* the location of foreign investment (Makino, Lau and Yeh 2002; Kang and Jiang 2012; Buckley, Chen, Clegg and Voss 2020) or spillovers to host economies (Driffield and Love 2007; Meyer and Sinani 2009; Cantwell and Smeets 2013), as the van Tulder quotation above suggests, internationalization motives are rarely explicitly discussed, and tend to be presupposed.

This in turn raises a more fundamental question: how much do we actually know about the motives for FDI decisions? Many scholars would, like Narula and Dunning (2000), immediately cite the idea of four key motivations for FDI. This dominant framework, and one that is employed in many major IB textbooks, suggests there are four fundamental motivations for FDI: market seeking FDI, natural resource seeking FDI, efficiency seeking FDI and strategic asset seeking FDI. Initially proposed (in a different form) by Behrman (1974) and developed by Dunning (1988; 1993), the four motives (4M) framework of internationalization has become ingrained in FDI motive research for IB scholars (Cui, Meyer and Hu 2014; Cuervo-Cazurra, Narula and Un 2015). These motives have been subsumed into the internalization theory approach to analysing FDI and the management of the multinational enterprise, with the implicit assumption that these rationales for FDI are likely to have consequences both for MNEs and the host economies in which they invest (Rugman 2010; Verbeke and Kano 2015).

Yet there is a deeper issue with the 4M framework which goes to the heart of how research in IB is carried out. What started simply as a descriptive typology – indeed, little more than an assertion – has become an embedded assumption, and one might argue something of an act of faith. It has also become a key element of the pedagogy of IB, with introductory classes frequently, and confidently, asserting that there are four key motivations for international production. Our contribution is to explore the

genesis, development and application of the 4M framework and demonstrate that a process of reification¹ has occurred (Smith 2002; Hay 2020) in which the 4M framework has developed from an abstract typology unsupported by empirical evidence into a set of concrete behavioral assumptions with implied theoretical consequences for MNE performance. We argue that this has had important implications for the development of IB theory and for the methodology of IB research. The evolution of 4M highlights an important issue that has largely been ignored: the role of realism in the assumptions on which theory and its empirical testing are based, and the possible consequences of unrealism in certain key assumptions.

The role of assumptions is relatively little discussed or considered within IB (Buckley and Casson 2020). We contend that the assumptions – especially behavioral assumptions – on which theory is based must not only be held up to empirical scrutiny, but require to be realistic not just to permit prediction, but to allow the underlying mechanisms of IB phenomena to be explained. Given its unique place in IB theory, this applies *a fortiori* to the 4M framework. The question of whether managers actually making FDI decisions really hold such motivations is therefore relevant to the theory and practice of IB (Buckley et al 2007).

The issue of the 4M typology has been explored previously, and to an extent challenged, by Cuervo-Cazurra and Narula (2015) and related work (e.g. Benito 2015; Cuervo-Cazurra et al 2015; van Tulder 2015). They suggest that while 4M is essentially atheoretical, it nevertheless provides a toolkit that permits its use in conjunction with other theories and frameworks, but should not be regarded as unchanging, inflexible dogma. However, this is argued as a prelude to reorganising or reclassifying aspects of the 4M framework, without consideration of the wider consequences for theory of the continued use of 4M in empirical research. By contrast, we explicitly consider the implications of the use of the 4M framework and similar typologies. We demonstrate how the 4M framework became imbued with behavioral assumptions, and thus changed from a useful, if limited, heuristic device to a less-than-useful empirical straightjacket. This has occurred because much of the literature on FDI motivation approaches 4M as if it were a guide to empirical reality rather than a conceptual typology, and therefore employs 4M in ways that lie beyond its capacity. We then show how and why the realism or otherwise of the behavioral assumptions underlying theory matters, especially as regards the difference between predictions and causal mechanisms in IB. Core assumptions, especially if they are behavioral, need to be realistic, especially if we are interested in explanation as well as simply prediction. We next consider what this means for IB theory and methodology. We demonstrate that attempts to ‘fix’ the problems inherent in the 4M framework will inevitably fail, and address how to negotiate the twin dangers inherent in research on internationalization motives: on the one hand,

¹ By reification we are referring to the process of treating something abstract as if it were material or concrete, rather than the more specific Marxist use of the word as referring to the depersonalization of the individual in the capitalist system.

realism-induced tautology; and on the other, theory which is so far removed from realism that it cannot provide explanations of real IB phenomena.

In doing so our intention is not simply to offer a critique of the 4M framework but to show how its use beyond the purpose for which it was initially intended pushed it beyond its useful limits, and that this process has an important implication for IB research. More broadly, our intention is to show that the role of behavioral assumptions has not been sufficiently considered in IB research, and that we should be much more explicit on this issue in carrying out our research.

2. The 4M framework: genesis and development

2.1. Typology, taxonomy or assumption?

As pointed out by Franco et al (2010), the issue of FDI motivations has never been regarded as a separate, specific field of study, but has developed from a range of backgrounds including international trade, international business and the more general theory of the firm. It is impossible to address the issue of FDI motivation without considering the most commonly cited set of motivations derived from Dunning (1993), which has four categories: natural resource seeking; market seeking; efficiency seeking; and strategic asset seeking (Dunning and Lundan 2008: 67). Despite the voluminous research discussing the validity, weaknesses and application of the 4M approach, there is little analysis of its origins or what its original status was or was meant to be².

