CATEGORIES OF DISTANCE [*]

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We provide depth to the concept of distance and its impact on international business by separating dimensions of the environment and their associated distances into four types: 1) those that cannot be quantified on a continuum, 2) those that can be quantified on a continuum but cannot be ranked by development, 3) those that can be quantified on a continuum, can be ranked by development, and support the operations of the firm, and 4) those that can be quantified on a continuum, can be ranked by development, and induce the firm to improve its competitiveness. This classification challenges the assumptions that distance is symmetric and always has a negative impact on the multinational company.

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INTRODUCTION

Distance between and within countries is a central topic of study for economic geographers (e.g. geographic clusters, agglomeration economies), trade economists (e.g. gravity models of trade) and international business researchers (e.g. location choice, competitive advantage). Curiously, distance has generally been considered an adversity in all of these literatures. For instance, gravity models predict that interaction between two entities (regions, countries, economies, etc.) is inversely related to distance between them. Thus, gravity models predict that countries that are distant from each other will trade less (e.g., Bergstrand, 1985), will have fewer equity flows (e.g., Portes and Rey, 2005), and will have fewer migration flows (e.g., Isard, 1960; Lucas, 2001). In a similar vein, the literature discusses co-location advantages and agglomeration economies, which result from companies locating at a short distance from each other (e.g., Krugman, 1991; Jaffe, Trajtenberg and Henderson, 1993; Saxenian, 1994; Krugman and Venables, 1995; Porter, 2000; Ottaviano, Tabuchi and Thisse, 2002; Suire and Vicente, 2009) to deal with distance challenges (e.g., Krugman, 1998; Morgan, 2004; McCann, 2005).

The concept of distance also occupies a central place in international business literature and has important implications for strategic firm decisions, such as location choice (e.g., McCann and Mudambi, 2005; Mudambi, 2007, 2008) and mode of entry (Kogut and Singh, 1988; Lin and Peng, 2003). The initial key contribution in this area was the work of Johanson and Vahlne (1977), which defined psychic distance as "the sum of factors preventing the flow of information from and to the market" (pg. 24). This concept generated a series of studies analyzing distance and its impact on the multinational company (MNC) (e.g., Kogut and Singh, 1988; Barkema, Bell and Pennings, 1996; Ghemawat, 2001; Nachum, Zaheer and Gross, 2008). However, studies of location and distance need further development (Dunning, 1998; McCann and Mudambi, 2005). In particular, studies of distance make three simplifying assumptions. First, they assume that distance can be measured and compared across different pairs of countries. Second, they assume that distance is directionless, or symmetric. That is, the distance between two countries is the same, whether you move from Country A to Country B or from Country B to Country A. Therefore, firms from either country moving into the other would both face equal cultural, geographic and economic challenges. Third, studies view distance as having an adverse effect on firms' operations: the greater the distance between home and host country, the greater the difficulties the firm faces.

In this paper we go deeper into the analysis of the concept and challenge these assumptions. We do so by classifying dimensions of the environment of the firm and the associated distances between countries based on the three criteria of quantity and quality, which are loosely based on Aristotle's categories. Specifically, we ask whether they can be *quantified* on a continuum; if they are continuous, whether countries can be ranked on them relative to each other in terms of development, implying the *quality* of development; and if so, whether the dimension of the environment on which distance is measured supports a firm's operations or forces the firm to become more competitive, indicating another *qualitative* difference between dimensions. The resulting four types of distances reveal that for some types of distance the direction of movement makes a difference in the impact on the firm. Furthermore, for some dimensions of distance the firm may even achieve an advantage when moving to a more distant country.

This categorization of distance into four types contributes to the literature in several ways. First, we refine the concept of distance and its impact on MNCs. We challenge the assumptions of quantification, symmetry and adversity and explain how not all types of distance have a negative impact on the firm, how the direction of movement matters for other types and how some types do not allow comparison of countries. More importantly, the proposed classification has predictive power and can accommodate multiple dimensions of the environment, going beyond most studies that have focused on individual dimensions. Second, the view of distance presented here provides depth to the analyses of the selection of countries to enter (e.g., Johanson and Vahlne, 1977; Woodward and Rolfe, 1993; Xu and Shenkar, 2002; Ojala and Tyrvainen, 2007). Separating distances into four types not only alters the attractiveness of countries, but also alters the ability of the firm to evaluate such attractiveness. Third, the view provides depth to the studies of competition among firms from different home countries in the same host country (e.g., Cuervo-Cazurra and Genc, 2008; Rangan and Drummond, 2004). The classification of

distances we propose challenges the notion that firms coming from a particular home country will always be at an advantage over firms from another home country.

