Chapter 4

The familiarity dimension of psychic distance—Or, why historical ties affect the location of foreign investment* 

4.1 Introduction

International business studies often apply the concept of psychic distance to explain foreign market selection (Dow, 2000; Ellis, 2007; Stöttinger and Schlegelmilch, 1998) or international organizational performance (Evans and Mavondo, 2002; Evans, Treadgold, and Mavondo, 2000; O’Grady and Lane, 1996). Although actual measures of psychic distance have proved problematic (Dow, 2000; Dow and Karunaratna, 2006), a common assumption implies that the psychic distance experienced toward a foreign market depends on the extent to which the foreign host country differs from the home country. Country differences, such as in culture, religion, and political systems, should disturb the flow of information from the foreign market to the firm, which limits a firm’s ability to learn about such markets (Johanson and Vahlne, 1990; Johanson and Wiedersheim-Paul, 1975). All else being equal then, firms can be expected to favour foreign markets in countries that are more similar to their home country.

Despite significant progress in operationalizing various psychic distance stimuli (Brewer, 2007; Dow and Karunaratna, 2006), the predominant focus on country differences and actual knowledge may overlook an important dimension of psychic distance. In particular, we argue that what determines the perception of psychic distance, and subsequently foreign market selection, is not merely the degree of similarity between the home and the foreign country but also the extent to which a foreign market environment is perceived as familiar. The familiarity argument

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developed in this chapter builds on the idea that the perceived understanding of foreign markets depends not only on actual knowledge and market information (cf. Brewer, 2007; Johanson and Wiedersheim-Paul, 1975) but also on the unsubstantiated beliefs, assumptions, and generalizations that are held to be true regarding the nature of a foreign market environment and the wider institutional context. As a result, foreign markets may be perceived as psychologically close despite a lack of actual knowledge, or despite actual differences between countries.

We explore the validity of this argument by examining the extent to which both country differences and historical ties—a variable we associate with the perception of familiarity—affect the location of foreign direct investment (FDI) originating from the United Kingdom, France, the Netherlands, and Germany between 1984 and 2003. Historical ties, common language, and the level of industrial development all significantly affect the location of foreign investment, but we find no consistent support for the idea that firms favour investments in countries that are more similar in terms of culture, institutional environment, religion, political system, or education level.

The results thus caution against the indiscriminate use of country differences in conceptualizations and operationalizations of psychic distance. As others have argued and illustrated (e.g., Dow and Karunaratna, 2006; Evans and Mavondo, 2002), not all country similarities have equal weight as psychic distance stimuli. In addition, the results provide partial support for the argument that in addition to its relation to the similarities between the home and the host country, psychic distance relates inversely to perceptions of familiarity with a foreign country or market.

The results also require two caveats. First, the use of aggregate data prevents us from examining the effects of historical ties on the actual internationalization sequence of firms or the commitment of resources over time. Second, the historical tie variable is but one of many potential indicators of foreign market familiarity, and it correlates with another explanatory variable, common language. We nonetheless focus on historical ties, which appear in previous literature as a potential psychic distance stimulus (e.g., Brewer, 2007; Dow and Karunaratna, 2006). Despite these concerns, the results open new lines of inquiry into the psychological dynamics of decision makers involved in internationalization decisions.

The remainder of this chapter proceeds as follows: We first critically review existing literature on psychic distance. Motivated by mixed empirical support and conceptual issues, we develop the notion of familiarity as an additional dimension of psychic distance. Then, following a discussion on the use of historical ties as a country-level indicator of perceived familiarity, we discuss the research methods and analysis results. We end with a discussion of the potential implications of the familiarity construct for the psychic distance concept, as well as for internationalization process theory at large.
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4.2 Psychic distance and the location of foreign investment

The term “psychic distance,” initially coined in a study on Western European trade patterns by Beckerman (1956), entered the field of international business studies in the 1970s with the development of internationalization process theory, which predicts two distinct patterns: the development of a firm’s engagement within foreign markets and the selection of foreign markets (Johanson and Vahlne, 1990).

Within foreign markets, internationalization process theory argues that a lack of local market knowledge initially defers resource commitments. Over time, however, greater market-specific knowledge should result in a gradual increase in foreign market involvement through more committed modes of operation and larger resource commitments—a phenomenon termed the “establishment chain” (Johanson and Wiedersheim-Paul, 1975). According to O’Grady and Lane (1996), the establishment chain therefore reflects a gradual ‘learning through experience’ process within countries.

Regarding the selection of foreign markets, internationalization process theory predicts that “firms enter new markets with successively greater psychic distance,” which results from the degree of dissimilarity between markets, such as “differences in language, culture, political systems, etc.” (Johanson and Vahlne, 1990: 13). As O’Grady and Lane (1996: 310) explain, “[t]here is an implicit assumption that psychically close countries are more similar, and that similarity is easier for firms to manage than dissimilarity, thereby making it more likely that they will succeed in similar markets.” As a result, International Business literature largely assumes that country differences represent the source of psychic distance.

This emphasis on country differences, and cultural differences in particular, increased in response to the growing conception that cultural and psychic distance relate closely, as well as due to the availability of relatively straightforward measures of cultural distance. Kogut and Singh (1988), in their study of the influence of cultural distance on entry mode selection, claim that “[c]ultural distance is, in most respects, similar to the ‘psychic distance’ used by the Uppsala school” (1988: 430). Their study popularized the use of a convenient measure of cultural distance based on Hofstede’s (1980) work, which in turn facilitated the interchangeable use of cultural and psychic distance. Furthermore, in their discussion of the Uppsala model, Johanson and Vahlne (1990) explain that “[t]he internationalization model predicts, taking only psychic distance into account, that firms will start by invading ‘neighbouring’ (in the cultural sense) markets and later, as experience grows, more distant markets will be entered” (1990: 17). Here, Johanson and Vahlne explicitly link psychic distance to cultural closeness, unintentionally further obscuring the difference between the two concepts.

