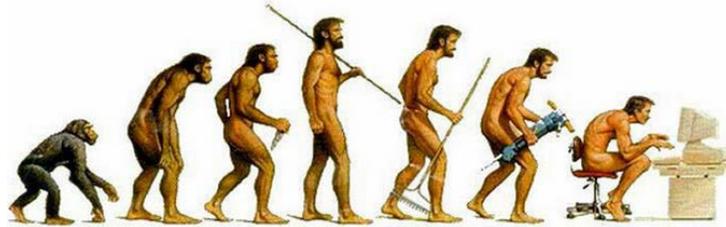


## A background research note

### A co-evolutionary framework of economic activities over distances: <sup>1</sup>

#### Linking the evolution of humans, organizations, institutions and the natural environment from 25,000 BCE to the future

Victor Z. Chen



Source: Brainlight.com

*“Frameworks [...] are metatheoretical devices that help provide a general language for describing relationships at multiple levels and scales” (Ostrom, 2010: 19); “Without a common framework to organize findings, isolated knowledge does not cumulate” (Ostrom, 2009: 419).*

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<sup>1</sup> An earlier title was “A co-evolutionary framework of international business”. It was questioned by some scholars because a long historical review of international business is irrelevant if it goes before the emergence of nation states. Because inter-*national* business (IB) didn’t technically exist before the emergence of nation states (e.g., before the Peace of Westphalia in 1648 in Europe, 1912 in China, and the end of WWII in many other regions), I generalized the concept of IB back to its essence –economic activities across distances, where distances, as I will discuss later in the thesis, refer not only to spatial but also territorial and cultural distance. In fact, one important and radical message this study tries to convey is IB should be generalized and re-conceptualized into economic activities over distances for two important reasons. First, nation states are not the only boundary in all distance dimensions, not for cultures, not for knowledge, not for information, and not even always for politics (e.g., decentralization of approving foreign direct investment in China). Second, as we will see more and more in future in the development of physical and information technologies and mega-trade and investment agreements, economic activities are facilitated in a more and more friendly and border-less way through inter-governmental services. As a result, the dimension of distances between nation states in the area of cross-border economic activities is diminishing, although other dimensions of distances still remain influential and their boundaries are evolving.

## INTRODUCTION

The very spirit of international business (IB) as a discipline is to integrate multi- and inter-disciplinary insights into a fuller picture to inform IB practice (Dunning, 1989). Notably, the 1959 founding *Constitution of the Association of Business Education in International Business (AEIB)* (the predecessor of Academy of International Business (AIB) and the creator of JIBS) defines its objective to be “[transcending] the boundaries of single academic disciplines and management functions to enhance business education and practice] (AIB, 1959). Despite its vast network of foundational disciplines including economics, sociology, political science, geography, psychology and, sporadically, history, linguistics, anthropology and environmental studies, IB has been criticized for facing the challenges of running out of its proprietary research agenda (Buckley, 2002) and for having received too much isolated research that is exclusive to a single discipline (Eden, 2010). Additionally, many of IB scholars fall victim to mistakenly hype “newness” or “breakthroughs” about their work whereas much of it had been achieved much earlier in other infrequently consulted disciplines, albeit usually in a different academic language. Furthermore, without regular participation at the frontiers of other disciplines, IB studies may risk of basing their arguments on outdated theories from the outside.<sup>2</sup> The cause of this problem is not out of IB scholars’ disrespect or ignorance, but difficulties due to the absence of an interdisciplinary framework guiding IB studies.