The rest of the paper is organized as follows. We first discuss in more detail the concept of distance, briefly reviewing studies in international business that have used the concept and the underlying assumptions these studies make. We then discuss our categorization scheme and explain the four categories of distance we propose, providing examples for each category. After this we provide a discussion of the implications of our categories of distance for international business research. We conclude with the contributions of our paper to the literature.

DISTANCE IN THE INTERNATIONAL BUSINESS LITERATURE

In international business, distance has been hypothesized to affect country selection, market entry timing and mode of entry, all of which are crucial strategic decisions for the MNC. One of the earliest studies that dealt with the notion of distance explicitly in international business is that of Jan Johanson and Jan-Erik Vahlne of the "Uppsala School", who were interested in explaining the process of internationalization. These authors conceptualized distance as "psychic distance", defined as "the sum of factors *preventing* the flow of information from and to the market. Examples are differences in language, education, business practices, culture, and industrial development." (Johanson and Vahlne, 1977: 24, emphasis added).

Although this definition of psychic distance is quite broad, most subsequent studies narrowed it and conceptualized or measured psychic distance as merely cultural distance (see reviews in Shenkar, 2001, and in Tihanyi, Griffith and Russell, 2005). While some of these studies found evidence that firms tended to go to culturally similar countries (e.g. Bilkey and Tesar, 1977), others found that cultural distance did not have a significant role in explaining market entry (e.g., Benito and Gripsrud, 1992), and yet others find a positive relationship between psychic distance and organizational performance (Evans and Mavondo, 2002). In a meta-analysis of the literature, Tihanyi et al (2005) report that results fail to provide evidence of a significant relationship between cultural distance and market entry mode, international diversification, or performance. Regardless of their empirical results, such studies have either conceptualized distance as an obstacle or tested the hypothesis that distance would be harmful to the firm. In general, they do not posit a positive relationship between distance and performance or market entry.

Other studies have measured distance differently or focused on different dimensions of distance. For example, Nachum, Zaheer and Gross (2008) measure distances of potential host countries from large markets, knowledge centers and from extractive resource centers, constructing a proximity index for each potential host country. However, the basic idea remains the same: the attractiveness of a host country is inversely related to its distance from markets, knowledge centers and resource centers.

Recent studies have returned to the original broad definition of psychic distance and proposed various dimensions on which distance can be measured. For instance, Ghemawat (2001) proposed that differences between countries can be grouped into four categories (cultural, administrative, geographic and economic) and examined these to identify the true attractiveness of host countries. These dimensions correspond roughly to four social science disciplines: sociology (culture), political science (administrative), geography and economics. Others also developed broad measures of psychic distance and applied them to exporter behavior, finding a strong negative correlation between psychic distance and selection of export markets (Brewer, 2007).

Studies of distance in international business vary in their conceptualization, measurement and findings, but they tend to make three assumptions, which we challenge in this paper: distance is an obstacle, distance is symmetric, and different types of distance have a similar impact on the firm. First, studies largely assume that distance between countries is an obstacle – to market entry, to serving a market profitably and to performance, even though empirical results do not fully confirm this view (e.g., Tihanyi et al., 2005; Brewer, 2007). This negative view of distance as an impediment is implicit in the very definition of psychic distance provided by Johanson and Vahlne (1977) and dominates the literature in international business. Even popular works such as Friedman (2005), which argues that the world is

flat, is a confirmation of the difficulties that distance poses, and how the 'death of distance' (Cairncross, 1997) facilitates trade and development globally, although this idea has been challenged (e.g., Morgan, 2004; Ghemawat, 2003a; 2007). Second, studies of distance assume that distance is symmetric or directionless. This is implicit in the concept of geographic distance, where the spatial distance does not have a direction. As a result, studies tend to view movement from Country A to Country B as equally challenging as moving from Country B to Country A. Third, alternative classifications of dimensions of the environment tend to assume a similar impact on the firm across dimensions. Thus, although a comprehensive view of distances offer a more complete picture in evaluating attractiveness of countries, focusing on identifying more dimensions of distance hides the larger issue of figuring out when distance has adverse impacts, is symmetric between countries or is comparable across countries. Categorizing distance based on disciplines or how well they adhere to a given definition does not address these issues.

