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# International business complexity and the internationalization of languages

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## KEYWORDS

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**Abstract** While the impacts of culture on international trade and foreign direct investment (FDI) have been much discussed, the influence of languages has been underappreciated in international business. We address this paucity by integrating literature from international economics, international business, Chinese business history, and linguistics to examine the transaction costs of languages. While we recognize that languages represent both a tool in international economic transactions and a vehicle to transmit cultural values, our results point out that this tool is employed differently in international trade and in FDI. Communication costs for both FDI and international trade show a hierarchy, with English the most inexpensive among major trade languages; however, we find that communication costs are much more important in FDI than in international trade. Herein, we offer practical suggestions corporations may implement regarding the matter.

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## 1. Why does complexity of international business increase languages' power?

International business is becoming increasingly complex. But you do not need a pair of academics to tell you that; you see this every day. Engineering specifications of a product; the contracts needed to invest in, produce, transport, and distribute that product; multi-channel marketing strategies; and managing

the enterprise—all business functions have grown in complexity over the course of your own career. While all of us understand these shifts, how often do we consider that language sophistication propels this trend toward greater complexity, and also is propelled by this trend? Herein, we consider the 'power' of languages and introduce the concept of language intensity: a measure of how great the demands are for linguistic input in trade and foreign direct investment. It is easy to imagine how critical language is to business when reading Herodotus' description of 'silent' trade on the African coast (Curtin, 1984, p. 11):

Traders from a distance...deposited their goods and went away. Local traders then appeared, deposited a quantity of their own goods

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and went away in their turn. When the first traders returned, they judged the value of the goods they found. If they thought an exchange was equitable, they took the new goods and left their own. If not, they adjusted the quantity of their offering and went away again, to await a silent response from their trade partners.

Nowadays, international business—indeed, all business—exists through the media of languages: languages which are spoken, printed, and digitized. International trade and foreign direct investment (FDI) flows are fundamentally based on verbal and written communication and contracting. Need for a good must be expressed, and counterparties must be able to negotiate an acceptable transaction agreement.

As sophistication of economic exchange increases, the linguistic requirements to specify the quality, quantity, price, delivery mode, payment terms, and post-transaction relations drive involved partners toward increasingly more sophisticated methods of expression (Cremer & Willes, 1998). Demand for linguistic competencies increases not only with product sophistication and differentiation, but also via ease of product substitution, lengthening of supply chain networks, and decisions regarding where to invest in new production. World-class products require world-class communication skills. Time spent on communication equals money, and time ill-spent increases transactions costs.

How many times have you heard someone articulate a desire to learn Chinese, or advise a younger person to do the same? Underlying reasons typically include the oft-cited facts and statistics that China represents the soon-to-be-largest economy in the world, the biggest exporter, a market of 1.3 billion people, and globally competitive production and R&D. The same advice was offered for learning German in the 1930s and 1940s, and Japanese in the 1970s and 1980s. When the daunting task of learning Chinese comes up, most potential students are discouraged: 40,000 characters! A complex, tonal language! Still, when we consider Herodotus' story of silent trade, even a little language competency would help.

We know, of course, that Chinese did not spring forth as a language with 40,000 characters; likewise, Chaucer did not write with the benefits and challenges of an English vocabulary of 400,000 words. Major languages grow in depth and breadth as they are adapted to new uses, as the cultures they reflect become more sophisticated, and as they are adopted by other speakers. A few have attained the status of major international trading languages, a position which confers

significant power on the speakers of that trade language.

## 2. The power of languages

Herein, we accept previous definitions of 'major trade languages' as those spoken by more than 100 million people *and* which are official languages in 10 or more countries (Gordon, 2005). Note, interestingly, that Chinese does not clear this hurdle due to the fact that only Greater China countries claim Chinese as an official language. We discuss the implications of this below. Our article is motivated by four fundamental questions:

1. What are the impacts of speaking a major trade language on international trade and FDI?
2. Can we quantify, or rank, the benefits of English-speaking countries compared to countries speaking other major trade languages?
3. Can we discern reasons why languages' impact (i.e., 'language intensity') in international business is growing?
4. How can we prepare for a business world dominated by a few trade languages?

Culture and language are difficult to separate in international business. Language is the vehicle for culture; cultural values are reflected in the language spoken. Cultural facility increases familiarity between negotiating partners, which thereby increases trust; language may simply be a business tool (see our forthcoming pidgin example) or may additionally serve to increase trust. But—crucially—language is a tool, while culture is not: parties cannot transact in a culture; they must transact in a language. A personal example illustrates some of the challenges of analyzing languages' influence. How do we tease apart the impact of language from the impact of culture? Can we?