Here I am of course not assuming that these problems do not exist in other disciplines. In fact, I am aware of their existence and even prevalence in many other disciplines.<sup>3</sup> But the point I am trying to make here is that recognizing and tackling these problems should be more prioritized in IB than in other single-disciplinarily based areas, because the fundamental *raison d’être* of IB as a discipline (as opposed to a phenomenon) is to bring synergy by consulting many disciplines for a fuller, and more impartial and truthful understanding in economic activities over distances. If such synergy cannot be guaranteed, the necessity of IB as a discipline becomes very much a question, because, after all, any other discipline in business studies can extend an international angle and can do so in a more specialized and focused way. More practically, if scholars seeking advanced knowledge can rightfully suspect the synergetic value that *Journal of International Business Studies* (JIBS) can offer, they could legitimately turn to multiple other more specialized outlets and to synthesize cross-disciplinary insights as part of their own homework (the cease of *Journal of Business* in 2006 after almost 80 years of running is a lesson).

In this study I seek to develop a framework in which IB scholars can locate their own focal levels and scopes of interest but meanwhile stay connected with others from related disciplines. This research seeks

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<sup>2</sup> For example, although evolutionary psychology has been rising for years in the mainstream cognitive science, it has been rarely mentioned or controlled in IB studies that are built on psychological literature.

<sup>3</sup> For instance, the resource dependence view, developed in sociology, and the transaction cost economics, developed in economics, are quite overlapping if both are reframed into the same language at a more generalized level.

to answer two questions. First, what are essential components of IB as a discipline? Second, what does each of foundational disciplines do to inform these essential IB components?

Building such a framework is a bold initiative given very few prior trials (and errors) to learn from, but three general principles should stand out. First and foremost, advancing scholarship in a professional school -- the business school, this framework should start with the historical and contemporary observations and be evidence-based and empirically testable (Pfeffer and Sutton, 2006; Rousseau, 2006). It is not an academic fiction by grouping existing disciplinary concepts and theories altogether, but a reflection of the core constants, variables, levels, and their co-evolutionary relationships in their right order in the reality. Second, like other interdisciplinary frameworks, it should try to avoid disciplinarily specific jargons and languages and be as universally readable as possible by scholars coming from different disciplines (Ostrom, 2005; Porter, 1990). Third, scholarly research should not (and is not able to) be a replication of the complexity of the real world (Ostrom, 2010); generalization and parsimony for a big-picture understanding also apply (Whetten, 1989).

With only slightly more than half a century of history, IB as a core discipline is a very young field in business schools. Since the foundation of this field by late John H. Dunning in his seminal work, *American Investment in British Manufacturing Industry (1958)*, the mainstream academic quest has been on competitive advantages in economic activities across nations. The early focus of analysis was on the interaction between firms (especially multinational enterprises (MNEs)) and nations. Over the next fifty years of development, IB field has evolved to engage four clearly defined levels of research – humans (e.g., cognitive studies, human resource management, and top management teams), organizations (e.g., firms, governments, and NGOs), institutions (e.g., markets, politics, and social-cultural structures), and natural environment (e.g., natural resources and environmental protection). However, because scholars working on different levels of studies typically come from different disciplines of training,<sup>4</sup> speak and write in different academic languages,<sup>5</sup> go to different sessions of academic gatherings, and read and cite selectively publications in their own narrow domains, a full paradigm that engages all levels of studies at the same time has never been unfolded. With these barriers still rising, unfolding a full paradigm is no easier than building the Tower of Babel. Unlike natural sciences, which naturally connect all small, truthful, and yet isolated findings to the natural basis of fundamentals (e.g., genes, physics, etc.), social sciences, to which IB belongs, lack such a basis of fundamentals (North, 2008) and thus require human-devised paradigm to align isolated findings in order.

The absence of such a full paradigm doesn't mean there had been no partial efforts. Indeed, four streams of works are quite notable, although not all of them were made for the purpose of this thesis and three were not even in the IB field. Specifically, I seek to renew, extend and synthesize primarily the following prior

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<sup>4</sup> For instance, economists and sociologists usually focus on the organizational and national levels, whereas psychologists usually focus on individual or cognitive levels.

