

II

Foreign Markets as Subsystems of Civilizations

ABSTRACT

Identifies an unanswered question in the literature: What are the basic elements of human civilizations? Addresses this gap by applying cluster analysis to synthesize several multi-disciplinary definitions, taxonomies, and theories of human society, culture, and civilization into an overarching meta-taxonomy that includes the following categories: actors and relations, symbolic systems, institutions, technologies, ecological context, and knowledge. The taxonomy offers a new lens of analysis—and 30 new hypotheses—into the composition and dynamic structuration of civilizations and their subsystems.

INTRODUCTION

Chapter 1 concludes that international business (IB) scholars lack an explicit conceptualization of foreign markets, and reveals that their implied conceptualizations are extremely broad, to the extent that they include just about anything and everything that might be encountered in a foreign country, region, or territory. The objective of this Chapter is to formalize this broad conceptualization—to provide a glimpse of the whole elephant—by explicitly addressing the so-called civilizational super system, the macro-context that cradles, supports, and constrains the foreign market, however it may be defined. The motivation for taking this broad view is as Sorokin (1966: 379) explains,

Without an adequate knowledge of the super system we can hardly understand the structural and dynamic properties of all its important parts—its subsystems, sub-subsystems, and congeries—just as without sufficient knowledge of a whole organism, of its gross anatomy and gross physiology, we cannot understand the anatomy and physiology of its organs, tissues, and cells.

Thus, in the remainder of this chapter, we jump up to the level of the civilization. By articulating a theoretically grounded conceptualization of foreign markets as subsystems situated within a broader civilizational context, we aim to go beyond colloquial, clichéd, ill-defined usage of the phrase foreign market in IB literature. (For those practitioners who may be reading, this distinction is largely academic. As you may already know, the difference between working in a foreign market and working in a foreign civilization is extremely slim indeed. So please have patience on the points of pedagogy.)

Fortunately, we have a sound theoretical starting point. The inquiries of historians and civilizationists into the origins, structure, and processes of human civilizations have afforded us a rich, elaborate, foundational literature. This literature describes the assorted, nested, interconnected subsystems that exist within a civilization, for instance, human societies, religions, cultures, and indeed, also markets (eg. Sorokin, 1966).

After reviewing this literature, we address a simple research question: What are the basic elements of human civilizations? The theoretical contribution is a meta-taxonomy that offers an analytic breakdown of civilization subsystems into a set of basic component parts. The meta-taxonomy is developed by merging prior scholarly taxonomies of culture, civilization, and human society and by eliminating redundant vocabulary, terms and concepts. This new perspective is intended to aid academic scholars, corporate managers,

and government agents in recognizing and reasoning about the existence, extent, patterns, and ramifications of similarities and differences within, and between, human civilizations and their subsystems.

THEORETICAL BACKGROUND

This section reviews prior efforts to understand the concept, emergence, and fates of civilizations; and delineates an important intellectual gap within this body of literature.

Concept of Civilization

Studies of civilizations can be divided in at least two meaningful ways. Traditionally, most scholars have focused on *cultural explanations* of civilizations (e.g. Toynbee, 1964), but more recently, there is a move towards *network analysis* of primary actors and relations between primary actors (eg. Wilkinson, 2003). A second distinction, observed by Yurdesev (2002), is that different scholars have put different levels of emphasis on the *origins*, versus the *structures*, versus the *processes* of civilizations.

The noun *civilization* often causes misunderstanding and confusion, because it has many definitions, many of which are relative to the definition of the word *human society* or *culture* (Kroeber & Parsons, 1958). In fact, at the end of the 19th century, these words were used interchangeably. For example, in 1871, Edward B. Tylor did not distinguish between the two concepts when he stated that “culture or civilization taken in its wide ethnographic sense, is that complex whole that includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.” Kroeber & Parsons (1958) reaffirm that this condensed concept of culture-and-civilization was maintained for a considerable period, and that “Comte and Spencer, and Weber and Durkheim spoke of society as meaning essentially the same things as Tylor meant by culture.” In our modern times, the prevailing view is that culture and civilizations are separate, distinguishable concepts. For example, Melko (1995) defines *culture* as “the way men live in relation to one another, and *civilizations* as “large and complex cultures, usually distinguished from simpler cultures by a greater control of the environment... practice of agriculture on a large scale... domestication of animals... economic advantages of surplus food... cities and more complex art