During the 1990s, one of your authors was an international equities portfolio manager. Visiting a Hitachi Managing Director (MD) with a close friend, a senior electronics industry analyst from Daiwa Securities—a top Japanese investment bank—we met in Tokyo to talk about Hitachi's strategy and market penetration. The MD was a tough, gruff Japanese engineer who had held a number of senior positions in Hitachi. During the course of our 90 minute meeting, the MD grew to like your author (me) and began to talk very openly about Hitachi's business. As we wrapped things up, he insisted upon

another annual meeting and invited me out for a drink. My Daiwa friend later said: "I've been meeting with that guy for 5 years, every single quarter, and he told you more in one meeting than I've gotten out of him the whole time." The MD had appreciated conducting the entirety of our meeting in Japanese, and simply opened up. In this case language was the tool of the meeting, but also the key to trust. Speaking a language is very rarely separated from culture and the results may be similar: increased trust. But the mechanism by which trust is increased may be quite different.

Another language both of your authors have studied, Chinese, exemplifies how languages' power waxes and wanes. When one of us began studying Chinese 33 years ago, business demand for the language was nearly non-existent except among Chinese diaspora, as China was a poor country just emerging from a dark, autarchic period. How things have changed!

Demand to learn Chinese has grown with China's powerful economic surge. In South Korea, there are official exams certified by the South Korean government for testing proficiency in Chinese, equivalent to TOEIC (Test of English for International Communication) in English. About 1.5 million South Koreans took the Chinese tests in 2010 while roughly 2 million South Koreans took TOEICs. Demand to learn other major languages, like French and Japanese, has declined. In another article, with our colleague Don Lien, your authors examine the incredible growth in Chinese language demand through the establishment of Confucius Institutes, which are Chinese Government-supported language centers (Lien, Oh, & Selmier, 2012). Existing for just 7 years and numbering 500 sites worldwide, the Confucian Institutes have rapidly outpaced the similarly-structured, programmatically-similar Alliances Française. This shift in language-learning demand mirrors the relative 'power' of the two languages in international business. Such a shift has happened in the past with other languages and will surely happen again. In this article we trace one such historical shift—the rise and fall of pidgin English in 19<sup>th</sup> century Asia—to develop our arguments. The story of pidgin English (henceforth referred to herein as *pidgin*) also enables us to tease apart those separate, but interlinked, effects of culture from language. Additionally, a language charge imposed by the compradors—the speakers of *pidgin*—evidences the transaction costs of languages.

## 2.1. Results of our study

We conducted a study to measure the impacts of speaking a major trade language on international

trade and FDI. Our expectation is that the benefits of major trade languages should manifest in lower international business transaction costs. Next, we outline a more intuitive, applied approach to this study (additional detail is provided in the Appendix).

We argue that a language's power is derived from its capacity to lower transaction costs in international trade and FDI. Lower costs push businesses and business people toward using a particular language at the expense of others. Dissecting these declines in language costs has received little attention in the academic community. To analyze languages' impact on trade, scholars studying international trade have historically used a dichotomous variable—that is, a same language 'dummy' which indicates if two countries had the same official language or not—in their empirical economic models. We find this method an inadequate solution, as have other studies employing linguistic similarity (e.g., Boisso & Ferrantino, 1997; Melitz, 2008). Some languages are more similar than others in terms of words used, grammatical structure, alphabet, or syllabary employed in writing. This proximity may promote communication and, therefore, trade and FDI through three mechanisms: (1) closeness makes learning the target language easier, (2) it means that words and grammatical patterns employed in one language may be recognized by speakers of similar languages, or (3) it makes development of a 'lingua franca' form of communication easier. A *lingua franca* is "any language used as a medium of communication among people who have no other language in common" (Hall, 1966, p. xii).

To calculate transaction costs of languages, we employ language distance in 'gravity models.' As an example, English and Chinese are quite distant in the universe of languages, ranking in the top 15% of distance as a 'language pair.' The idea behind gravity models is that the closer the distance between country pairs—in terms of geographic, economic, institutional, and cultural factors—the lower the resulting transaction costs between those two countries. Lower transaction costs would lead to higher levels of bilateral trade and FDI (Frankel, 1997; Ghemawat, 2007). We consider both the official languages of these country pairs, as well as the presence of commonly-spoken trade languages (English, Spanish, French and Arabic) which may permit direct communication between economic actors utilizing. In Columns 1 and 3 of Table 1, our empirical results illustrate that language distance is negatively associated with both trade and FDI. This shows that language is an important determinant of modern international business activities.