<sup>5</sup> For instance, exogenous assumption in econometrics and sequential ignobility assumption in psychometrics more or less carry the same meanings, albeit in quite different names.

efforts: (1) Jensen and Meckling's (1998) and Simon's (e.g., 1955, 1979) cross-disciplinary reviews of the nature of humans in business organizations, complemented by recent findings in evolutionary psychology within an organizational context (e.g., Nicholson, 1997; Pinker, 2013); (2) Hayek's (e.g., 1973) *magnum opus* on the co-evolution of human mind and society; (3) Cantwell, Dunning and Lundan's (2013) *Journal of International Business Studies* article on a co-evolutionary approach of MNEs and the institutional environment, which was built upon North's (e.g., 1990, 2005) writings on institutional change and Nelson's (e.g., 2007) work on co-evolution of technology and institutions; and (4) Ostrom's (2009) *Science* paper on a general framework of sustainable social-ecological systems and the same author's (2005) institutional analysis and development (IAD) framework, both of which have systemically linked the levels of humans, organizations, institutions and the natural environment, although neither was positioned from a dynamic perspective that has considered changes at all levels at the same time.<sup>6</sup>

All these four streams of work are theoretically grounded in multiple foundational disciplines. Following their theoretical linkages to the background disciplines, I further seek to discuss the relationships between the synthesized full paradigm and related theories and evidence in the foundational disciplines. In this way, IB scholars could not only find their focus in the full paradigm, but also know how their focus is related to other components of IB and foundational disciplines.

### **PATTERNS OF EVOLUTION: TIME AND DISTANCE**

To understand the changing patterns of economic activities across distances is to understand the broader picture of social evolution. Such evolution essentially is a long process of institutional learning, which I want to define as all sorts of pathways through which information and knowledge are transmitted across human individuals over time and distance. Such evolution consists of two generic parts: *constants* and *variations*. The first generic part, constants, comes from errorless information transmission. It is enabled by two mechanisms. The first is natural laws that are not subject to human intervention and design, including "physical and behavioral laws" (Ostrom, 1982: 5). This mechanism is enforced by unconscious bio-physical memories as a natural result of evolution across a sufficiently large number of generations (e.g., genetic roots of social traits).<sup>7</sup> Second, mechanical diffusion of information, including *precise* transmission of personal- and institutional memories (i.e., history) over *time* and *distance*. Such mechanical diffusion requires advanced information technology to ensure precision (e.g., from a historical view, from speaking, to writing,

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<sup>6</sup> This is a gap even noticed by Elinor Ostrom herself. For instance, in her forward to a 2010 special issue of *Transnational Corporations Review*, she suggested that "As we move ahead, we are struggling with how to theoretically integrate the multiple scales of institutional and ecological interactions that underlay any particular action situation. We are trying to develop ways of looking at multiple levels of decision making in a sequential form of analysis. This is a much greater challenge than recognizing their presence as we already do in the Institutional Analysis and Development framework, but not explicitly looking at multiple levels at any one time." (Ostrom, 2010: 1).

<sup>7</sup> Recent studies suggest that it is very difficult, both theoretically and empirically, to find the genetic architecture of humans' social traits (see, e.g., Chabris, Lee, Benhamin, Beauchamp, Glaeser, Borst, Pinker, and Laibson (2013)). But it is also evidenced that genetic variation across national neighbors is substantially smaller than cultural variation (Bell, Richerson, and McElreath, 2009).

to language, to mathematical language, to computer codes, to centralized information processing servers, etc.).

The second generic part, variations, refers to two changes in the process of informational transmission. The first is *error*, as a result of inevitable loss and misinterpretations of existing memories in the process of diffusion (Nelson, 2007). The second is *innovation*, which is a conscious design through redivision, recombination and repermutation of existing memories (Padgett and Powell, 2012).