Dunning (1993) and its successor (Dunning and Lundan 2008) offer no rationale for the choice of four key motivations other than an oblique reference to building on “an earlier taxonomy used by Jack Behrman”³. The original Behrman (1974: X) typology is rather different, and refers to four different ‘decision criteria’, which he lists as:

1. Production abroad to serve parent company needs – market growth, inventory needs, sales of surpluses.
2. Market penetration abroad – offensive to achieve least cost, higher earnings or risk diversification; defensive against loss of exports, reduction of import pressure, or declining domestic demand; mere *presence* to be able to take advantage of contingencies in the future.
3. Increase or maintenance of earnings – cost reduction, differentiated markets and prices, sale of management talents or know-how.
4. Acquisition of foreign products, technology facilities, or labor force.

Behrman does not regard these as exhaustive, saying there are “at least four decision criteria” (1974, p. X). There is no attempt to justify the choice of these four criteria, nor to suggest how prevalent each is:

² The key exception is a 2015 special issue of *Multinational Business Review*, discussed below.

³ From the outset there has been confusion about the origins of the 4M framework. Dunning refers to Behrman (1972) when he appears to mean Behrman (1974). More recent work compounds the misunderstanding. Cuervo-Cazurra et al (2015) repeat the (erroneous) claim that Behrman (1972) had the same set of motives as Dunning (1993). Van Tulder (2015) makes the same claim, but cites the wrong Behrman book (the one he cites was actually published in 1969 and is cited by Dunning (1993) in a totally different context). As indicated in the text, Dunning is also incorrect in describing Behrman’s classification as a taxonomy: it is a typology.

indeed, the Behrman decision criteria are not mentioned again in the remainder of his book. Like Behrman, Dunning (1993) makes no attempt to explain why there are four key motives for FDI, nor does he offer any evidence that these motivations are in any way ‘realistic’ or how important they are in terms of total FDI flows. Dunning and Lundan (2008) assert that market-seeking MNEs probably accounted for about 40% of all FDI and about 60% of FDI in developing countries and transition economies in the late 1990s, but offer no evidence for this. They also state that “[t]here are no statistical data on the significance of efficiency-seeking or strategic asset-seeking FDI by MNEs” (p.74). Also like Behrman, Dunning is explicit that the four motivations are not exhaustive, and discusses various other reasons for FDI which do not fit into the 4M framework⁴.

This begs the question of precisely what is the status and purpose of the 4M framework as originally envisaged by Dunning: specifically, is it a taxonomy or a typology – or merely an assumption? The key difference between taxonomies and typologies is that the former typically classify items on the basis of empirically observable and measurable characteristics and are exhaustive listings, while typologies base their dimensions on conceptual analysis and ideal types rather than empirical reality, and emphasise certain characteristics rather than being empirically exhaustive (Bailey, 1994). Dunning’s 4M framework, as originally formulated, is a typology rather than a taxonomy: it is non-exhaustive and entirely conceptually based with no attempt at empirical reality. Typologies have specific uses, such as creating useful heuristics and providing a systematic basis for comparison: an obvious example is the widely-used varieties of capitalism (VoC) approach (Hall and Soskice 2001). However, typologies also have severe limitations:

Their central drawbacks are categories that are neither exhaustive nor mutually exclusive, are often based on arbitrary or ad hoc criteria, are descriptive rather than explanatory or predictive, and are frequently subject to the problem of reification (Smith 2002: 381).

An example of the problems induced by these drawbacks can be seen in critiques of the VoC approach, including whether the varieties are supposed to be (Weberian) ideal types, a heuristic device or an empirically-established regularity (see for example Hay 2020; Hodgson 2016). Indeed, it is arguable that typologies, and certainly those based on ideal types, are not really testable at all. For example, Hay (2020) criticises the empirical testing of the VoC approach on precisely these grounds: a simplifying heuristic has come to be used as if it were able to tell us something about the reality of actual forms of capitalism. Understandable as it may be, this is a mistake: we must be careful not to reify or ontologise our ‘analytical convenience’ (Hay 2020: 303). As we demonstrate below, precisely this process of reification has also occurred for research on the motivation for FDI, where the 4M framework has moved from being a heuristic device to a categorisation which is imagined (or assumed)

⁴ These include escape investments, support investments and passive investments.

to reflect empirical reality. As a result, it has become a theoretical and empirical straightjacket, with significant consequences for research on FDI motivation.

2.2. Empirical research: ‘testing’ the 4M typology

How has the process of reification occurred? Specifically, how did an otherwise unsupported assertion gain such prominence as a key element of IB theory? Unquestionably this is partly because it carries the Dunning imprimatur, coupled with the fact that the 4M framework is broadly consistent with the dominant OLI paradigm⁵. But the key element of the reification process has been the way the 4M typology was subsequently used by IB empirical researchers. Despite its being a conceptual typology, much of the literature on FDI motivation is characterised by either an implicit or explicit acceptance of the 4M approach as if it were a guide to empirical reality.