In summary, the extant literature on distance in international business makes some simplifying assumptions .It argues that (1) distance between countries can be quantified, (2) these measurements can be compared across country pairs, and (3) what matters is the relative distance: the bigger the distance, the bigger the problems companies will face. Furthermore, literature has focused on identifying more dimensions of the environment so that a fine-grained analysis can be conducted. However, as we mention above, these arguments are not always warranted, and the existing classification schemes are silent about when these arguments would hold and when they would not.

CATEGORIZING DIMENSIONS OF THE ENVIRONMENT AND THEIR ASSOCIATED DISTANCES

In this paper we go deeper into the analysis of the concept of distance. We mentioned above that different classifications of the environment share the same assumptions, although some are more comprehensive than others. Thus, rather than list the multiple dimensions of the environment that can be used to measure distances between countries and explain how these distances could result in an advantage or disadvantage for the MNC, we propose to classify dimensions of the environment based on certain criteria and discuss how the resulting four types of distances between home and host country impact MNC decisions. Specifically, we categorize dimensions based on the following three criteria: whether they can be quantified on a continuum, whether they possess a reference point such as level of development so that movement is directional, and whether they support the operations of the firm or force it to be more competitive.

These three criteria are based on the concepts of quantity and quality, which draw loosely on Aristotle's categories. Categories can be thought of as a complete list of highest kinds (genera) that would be sufficient to describe everything there is (Thomasson, 2009). Aristotle described ten highest order categories that can be used to uniquely describe things: substance, quantity, relation, quality, place, time, position, state, action and affection (Ross, 1928). Although Aristotle identified ten categories, the first one is a special category that defines what a substance is. All other categories describe things that are inherent in substances, i.e., things that do not exist independent of substances. In simple terms, the first category asks the question "what is it?", whereas other categories ask "what it has". An example can illuminate things. When we ask "What is Socrates?" we can answer "Socrates is a man". Man, therefore is a substance (a universal substance, of which Socrates is a particular). But when we say "Socrates is white" we mean "Socrates *has* whiteness". Whiteness is a quality that Socrates has, something that does not exist independent of him. Similarly, since our focus is on characteristics of distance that distinguishes different distances from each other (much like characteristics that distinguish one man from another), we focus on the 'has' (Code, 1983; Cohen, 2008).

Out of the remaining nine categories, Aristotle devotes much of his attention to the first three – quantity, quality and relation (Studtmann, 2007; Jansen, 2007). Quantity means "how much". In Aristotle's view, quantity can be either discrete or continuous. Quality refers to characteristics that define the nature of something (e.g. a white horse). Relation establishes the nature of something by reference to something else. For example, the phrase less developed begs the question: less developed than what? We loosely adapt the first two of these three categories and explore how they can be used to distinguish

among different types of distances. We do not use the category of relation in our paper, because we are particularly interested in different qualities of dimensions. Furthermore, it is not possible to make comparisons between dimensions such as greater than or similar to; such comparisons do not make sense in our context. We should also note that there is no consensus among philosophers about which categories should be used or why, how many categories there should be, or whether building a complete list of categories is even possible (Thomasson, 2009). Nonetheless, the categories of quantity and quality provide a useful starting point to classify distances.

We base our criteria on Aristotle's categories because his discussion of categories are aimed at developing a systematic classification scheme that would describe any entities found in nature. Aristotle's classification therefore does not depend on scientific disciplines, but provides a way to describe things and distinguish between them. Hence, it provides a useful starting point. Second, in Aristotle's view, categories are necessary to build statements which can either be true or false. For instance, the statement "Socrates is a wise man" consists of a subject (Socrates, also a substance) and a predicate (a wise man) which describes a *quality* that exists in Socrates. Therefore, the categories that we use – quantity and quality – can be used to form statements that can be tested (e.g. large distances result in disadvantages). Finally, researchers have argued that ontology, of which Aristotle's categories is a foundation, can be applied to fields such as information science in order to organize information available on the internet (Jansen, 2007, 2009; Munn and Smith, 2009). Some scholars have also examined the relation between areas of computer science (e.g. object-oriented programming) and Aristotle's categories (Rayside and Campbell, 2000; Sowe, 1999). Therefore, Aristotle's categories provide a valid framework for classifying the concept of distance.