**Table 1. Language's power in international trade and foreign direct investment**

Dependent Variable Model	International Trade		Foreign Direct Investment	
	(1)	(2)	(3)	(4)
Language Distance	-0.0045 ***	-0.0020 **	-0.0108 ***	-0.0106 ***
Within Major Trade Languages		-0.3968 ***		0.4242 ***
English Speaking Country		0.2644 ***		0.5398 ***
French Speaking Country		-0.3281 ***		0.4274 ***
Spanish Speaking Country		-0.5203 ***		-0.0718
Arabic Speaking Country		-0.4370 ***		-0.1709 *
ln(Product of GDPs)	0.8529 ***	0.8501 ***	0.4648 ***	0.4643 ***
ln(Distance)	-1.0908 ***	-1.0757 ***	-0.3321 ***	-0.3395 ***
Adjacency	0.5964 ***	0.5922 ***	0.9037 ***	0.8961 ***
Colonial Relationship	1.5492 ***	1.4945 ***	0.5182 ***	0.5788 ***
Currency Union	0.1419 *	0.1497 *	0.4358 ***	0.4206 ***
Regional Trade Agreement	0.3250 ***	0.3136 ***	0.6748 ***	0.6121 ***
Inter-RTA	0.0693 ***	0.0712 ***	0.0077	-0.0331
Common Legal System	0.1524 ***	0.1866 ***	-0.0134	0.1828 ***
ln(Sum of Political Stabilities)	0.3992 ***	0.3867 ***	0.7490 ***	0.7068 ***
Constant	-26.9238 ***	-26.6204 ***	-25.5138 ***	-25.3606 ***
$\rho$	0.5652	0.5604	0.2738	0.2655
N. Obs.	147,011	147,011	26,777	26,777
Overall R-Square	0.6238	0.6270	0.4340	0.4425

Note: \* if  $p < 0.05$ ; \*\* if  $p < 0.01$ ; \*\*\* if  $p < 0.001$ . Year fixed effects and country pair random effects are estimated but not reported here. Robust standard errors are used but not reported here.

### 3. Demand for languages in international business

When companies or individuals from two different nations wish to engage in trade and investment, but speak different languages, they must negotiate in one or both of those languages, or in a lingua franca. When two nations' languages are the same, or are linguistically similar such that only minor variations exist between words (e.g., Malaysian and Indonesian), there is very little linguistic impediment to trade and investment. Research has shown that bilateral trading and investment partners, speaking the same language, experience a significant decline in transaction costs (Hejazi & Ma, 2011; Helliwell, 1999; Hutchinson, 2002; Oh & Selmier, 2008).

The demand for languages is driven by many of the same factors that drive demand for other products: popularity, usefulness, and best fit for the application. Demand for a language naturally shifts as these factors change; Choi (2002) makes a deceptively simple, but creative, theoretical contribution to this idea. Consider what happens when citizens of two different nations, with differential labor costs and different standards of living, seek to trade and invest. Choi shows that the lower opportunity costs of the citizen in the lower-wage nation will push him/her to study the target language of the higher-wage nation. Additionally, incentives to

achieve higher income levels will motivate immigration to that higher-wage nation, as well as language learning. Choi anticipates that, over hundreds of generations, there will be a shift in languages spoken toward the language of the higher-wage nation. However, there is evidence that this impact may occur in only a few generations. Ginsburgh, Ortuño-Ortín, and Weber (2007) find evidence for a faster process in the European countries they empirically test, in that English in recent times has acquired more speakers than their model predicts, while Spanish has gained significantly less.

Of course, learning a language is a costly transaction in itself. So-called 'pidgins'—lingua francas with greatly reduced grammar and vocabulary—provide shortcuts to learning an entire language, and may accommodate simpler forms of trade. One 'pidgin'—speaking English, Chinese, and bits of other languages—attained enormous economic significance during the 19<sup>th</sup> century. We use the story of this individual to develop our arguments. *Pidgin* provides a fascinating vignette of an international business language: it was arbitrarily imposed into the China Trade; it gained enormous power in international business in 19<sup>th</sup> century Asia; its 'fall from power' was partly due to its lack of breadth and depth as a language; and *pidgin's* use enforced a strict division between language and the underlying cultures of its linguistic components, as explained below.

The chief speakers of *pidgin* were Chinese *compradors*, business managers who initially acted as agents for the foreign trading houses in China (Hao, 1970). Terms of the Opium War truce provided for the abolition of the *cohong* system, which empowered an oligopoly of Chinese merchants to control Chinese exports and imports. While the new system was somewhat more relaxed, foreign merchants were required to buy through Qing Imperially-sanctioned merchants. This necessitated the hiring of purchasing managers to negotiate with Chinese sellers. Due to the dissimilarity between Chinese and English, foreign managers not only found Chinese difficult to learn, but also were actively discouraged from doing so by the Qing Imperial Administration. Moreover, Chinese managers were reluctant to debase themselves by speaking English (Hall, 1966; Hao, 1970). So, *pidgin* assumed a central role in these trading transactions.