forms...writing...and a chronological history.” Within this perspective, he typifies *civilizations* as a multitude of integrated systems—of languages and cultures, of regional and provincial systems of government, of agricultural and industrial districts—each of which is broken down still further. Huntington (1996) takes a similar integrated systems view. He defines *civilization* as the “highest cultural grouping of people and the broadest level of cultural identity people have short of that which distinguishes humans from other species.” From this stance, *civilizations* are the broadest, widest, most durable, and longest-lived collective unit of analysis evaluated in human history (Yurdusev, 2002).

At the present time, the noun *civilization* is attributed at least four different meanings (Wordnet 1.7.1, 2001):

1. The social process whereby societies achieve civilization,
2. The quality of excellence, or refinement, in thought, manners, and taste,
- 3. A society in an advanced state of social development, usually with complex legal, political, and religious organizations, or**
4. A particular human society or culture at a particular time and place.

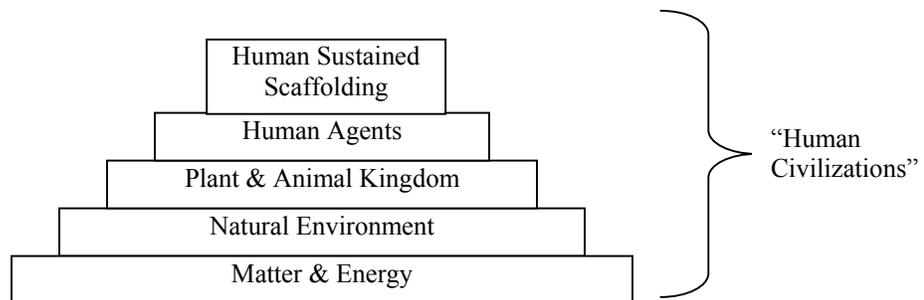
In this dissertation, I adopt the third definition, which parallels those coined by Melko (1995), Huntington (1996), Kroeber & Parsons (1958), and Toynbee (1964). I do not use the first and second definitions (which persist from 19th century notions about social sophistication as an evolutionary process that passes through three phases: Savage, Barbarian, and Civilized Man (Morgan, 1877); nor the third, which retains Tylor’s (1871) definition of *culture* and *civilization* as a single concept.

Within this dissertation, I also adopt the view that a civilization consists of *nested sub-systems* integrated within a larger civilization system (Melko, 1995). Sub-systems have four important traits. First, they can encompass many distinct societal and cultural groups—such as complex city dwellers, simple nomadic herdsmen, or ancient tribal hunter-gatherers. Second, they can exist at many units of analysis—such as camps, organizations, villages, towns, states, countries, or world regions. Third, they can be interrelated; the intricacies of inter-relationships between sub-systems were a major focus of Northrop’s (1946) study. Finally, they can overlap—after all, there is seldom a sharp boundary where one sub-system ends and another begins (Huntington, 1996).

Other authors have written about the concept of culture and civilizations, without using either of these words directly. North (2005), an economic historian, frequently refers to the concept of “scaffolding that humans erect”. Giddens (1979) prefers the catch-all concepts “structure” and “schema”, abstract and vague, but in many ways related to North’s notion of scaffolding. Others describe culture and civilizations with analogies to the physical world, using terms such as human geography, cultural landscape, cultural terrain, and institutional infrastructure (see House et. al., 2004). One such analogy from Clifford Geertz (1983), who extends an idea from Wittgenstein (1953), suggests that, “Our language and culture can be seen as an old city: a maze of little streets and squares, of old and new houses, and of houses with additions from various periods; and this surrounded by a multitude of modern sections with straight regular streets and uniform houses.”

Hierarchy of civilization. Evolution and creationism are two ever-debated theories of human origin and existence (Newell, 1982). In spite of the conflicting views, both theories imply the hierarchy of civilizations proposed in Figure 1, with “human sustained scaffolding” at the pinnacle. The figure illustrates that no upper level can be sustained independent of the lower levels,¹ and that human civilizations must necessarily subsume all five levels.