Although the categories of quantity and quality are quite self-explanatory, it is not clear what they (especially the latter) mean in the context of environmental dimensions and distance between countries on those dimensions. What qualities distinguish between dimensions of country environments? We argue that the key concepts are resource value and scarcity (Barney, 1991). If resources the firm developed in its home country are not valuable or rare in the host country environment, or if the host country environment demands resources the firm does not possess, then distance will have a negative impact on the firm. Conversely, if resources the firm has developed become more valuable or rare in the host country or it gains access to valuable resources in the host country, distance will have a positive effect on the firm's operations. But the resources of a firm is shaped by its country environment. Some resources are provided by the environment and support firm operations (e.g. public goods) whereas others demand the firm to be more competitive and force competitiveness upgrades (Porter, 1990). These in turn depend on the level of development. Developed countries provide many public resources to their firms, but they are also more demanding of the firm. Developing countries on the other hand, provide fewer supporting resources but are also less demanding of the firm. Going in one direction therefore poses different challenges and opportunities than going in the other direction. On the other hand, for certain dimensions level of development is irrelevant – going in either direction is problematic. Therefore, we argue that the relevant criteria for distinguishing among dimensions are level of development and the nature of effect on the firm (supporting vs. demanding). We call the corresponding qualities directionality (directional vs non-directional) and supportiveness (decreased vs increased demand on the firm). Together with the quantity category, this gives us three criteria, which result in four kinds of dimensions and distances. Figure 1 shows where each type of dimension falls in terms of the categories of quantity, directionality and supportiveness. Below, we explain each criteria and the resulting kind of distance in more detail.
*** Insert Figure 1 around here ***

Criterion 1: Quantity: Dimensions of the Environment that Are Discrete

The first criterion for categorizing dimensions of the environment and the associated distance between countries is quantity. Similar to the notion of quantity as is usually understood – one vs. few vs. many – our criterion of quantity asks whether the dimension in question can be quantified and whether such quantities can be compared across countries along some sort of continuum. More simply, the

quantity criterion asks whether in comparing countries one is limited to a coarse description such as same vs. different or finer comparatives such as more vs. less are possible.

Based on this criterion, we distinguish between dimensions of the environment that cannot be quantified and placed along a continuum – dimensions that are discrete – and dimensions that are continuous. Those dimensions of the environment that are discrete result in *categorical differences* between home and host country, that is, distance between countries cannot be quantified. One cannot say that country B is greater than Country A in this dimension, or that the difference between country A and country B is greater than the difference between country A and country C. One can only say that country A is different from country B or country C. Distances that fall into this category can also be thought of as nominal scales: countries that have the same value or type are equal and all others are different, but it is not possible to ascertain the degree of difference.

For such dimensions of the environment, an MNC expanding abroad either faces a disadvantage or no disadvantage. If the firm is expanding into a host country that is different from its home country along that dimension, it would be at a disadvantage in the host country because it lacks the knowledge to deal with this dimension of the environment. If both home and host countries are of the same type along that dimension, the MNC would not be at a disadvantage because it operates in the same dimension as it did at home. However, it would not have an advantage either; it is merely operating under the same conditions as in its home country. The only advantage it would have is over MNCs whose home countries are different than the host country. Nevertheless, when comparing MNCs from two home countries that differ from the host country in that dimension, it is not possible to compare their disadvantages. The differences cannot be compared because they are discrete categories.

We consider some aspects of the legal, social and political dimensions of the environment as falling into this category. First, the legal family of a country's laws, that is whether the legal system has an English, French, Scandinavian, German or Islamic tradition underpinning its laws, is a discrete type. Not only are there large differences across legal families (such as common vs. civil law), there are large differences even across countries that are in the same legal family (La Porta, Lopez-de-Silanes, Shleifer and Vishny, 1998). Thus, a firm that moves to a country whose laws are based on a different legal family encounters a disadvantage because its understanding of the host country laws and their application is limited or because the new legal environment renders some of the MNC resources useless. Second, dimensions in the social realm such as religions and dominant ethnicity are discrete types. The firm faces a disadvantage whenever it moves into a country that is different in those dimensions. The firm may not understand the particular sensitivities of individuals and face misunderstandings that result in conflict. Although some of these social dimensions may be grouped into sets of types that are closer to each other than to others, such as Christian-based religions, such sets are still discrete categories or types. Third, dimensions in the political realm such as ties between countries in the form of historical relationships (e.g. colonial links) or current relationships (e.g. belonging to the same political association) are discrete types. The host country either has a political relationship with the home country or it does not. In the latter case, the firm would face a disadvantage compared to firms coming from countries that do have political ties to the host country, as those ties would facilitate operations of those MNCs.