As international trade grew throughout the 19<sup>th</sup> century, *compradors* were hired and relocated to Korea and Japan; they were also resident in Bangkok, Rangoon, Penang, Malacca, Singapore, Java, Manila, and enjoyed influence in India (Hao, 1970). *Pidgin* was an ideal choice as the trading language since it was largely divorced from the cultural baggage which attended any trading partners' languages. *Pidgin* developed as a purely transactional language under these circumstances, becoming a critically important link in pan-Asian trade.

Because *compradors* were able to linguistically bridge between the foreign trading houses and Chinese sellers, they were able to push out linguists formerly employed by earlier *cohong* systems (Hao, 1970). Such empowerment was reflected in a 2% tax the *compradors* charged foreign trading houses, over and above all other transaction, financing, and contact fees. This cost was recorded on foreign merchant house books as 'the squeeze' (Hao, 1970) and can be regarded as a language tax or translation fee, as other business-related service fees were already included in *compradors*' compensation structure. Curtin (1984) notes that a similar arrangement existed in The Gambia in the late 18<sup>th</sup> century, and scholars have discussed use of this kind of language tax in present times (Lazear, 1999; Pool, 1991).

As with major trade languages nowadays, *pidgin* possessed significant power to increase international trade by lowering transaction costs. But of course, we would expect that some languages are better equipped than others to lower transaction costs. This linguistic business capacity may derive from many factors: extensive legal foundations and the demand for contracts; ease in communications of various languages; economic clout as exhibited by

the native speakers of a language; the legacy demand of existing companies; trading networks; and 'demand' for a language, which may include the structure of industry and the final products produced in a language. It could also include the demand for a culture as expressed in a language. Note that *pidgin*'s value came only from its use as a transaction language; these other sources of value did not apply to *pidgin*. Conversely, modern English has all these factors and is, arguably, the number one language for each factor. Empirical results show that English significantly increases trade and FDI, as illustrated in Columns 2 and 4 of Table 1. Thus, non-major trade language-speaking countries trade and invest more with English-speaking countries. This supports the idea that English is a lingua franca in trade and FDI.

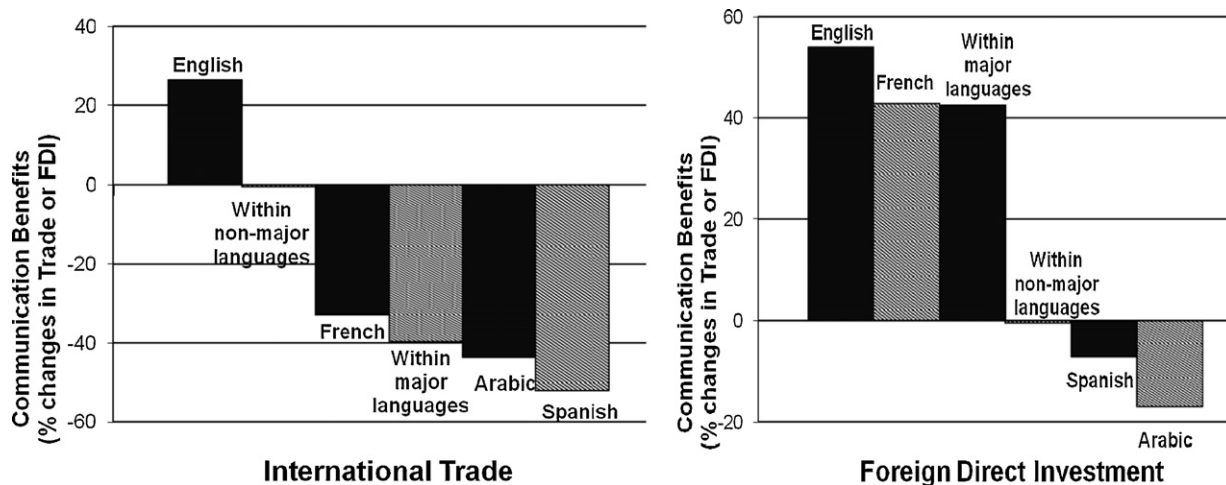
### 3.1. Some languages are more in demand than others

As the Chinese economy, the legal system, and banking developed toward the end of the 19<sup>th</sup> century, the *comprador* system began to change. China's exports shifted from simple agricultural goods to more hand-crafted manufactures, and then to more complex, engineered manufactures. Demand for longer-term, enforceable contracts specifying production details, ownership structure, and risk-sharing translated into significant growth in contract law, development of insurance, financing products, and the need for significant capital. Foreign trading houses and the *compradors* answered this challenge as the Chinese economy entered a rapid industrialization phase.

Concurrent with these changes, some foreigners began to develop significant Chinese language capacity while Chinese traders learned English, and their respective abilities to negotiate in Chinese or English increased. In fact, the complexity of business drove the use of both Chinese and English at the expense of simpler, less robust *pidgin*. Contracts were written in English and Chinese, and market information was printed in English- and Chinese-media newspapers. The elite *compradors* became multilingual, and sent their children to study in British, American, or newly-established Chinese universities.