In response to the growing convergence between psychic and cultural distance, from the mid-1990s onward, several pleas demanded a more elaborate
operationalization of psychic distance (e.g., Evans, Treadgold, and Mavondo, 2000; Harzing, 2003; O’Grady and Lane, 1996; Stöttinger and Schlegelmilch, 1998). On the one hand, some authors suggest expanding the measure of psychic distance by including additional measures of country differences, such as differences in language (Harzing, 2003), industry structure (O’Grady and Lane, 1996), or legal and administrative approaches (Harzing, 2003). On the other hand, researchers also suggest psychic distance measures based on perceived rather than objective country differences (e.g. Dow, 2000; Evans, Treadgold, and Mavondo, 2000; Harzing, 2003; O’Grady and Lane, 1996), such as psychic distance measures based on expert panels (Dow, 2000; Ellis, 2007; Nordström, 1991), psychographic instruments (O’Grady and Lane, 1996), and large-scale questionnaires (Stöttinger and Schlegelmilch, 1998).

More recently, the presumed effects of country differences have become subjects of debate. In a critical review, Shenkar (2001) extensively discusses several conceptual illusions and methodological assumptions regarding cultural distance, and Harzing (2003) questions the explanatory power of cultural distance in FDI decisions, particularly regarding entry mode selection and performance evaluation. The presumed influence of cultural distance on FDI decisions may have been overestimated, and country-specific characteristics may hold much more power in explaining foreign investment decisions. In a similar vein, Brewer (2007) proposes extending measures of psychic distance with indicators other than country differences, such as the availability of secondary information about foreign markets or the value of foreign aid programmes.

As discussed in Chapter 1, empirical studies considering the effects of both cultural and psychic distance on market selection and expansion patterns have produced mixed results. Regarding cultural distance, Erramilli (1991) suggests that increases in firm experience abroad, measured as geographic scope, result in the selection of culturally more distant markets. Along similar lines, Grosse and Goldberg (1991) and Grosse and Trevino (1996) find that cultural distance negatively affects the direct involvement of firms in the United States, in terms of both assets and offices (Grosse and Goldberg, 1991) and FDI (Grosse and Trevino, 1996). Yet studies by Engwall and Wallenstål (1990), Benito and Gripsrud (1992), Mitra and Golder (2002), and Ellis (2007) find no support for the idea that firms gradually expand into culturally more distant countries. Rather, Mitra and Golder (2002) and Ellis (2007) suggest that firms tend to enter markets that are similar to previously entered markets rather than to the home market.

Studies on the effect of psychic distance also produce mixed results. For example, Dow (2000) finds that psychic distance, measured using a panel of experts, significantly affects the pattern of export market selection by Australian exporters. In contrast, Ellis (2007), using a similar method, finds no direct effect of psychic distance on foreign market entry. In their exploration of potential country-level psychic distance stimuli, Dow and Karunaratna (2006) find that differences in education levels
and religion in particular affect the intensity of bilateral trade in their sample. Yet Stöttinger and Schlegelmilch (1998: 367) reveal no effect of psychic distance on export development and therefore suggest that “the concept of psychic distance has ‘past [sic] its due-date’.”

**Familiarity**

The lack of consistent empirical support for the psychic distance construct may result from a misconception about what causes decision makers to perceive some countries as psychologically more distant than others. Recent studies focus on refining the concept by expanding the measurement of psychic distance in operational terms (Brewer, 2007; Dow and Karunaratna, 2006), but we contend that the psychic distance construct requires reconsideration at the conceptual level, especially with regard to the role of country differences as the sole driver of psychic distance.

Internationalization process theory employs the psychic distance construct as the cognitive link between the foreign market and the uncertainty that decision makers experience toward that market (Johanson and Vahlne, 1977). This uncertainty relates to characteristics of the foreign market environment, because country differences “disturb the flow of information between the firm and the market” (Johanson and Vahlne, 1990: 13), which hampers the development of local knowledge. Psychologically more distant countries thus should be less easy to understand, and following the logic of uncertainty reduction, firms should prefer the commitment of resources to markets that are more similar to the home country.

What remains underemphasized, however, is that psychic distance is a cognitive phenomenon, based on both knowledge and beliefs. Internationalization process theory overlooks that implicit beliefs and assumptions about the nature of a foreign market may drastically reduce the uncertainty associated with resource commitments, even when the decision maker lacks knowledge and actual differences exists between countries. In other words, the more we know or think we know about a country, the less uncertainty we experience as a result of our (presumed) lack of local knowledge.

Accordingly, the psychological distance that decision makers experience toward a foreign country may stem not only from actual knowledge or information flows but also from the perception of familiarity with a foreign market, which results from beliefs and assumptions that a decision maker holds to be true. Subjective beliefs and assumptions differ from actual knowledge; whereas “[k]nowledge is generally defined as a subset of beliefs […] beliefs do not have to be justified or true to affect decisions” (Markóczy, 1997: 1230). Thus, the perception of psychic distance should stem from the lack of both actual knowledge and subjective beliefs about a foreign market.

We find a somewhat similar argument in Beckerman (1956), who, in coining the term psychic distance, in our reading refers to the perception of familiarity with a country rather than an inhibitor of information flows. Beckerman (1956: 38) suggests
that psychic distance stems from both “the extent to which foreign sources have been personally contacted and cultivated” and the nearness of a foreign market resulting from a “psychic evaluation” by an individual. Although Beckerman briefly refers to linguistic similarities, country differences are not central in his notion of psychic distance. Rather, he alludes to the extent to which a foreign country is perceived as familiar, as a result of both personal experience and mental representations.