Criterion 2: Quality of directionality: Dimensions of the Environment that Are Continuous But Cannot Be Ranked in Terms of Development

Dimensions that do not belong in the first category are all continuous. To distinguish further among dimensions of the environment that can be quantified and measured along a continuum, we apply the first quality criterion of directionality. What we mean by this criterion is whether distances are directionless (or symmetric) or directional (asymmetric). Dimensions on which distances are directionless do not distinguish among countries other than how 'far' they are from each other; the only thing that can be measured is how distant two countries are. In other words, distances are *absolute* in a mathematical sense: there is no difference between negative (going from more to less) vs. positive (going from less to more) movement on the behavior of the firm; direction of movement does not matter.

In order to determine the directionality of distance, we ask whether the dimension in question can be ranked in terms of level of development. We choose level of development as the first quality variable because a higher level of development is seen as desirable. Level of development affects everything from available factors of production to demand and supply conditions to ease of doing business in the country. As a result, it has a significant bearing on the value of firm resources when those resources are taken abroad and on whether the firm possesses resources required to compete in the host country. Therefore, level of development is a natural candidate to assess directionality: moving toward a higher level of development is different from moving away from it, even though the absolute distance traveled may be the same.

Applying this criterion yields dimensions that are continuous but cannot be ranked in terms of development. On these dimensions, it is possible to talk about degree of distance and compare distances across country pairs to establish which country is closest to or farthest from a given country. However, it is not possible to talk about directionality of distance, i.e., there is no difference between going from Country A to Country B and from Country B to Country A. That is, distance is symmetric. This is the traditional conceptualization of distance in gravity models of economics as well as in internationalization process models.

For dimensions of the environment that can be quantified along a continuum but cannot be ranked in terms of development, the MNC faces the disadvantage of operating in an environment that is different from its home country. Furthermore, the more different the home country is from the host country, the larger the challenge a company faces because it is more difficult to transfer and use knowledge developed in one country to the other country. This is the view of the impact of distance on the disadvantages a firm faces in the incremental internationalization model (Johanson and Vahlne, 1977). Under this view, what matters is the absolute magnitude of distance between home and host countries. Hence, MNCs that come from more distant countries are at a greater disadvantage than those coming from less distant countries.

We consider some geography and culture variables to be dimensions that can be quantified on a continuum, but cannot be ranked in terms of development. First, geographic distance is a dimension that is continuous but cannot be ranked in terms of development. Strictly speaking, it is not possible to talk about countries that are geographically more developed versus less developed. Countries can only be ranked in terms of their geographic distance to other countries. It is equally challenging to move in one direction or another. In this case, the firm faces added transportation, communication and coordination costs. Second, culture is another dimension that can be thought of as a continuous variable that takes higher or lower values (Hofstede, 1980; House et al., 2004), but that cannot be ranked by development. A country cannot be considered culturally more "developed" than others just because a dimension of culture takes higher values in that country. For example, it is not possible to talk about a country being more developed because it has a higher or lower power distance than another country. Therefore, a firm that expands to a host country that is culturally different from the home country would experience a disadvantage in the form of not fully understanding how to operate there, independent of whether the host country is above or below the home country in that dimension. In either case, the more distant the destination country is from the origin country, the bigger the disadvantage the MNC faces.

Criterion 3: Quality of Supportiveness: Dimensions of the Environment that Are Continuous and Can Be Ranked in Terms of Development

Although many dimensions of the environment are continuous and allow countries to be ranked in terms of their level of development, not all of them have the same impact on the firm. In order to distinguish among dimensions that can be placed on a continuum and ranked in terms of level of development, we apply the quality criterion of supportiveness. This quality criterion builds on but differs from quantity and directionality criteria. While quantity deals with continuity in distances and directionality deals with ranking in terms of level of development, quality deals with distinct properties of dimensions that are both continuous and can be ranked in terms of the level of development. The supportiveness criterion has to explain why moving from a more developed country (more developed in

the particular dimension in question) to a less developed country could result in an advantage for the firm in some dimensions, whereas the opposite is true for other dimensions.