As the 19<sup>th</sup> century progressed, usage of Chinese and English rose at *pidgin*'s expense inside China. Outside China, English displaced *pidgin* throughout Asia and gained ground against other languages used in international business, but demand did not grow for Chinese. China's economy was developing, yet Chinese per capita incomes stagnated over much of this same period. Meanwhile, the political and

Figure 1. Language hierarchy in major trade languages



economic power of English speakers increased significantly; incredible wealth was accruing to Great Britain from international trade and the British Empire reached its apex in the latter half of the 19<sup>th</sup> century.

The English language has continued to gain power up to the present day. However, we must pose an important question: How large is English's advantage over other major trade languages? The effects of English versus other major trade languages on trade and FDI should vary, reflecting the relative political and economic power of each major trade language. This is, indeed, what our empirical results show: presently, English has the largest advantages, while Spanish (for trade) and Arabic (for FDI) have the lowest advantages among four trade languages (English, French, Spanish, Arabic). Figure 1 illustrates the relative importance of each trade language in international business activities.

### 3.2. Language intensity escalates with the growth of international business

The added costs of the *pidgin* language tax and the development of Chinese economic institutions incented attempts to substitute other languages for *pidgin*. Ability to speak those languages would demand a premium, as well. This capacity to speak a language may bring certain cultural expectations, and advantages, as we have noted. Impacts of these cultural components bear exploration.

Consider how trade and FDI work from a linguistic sense. To transact in goods and services, and to directly invest in another nation, some language ability is required; however, not all citizens of each nation need to speak the other's language. Trade and FDI usually hinge on considerably fewer points of contact than the entire population. Also,

intermediaries may be easier to use, as shown by the pervasive presence of the compradors.

Again, the compradors' shifting nature reflected a change in language value. In the transforming Chinese economy, the nature of the compradors' squeeze changed from purely a language tax toward additional compensation for the enormous amounts of capital the compradors were committing to the foreign merchants (Hao, 1970). The complexity of contracting required not only more legal expertise, but a more robust language. English and Chinese both displaced *pidgin*, with English assuming the role of a pan-Asia trading language. According to Melitz (2008, p. 672):

If two people understand the same language—especially if the language belongs to the 30 or 40 most prominent ones in the world today—it ought to matter little for trade which of them they use. However, the idea that some languages serve better in indirect communication, or are more effective means of getting messages across through a go-between or in translation, seems reasonable.

Modern business runs on an integrated corporate structure, not on a 'trading house' basis. A global language policy is usually implemented in a modern corporate structure. A manager's experience at Siemens provides an example. Posted to Beijing from Hong Kong, she extensively studied Mandarin before taking up her position. Siemens has a global language policy: if a meeting is held and an attendee does not speak German (the company's 'official' home/host language), the session is conducted in English—even if taking place in Germany. When this manager walked into her first meeting in Beijing and the other participants saw her, they guessed she was an American. They immediately switched from

Mandarin to English. She said, "Look, I am German," and the meeting participants immediately shifted to German, including all the Chinese participants. While German is the native language of Siemens, English is the company's lingua franca of choice. This is so common in global business that scholars have coined an acronym: BELF, or *Business English* as a *Lingua Franca* (Louhiala-Salminen, Charles, & Kankaanranta, 2005). The idea behind BELF is to provide a culture-neutral medium. In a corporation from a non-English-speaking country, cultural and linguistic advantages disappear by choosing a neutral lingua franca. Naturally, in a global corporation like Siemens, some native English speakers will be among management. But since the corporation is headquartered in Germany, advantage would not be expected to accrue to the native English speaker.

In a similar way, *pidgin* was the lingua franca of its day, with no cultural commitment by *pidgin*'s speakers. Over the 19<sup>th</sup> century Chinese economic transactions grew in size, frequency, and complexity, and the trading houses which employed compradors expanded over much of Asia. The transactional basis of *pidgin*, centered primarily on simple trade negotiations, proved inadequate. In addition, the economic value of speaking the counterparty's language increased, stimulating language study leading to growing use of trading languages. Also, the nature of business in 19<sup>th</sup> century China shifted from trading in primary materials and simple manufactures, to direct investment in production facilities and export of increasingly sophisticated goods. The linkages between negotiating parties—production, transportation, financial, legal—grew significantly.

Early 21<sup>st</sup> century international business is, of course, much more interlinked through extensive investment and supply chain management. As these interlinkages have grown, so have languages' influence on international business. Why has this 'language intensity' increased? We can examine this question by looking at the differing natures of international trade versus FDI.