There are four distinct empirical literatures which are based on the 4M approach. The first links internalization theory to the 4M approach in order to evaluate firm performance. In this setting the identification of motive is seen to be a key element of identifying firm strategy, subsequently linked to performance. The second literature uses 4M to understand the motives of firms through the actions of their overseas subsidiaries. This is discussed briefly in Meyer et al. (2020), and applied to the case of the impacts of inward investment of host locations in Driffield and Love (2007) and Driffield et al (2010). This empirical work is by definition a rather broad-brush approach to the problem, using inferences from aggregate data rather than specific knowledge about the firm. The third area concerns the analysis of location decisions, using host country measures in variables such as unit labour costs, R&D, human capital, resources or GDP to capture variation in motive. The fourth literature takes a different perspective and applies 4M to the host location, either in terms of the host location appreciating the motives for FDI and framing its value proposition accordingly, or understanding the likely impacts of inward investment on the host location (Girma et al 2019, Becker et al 2020).

Regardless of the issue being examined, empirical research involving motivation broadly tends to fall into one of two categories, one involving *ex ante* assumptions and the second involving *ex post* interpretations.⁶ In the first, it is assumed that the 4M categories are the only ones of interest *ex ante*, and data, typically from questionnaire respondents supplied only with these or similar categories, are fitted to ‘test’ the validity of the categories (Lu, Liu and Wang 2011; Zitta and Powers 2003). Table 1 shows an illustrative sample of empirical research on FDI motives going back to the 1990s. Dunning’s four FDI typologies are directly employed in some studies, and modified or extended in other studies. The four motives are exclusively employed in some studies (e.g., Kang and Jiang 2012) or partly considered in other studies (e.g., Makino, Lau and Yeh 2002). Even studies which do not directly use

⁵ See Franco et al (2010) for a detailed critique of this point.

⁶ One exception to this is Driffield and Love (2007) who develop a taxonomy based on exhaustive and mutually-exclusive categories which can be subjected to empirical testing.

the 4M typology use aspects of it in their analysis. These include *inter alia* analyses of motivations based on factor cost and R&D intensity (Driffield and Love 2007), value chain position and value-added (Moghaddam, Sethi, Weber and Wu 2014) and the optimal configuration of FSA and CSA (Hong, Lee and Makino 2019). Several of these FDI motive studies have sought to address not only the determinants of FDI motives (Zitta and Powers 2003; Cui, Meyer and Hu 2014), but also their implications such as impacts on foreign investment location choices (Makino, Lau and Yeh 2002; Kang and Jiang 2012), ownership choices (Yu, Lee and Han 2015), employment growth (Hong, Lee and Makino 2019) and knowledge spillovers (Driffield and Love 2007).

[Table 1 goes about here]

In the second category of empirical research, empirical findings of certain effects are interpreted *ex post* as providing evidence for one or more of the four motives. The latter approach is most evident in the econometric analysis of locational determinants of FDI flows, where a vector of home and host country variables such as GDP, labour costs, technology and resources, together with various indicators of distance, are typically used to model FDI flows. The fact that statistical significance is found for these terms is then interpreted as evidence of one or more of the motives (Dreher, Nunnenkamp and Vadlamannati 2013; Roberts, Thompson and Mikolajczyk 2008; Roberts and Almahmood 2009; Liu, Xu, Wang and Akamavi 2016).

Because of the limitations of typologies noted by Smith (2002) – categories that are neither exhaustive nor mutually exclusive, are often based on arbitrary or ad hoc criteria, and are descriptive rather than explanatory – neither of these empirical approaches can tell us anything conclusive about the motivation for FDI. Ultimately, we have reified our analytical convenience, as Hay (2020) warns against: we tend either to assume the existence of the 4M categories *ex ante* or to interpret results *ex post* in their image. For instance, Franco et al (2010) demonstrate that different studies have interpreted the same finding – an association between greater market size and increased FDI flows – as being evidence for market-seeking FDI, resource-seeking FDI, and efficiency or asset-seeking FDI, all with equal degrees of plausibility. This demonstrates the problems of using typologies in empirical research: such is the ambiguity of the overlapping elements of the 4M framework that it is difficult to use to generate unambiguous predictions *ex ante* or explanations *ex post*. This would be serious enough in its own right, but the use of the 4M framework as if it were a guide to reality hides a deeper issue which is more fundamental for the way in which IB research is carried out. One consequence of this process of reification of 4M is that it highlights a key issue that has largely been ignored in IB research: the need for core (behavioral) assumptions to be realistic, and the consequences for IB research if they are not.

The role of assumptions is relatively little discussed or considered within IB, in comparison with, for example, economics. The issue of FDI motivation throws this issue into perspective, because the entire basis of the importance of studying motives is the belief – or rather assumption – that motivations have some behavioral consequences: they affect the behavior of firms in predictable ways. Since the

most widely-used conceptual structure for FDI motivation is a typology which is not based on empirical reality, this poses a critical question: to what extent does it matter if the assumptions underlying theory are realistic?

3. Does it matter whether assumptions are realistic?

Discussions on whether the realism of assumptions matter invariably begin with Friedman (1953). Often taken as the manifesto of positive economics and of positivism in social sciences generally, for our purposes Friedman makes two key points. First, a theory or hypothesis cannot be judged by the realism of its assumptions. Precisely the reverse in fact:

The relevant question to ask about the "assumptions" of a theory is not whether they are descriptively "realistic," for they never are, but whether they are sufficiently good approximations for the purpose in hand. And this question can be answered only by seeing whether the theory works, which means whether it yields sufficiently accurate predictions. (Friedman, 1953, pp. 14-15).