However, variations in themselves do not always entail *heredity* (or, interchangeably, *retention*), without which an evolutionary process is not complete (Nelson, 2007). Only a very small proportion of variations could be precisely and repeatedly transmitted into institutional memories. Such new institutional memories are very similar to “memes”, a term coined by Richard Dawkins (1976: 206) as the social equivalent of genes. Heredity is enabled and sustained in large part through group *selection* within the selecting community enforcing the variations into repetitious collective actions (Hayek, 1983). Although the specific results of group selection, as Hayek (1983) argued, are not predicable, one principle must apply: surviving new “memes” should be compatible with human natures within a respective context, since human natures, by the very definition, are resistant (Hayek, 1979).

To identify the major constants and variations, which are the building blocks of a co-evolutionary framework of economic activities across distances, it is necessary to start off by (re)visiting the key economic behaviors, their determinants, and why and how they converge and evolve over time and distance.

### **Two fundamentals: Historical continuity and human natures**

Before we explore a theory to explain patterns of economic activities, we need a basic understanding of two things. First, is IB history continuous? Asked in another way, shall we just focus on the observations after the 19<sup>th</sup> century as does the current IB literature (e.g., Cantwell et al., 2010)? History textbooks are typically written in segmented periods and structural breaks. After each break, new terminologies are introduced, new patterns organized, and new theories developed. I want to argue that IB history is continuous in its content if we could decontextualize many IB concepts into their generalized meanings (Chen, 2014). First, the overall institutional environments for doing business are essentially continuous. In China, for example, although there seemed to be a major structural break in 1949, when People’s Republic of China was founded as a socialist nation state out of more than three millenniums of imperial dynasties (1,700 BCE – 1912 CE) and a short-lived and chaotic democratic republic (1912-1949 CE), the more than two millennium-old authoritarian Confucianism (perhaps more than Soviet-style Communism) was fused into the new nation’s early institutional designs – indeed, one of Chairman Mao’s favorite books was *Zizhi Tongjian*, a collection that teaches how Chinese emperors governed their empires in history.

If we generalized the meanings of IB to a less contextualized setting, we could more clearly see the continuity and coherence of history. For instance, we could decontextualize IB to economic activities across distances, which will include such ancient activities as inter-tribal and inter-imperial trade and capital

movement, MNEs to organized economic activities controlled by and primarily beneficial to entities or individuals from distance, and governments to rulers that make and enforce policies. Thinking in this way, it is not surprising that IB activities in their essence emerged in multiple locations on earth long before the modern economic history. For instance, Lewis and Moore (1999: 269-270) discovered that early (European) multinationals existed as early as 2,000 BCE shortly after the Assyrian Kingdom and presented similar properties as the modern ones such as “hierarchical organization, foreign employees, value-adding activities in multiple regions, common stock ownership, resource and market-seeking behavior”. As another example, before European IB policies were transferred into Asia, the emperors in Ming Dynasty (1368-1644 CE) allowed alien businessmen, mostly from Hu (somewhere in today’s West and Central Asia), to live primarily in Ming, to marry Ming women, and to conduct business across Ming borders for up to nine years, after when they would be automatically assimilated as new Ming people and no longer allowed to leave (Gallagher, 1942).

Second, are there any natural constants in the evolution of human activities? If there are, then there is a natural foundation upon which social evolution has been based. It is helpful to revisit some homogeneous human behaviors in the very beginning of human development, when they were primarily guided by nature. In this way, we can build some basic knowledge to distinguish nature-devised drivers of common behaviors (or “physical and behavioral laws” (Ostrom, 1982: 5)) from human-devised drivers of common behaviors (or institutions in their general sense including shared strategies, shared norms and shared rules (Ostrom, 1982)).

Among the earliest examples of homogeneous human behaviors was “endurance running” back to about two million years ago, which, as Bramables and Lieberman (2004: 345) hypothesized, in large part evolved humans from primates. In the absence of institutions, this common human behavior was a result driven purely by physical and behavioral laws – the interaction of derived traits of *Homo* (e.g., long spring-like tendons, expanded joint surfaces, expanded areas on the sacrum and the posterior iliac spine, as well as reduced body hair for heat dissipation) and limited, diffused and running animals as foods in the natural environment (Bramables and Lieberman, 2004).