An archetypal international trade transaction is exactly that: transactional. Negotiations proceed between buyer (importer) and seller (exporter), in many cases between a single buyer and a single seller, and a deal is structured through a language common to both parties (Cremer & Willes, 1998). Buyer and seller may have a longer-term relationship, but also may simply meet to effect this transaction; for example, bidding in generic commodities. Language choice may allow either speakers' language to be used, or a third language, and language cost subsumes the steps involved to negotiate and consummate the transaction. Buyers and sellers may come from, and reside in, a large

number of countries, so the potential number of country pairs (i.e., language pairs) is large. But FDI is based on long-term capital flows into another country, rather than a short-term transaction. The United Nations (1999) defines FDI as:

An investment involving a long-term relationship and reflecting a lasting interest and control of a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise, affiliate enterprise, or foreign affiliate).

Modern global corporations are expert at internalizing value-added activities in foreign countries (Dunning, 1993; Rugman, 1981). These companies expect to operate for some time in the location where the FDI is placed, in order to recoup the investment; for this, they demand long-run exclusivity and gain monopolistic rents through FDI (Dunning, 1977) in comparison with international trade transactions. These longer-term FDI relationships require significant levels of trust inside the corporation and in the host country. While opportunistic trading may occur, opportunistic FDI without long-term horizons often results in losses, and losers either exit the business or become better at planning longer term.

The language requirement in a long-term FDI relationship scenario is therefore greater, as it is much more specific and intensive in nature; the location in which the investing entity places its capital does not change, so the investor's language requirement is quite specialized. The investing entity's managers must communicate with their local staff in either the host country language, the investor's home country language, or in a third language common to the host country and known by a necessary number of the investor's management staff (Luo & Shenkar, 2006). Higher language costs continue for a longer period in FDI than in an international trade transaction. There are also more points of contact in the language chosen; indeed, many exist in or between headquarters and subsidiaries as extensive communication flows back and forth for foreign operations.

Our empirical results show that language is more important in FDI than in international trade flows (see the size of major language and language distance coefficients in Table 1). It is likely this greater language intensity reflects not only the technical aspects of the language, but also the heightened sense of trust which comes with longer-term exposure to the language and its related culture. We are not arguing that any one language 'carries more



trust' than other languages. The idea is simply that languages used in business must have sufficient culture attached because the trust engendered in business relationships comes, in part, from the cultural attachments. Additionally, languages may still be used as a business tool without as much culture embedded, as use of Business English as a Lingua Franca shows.

#### 4. You already have a language advantage

If you can read this, breathe a sigh of relief: our research indicates that English is, by a wide margin, the most important language in international business—and there is little indication of this changing anytime soon. Not only do multinational corporations from 'traditional' English-speaking corporate bastions like the United States, the United Kingdom, and Australia promote English usage, but the rise of corporations from India, Malaysia, South Africa, and many other countries also support this trend.

At the same time, growing language intensity increases the value and usage of other languages, too. There are many reasons which account for this, including the growth of language networks; the demand for products in other languages (e.g., Canto-pop music, Bollywood films in Hindi, soap operas in Korean, interest in all things Brazilian driving Portuguese); the fact that culture embedded in a language may increase trust; and the rise of multinationals from non-English-speaking countries. However, some of these multinationals will implement a global language policy employing Business English as a Lingua Franca (BELF), thereby partially offsetting the value of another language at English's expense. There is an important difference between this concept of BELF and the adoption of English by a multinational corporation domiciled in an English-speaking country: one where culture comes with the language chosen. This cultural component affects your international business negotiations whether inside, or outside, the corporate boundaries.

In fact, the cultural ramifications of English as the primary global business language still affect non-native speakers in a number of ways. Christine Grosse (2011) recently described how Mexican managers perceive five unique challenges of dealing with American managers from a cultural perspective. These include the differences in business conduct between Mexican and American managers; Americans' strict adherence to scheduling; the communication patterns Americans follow, which often strictly separate personal and business relationships; technical aspects of laws and regulations, and how these are followed; and permissible areas of discussion and

activity in business contexts. These challenges arise not through language issues, but via cultural distance. Cognizance on the part of American managers toward these cultural differences would not only help in business negotiations, but may also prove to be an advantage to those American managers who have particular depth in the target culture. Also, ability to determine if the counterparty is attempting to use English solely as a tool—a BELF application, as it were—or to develop a deeper relationship will help the American manager determine appropriate responses.

##### 4.1. Could Chinese be a new lingua franca?

BELF is a modern, tangible example of English's power, and emblematic of growing language intensity. It also exemplifies the tool skills which certain languages bring. But sometimes a language's advantage as a tool skill is not readily apparent.

For instance, the Chinese language has long served as a communication medium for the considerable Chinese diaspora trading networks, which have existed for millennia (Curtin, 1984) and are quite intricately developed (Rauch, 2001; Rauch & Trindade, 2002). But as previously noted, Chinese is not considered a major trading language because it is the official language of only a few countries and has only recently been used outside China and the diaspora.