The familiarity argument in turn suggests that the degree of psychic distance depends not on country differences alone but on other factors that affect the knowledge decision makers have and the beliefs they hold. The question of which factors affect the representation of a particular information environment in the knowledge structure of decision makers typically appears in research on managerial and organizational cognition. For example, an extensive review of cognitive work in organizational decision making (Walsh, 1995) illustrates the complexity of understanding the origins of knowledge structures, in that factors at the individual, group, organizational, and national level all likely play a role. Direct personal experience and formal education, as well as socialization processes among the family (Gibson and Papa, 2000) and at the organizational level (Van Maanen and Schein, 1979), represent just some of the factors that shape decision makers’ knowledge structures. Furthermore, research into the determinants of national stereotypes suggests that beliefs about foreign nationals form in response to media coverage and cultural exports (Eagly and Kite, 1987). Overall, these studies indicate that perception links invariably to the cognitive structure of the observer, which in turn depends on many potential information sources. Regardless of whether decision makers perceive countries as more or less similar, their knowledge and strong beliefs about the nature of those foreign countries and markets affect their perception of familiarity, which should lower the psychological distance they experience.

The term “familiarity” is not new to the international business literature. For instance, Child, Ng, and Wong (2002: 50) expect less psychic distance between the United Kingdom and Hong Kong due to “a degree of mutual familiarity arising from the fact that Hong Kong was a British colony until 1997.” Yet little consensus indicates what familiarity actually implies, and the term is often applied without further elaboration. It has been equated with geographical proximity (Weinstein, 1977) and cultural distance (Erramilli, 1991) and associated with the liability of foreignness (Pedersen and Petersen, 2004; Zaheer, 1995), foreign market knowledge (Pedersen and Petersen, 2004), and information flows (Brewer, 2007). Both Pedersen and Petersen (2004) and Brewer (2007) associate familiarity with psychic distance, but equating familiarity—and psychic distance—with foreign market knowledge alone, as Pedersen and Petersen (2004) do, may ignore the crucial point that perceptions of familiarity stem from (unjustified) beliefs as well. And although we agree with Brewer’s (2007) assertion that measuring perceived differences alone cannot suffice
for operationalizing psychic distance, we propose widening the very notion of what constitutes psychic distance, not just the range of indicators used to measure it.

Furthermore, our argument demands differentiation between familiarity and experience. The perceived familiarity that we associate with psychic distance differs from firm experience, in that experience relates to post-entry learning about foreign markets (Johanson and Vahlne, 1977, 1990). Perceptions of familiarity instead relate to the psychic distance experienced both before and after entry. Therefore, though country-specific corporate experience may explain subsequent increases in resource commitments in a particular market (Davidson, 1980), it holds no explanatory power ex ante.

Familiarity and historical ties

Historical ties do not directly refer to country differences but nonetheless often appear associated with reduced psychic distance. Both Brewer (2007) and Dow and Karunaratna (2006) include colonial ties in their efforts to expand and improve the measures used to operationalize psychic distance, and Child, Ng, and Wong (2002) suggest the short psychic distance between Hong Kong and the United Kingdom results from their historical ties; a claim supported by Ellis (2007), whose psychic distance scores for Hong Kong places the United Kingdom between Thailand and Korea. There are subtle differences in the way historical ties have been argued to affect the perception of psychic distance. Whereas Child, Ng, and Wong (2002) and Dow and Karunaratna (2006) expect historical ties to affect perceptions of psychic distance indirectly, by engendering institutional or political and linguistic similarities, Brewer (2007) argues that they result in more detailed knowledge of these countries, which affects the perception of psychic distance directly.

Instead, we consider a historical tie a country-level psychic distance stimulus that positively affects perceptions of familiarity with a particular country by fostering more or less collectively shared beliefs about that country. The exact ways historical ties affect the knowledge structure of a population are complex. For example, postcolonial critics such as Edward Said (1978) note that colonial ties are often reflected in the national education systems and literary histories of the colonizers, which sustains particular representations of these countries in collective knowledge structures. Similarly, historical ties may foster stereotypical beliefs about foreign nationals (e.g., the Irish as excessive drinkers; Greenslade, Pearson, and Madden, 1995), which are not necessarily shared by the inhabitants of countries without such a historical tie. More direct effects of historical ties are conceivable, such as the presence of certain ethnic minorities or the incorporation of foreign dishes into the national cuisine of a country, which likely shape the mental representation of foreign nationals and foreign contexts further. In short, we argue that both directly and indirectly, historical ties evoke particular shared beliefs about the nature of a foreign country and its nationals,
which increases the extent to which a country may be perceived as familiar. Following our familiarity argument, we expect historical ties to reduce the psychological distance experienced by key decision makers and positively affect location decisions.

Will all historical ties, both positive and negative, positively affect location decisions? It can be argued that historical ties with a negative connotation deter investments due to negative sentiments, but we separate the perception of familiarity that results from a historical tie from the emotional connotation of that historical tie. That is, we assume that irrespective of the connotation, historical ties positively affect the perception of familiarity, and psychological distance therefore decreases.

We explore the validity of our argument by examining the effect of historical ties on the location of FDI.\(^1\) In line with our familiarity argument, we expect the following effect of historical ties on the location of foreign investment:

*Hypothesis:* A historical tie between the home and the host country has a positive effect on the amount of foreign direct investment from the home country dedicated to the host country.

Our familiarity argument and the country differences identified in existing literature offer alternative, and potentially complementary, explanations of what drives psychic distance. We therefore also include several measures of country differences in our empirical analysis as control variables, relying primarily on work by Johanson and Wiedersheim-Paul (1975), Johanson and Vahlne (1977, 1990), and Dow and Karunaratna (2006) to select among the many country differences available in the literature.