Another way to identify human natures, as many evolutionary psychologists do, is through the observation of common behaviors of early children (e.g., Pinker, 2013). Three human natures, among others, can be found in all early children regardless of their ethnicity, geography, or familial and cultural backgrounds. First, they want more if what they are given are less than what they desire to have. This is a primitive foundation for the most important behavior assumption in classic economics – rationality. Second, they make mistakes but can learn from their mistakes through repeated trials – this is a primitive foundation for bounded rationality. Third, over time they develop their own comfortable habits and tend to stick to them – this is a primitive foundation for irrationality driven by cultural biases.

In the rest of the study, I’ll explore the emergence of three key distances, how they evolve human economic behaviors, and how such evolution has been constrained by human natures. Below lists briefly the structure of my discussions.

## **The emergence and persistence of distances**

### ***Spatial distance: Geographic location***

Our common ancestral human population (about 5,000 people) began to migrate out of East Africa in about 50,000 BCE (Wade, 2006).

### ***Territorial distance: Violence-enforced regimes, tribes, empires, and nation states***

Due to natural and language barriers along the way of migration, our common ancestral human population began to be divided into different clans, between which communications became difficult.

### ***Cultural distance: Religions, social-psychological clusters, and online social networking***

Religions emerged at about the same time as language as a way to enforce sociality among strangers, enforcing trust and preventing free-riders (Wade, 2006).

## **Economic activities across distances**

### ***From value-adding activities over spatial distance to cross-territorial production (25,000 BCE -)***

Modern international or, more generally, inter-territorial production evolved step by step from the earliest value-adding activities over spatial distance and delineated territorial borders with violence-enforced defense. Early value-adding activities were found back to 25,000BCE. A University of Michigan anthropologist Robert Whallon discovered in Crotta S. Angelo, a small rock shelter in Abruzzo in Italy, that “Local flint resources apparently were exploited for raw material that was prepared at this site, with preforms and finished products being removed for use elsewhere” and all these were believed to happen in around 25,000 BCE.

### ***From capital movement across territories for value-adding activities to foreign direct investment (2,000 BCE -)***

Moore and Lewis (1999: 269-270) revealed that the earliest capital movement for value-adding activities across territorial distances emerged in the Assyrian Kingdom shortly after 2000 B.C., and ancient activities of such, many of which were military-led, presented similar properties as the modern multinational corporations such as “hierarchical organization, foreign employees, value-adding activities in multiple regions, common stock ownership, resource and market-seeking behavior”.

### ***From corporations to modern multinational corporations (1602 CE -)***

During the Age of Discovery, many European nations chartered companies to lead colonial ventures. Established in 1602, Dutch East India Company was the earliest example of such chartered companies. It was considered as the earliest predecessors of modern multinational corporations.<sup>8</sup>

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<sup>8</sup> Many years earlier, Alfred Chandler and Mira Wilkins had a vigorous debate on whether the East India Companies were early MNEs, later joined by Ann Carlos and Steve Nicholas. As Wilkins explained to me recently, they agreed to disagree without conclusions. Chandler believed that these companies were not MNEs since the

## PUTTING HUMANS BACK: FROM FIRM- TO HUMAN ACTION-CENTERED PARADIGMS

*Corporations are an over-aggregated unit in a long-term historical perspective*

*Individual actions within the context of multinational corporations*

### A MULTI-LEVEL FRAMEWORK: HUMANS, ORGANIZATIONS, INSTITUTIONS, AND THE NATURAL ENVIRONMENT

#### DISCUSSION

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distances were so great that the ability of the headquarters to exert any managerial direction and control was very limited. Wilkins agreed but felt that these companies were early MNEs in that they involved business abroad, international investment, and their resemblance to a modern MNE lay in the internalization within the firm of decision making. Carlos and Nicholas went further and basically agreed with Mira.

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