Last summer, one of your authors went to China. To avoid the high roaming charges for voice and data usage, your author (I) decided to text message contacts. Reading this article, you will understand why I previously felt I could not adequately put any message of value in 140 characters—in English. But Chinese proved to be a different matter. Because each character may be a word and Chinese grammar is more compact, I found I could send short essays, full of wit and wisdom, in 140 characters! Clearly, Chinese trumps English in the 140-character space and, of course, cell-phone technologies help this transformation.

We do not suggest that you instruct your employees to learn Chinese in order to text more melliflously. But interest in studying Chinese, and learning about China, has grown rapidly. This can be said about many languages and cultures nowadays. Next, we offer some practical suggestions on possible business policies toward this end.

##### 4.2. Practical suggestions on language study

First, be realistic in your expectations toward yourself and toward your employees regarding learning Chinese—or any other language. This will encourage

learning while protecting from disappointments. Following is a typical conversation between a college student and a professor regarding expectations of Chinese study:

*Student:* I want to become fluent in Chinese.

*Professor:* Great! How much time do you plan to dedicate to this study?

*Student:* A year.

*Professor:* Okay. Well, when I started, I wrote Chinese characters every morning for an hour, 6 days a week, during school and vacations, for 2 years. Then I was at a beginning-intermediate level.

*Student:* Oh. Is that what it takes? That much?

*Professor:* That is what it takes to attain proficiency.

*Student:* Well, do I really need to become proficient?

*Professor:* Not necessarily. What's needed is to attain a level that helps one's business communication skills.

A colleague's real-life experience with this phenomenon illustrates exactly what is needed to achieve that edge. Proficient in Japanese, he spoke no Chinese but developed a research interest in Chinese management strategy. In 2008 he was invited to give a keynote speech at a conference in Changchun, China. Determined to make an impression, he learned Chinese well enough to phonetically hone an introductory paragraph to his speech. He practiced for some time, and then gave his talk. After the introductory paragraph, he announced: "The rest of the speech will be in English." When finished, he received a standing ovation and was the star of this conference—not because he was fluent in Chinese, but because his dedication to learning one paragraph expanded bonds of trust with the Chinese conference participants. Most of these individuals had struggled to learn another language, so they understood the commitment required to learn and deliver an entire paragraph phonetically. This example highlights the all-important mix of language and culture: the Chinese participants knew how much dedication was involved, and appreciated it. They understood the words as spoken, although they were not in perfect Chinese. That combination provided the necessary fuel to drive the relationship, thereby

increasing trust. Patience on both sides was needed, and given.

Employ this same technique by focusing on the country and culture you need in your work. Apply a technique we have all learned in sales: just as you look for something you could like in your client, find something you like in the target culture. It could be Italian cuisine, Brazilian architecture, Russian novels, or Kenyan pop music. Use that affinity to study the language, and learn a few key phrases. Implement the same policy with your employees. The younger generation are often much more open to international influences; this provides a competitive advantage if it can be channeled toward your international efforts. A favorite recent commercial shows a tired American Airlines passenger returning from a business trip to Japan. He falls asleep and dreams of the previous night's farewell party his Japanese hosts held for him. He had diligently practiced a karaoke song and performed it with a few close Japanese colleagues. Trust us in saying that this really works: your authors employed the same maneuver last summer in Japan.

Think of studying languages as being analogous to learning another sport. Just as the more sports you play, the easier it becomes to learn another sport, so it is with languages. Consider a racquet sport: perhaps you started playing tennis, then someone introduced you to squash, or handed you a badminton racquet. Just as your skills in one racquet sport translated into another, so learning a language related to one you know is also easier. Portuguese? Well, I speak some Spanish. Swahili? Sure, did you notice the vowel sounds are exactly like Japanese? Even with very distant languages, your athleticism will help you learn.

#### **4.3. Pay close attention to language issues when investing or trading**

The bottom line is to be cognizant of language issues when your company is trading internationally, and especially when investing internationally. Our research supports the idea that language talent comes at a price. Any corporate asset which can lower transaction costs incurs its own cost as well, even though that marginal cost is lower. International trade involves a transaction cost; FDI locks a corporation into a long-term chain of transaction costs. Those costs include enabling your management team to operate effectively in-country, as well as hiring local human capital.

It is perhaps easier to divide these costs into benefits and losses in the same way you may examine the credits and debits on your corporate balance sheet. The credits are tallied as those

human assets in place, and the costs incurred to hire, train, manage, and retain those assets. They are tangible benefits to your corporate efforts, and you may be able to directly cost-out their addition to the bottom line. Sadly, the debits are more difficult to quantify. These arise from lost business opportunities, misdirected investment, and added operational costs. Our research puts a rough estimate on the benefit from language assets; your experience and preparation can help you mitigate the possible losses from the debit side.