Specifically, we include differences in culture (Johanson and Vahlne, 1977; 1990; Johanson and Wiedersheim-Paul, 1975), institutionalized business practices (Johanson and Vahlne, 1977), and language (Johanson and Vahlne, 1977; 1990; Johanson and Wiedersheim-Paul, 1975). In addition, we include differences in education level and industrial development, as suggested by Johanson and Vahlne (1977) and Johanson and Wiedersheim-Paul (1975). Both Johanson and Vahlne (1990) and Johanson and Wiedersheim-Paul (1975) also note the potential relevance of religious and political system differences, distinguishing between ideological

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\(^1\) Although colonial ties may represent a determinant of foreign trade (Frankel and Rose, 2002; Linnemann, 1966; Rauch, 1999; Tinbergen, 1962), the potential effect of historical ties on the location of foreign investment remains largely overlooked. Studies on foreign investment that consider historical ties generally interpret them as indicators of either cultural or institutional distance, rather than as an explanatory variable. Rauch (1999) and Wei (2000), for example, combine colonial ties and common language in a composite variable to proxy for cultural distance, and Head and Ries (2005) combine historical ties and geographical distance.
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differences and differences in political freedom (Dow and Karunaratna, 2006). We therefore also control for differences in political ideology, democracy, and religion.²

4.3 Data and methods

Our empirical analysis focuses on the influence of historical ties and country similarities on the location of FDI, for which we use an adjusted gravity model. We do not seek to explain the location of foreign investment in full, nor measure or operationalize psychic distance directly. Rather, we seek to challenge the assumption that psychic distance stems solely from country differences by contrasting the effects of country similarities with that of a country-level antecedent of perceived familiarity (historical ties) on the location of foreign investment. As Dow and Karunaratna (2006) explain, the use of data pertaining to aggregate firm behaviour is appropriate when the explanatory variables are country-level measures, which involves matching the level of analysis of the dependent and independent variables.

We address the location of FDI from four source countries: the United Kingdom, France, the Netherlands, and Germany. All four source countries are major international investors. Three of the four have been major colonial powers at some point in time, and Germany maintains historical ties with a substantial number of countries within Europe. By focusing on four source countries from the EU, we control for the effects of preferential trade agreements between host countries and former colonizers. That is, the EU’s common border policy applies preferential trade agreements to both the former colonizer and the EU as a whole, which nullifies any advantages of former colonizers over other EU members.

The gravity model

The empirically most successful framework for predicting foreign trade flows is the gravity model (Anderson and Van Wincoop, 2003; Bloningen and Wang, 2004; Rauch, 1999). Gravity equations are increasingly applied to explain cross-border investments, such as FDI flows (Anderson and Van Wincoop, 2003) and FDI stock (Head and Ries, 2008; Wei, 2000). The basic prediction of the gravity model is that “the volume of trade between two countries will be directly proportional to the product of their economic masses (as measured using GDP or GNP) and inversely proportional to the distance between them” (Rauch, 1999: 10). The basic gravity model can be expressed as:

$$ Trade_{ij} = \beta_0 \cdot GDP_i^{\beta_1} \cdot GDP_j^{\beta_2} \cdot D_{ij}^{\beta_3}, $$

² Because Dow and Karunaratna (2006) find that the effect of time zones is neither strongly nor consistently significant, we exclude this factor.
where Trade$_{ij}$ is the bilateral trade between source country $i$ and host country $j$, GDP$_i$ and GDP$_j$ are the gross domestic products of country $i$ and $j$, respectively; and $D_{ij}$ is the weighted geographical distance between source country $i$ and host country $j$.

Linearizing equation (1) and substituting FDI for trade, we derive the following gravity equation:

$$\ln(1 + FDI_{ij}) = \beta_0 + (\beta_1 + \beta_2) \ln(GDP_iGDP_j)$$

$$+ \beta_3 \ln D_{ij} + \beta_4 X_{ij} + \epsilon_{ij},$$

where $FDI_{ij}$ is the bilateral stock of outward FDI of source country $i$ in host country $j$, $\ln(GDP_iGDP_j)$ is the product of the size of the economies of the host and source country, and $\ln D_{ij}$ is the log of the weighted distance between the source and the host country. In addition, $X_{ij}$ is a vector that includes bilateral familiarity and similarity variables, and $\epsilon_{ij}$ is the error term. Because our four source countries report zero stock of outward FDI for various countries, using the double log form of the gravity equation would cause the loss of potentially valuable information. We therefore use $\ln(1 + FDI_{ij})$ as the dependent variable, following Eichengreen and Irwin (1995) and others. The sample is (again) truncated at zero, so we estimate the equation using a Tobit rather than an ordinary least squares procedure.

**FDI data**

As our dependent variable, we use the bilateral stock of outward FDI of the four source countries by geographical destination between 1984 and 2003. Although using FDI flows may appear more appropriate when analyzing location decisions, FDI flow statistics do not account for multinational enterprise (MNE) activities financed through local capital markets (Devereux and Griffith, 2002), such as setting up a foreign subsidiary with local capital. In addition, outward FDI flow data often contain disinvestments from the host country, which explains their frequent negative values (OECD, 2008). Therefore, we use FDI stock as a closer approximation of the actual location of MNE activity.

We use Source OECD and UNCTAD data about outward FDI stock, complemented with data provided by the Office for National Statistics (U.K.) and the central banks of Germany, France, and the Netherlands. To convert national currencies into U.S. dollars, we multiply data reported in national currencies by the currency ratios provided by the OECD.

Data pertaining to FDI stock in non-OECD countries is not always consistently reported annually, so we average the reported values for four five-year periods: from 1983–1988, 1989–1993, 1994–1998, and 1999–2003. This approach has two additional
advantages. First, it enables us to include a more extensive set of independent variables, based on data from the 1990s, in our analysis of the last time period. Inversely, it prevents an explanation of the location of FDI in the first three time periods that uses variables based on future data. Second, testing our models for four separate time periods enables us to assess the robustness of our estimations against temporal trends in foreign investment, such as the rise of China as a major recipient of FDI.

**Independent variables**

Along with the average bilateral stock of outward FDI in the four five-year periods as our dependent variable, we include the following independent variables.

**National incomes.** The most commonly identified determinant of foreign investment is the market size (measured as national income, or GDP) of both the host and the home country. Our equation includes the market sizes at the beginning of each five-year period in constant 2000 U.S. dollars, as reported by the World Bank World Development Indicators.

**Geographic distance.** The geographic distance between the source and the host countries, taken from the CEPII data set, equals the weighted bilateral distance between the largest cities of the source and target country in kilometres, weighted by the share of the city in the overall population of the country. We expect an ambiguous effect, because greater distance is associated both with more FDI, to circumvent the transportation costs of exports (Egger and Pfaffermayer, 2004), and less FDI, because the costs of monitoring increase with distance (Head and Ries, 2005).