The criterion we apply to make this distinction among dimensions is whether the dimension supports a firm's operations by providing complementary external resources, or forces the firm to become more competitive by placing greater demands on it (hence the name supportiveness for this quality) This distinction builds on the dichotomy of location-specific resources that support operations of the firm, such as a well-developed institutional environment (e.g., Fisman and Khanna, 2004; Kaufmann, Kraay and Mastruzzi, 2004; North, 1990), and location-specific resources that induce companies to be more competitive, such as sophisticated customers (Porter, 1990; Saxenian, 1994). On the one hand, researchers and practitioners alike have noted the importance of having well-developed institutions that provide adequate protection of property rights as well as efficient monitoring and enforcement of contracts in judging a country's attractiveness as a potential investment location for the MNC (Henisz, 2000). On the other hand, literature in economics and strategy has also noted how strong local forces such as sophisticated input and output markets force companies to improve their competitiveness in order to survive and prosper. We now discuss each of these two categories of dimensions in more detail.

Dimensions that Support Firm Operations. Some dimensions of the environment support a firm's operations by providing resources that help it become more efficient and competitive without the burden of having to invest in developing such resources. Many of these dimensions are what economists consider public goods provided by the government to help the country's development, such as a good public education system, high spending on basic research, a well-developed transportation infrastructure and a high-quality regulatory system.

In dimensions that fall into this category, firms suffer a disadvantage when they move from more to less developed countries, and they gain an advantage when they move in the other direction. When the firm moves to a less developed country it suffers from a disadvantage because it does not have the supporting resources it took for granted in its home country. As a result, the firm has to invest in developing those resources, which is costly and beyond its expertise. On the other hand, if the MNC moves into a more developed country in these dimensions, it achieves an advantage because it gains access to more sophisticated resources to support its operations, and does not have to invest in developing them. All of this is in contrast to the previous two categories of dimensions we have discussed, which involved either suffering a disadvantage or not (discrete dimensions), or suffering varying degrees of disadvantage (continuous dimensions that could not be ranked in terms of development).

We consider some of the legal, institutional, social and infrastructure dimensions of the environment to belong in this category. First, as part of a well-functioning legal system, the efficiency and independence of courts supports the operations of the firm by decreasing uncertainty and reducing the cost of contract writing, monitoring and enforcement. Thus, the firm can engage in relationships with others without the fear of opportunism, and is able to make long-term investments due to reduced uncertainty. Second, high-quality public goods, prudential regulations that apply equally to all, well-protected private property rights, prevailing rule of law and control of corruption are all elements of a well-developed institutional environment that support the operations of the firm in the country by facilitating its contracting and economic exchanges (Kaufmann, Kraay and Mastruzzi, 2004). Third, in the social dimension the availability of a well-educated, healthy and skilled workforce supports the operations of the firm (World Bank, 2002). With a better educated, healthier and more skilled workforce, the MNC can be more efficient because it does not have to invest in the education and healthcare of its workers. Finally, the infrastructure dimension also supports firm operations in the country because the firm relies on it to obtain and send information and physical goods (Porter, 1990). If the firm moves to a less developed country, it would face a disadvantage because it is not used to operating with poorly developed, unreliable telecommunication systems or poorly developed road networks, which would all reduce the value of its other, more firm-specific resources.

Dimensions that Induce Competitiveness Upgrades. Whereas some dimensions support the firm's operations, other dimensions induce the firm to be more competitive; that is, the firm faces higher demands in its home country that induces it to invest and upgrade its resources and capabilities. These dimensions reflect higher sophistication and standards that require companies to improve in order to operate in the home country. Such dimensions do not support the firm; i.e., they lack the quality of supportiveness. Instead, they threaten to undermine its success. As a result, the company is required to improve itself in order to maintain its position in the marketplace.

For dimensions that are continuous, can be ranked in terms of development and induce the firm to improve its competitiveness, an MNC that moves to a country that is less developed than its home country is likely to enjoy an advantage, and an MNC that moves in the opposite direction suffers from a disadvantage. In the former case, the MNC is used to facing more sophisticated and demanding conditions at home, and as a result had to improve its competitiveness. Therefore, when it moves to a country in which there are lower demands, it brings with it a level of competitiveness that is above that of most firms in the host country, thus achieving an advantage. In contrast, when the MNC moves to a country that is more developed in the dimension, the MNC is not used to the higher level of demands in the host country and cannot match the competitiveness of firms there, suffering a disadvantage.