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## Appendix A

### Model

Our statistical model uses a gravity equation design, which has been widely used in bilateral trade literature, as well as in bilateral FDI literature (Fratianni, Marchionne, & Oh, 2011; Lien, Oh, & Selmier, 2012). The fundamental idea behind the gravity equation is that 'closeness'—measured in institutional, economic, cultural, and spatial terms—reduces economic transaction costs between countries, while 'distance' increases transaction costs. As discussed, our models incorporate a measure of linguistic distance between official languages of two countries in a transaction pairing.

### Data

Our dependent variable is the nominal value of trade, or FDI, flowing to destination country from source country. Trade data (in thousands of current dollars) come from the World Trade Analyzer (WTA) for 1984-2003 (managed by Statistics Canada, 2007). FDI data (in millions of current dollars) come from the International Direct Investment Statistics, which is collected by the Organization for Economic Cooperation and Development (OECD, 2009).

Our explanatory variable for language is the *language distance*, a continuous linguistic distance between pairs of languages by lexicostatistics scholars (i.e., Brown, Holman, Wichmann, & Velupillai, 2007; Holman et al., 2008). These lexicostatisticians construct a dataset by measuring the similarity of words, rather than on the basis of grammatical similarity or language tree estimation. In order to measure the effects of major trade languages, we generate five dichotomous variables. We do this to model how countries which speak these trade languages interact. The first variable in this category, Within Major Trade Languages, is set to 1 when two countries speak two different major trade languages (i.e., English, French, Spanish, and Arabic). We also code countries if they speak one of the four major trade languages. We can then estimate the effect of that language on other countries which do not speak a major trade language. English-Speaking Country, French-Speaking Country, Spanish-Speaking Country, and Arabic-Speaking Country are those four major trade language variables. English-Speaking Country is set to 1 when one country in a trade pair speaks English while the other country does not speak a major trade language; otherwise it is set to 0. The same reasoning applies to the French-Speaking Country, Spanish-Speaking Country, and Arabic-Speaking Country variables.

We employ a set of conventional control variables in a gravity model design. These are log of product of GDPs, geographic distance, common border, common legal system, colonial relationship, same currency union, regional trade agreement, inter-regional trade agreement, the log of sum of political stabilities. We like to draw readers' attention to Fratianni and Oh (2009) and Selmier and Oh (2010) for detailed information about these control variables. Finally, the model includes the year fixed effects and country-pair random effects. These fixed and random effects are introduced to control for the possibility that some non-observable country-pair and yearly effects affect trade and FDI flows.

## Empirical findings

Table 1 reports the results from our trade model. In the first two columns we tested the relationship between language distance and bilateral imports flows and in the next two columns we tested the relationship between language distance and FDI. Language distance is highly significant and negative, as one would expect. If two countries in a trade pair speak a similar language, lower communication costs increase international trade and FDI. To give a comparison in number terms, the most distant language pair in our sample is Greek and Chinese. Based on our model, Greece and China trade 126% less than two countries sharing the same official language (e.g., the U.S. and the UK; Mexico and Spain; France and Senegal) and 120% less than Indonesia and Malaysia (the closest language pair), *ceteris paribus*.

When we include the major trade language variables in the simpler models (Models 2 and 4 in the table), we find noteworthy results. If two countries in a country pair speak different major trade languages (for example, the UK and Spain; the U.S. and France), the language costs facing economic actors in each country is very high. Very high communication costs arise when two countries in a trading pair speak different major trade languages; economic actors in this country pair must choose a language in which to trade. Our findings do not suggest that English speakers do not have communication costs when they learn foreign languages. Rather, the findings imply that in international trade and FDI non-English speakers will likely learn English because the net benefits are much higher when non-English speakers learn English than English speakers learn another language.

We find a hierarchy of communication costs for trade language with respect to prospective trading partners' languages: in terms of costliness, Spanish > Arabic > (within major trade languages) > French > (within non-major trade languages) > English. The order of transactions cost in our FDI models is Arabic > Spanish > (within non-major trade language) > (within major trade languages) > French > English. We induce that, in country pairs where both countries speak non-major trade languages, those countries are inclined to adopt English (and not likely to adopt other major trade languages: Spanish, French, and Arabic) to transact with each other rather than compel their trading partner to use their own language as the trade language. This drives English usage at the expense of other major trade languages, and thus the legacy power of English is high to speakers of other major trade languages. These results provide compelling empirical support for Ginsburgh et al. (2007), Hejazi and Ma (2011) and Lazear (1999). Due to the aim of this article and interest of space, more statistical information of our model, results, and robustness checks are available upon request for readers.

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