Several variables included in the vector \( X_i \) represent various potential psychic distance stimuli. In addition to historical ties, our familiarity-based psychic distance stimulus, we include common language and seven measures of country differences.

**Historical ties.** We presume a historical tie exists between a host and a source country when substantial parts of both have existed under common rule for a substantial period of time. We define a substantial part of a host country as one-third of the geographical area or one-third of the population. With regard to a substantial period of time, we use one generation, which corresponds to 30 years of common rule. Key to our definition of a historical tie is that a certain degree of historical familiarization must be assumed to have taken place. We include historical ties starting with the coronation of Otto I in 962, which marks the formation of the Holy Roman Empire and the unification of several Central European fiefdoms. Data on colonial ties come from Henige (1970), and data on historical ties within Europe derive from Davies (1996) and Bideleux and Jeffries (2002).

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3 The CEPII data set was obtained from http://www.cepii.fr/anglaisgraph/bdd/distances.htm.
**Common language.** A host and a source country share a common language when the official language of the source country is an official language in the host country. The CEPII data set provide data about common languages.

**Cultural distance.** Due to the pervasiveness of the concept in the international business literature and the common notion that cultural similarities between the host and the source country affect the location of foreign investment, we include a measure of bilateral cultural distance. Specifically, we adopt the most common measure of cultural distance, based on Hofstede’s (1980) indices, as suggested by Kogut and Singh (1988):

\[
CD_{st} = \sum_{i=1}^{4} \frac{(I_{is} - I_{ij})^2}{V_i} / 4,
\]

where \( CD_{st} \) is the cultural distance between source country \( s \) and target country \( t \), \( (I_{is} - I_{ij}) \) is the difference in scores of countries \( s \) and \( t \) on characteristic \( i \), and \( V_i \) is the variance on characteristic \( i \). Because we estimate a double log form of the gravity model, we use the log of cultural distance in our equation.

**Institutional distance.** Measures of institutional distance, as developed by Kostova and others (Busenitz, Gómez, and Spencer, 2000; Kostova, 1997, 1999; Kostova and Roth, 2002), rely on the decomposition of the institutional environment into regulative, normative, and cognitive components. Such institutional profiles can be compiled only with respect to very specific domains, such as the legitimacy of a particular organizational practice, which resides at a much lower level of analysis than that of our study. To capture relevant country-level institutional differences and similarities, we therefore apply the measure of institutional distance developed in Chapter 3, which is based on the key country-level institutional features identified by Whitley (1999). We calculate institutional distance in a manner similar to the cultural distance index proposed by Kogut and Singh (1988) but without correcting for differences in variance, which takes the form:

\[
ID_{jk} = \sum_{i=1}^{11} (I_{ij} - I_{jk})^2 / 11,
\]

where \( ID_{st} \) is the institutional distance between source country \( s \) and target country \( t \), and \( (I_{us} - I_{uj}) \) is the difference in the scores of countries \( s \) and \( t \) on institutional feature \( i \).

To compare the estimated coefficients with those of the other variables, we use the log of institutional distance in our equation.

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4 The original measure of cultural distance, provided by Kogut and Singh (1988), distinguishes between Hofstede’s scores for the United States (\( u \)) and the included foreign countries (\( j \)).

5 As Kogut and Singh (1988) concur, correcting for variance imposes certain weights on the indicators included in a composite index. When the original scores are scaled similarly, as is the case in the Global Competitiveness Report, correcting for variance would inflate relatively small differences on some indicators and marginalize more considerable differences in country scores on other indicators. This would unnecessarily distort the resulting institutional distances.
Furthermore, we adopt five composite variables pertaining to country differences from Dow and Karunaratna (2006).

**Education.** Dow and Karunaratna (2006) calculate the difference in education levels by first calculating the differences in adult literacy and enrolment rates in both secondary and tertiary education for the population over 15 years. Subsequently, they apply factor analysis to combine the three scores into a single difference variable, then take the absolute value.

**Democracy.** Country-level differences in the degree of democracy reflect the mean scores of four different democracy variables, taken from the POLCON V, the (modified) POLITY IV, the Freedom House Political Rights, and the Freedom House Civil Liberties database between 1993 and 1998. Dow and Karunaratna (2006) first calculate country differences for each score, then combine the scores using factor analysis to derive the absolute values.

**Industrial development.** Industrial development depends on income levels, energy consumption, the percentage of the labour force not working in agriculture, urbanisation, and the number of passenger cars, newspaper circulation, radios, telephones, and televisions per 1000 inhabitants. All data refer to 1994, except for the literacy rate, which has values for 1995. Dow and Karunaratna (2006) calculate the country differences for each variable, combine them into a single variable using factor analysis, and use the absolute differences.

**Political ideology.** Scores of different political ideologies come from Beck and colleagues (2001), measured between 1993 and 1998, and indicate absolute differences.

**Religion.** To measure differences in major religions between countries, we first assign scores to the distance between the two closest major religions between countries, ranging from those of the same denomination or sect to those that belong to different religious families. Subsequently, we assign scores to the prevalence of a country’s major religion in the other country, and vice versa. Factor analysis enables us to combine the differences between these scores. Data come from Dow and Karunaratna (2006) and date from 2000.

### 4.4 Results

In Table 4.1, we present the descriptive statistics and the correlation matrix for the most recent time period (1999–2003). The results of the Tobit estimations for 1999 to 2003 appear in Table 4.2, whereas Appendix D contains the correlation tables and results for the earlier periods. Correlations remain stable across the four time periods. As Table 4.1 shows, the dummies for historical ties and common language are moderately correlated ($r_p = 0.60$); therefore, we do not include historical ties and common language in the same equation. Neither dummy correlates strongly with any of the other similarity-based variables. As expected (Dow and Karunaratna, 2006), the
democracy, education, and industrial development variables show signs of multicollinearity, especially between education and industrial development \((r = 0.77)\). The rest of the correlation matrix does not suggest any clear incidences of multicollinearity, but we test for it by estimating auxiliary regressions involving only independent variables. Cultural and institutional distance and, to a lesser extent, cultural distance and the dummy for language correlate mildly. Including these variables together may result in biased estimates.