Therefore, what matters about a theory is not the set of assumptions underlying it, but its predictive implications. Friedman cites the examples of theories of perfect competition and perfect monopoly to illustrate this argument: neither is descriptively accurate (economists do not believe in the empirical existence of perfect competition), but they are useful in providing pared-down theories which economists can use in practice. This does, of course, involve an implicit normative assumption privileging predictive accuracy over the realism of assumption (Bishop 2007, p. 264), a point discussed further below.

The second key element of Friedman (1953) is the 'as if' assumption. It does not matter, for example, that businesses do not actually set marginal revenue equal to marginal cost in order to maximise profit, or even that they do not know what their marginal revenue is. It only matters that they behave *as if* this were the case: firms which stay in business find themselves operating in this way whether consciously or not, and the hypothesis therefore produces accurate predictions and hence is a useful theory.

In contrast to the flood of debate which Friedman's essay has produced in economics, (see the various contributions in Mäki (2009) for a discussion), with a few notable exceptions mainly arising from the increasing interest in the microfoundations of strategy (Barney and Felin 2013; Foss and Pedersen 2016), a similar methodological debate has not really occurred in management research (Tsang 2006), and scarcely at all within IB⁷. But there are some supporters of Friedman's position in

⁷ One notable exception is the JIBS editorial by Thomas et al (2011). The thrust of this is that the underlying mechanisms rather than merely the constructs and predictions to which they lead are important in IB theory and research. For Thomas et al a key concern in explaining the mechanisms underlying empirical research is: "Are

management research. Essentially the same argument is made by Shugan (2007, 2009), arguing that all that matters in terms of theory are the findings it generates, not the realism or otherwise of the assumptions underlying the theory: indeed, echoing Friedman, Shugan (2007) repeats the contention that “good theory requires unrealistic assumptions” (page 458). And from a specifically IB perspective, Buckley and Casson (2020) caution against attempting to insert too much realism into the behavioral assumptions underlying internalization theory, such as rationality and profit maximizing behavior. Attempting to be realistic comes at considerable cost, they argue: it can reduce theory to tautology, compromising predictive power.

However, the contention that only predictions matter in a theory is itself contentious. Others – notably, but not restricted to, critical realists – argue that “a major function of theory is also to explain and not just to predict” (Tsang 2006 p. 1001). Here what matters are not simply the predictions induced by a certain theory, in which case we may care little about the realism of underlying assumptions, but its ability to provide ‘mechanismic explanations’ (Bunge 1997). This involves describing and (ideally) explaining the causal mechanisms underlying the phenomena concerned rather than merely theorising that certain assumed conditions lead to observed outcomes. As Tsang (2006, 2009a) and the critical realists explain, the search for mechanisms rather than merely predictions have important implications for the assumptions underlying theory: at least some assumptions – especially (core) behavioral assumptions – need to be realistic.

Mäki (2000) usefully distinguishes between core and peripheral assumptions. The former is a key element of the ‘mechanismic’ explanation afforded by a theory, while the latter represent a minor element of the causal links of a theory. For Tsang (2006) this is a crucial point:

... an unrealistic core assumption will lead to an unrealistic mechanismic explanation and thus a defective theory. Core assumptions have to be realistic. How far an assumption is realistic needs to be determined empirically (page 1002).

Nor need one come from a critical realist perspective to conclude that at least some assumptions need to be realistic. Lam (2010) disagrees with Tsang’s critical realist perspective, and reiterates that some assumptions, involving simplification or heuristics, need not always be realistic to develop sound theory. Crucially, however, Lam agrees that some kinds of assumptions do have to be realistic “...because whether they are realistic determines the viability of the basic mechanism that management researchers used to justify their predictions. These are typically ‘behavioral assumptions’ ” (page 681). Lam identifies two problems with unrealistic behavioral assumptions. The first is the issue of underlying mechanisms stressed by the critical theorists: theory based on unrealistic behavioral assumptions cannot be explanatory because the relationship that the theory purports to explain is not

the assumptions and boundaries of the theory clearly stated and justified based on logic or evidence?” (page 1077-8).

directly attributed to the mechanism implied by the assumptions. But there is a second, more general, problem: if behavioral assumptions do not correspond (within reason) to actual behavior, it becomes difficult to accurately predict real-world events from theory:

Although at times empirical evidence corroborates predictions based on unrealistic behavioral assumptions, one may wonder whether this consistency happens by chance or is merely a spurious result in data analysis, and whether the assumptions can stand the test of time in yielding other accurate predictions when more phenomena are considered. (Lam, 2020, p 682)

This suggests that core assumptions, especially if they are behavioral, need to be realistic, especially if we are interested in explanation as well as simply prediction. Unrealistic core assumptions can lead not only to faulty theorising, but also to invalid interpretations of empirical research.