We consider that some of the economic and political dimensions of the environment induce MNCs to improve their competitiveness. First, some economic dimensions force the firm to improve its competitiveness to be able to sell to highly demanding consumers in open competition with other firms. Thus, when the MNC moves to a country that is less developed in these dimensions, it brings capabilities that provide it with an advantage over domestic and other foreign firms that lack the capabilities to operate in a highly competitive environment. This idea explains traditional observations that foreign products coming from developed countries tend to be perceived as superior in quality by consumers (Bilkey and Nes, 1982), that developed-country MNCs have advantages in innovation and marketing over developing-country MNCs (Lall, 1983; Wells, 1983), and that developing-country MNCs need to upgrade their capabilities to satisfy more stringent technical and quality standards to compete in more developed countries (Bartlett and Ghoshal, 2000). Second, in the political arena, extensive political rights and civil liberties force the firm to develop capabilities to satisfy multiple, vocal stakeholders with competing interests (e.g., political parties, interest groups, non-governmental organizations, free press) that have the power to demand transparency and change in the firm. When the MNC moves to a country with a less developed political environment (i.e. less pluralistic, fewer civil rights), it is at an advantage because there are fewer stakeholders whose demands have to be met and it is more capable of meeting stakeholder demands because it already has experience in dealing with sophisticated stakeholders. In contrast, when the firm moves to a more developed political environment, it faces a disadvantage because it has not developed a capability to manage conflicting sets of demands from a variety of stakeholders. This idea is behind the observation that MNCs from developed countries are better in their environmental, labor, and social relations because they are used to satisfying a more demanding environment at home (Aitken, Harrison and Lipsey, 1996; Albornoz et al., 2009; Bellak, 2004; Harrison, 1994).

IMPLICATIONS FOR INTERNATIONAL BUSINESS

The categorization of distance dimensions into several types based on their characteristics has important implications for international business. We discuss the implications for two major research areas that we have been hinting at throughout the discussion: selection of countries in which to expand abroad and outcomes of competition among MNEs from different home countries competing in the same host country.

First, our framework suggests that a firm choosing among multiple host countries to enter has to compare the distances of the host countries to the home country, but will not always choose the least distant country. The traditional view has been that a more distant country would be more detrimental, and therefore the firm should select a proximate country (Johanson and Vahlne, 1977). However, under our classification of distances into four distinct types, the predictions of which country to choose differ depending on the type of distance analyzed. First, discrete distances result in a disadvantage if the firm

chooses a country that is different from its home country in that dimension of the environment. This disadvantage is not comparable across potential host countries however, as long as they are all different from the home country. Second, in dimensions that can be measured on a continuum but cannot be ranked by level of development, it is more difficult to operate in countries that are more distant. This has been the traditional prediction of the international business literature on distance (e.g., Ghemawat, 2001; Johanson and Vahlne, 1977). Third, if the dimension of the environment can be measured on a continuum, can be ranked by development and supports the operations of the firm, distance causes a disadvantage when the firm expands to countries that are less developed than its home country, but a relative advantage when it expands to countries that are more developed. Thus, the selection of the country is affected not only by distance, but by the direction of movement. Fourth, if a dimension can be measured on a continuum, can be ranked by development and forces a firm to improve its competitiveness, distance along that dimension results in a relative disadvantage when the firm expands into countries that are more developed than its home country, but a relative advantage when it enters countries that are less developed. Hence, similar to the previous case, the selection of the country is affected by the direction of movement.

In sum, the selection of the country to enter is more complex than traditionally thought. The overall impact on the firm depends on the combination of the advantages and disadvantages provided by each dimension of the environment, and the relative magnitude of such advantages and disadvantages. Thus, this framework provides a more fine-grained way of comparing countries the firm can enter. The ranking of countries will vary depending on which environmental dimensions are used to compare them. Therefore, it becomes very important for a firm to do a comprehensive analysis of the multiple dimensions of the host environment, and to understand that remoteness is sometimes a source of advantage. In this sense, our work builds on others who suggested that distance can be a source of advantage through exploiting differences (i.e., arbitrage) across countries (e.g., Kogut, 1985; Porter, 1986; Ghemawat, 2003b). However, these authors focused mostly on exploiting differences in individual value chain activities, such as labor costs, which can be quickly imitated. Our work goes beyond this by showing how home-based ownership advantages can become more valuable when the MNC competes to serve the local market in more distant countries, providing it with a sustained advantage.