Model 1 (Table 4.2) provides the results from the basic gravity model that includes market size and geographical distance. In model 2, we add the historical tie dummy. The coefficient of historical ties is significant \((p < 0.001)\), with the expected positive sign, and increases the explanatory power of the model. This result is consistent with our findings for the earlier time periods (Appendix D). In the subsequent models (models 3–10), we estimate the isolated effects of the control variables and find that the coefficients of both cultural distance (model 3) and institutional distance (model 4) are significant \((p < 0.05)\), with the expected negative signs. In model 5, we estimate the effect of common language in isolation. Similar to historical ties, the coefficient is strongly significant \((p < 0.001)\) and displays the expected positive sign. The results for cultural distance and common language also are consistent with our results for earlier time periods (Appendix D). In models 6–10, we estimate the effects of the similarity variables adopted from Dow and Karunaratna (2006); differences in democracy \((p < 0.10)\), education level \((p < 0.10)\), and the level of industrial development \((p < 0.001)\) all appear to have a negative effect on the location of foreign investment in isolation. However, we find no significant effects of differences in political ideology (model 9) or religion (model 10).

In models 11–16, we estimate the combined effects of cultural and institutional distance with historical ties and common language, respectively. When we consider the effect of cultural distance in combination with historical ties (model 11) and common language (model 14), the coefficient of cultural distance shows the expected sign, but the effect is not significant. Both the effects of historical ties and common language remain strongly significant, and the coefficients show the expected sign. We find similar results for the earlier time periods (Appendix D); the effect of cultural distance weakens or disappears when combined with either historical ties or common language, which both remain strongly significant. Furthermore, the coefficient of institutional distance remains significant when considered with both historical ties (model 12, \(p < 0.05\)) and common language (model 15, \(p < 0.10\). When we contrast the effects of historical ties and common language with both cultural and institutional distance (models 13 and 16), the coefficients for both cultural and institutional distance exhibit the expected sign but are not significant. The coefficient of both historical ties and common language remains strongly significant \((p < 0.01\) and \(p < 0.001\), respectively).
Table 4.1: Descriptive statistics and correlations 1999–2003

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>s.d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. FDI 1999-2003</td>
<td>171</td>
<td>7.68</td>
<td>2.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. National incomes 1999</td>
<td>171</td>
<td>26.06</td>
<td>1.52</td>
<td>0.69**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Distance</td>
<td>171</td>
<td>8.11</td>
<td>1.17</td>
<td>-0.53**</td>
<td>-0.22**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Historical ties</td>
<td>171</td>
<td>0.13</td>
<td>0.34</td>
<td>0.33**</td>
<td>0.19*</td>
<td>-0.18*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Common language</td>
<td>171</td>
<td>0.09</td>
<td>0.29</td>
<td>0.25**</td>
<td>0.04</td>
<td>-0.10</td>
<td>0.60**</td>
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</tr>
<tr>
<td>6. Cultural distance</td>
<td>171</td>
<td>0.37</td>
<td>0.91</td>
<td>-0.36**</td>
<td>-0.26**</td>
<td>0.27**</td>
<td>-0.25**</td>
<td>-0.33**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>7. Institutional distance</td>
<td>171</td>
<td>0.37</td>
<td>0.67</td>
<td>-0.46**</td>
<td>-0.37**</td>
<td>0.34**</td>
<td>-0.22**</td>
<td>-0.19*</td>
<td>0.42**</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>8. Democracy</td>
<td>171</td>
<td>0.31</td>
<td>0.38</td>
<td>-0.27**</td>
<td>-0.06</td>
<td>0.39**</td>
<td>-0.14</td>
<td>-0.09</td>
<td>0.33**</td>
<td>0.38**</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>9. Education</td>
<td>171</td>
<td>0.57</td>
<td>0.47</td>
<td>-0.44**</td>
<td>-0.26**</td>
<td>0.55**</td>
<td>-0.05</td>
<td>-0.07</td>
<td>0.21**</td>
<td>0.40**</td>
<td>0.48**</td>
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</tr>
<tr>
<td>10. Industrial development</td>
<td>171</td>
<td>0.74</td>
<td>0.57</td>
<td>-0.51**</td>
<td>-0.29**</td>
<td>0.49**</td>
<td>-0.14</td>
<td>-0.16*</td>
<td>0.33**</td>
<td>0.45**</td>
<td>0.51**</td>
<td>0.77**</td>
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</tr>
<tr>
<td>11. Political ideology</td>
<td>171</td>
<td>0.38</td>
<td>0.26</td>
<td>0.02</td>
<td>0.09</td>
<td>-0.08</td>
<td>0.11</td>
<td>0.07</td>
<td>0.00</td>
<td>0.05</td>
<td>0.10</td>
<td>0.07</td>
<td>0.06</td>
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<td>12. Religion</td>
<td>171</td>
<td>-0.62</td>
<td>0.82</td>
<td>0.00</td>
<td>0.22**</td>
<td>0.20**</td>
<td>0.04</td>
<td>0.01</td>
<td>0.18*</td>
<td>-0.06</td>
<td>0.35**</td>
<td>0.21**</td>
<td>0.18*</td>
<td>0.04</td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.05
**p < 0.01
Table 4.2: Results of the gravity model for FDI location between 1999 and 2003

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable: Ln FDI 1999–2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>National incomes</td>
<td>0.83***</td>
</tr>
<tr>
<td>Distance</td>
<td>-0.73***</td>
</tr>
<tr>
<td>Historical ties</td>
<td>0.98***</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>-0.25*</td>
</tr>
<tr>
<td>Institutional distance</td>
<td>-0.39*</td>
</tr>
<tr>
<td>Common language</td>
<td>1.34***</td>
</tr>
<tr>
<td>Democracy</td>
<td>-0.51†</td>
</tr>
<tr>
<td>Education</td>
<td></td>
</tr>
<tr>
<td>Industrial development</td>
<td></td>
</tr>
<tr>
<td>Political ideology</td>
<td></td>
</tr>
<tr>
<td>Religion</td>
<td></td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.619</td>
</tr>
<tr>
<td>N</td>
<td>171</td>
</tr>
</tbody>
</table>