Support for the examination of behavioral assumptions, and consideration of their realism, has received increasing attention from the microfoundations of strategy literature (Barney and Felin, 2013; Felin and Foss, 2005; Foss and Pedersen, 2016). In global strategy terms the microfoundations literature asserts that: “(a) the micro level (best represented by the level of individuals and their interactions) has explanatory primacy and (b) more complete explanations for global strategy require referencing the behaviors and characteristics of individual managers and actors” (Contractor et al, 2019, p.4). However, as further detailed by Contractor et al (2019), the influence of the microfoundations approach on IB and the global strategy literature has been surprisingly limited, in part because, unlike most management fields, IB analysis frequently spans many levels of analysis, from individuals up to regions, nations and institutions. There are nevertheless examples of microfoundational considerations in IB. For example, Kano and Verbeke (2019) argue that many of the major theories of IB have underlying behavioral assumptions that are rarely made explicit, concluding that “nothing makes theories clearer and more managerially relevant than articulating underlying microfoundations” (page 143). Specifically in the context of the Uppsala model, Vahlne and Johanson (2020) go further, arguing not only for closer attention to underlying behavioral assumptions, but stating that “the closer our assumptions are to reality, the better the resulting model.” (page 4). Notably, however, the microfoundations literature in IB has not directly addressed the issue of key assumptions relating to the motives for FDI. If, as Dunning and Narula (2010) state, “[t]he discussion of motives remains important because they are indicative of the potential consequences of MNE activities” (page 278), then clearly the motivations ascribed to managers undertaking MNE are a core assumption of the theory of FDI’s effects, both on the investing firms and on the economies into which investment occurs.

More, the 4M motives have now become a core *behavioral* assumption, because it is assumed that these motives affect the behavior of investing firms in non-trivial ways. In Dunning (1993) the four motivations may have been little more than a simplified descriptive typology. But as soon as researchers

imbued them with causal effects they became core behavioral assumptions underlying IB theory. For these reasons we are justified in expecting the assumed motivations for FDI to stand up to empirical scrutiny: it is not sufficient to claim that they can (or should) be unrealistic because all we care about are the predictions they invoke. If we want to understand the mechanisms that underlie the effects of FDI, the behavioral motivations for undertaking it are an issue of empirics, not merely of theory.

4. Can we (and should we) try to ‘fix’ 4M?

The 4M framework was originally developed over thirty years ago: indeed, Dunning’s original analysis was rooted in the 1950s and 1960s, and was designed to explain international production (largely in manufacturing), dominated by the United States (Dunning 1988). The world has inevitably changed since then: perhaps it is unreasonable to expect that 4M should remain immutable through time (e.g. Cuervo-Cazurra and Narula 2015), and it is natural to attempt to make an existing framework more relevant to current conditions. This is further complicated by the fact that, as Dunning (1993) acknowledged, FDI motives may have multiple objectives, combining characteristics from two or more categories, and a firm’s motives for FDI may change through time as it gains more experience of foreign markets⁸. While some empirical work has attempted to use the original 4M framework to explain a range of MNE activities far beyond international production by Western MNEs (see Table 1), another reaction to the limitations of 4M is to retain the general approach but fill the conceptual cracks with new categories which make it ‘better’ or more up to date.

Numerous attempts have been made to do this, many of them relating to the development of emerging market multinationals (EMNEs). Perhaps the best-known example is Luo and Tung (2007) who argue that EMNEs use international expansion mainly as a springboard to acquire strategic resources abroad and reduce their institutional and market constraints at home. They explicitly invoke the 4M framework and add a new motive of ‘opportunity seeking’ in addition to asset seeking, arguing that “while these two motives can apply to all MNEs regardless of their origin, EMNEs seem to have some unique property associated with asset-seeking and opportunity-seeking.” (page 487). Moghaddam et al (2014) feel that one extra category is insufficient, and prefer six categories in their EMNE typology, adding ‘global value consolidation seeking’ and ‘geopolitical influence seeking’ to the mix. Guillén and García-Canal (2009) go even further and argue that the FDI motives of EMNEs can be divided into nine separate categories, including *inter alia* home-country government curbs on business activity, investment in new markets in response to economic reforms in the home country, and following home-country customers to foreign markets. Other related attempts to update/fix 4M vary from arguing that the categories need to be refined (not replaced) because MNEs now tend to organize their activities in a more complex, fragmented and geographically dispersed manner through global

⁸ This raises the issue of the need for data on the motivations for individual investment decisions rather than being aggregated to firm level or over time. See discussion in next section.

value chains (GVCs) (Giroud and Mirza 2015), to the suggestion that a combination of EMNEs and their relatively weak positions in multinational GVCs leads to a need to further refine the ‘classic’ categories (Panapanond 2015)⁹.

But however well intentioned, refining 4M to make it ‘better’ or more complete is pointless and indeed counterproductive. Attempting to do so simultaneously removes the useful generality of a heuristic device without ever approaching either the exhaustive dimensions of an empirical taxonomy or the degree of realism that is actually required for behavioral assumptions to lead to prediction, testing and explanation of FDI phenomena. Ad hoc adjustments to an ad hoc typology do not lead to perfection. Worse, it quickly becomes apparent that refining or expanding 4M rarely performs even that function. For example, Verbeke and Kano (2015) demonstrate that Guillén and García-Canal’s (2009) supposedly ‘unique’ motives relating to EMNEs are actually all found among developed-economy multinationals as well, and that all nine motivations fit neatly into the four main foreign-expansion motivations described in the 4M framework: they are merely restatements of 4M in a slightly different guise. It is not, therefore, a matter of ‘bolting on’ other explanations to 4M, but rather requiring a restatement of what the conceptual motivations mean, and how they relate to the actual motives expressed by managers of investing firms.