Second, a set of foreign firms competing in the same host country have to consider all types of distances when evaluating the relative advantages of firms coming from different home countries. The dominant view in the literature has been that companies can be classified as those that come from developed countries and those that come from developing countries (Bartlett and Ghoshal, 2000; Ramamurti and Singh, 2009) and that each group of firms enjoy certain advantages over the other when both operate in a third country (Cuervo-Cazurra and Genc, 2008; Khanna and Palepu, 2006; Lall, 1983; Wells, 1983). However, under our classification of distances into four types, the relative advantage and disadvantage of firms coming from different home countries and operating in the same host country vary depending on the dimension analyzed. For dimensions that are discrete, firms suffer disadvantage if they come from a country that is different than the host country in that dimension, but these disadvantages cannot be compared in size. For dimensions that can be measured on a continuum but cannot be ranked by development, firms coming from more distant countries suffer a larger disadvantage than firms coming from less distant countries. For dimensions that are continuous, can be ranked by development and support a firm's operations, companies coming from less developed countries than the host country enjoy an advantage while firms coming from more developed countries than the host country face a disadvantage. Finally, for dimensions that are continuous, can be ranked by development and force the firm to improve its competitiveness, firms from less developed countries than the host country face a disadvantage while firms coming from more developed countries than the host country enjoy an advantage.

The implication of this comparison is that the classification of firms into coming from developing or developed countries and thus enjoying a particular advantage or suffering a particular disadvantage needs more careful thought: the developing vs. developed country MNC dichotomy breaks down under our view of distance, for several reasons. First, some of the dimensions of the environment cannot be ranked in terms of development. In such cases, it is not possible to classify countries as developed or

developing. Second, even for dimensions that can be ranked by development, the same country can be classified as developed in one dimension and developing in another. Third, developed and developing are relative notions, as the level of development depends not only on the characteristics of the home country, but also on the characteristics of the host country it is being compared to. The dichotomy of developed vs. developing is not absolute as most studies assume, but instead varies depending on the dimension in which countries are compared.

CONCLUSIONS

In this paper, we took a fresh look at the concept of distance that underpins many studies of international business and economic geography. The traditional view of distance assumes that it is directionless, harmful to the operations of foreign firms, and that the larger the distance, the larger the harm. In contrast, we classify dimensions of the environment into four types depending on their quantity (discrete or continuous) and quality (can or cannot be ranked by level of development; support operations or induce competitiveness improvements), and argue that for many of these dimensions, the direction of movement does matter, and that for some dimensions distance actually can provide an advantage. This classification has important implications for the selection of countries to enter and for the analysis of competition among MNCs from different countries operating in the same host country.

The arguments presented here contribute to the international business literature in several ways. First, they provide added depth to the concept of psychic distance and the impact of distance on the firm (Johanson and Vahlne, 1977; Ghemawat, 2001). Our suggested categorization scheme provides an easy way to classify dimensions and adds predictive power to the analysis of distance. Instead of listing different dimensions of the environment and explaining the likely impact of distance on the firm along each dimension, researchers can identify what category the dimension falls into and directly predict the impact of distance on the firm. Second, these ideas challenge the assumption that all distances have a similar, negative impact on the firm. Whereas this is correct for some dimensions, for others distance results in an advantage. Third, the arguments challenge the notion that distances are symmetric. Instead, we argue that in some dimensions, the direction of movement matters. Given the same distance, moving to a more vs. less developed country has different implications for the firm. Fourth, the ideas presented here challenge the comparability of disadvantage. For some dimensions of the environment, the magnitude of distance cannot be assessed; the only thing that can be said is whether the host country is or is not in the same group as the home country in that dimension. In such cases, the differences are not comparable across countries. Fifth, the arguments challenge the developed- vs. developing-country MNC dichotomy. Such separation of countries is not relevant for many dimensions of the environment, and even in those dimensions for which one can establish the separation, it is unclear that developed-country MNCs have an advantage or disadvantage over developing-country MNCs because such advantages or disadvantages depend on the dimension being analyzed and whether the home country is more developed than the host country in that dimension.

In sum, our paper provides a novel and richer conceptualization of distance, outlines the influences of distance on the firm, and discusses the main implications for two important areas of international business research. This classification can influence other areas of inquiry, where the classification can be adapted to the particular dimensions considered.

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Table 1. Comparison of different types of dimensions along the categories of quantity, directionality and supportiveness

Type of dimension	Categories		
	Quantity (discrete vs. continuous)	Quality	
		Directionality	Supportiveness
Type 1	Discrete	Non-directional	N/A
Type 2	Continuous	Non-directional	N/A
Type 3	Continuous	Directional	Non-supportive
Type 4	Continuous	Directional	Supportive