Notes: Standardized regression coefficients reported; standard errors are in parenthesis. Significance levels: †p<0.10, *p<0.05, **p<0.01, ***p<0.001.
Table 4.2: Results of the gravity model for FDI location between 1999 and 2003 (continued)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variable: Ln FDI 1999–2003</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14</td>
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<tr>
<td>National incomes</td>
<td>0.81***</td>
</tr>
<tr>
<td></td>
<td>(0.07)</td>
</tr>
<tr>
<td>Distance</td>
<td>-0.68***</td>
</tr>
<tr>
<td></td>
<td>(0.08)</td>
</tr>
<tr>
<td>Historical ties</td>
<td>0.93***</td>
</tr>
<tr>
<td></td>
<td>(0.30)</td>
</tr>
<tr>
<td>Cultural distance</td>
<td>-0.11</td>
</tr>
<tr>
<td></td>
<td>(0.12)</td>
</tr>
<tr>
<td>Institutional distance</td>
<td>-0.29†</td>
</tr>
<tr>
<td></td>
<td>(0.16)</td>
</tr>
<tr>
<td>Common language</td>
<td>1.23***</td>
</tr>
<tr>
<td></td>
<td>(0.34)</td>
</tr>
<tr>
<td>Democracy</td>
<td>-0.08</td>
</tr>
<tr>
<td></td>
<td>(0.31)</td>
</tr>
<tr>
<td>Education</td>
<td>-0.32</td>
</tr>
<tr>
<td></td>
<td>(0.26)</td>
</tr>
<tr>
<td>Industrial development</td>
<td>-0.59**</td>
</tr>
<tr>
<td></td>
<td>(0.37)</td>
</tr>
<tr>
<td>Political ideology</td>
<td>0.17</td>
</tr>
<tr>
<td></td>
<td>(0.13)</td>
</tr>
<tr>
<td>Religion</td>
<td>0.651</td>
</tr>
<tr>
<td>N</td>
<td>171</td>
</tr>
</tbody>
</table>

Notes: Standardized regression coefficients reported; standard errors are in parenthesis. Significance levels: †p<0.10, *p<0.05, **p<0.01, ***p<0.001.
In the final estimations (models 17–24), we work toward a full model. Because of the potential issues of multicollinearity among democracy, education, and industrial development (Dow and Karunaratna, 2006), we first estimate their effects separately (models 17–22). Somewhat surprisingly, the only coefficient that remains significant is that for differences in industrial development (models 19 and 22). The coefficients of historical ties (models 17–19) and common language (models 20–22) both remain strong and significant ($p < 0.01$ and $p < 0.001$, respectively). In the final set of models (23 and 24), we retain all variables, alternating only the collinear historical ties and common language variables. Consistent with our previous estimations, only the coefficients of historical ties, common language, and industrial development remain significant. The explanatory power of the models with historical ties (model 23) and common language (model 24) are comparable, with adjusted $R^2$ of 0.663 and 0.668, respectively.

4.5 Discussion and conclusion

The study in this chapter attempts to reflect critically on the commonly held assumption that underlies the psychic distance construct, namely, that firms favour foreign markets that are similar to the home market and eschew the commitment of resources to markets that are dissimilar. We argue that decision makers may perceive some countries and markets as psychologically more close than others because of not only the degree of similarity between the home and the foreign country but also the extent to which that decision maker perceives the foreign market as familiar.

We explored the validity of our argument by contrasting the effect of a set of similarity-based psychic distance stimuli with that of historical ties, a country-level psychic distance stimulus that we associate with foreign market familiarity. The results suggest that historical ties, common language, and differences in industrial development provide a stronger and more robust explanation of the location of foreign direct investment than do cultural or institutional similarities or similarities in terms of the political system, education level, or religion.

Cultural and institutional distance

By and large, we cannot confirm that differences in culture, as measured with Kogut and Singh’s (1988) measures, affect the location of FDI from the four source countries in our sample. Although our results suggest that cultural distance has merit as an explanatory variable when considered in isolation, this power mostly disappears when combined with other—better—explanatory variables, such as historical ties and common language. These results add to the work of those sceptical of the cultural distance concept or its supposed effects, such as Benito and Gripsrud (1992), Shenkar (2001), Harzing (2003), and Tihanyi, Griffith, and Russell (2005). We also confirm the
non-significant effect of cultural distance on internationalization decisions, even though Kogut and Singh’s (1988) index remains one of the most indiscriminately applied psychic distance surrogates.\(^6\)

A similar conclusion emerges regarding the effect of institutional distance: It has some explanatory power when considered in isolation or in combination with historical ties and common language, yet the effect disappears when we combine institutional distance with additional variables, such as cultural distance and industrial development, with which it is moderately correlated. This finding is not to say that institutions do not matter in location decisions; as evidenced in other empirical studies (e.g., Bevan, Estrin, and Meyer, 2004; Jakobsen and De Soysa, 2006), institutional quality serves to increase the attractiveness of countries as destinations for foreign investment, even if the combination of institutional conditions that determine location attractiveness differs by region (Pajunen, 2008). However, our results do not support the notion that inherent institutional country differences have a negative effect on locational attractiveness, which casts doubt on institutional differences as a significant psychic distance stimulus.

*Effects of democracy, education, religion, industrial development, and political ideology*

We estimate the effects of several additional country similarities using measures developed by Dow and Karunaratna (2006). Although the effect of differences in industrial development is significant, we find no consistent effects of differences in democracy, education, political ideology, or religion on the location of foreign investment. However, multicollinearity among industrial development, education, and democracy means these results are not necessarily unbiased.