Another approach is to suggest an alternative set of motives which is based not on ad hoc frameworks such as 4M, but on some underlying theory. For example, Cuervo-Cazurra et al (2015) develop a set of motives based on behavioral economics which hinges on two conditions: a) exploitation or exploration of resources; and b) the search for (good) or avoidance of (poor) environmental conditions. This results in four alternative internationalization motives: selling more (exploit/search), buying better (exploit/avoid), upgrading (explore/search), and escaping (explore/avoid). At least superficially this approach seems like a reasonable compromise, providing both some underlying theory but also a nod to realism in having motives that appear to accord with common-sense reality. However, on closer examination, the benefits of such an approach become less clear. It involves substituting one typology for another, a move which retains all the problems of typologies described above and leaves the issue of realism in underlying behavioral assumptions unanswered. For example, the ‘sell more’ motive involves exploiting the firm’s capabilities and benefitting from the favourable (e.g. scale) conditions in the host economy, while the ‘buy better’ motive involves ‘avoiding comparative disadvantage’ in the home country while exploiting the firm’s capabilities abroad. The overlap between these two categories is considerable: the main difference appears to be whether host conditions are better than those at home (sell more) or simply less bad (buy better) – a rather fine distinction. A similar issue arises with ‘upgrade’ and escape’: the former relies on accessing better conditions abroad, while the latter relies on

⁹ Franco et al (2010) go in the opposite direction, developing a typology of just three motives (resource seeking, market seeking and non-marketable asset seeking) which they argue is consistent with Dunning (1993). However, they incorrectly refer to both their categories and to 4M as taxonomies.

avoiding poorer conditions at home. It is difficult to see how these overlapping elements can generate clear predictions about firm behavior.

This is not to unduly critique the specific approach of Cuervo-Cazurra et al (2015): their attempt to incorporate explicit behavioral assumptions and inject some underlying theory into a motives framework is laudable. Rather the general point is to emphasise that any variation on the 4M typology – and even attempts to replace it with another motives typology – will ultimately founder on one of three problems: the impossibility of making 4M ‘better’ or more complete; the typology issue of having overlapping criteria which make prediction impossible; or having behavioral assumptions which are only implicit and/or are unrealistic¹⁰. ‘Fixing’ 4M is not the way forward.

5. Testing motives: Prediction versus causal mechanisms

If the dominant 4M framework cannot be made a satisfactory empirical tool, how do we carry out research on internationalization motives? We are prone to twin dangers: on one hand, the Scylla of realism-induced tautology (Buckley and Casson 2020), and on the other, the Charybdis of theory which is so far removed from realism that it cannot provide explanations of real IB phenomena. It is possible to steer a course between both dangers: but we have to decide exactly what we want to achieve – and for all the reasons discussed above it *cannot* be done using 4M or any related typology. If we are principally concerned with prediction, it makes sense to use theories that have explicit and parsimonious behavioral assumptions, such as internalization theory, which has a logic and transparency about behavioral assumptions frequently lacking in IB¹¹ (Buckley and Casson 2020). If we then want to test predictions specifically about internationalization motives, a reasonable way forward is to link recognisable IB theory containing explicit behavioral assumptions to empirically-verifiable taxonomies (*not* typologies) which have no overlapping categories. An example of this approach is Driffield and Love (2007), who test the proposition that FDI driven by different motives will have identifiably different host-country productivity effects (i.e. spillovers). They do this by developing a taxonomy derived from the OLI framework that relates FDI motivation on two key dimensions (technology- and cost-based) to its anticipated effects on host countries’ domestic productivity, and then empirically examining the spillover effects of inward FDI driven by different motives using UK data¹². This approach allows unambiguous ex-ante predictions to be tested against empirical ex-post effects without reducing theory to tautology.

¹⁰ Such is the enduring power of the 4M framework that Cuervo-Cazurra et al (2015) feel obliged to show how the elements of 4M map onto their categories: ‘sell more’ maps to market seeking; ‘buy better’ maps to resource seeking and efficiency seeking; ‘upgrade’ also maps to asset seeking, etc.

¹¹ However, Kano and Verbeke (2019) disagree with Buckley and Casson on this point.

¹² Even here the gravitational pull of 4M is apparent. Although they do not employ the Dunning’s typology in their analysis, Driffield and Love (2007) nevertheless include a footnote stating that their taxonomy is “not incompatible with other classifications of FDI” such as 4M.

However, if we are more concerned with explaining the causal mechanisms underlying the phenomena concerned, rather than merely theorising that certain assumed conditions lead to observed outcomes (prediction), a different approach may be required. Simply making behavioral assumptions explicit and developing ex-ante taxonomies may not be enough, because – as in the spillovers example given above – research of this type typically infers causal mechanisms from the outcomes the researchers observe. If we are interested in mechanistic explanations we have to bite the empirical bullet and examine how realistic are our underlying behavioral assumptions. This inevitably brings us to the role of the individual actor and decision-maker: behavioral assumptions are inevitably closely associated with human attitudes, beliefs and perceptions (Tsang 2006). Echoing the microfoundations point made earlier that more complete explanations for global strategy require referencing the behavior of individual managers and actors (Contractor et al 2019), in the case of IB research this typically means understanding the motives of the managers in firms making internationalization decisions. Crucially, this cannot just be motives from pre-selected lists as is common (e.g. Cui et al 2014), as this inevitably pre-supposes the underlying rationale for internationalization decisions to a greater or lesser extent. This suggests the value of a social anthropological approach which allows managers to explain how they made internationalization decisions without being prompted by any ex-ante classification of motives or theoretical constructs, because such data provide a useful preliminary check on the realism of behavioral assumptions (Tsang 2006). This can, in turn, be supported by direct managerial questionnaires and structured experimental research (e.g. Buckley et al 2007), which can further establish the underlying mechanistic validity of theoretical assumptions.

The value of this direct approach can be illustrated with respect to research on the assumptions underlying transaction cost analysis. Buckley and Chapman (1997) take a social anthropological approach, asking managers directly about the decision underlying whether corporate activities were carried out internally or externally, and finding no evidence of transaction-cost economizing rationales. On the same topic Love and Roper (2005) adopt an experimental approach, and test whether the outsourcing decisions of managers are consistent with the predictions derived from the transaction-cost perceptions of a panel of economists. They find little consistency between them, suggesting either that transaction-cost analysis is a poor predictor of the outsourcing decisions of firms, or that managers do apply transaction-cost analysis, but in a different way to that imagined by economists. From a Friedman (1953) perspective, this does not matter, as long as the governance structures observed in the real world are consistent with the prediction of transaction cost economics. However, if we are concerned about the mechanisms underlying the decision-making of firms, repeated falsification of the assumptions underlying transaction cost analysis does matter because “the observation [of actual governance structures] can be the outcome of natural selection instead of managerial choice proposed by transaction cost economics.... a theory with a wrong mechanism can produce accurate predictions.” (Tsang 2009b, p. 1000). And so it is with internationalization motives. Suppose we are concerned with more than merely prediction on the determinants or effects of internationalization motives. In that case, we have

to concern ourselves with the realism of the underlying behavioral assumptions because we can never be certain that an accurate prediction has not arisen by chance.

However, this does not require us to restrict ourselves solely to experimental or social anthropology studies. Fortunately for those of us more used to quantitative analysis there are now increasing numbers of relatively large-scale datasets which incorporate data on the motivation for establishing overseas subsidiaries, such as the Toyo Keizai datasets for Japanese companies (used by Hong et al 2019), Financial Times' fDi Markets and Moody's Orbis - Cross Border Investment (CBI) database, which provide detailed information on greenfield cross-border investments worldwide. Datasets such as the CBI have several advantages for research on motives. First, it contains the actual motivations ascribed to the investment by the managers of the company making the investment. Second, these are not derived from a checklist of potential motives nor made to fit any pre-existing categorisation of hypothetical FDI motives. Third, they are motivations relating to actual rather than hypothetical investments. And finally, they are the motivations of individual investment decisions, and not aggregated to the firm level.

As Lam (2010) points out, there are also disadvantages to taking a direct approach to establishing motives. Although managers may provide assertions about the rationale for decisions, they may not do so on the basis of accurate introspection but instead, provide rationalisations rather than full explanations for their actions. In the case of internationalization motives, this issue may be very real: for example, how many managers would willingly admit that the motivation for a particular foreign investment was to take advantage of the benefits of international transfer pricing and opportunities for profit shifting? Of course, the same could be said of any aspect of research involving direct evidence from managers. But this suggests that care has to be taken in the determination of motives, not that it shouldn't be done.

6. Discussion and Conclusions

The three quotations at the beginning of this article summarise the state of the art on FDI motives: motives are rarely discussed, are presupposed, and are dominated by a single typology which is assumed both to have some link to reality and to have behavioral consequences. We explore the origins and development of one of the most widely used typologies in IB theory, and illustrate the dangers of reification of a heuristic categorisation while issuing a plea for more careful use of behavioral assumptions in IB theory and praxis. Unlike the assumptions proposed in economics which are often explicit, assumptions proposed in IB are often implicit, and may be mutually inconsistent (Buckley and Casson 2020).

"There is no logical or conceptual reason for the IB community to remain bound by the artificial constraint that the MNE is driven primarily by four seeking motivations, three of which are based on exploiting existing assets and one that is angled toward exploration of assets." (Cuervo-Cazurra and Narula 2015 p11). We agree with this. But while their response to this is to develop a different typology which can be mapped onto 4M, (Cuervo-Cazurra et al 2015), ours is more fundamental: to question the

continued use of 4M, and to analyse the issue of behavioral assumptions in IB which the use of 4M raises. Dunning's 4M framework falls between a number of stools. It is neither testable nor predictive, and nor does it provide the empirical realism needed for finding causal explanations involving internationalization motives. However, in one sense we should not be overly surprised at this: various researchers, including Dunning himself, draw attention to the issue that the aggregate 4M categories are not mutually exclusive, and Dunning and Lundan (2008: 74) acknowledge that efficiency-seeking and strategic-asset seeking cannot easily be separated from resource seeking and market seeking. That is why any suggestion of 'testing' the 4M approach is meaningless: its categories are conceptual, not empirical, and since it is a typology rather than a taxonomy, its categories are inevitably not only non-exhaustive and not mutually exclusive, but unrealistic. It will inevitably fail any empirical 'test': reality will always fall through the heuristic cracks.

However, the key issue is not simply this empirical point, but the consequences which flow from it. The difficulty is that the 4M typology has become reified *as if* it were a realistic description of the motives for FDI. It has therefore suffered the same fate as Hay (2020) describes with respect to the varieties of capitalism approach – we have reified our analytical convenience, and in so doing have compromised any usefulness it once had. Many authors have (wrongly) interpreted the 4M categories as a guide to reality, or sought to use them to inform or explain how firms, which have a finite amount of investment capital, may prioritise investment decisions. The real 'problem' with 4M is not that it is useless or unrealistic, but that we ask too much of it. It was never intended to be more than a plausible typology, not a descriptively accurate representation of behavioral assumptions underlying FDI decisions. And because the issue of realism in behavioral assumptions has been inadequately considered in IB research, the implications of this process of reification have been at best misunderstood, and at worst simply ignored.