For three reasons, we nonetheless recommend differences in industrial development as a key predictor variable. First, when we alternate the industrial development, education, and democracy variables in the extended models (models 17–22), only the coefficient for industrial development remains significant. Second, in our sample, differences in industrial development correlate most strongly with the location of foreign investment. In contrast with Dow and Karunaratna (2006), we therefore identify differences in industrial development, rather than differences in education, as the most significant psychic distance stimulus. Alternatively, the negative effect of differences in the degree of industrial development on the location of FDI may reflect the common notion that most MNE activity takes place within the “triad” of developed countries in the European Union, North America, and Asia (Rugman, 2000; Rugman and Verbeke, 2004). At the least, the results demonstrate

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\(^6\) Kogut and Singh proposed the measure in a study on entry mode selection rather than on geographic location decisions. However, their measure thereafter has been applied in all sorts of studies related to foreign investment.
that when it comes to the location of foreign investment, not all country differences equally affect location attractiveness. Third, the large differences in the effects of religion, education, and language support Dow and Karunaratna’s (2006) suggestion that the relative contribution of various psychic distance stimuli likely varies with the type of managerial decision or the type of entry mode.

*Effect of historical ties and common language*

Our estimates generally indicate that both historical ties and common language have significant effects on the location of FDI. The consistent effect of historical ties supports our hypothesis, yet these results require further comment because of the correlation between historical ties and common language \( r = 0.60 \). This finding is not surprising: In intensely colonized countries, native languages often got replaced with or complemented by the language of the colonizers. Two questions thus remain: Can the observed effect be attributed to either historical ties or common language, and does the significant effect of historical ties indicate a similarity effect or a familiarity effect?

To disentangle the effects of historical ties and common language, we removed countries with both a historical tie and a common language from our sample and reestimate the effects of ties and language. Although the variation explained by historical ties remains consistently higher for all four periods, both ties and language become insignificant because of the reduced sample size. Strictly speaking, we therefore must conclude that the effects of historical ties and common language are inseparable on the basis of the current data set, and that both their effects are significant.

Thus, we turn to the question of whether the significant effect of historical ties should be interpreted as a similarity or a familiarity effect. A look at the correlation matrix indicates that though historical ties and common language are moderately correlated, neither correlates with any of the other similarity measures. This is not to claim that historical ties, for example, did not at least partially inform the parliamentary system of New Zealand or the legal system of South Africa. Rather, the correlation matrix illustrates that historically tied countries are not necessarily more similar in terms of the country characteristics most frequently associated with reduced psychic distance. In addition, though the effects of both historical ties and language are significant and robust, the effects of many similarity-based variables remain insignificant. These observations provide at least partial support for the argument that the effect of historical ties captures a construct distinctive from that of country similarities.
The familiarity dimension of psychic distance

The dominant argument in the field of international business regarding psychic distance and the location of foreign investment asserts that the higher the degree of (perceived) similarity between the home and the foreign market, the lower the psychic distance experienced (Johanson and Wiedersheim-Paul, 1975), whereas the lower the psychic distance, the less uncertain firms are toward a foreign market (Kogut and Singh, 1988), and the higher the propensity or likelihood that the firm will invest or expand in that country (Johanson and Vahlne, 1990). In this study, we developed the notion of familiarity and suggested that what determines psychological distance is not merely the perception of country differences but also the degree to which a decision maker perceives a foreign market as familiar. Our empirical finding that historical ties, common language, and industrial development have a strong effect on the location of foreign investment, whereas the effect of other measures of country similarities is not significant, adds support to our argument that current conceptualizations of psychic distance overlook an important dimension.

The familiarity construct offers interesting implications for the psychic distance concept and internationalization process theory. Country differences may inhibit the flow of information between foreign markets and the firm (Brewer, 2007; Johanson and Vahlne, 1975), yet cognition research demonstrates that both knowledge and beliefs depend on a much wider range of information sources at the individual, organizational, and national levels (Walsh, 1995). As a result, a person may claim familiarity with countries that he or she perceives as very different from the home country. Future research should examine the implications of such off-diagonal relations on the perception of psychic distance. In addition, holding or forming beliefs about foreign markets requires no actual experience, which implies that prior to entry, foreign markets may be perceived already as familiar (e.g. Pedersen and Petersen, 2004), with high confidence levels about the foreign context, even in the absence of actual local knowledge. Therefore, further research should also examine whether the perception of familiarity permits firms to demonstrate high levels of local engagement, even at entry.

Our study also comes with two important caveats. First, though the use of country-level data enabled us to study the effect of several alleged country-level antecedents of psychic distance on aggregate firm behaviour, it does not allow for the measurement of psychic distance itself, which requires detailed firm- or individual-level data. Our level of analysis also implies that we cannot comment on the effect of historical ties on the actual internationalization sequence of firms or the commitment of resources to foreign markets over time. Despite these significant shortcomings, our results suggest that for the location of foreign investment, not all country similarities have equal weight as psychic distance stimuli. A comparison with Dow and
Karunaratna (2006), who use trade intensity as their dependent variable, reveals that our results support their notion that the relative contribution of psychic distance stimuli may also differ, depending on the entry mode decision. For example, whereas a common language is not conducive to trade, language may positively affect location decisions when such decisions involve local investments. Our results therefore caution against the indiscriminate use of country differences as a surrogate for psychic distance.

Second, the historical ties variable we develop arguably provides a rather crude indicator of the perception of familiarity, and it may be compromised by its correlation with common language. In addition, as we have emphasized, many other factors likely influence the extent of perceptions of familiarity with a foreign market. We focus on historical ties mainly because they frequently have been recognized as potential psychic distance stimuli (e.g. Brewer, 2007; Dow and Karunaratna, 2006), though usually with the assumption that they engender country similarities—an assumption that, with the exception of common language, our data do not support.

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7 In contrast with our findings, in Dow and Karunaratna (2006) the coefficient of the language variable—which correlates strongly with our common language dummy ($r = 0.84$)—is not consistently significant.