The real significance of the debate over 4M has been misunderstood and misdirected – it is not about making an existing typology of motives better or more extensive or more relevant to current conditions, but rather about the dangers of imbuing something with behavioral consequences without asking either about the assumptions underlying it, or about the realism of the underlying mechanism. More generally, we should be open and honest about the assumptions underlying our research (Buckley and Casson 2020), and in the case of behavioral assumptions, consider the role of realism underlying them. If we are solely interested in prediction, some leeway in realism is in order. But if we are serious about exploring causal mechanisms and the 'microfoundations' of IB, realism in behavioral assumptions – including the motivation for internationalization activity – becomes central.

We are not suggesting that we dismiss theory purely on the basis of the realism or unrealism of assumptions: simply that for some assumptions realism matters, and can help lead to better theory building (Tsang 2006, 2009a; Kano and Verbeke 2019; Vahlne and Johansen 2020). Clearly there is no point in simply having a plethora of stated or ad hoc motives if they cannot be categorised in some meaningful way that can inform research, policy or praxis. However, more realism in motives – or in

behavioral assumptions generally – does not necessarily mean being atheoretical or ad hoc (Cuervo-Cazurra et al 2015; van Tulder 2015). For example, in the specific case of internationalization motivation, Van Tulder (2015) is explicit that the purpose of his motives framework is to help researchers develop “more realistic descriptions of what has actually influenced companies to adopt a particular internationalization strategy.” (p. 36). In developing future conceptual frameworks, the stated motives of managers or businesses actually making the investments do seem like a reasonable place to start. There are some pointers in this direction. For example, in their reworking of the motives for internationalization, Cuervo-Cazurra et al (2015) argue that their classification (sell more, buy better, upgrade and escape) “provides predictive power for future analyses, which can analyse the conditions of the company and the country to predict the expansion of the firm *when it is not possible to obtain the motives directly from the managers of the firm*” (p 33, emphasis added). The issue of realism in behavioral assumptions, and the role of direct data on motives, is therefore clearly one that requires further debate within the IB community.

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Table 1: Illustrative list of empirical studies addressing FDI motives

Studies	Typologies of FDI motives	Sources to differentiate FDI motives	Topic of studies	Samples
Ye (1992)	Various FDI motives	Questionnaire survey	FDI motive survey	37 Chinese MNEs
Tatoglu and Glaister (1998)	Transaction-specific costs, production efficiency, market development, and quality control and financial viability	Questionnaire survey	FDI motives and their characteristics (ownership, country of origin, entry mode, size and industry)	98 European and US foreign subsidiaries in Turkey
Makino, Lau and Yeh (2002)	Market, resource (labour), Strategic asset seeking	Questionnaire survey	FDI Location	328 firms from China investing abroad
Zitta and Powers (2003)	Factor (resource) and market seeking	Questionnaire survey	Determinants of FDI motives	127 foreign companies from 18 countries investing in US
Driffield and Love (2007)	Technology sourcing/location advantages, technology sourcing, efficiency seeking and ownership advantages	Secondary data (ONS and OECD)	Productivity spillovers	Inward FDI in UK
Lu, Liu and Wang (2011)	Market and strategic asset seeking	Questionnaire survey by CASS and ACFIC	Determinants (firm, industry and institution resources) of FDI motives	632 Chinese MNEs
Kang and Jiang (2012)	Market, natural resource, efficiency and strategic asset	Secondary data (Country-level characteristics)	FDI location choices	Chinese outward FDI in 8 Asian economies
Bitzenis and Zugic (2014)	Various FDI motives	Questionnaire survey	FDI motives and their characteristics (country of origin, entry mode and size)	47 foreign investments in Serbia
Cui, Meyer and Hu (2014)	Market, efficiency and strategic asset seeking	Questionnaire survey	Determinants of FDI motives	147 Chinese firms investing abroad

Table 1: Empirical studies addressing FDI motives (Cont')

Studies	Typologies of FDI motives	Sources to differentiate FDI motives	Topic of studies	Samples
Moghaddam, Sethi, Weber and Wu (2014)	End-customer-market, natural resource, downstream and upstream knowledge, efficiency, global value consolidation and geopolitical influence seeking	Secondary data (Thompson Financial dataset)	Modifications of FDI motives	766 M&A in by emerging MNEs and 766 M&A by developed MNEs
Yu, Lee and Han (2015)	Market and resource seeking	Productivity and investment climate survey	FDI ownership choices	547 subsidiaries in Malaysia and Thailand
Verma and Brennan (2017)	Market, resource, efficiency and strategic asset seeking	Questionnaire survey	Determinants of FDI motives	3 Indian companies in Ireland
Hong, Lee and Makino (2019)	Market seeking as domestic market expansion, market seeking with domestic market decline, labour Resource, natural resource, strategic asset and other FDI seeking	Secondary data (Toyo Keizai dataset)	MNE employment at home	799 Japanese firms and their 3592 subsidiaries in 59 foreign countries
Jones, Serwicka and Wren (2020)	Market, resource and efficiency seeking	Secondary data (The Ernst and Young European Investment Monitor)	Entry mode	35,105 foreign investments in Europe