FIGURE 1 – Hierarchy of Civilization



Civilizations as complex systems. In recent decades, human civilizations have been analyzed from a network-based, complex systems perspective (for a review, see Wilkinson, 2003:3). Indeed, civilizations are very much like open systems. In particular,

¹ For example, the natural environment could not exist—without the building blocks of energy and matter: photons, neutrons, protons and electrons. Animals and plants would perish—without ample food, shelter and water from their natural environment. The human race would starve—without a sustained yield of plant and animal food products. And the scaffolding that humans erect would, and does indeed, decay—without human upkeep.

energy and information are constantly being imported and exported across system boundaries. The elements in a civilization cannot "know" what is happening in the system as a whole, and they have a history that cannot be ignored. Civilizations are nested in the sense that components of the system are themselves complex adaptive systems. For example, an economy is made up of collective actors, which are made up of humans, who are systems of organs controlled by their endocrine and nervous systems, which are made up of cells—all of which, at each level in the hierarchy, are complex adaptive systems (Wikipedia, 2005). Other distinguishing features of a civilization viewed as a complex system include emergence of behaviors and patterns, boundaries that are difficult to determine, short-range relations with near neighbors, relations that contain both damping and amplifying feedback loops, and non-linear relations between elements such that a small stimulus may cause a large effect (Wolfram, 2005).

Emergence and Fates of Civilizations

Arnold Toynbee's monumental work, *A Study of History* (12 vol., 1934-61), which appeared in an abridgment by D. C. Somervell (2 vol., 1946-57), tracks the rise and decay of 26 civilizations, of which only one—Western Latin Christendom—is currently alive; he also describes states and stages of intermediate expansion and contraction. Quoting from *Columbia Electronic Encyclopedia* (2003),

Civilizations are considered in terms of cultural groups that first appeared in human history between 8,000 and 6,000 years ago. At that time, on the basis of agriculture, stock-raising, and metallurgy, intensive occupational specialization began to appear in the river valleys of SW Asia. Writing appeared, as well as urban centers that accommodated administrators, traders, and other specialists. The specific characteristics of civilization are: food production (plant and animal domestication), metallurgy, a high degree of occupational specialization, writing, and the growth of cities. Such characteristics originally emerged in several different parts of the prehistoric world: Mesopotamia, Egypt, China, India, the central Andes, and Mesoamerica.

According to a review by Melko (1995), the scholars who have made the key contributions to our knowledge of the totality and evolutionary stages of human civilizations include Bagby (1958), Coulborn (1959, 1966), Kroeber (1944, 1948, 1957, 1962), Quigley (1961), Sorokin (1937-41, 4 vols., 1950, 1956, 1964, 1966), Spengler

(1926, 1928), and Toynbee (1934-61, 12 vols., 1964). Other extraordinary contributions include those by Diamond (1998), Diamond & Belwood (2003), Melko (1969), Melko & Scott (1987), Nolan and Lenski (2004), North & Thomas (1973), North (1990, 2005), Northrop (1946), Wells (1920), and Wilkinson (1987a, 1987b, 1993, 1996, 2002, 2003).

Civilizations are malleable, with no precise endings or beginnings (Huntington, 1996); they change dynamically—with non-linear oscillating variations, spirals, and branching development (Sorokin, 1964). No easy answers exist to explain why some civilizations rise and others decay. Sen (2004) emphasizes external forces that enter through permeated boundaries to drive changes in beliefs, values, and societal norms. North (2005), who spent much of his career researching the question, “Why do countries grow?” emphasizes the importance of internal changes in beliefs and institutions. Taking a similarly “institutional” perspective, Toynbee (1964), argued that a failure to adequately respond to a moral or religious challenge was the primary reason for disintegration and decay of the more than 20 “civilizations” that he studied. Diamond (1998: 406, 407) takes a contrary perspective. He gives little credence to the causal impacts of cultural, religious, or institutional idiosyncrasies. Instead, he argues that the rise and fates of civilizations can be traced back to the natural resource endowment of each civilization’s homeland: the supply of domesticable wild plant and animal species, geographical influencers of diffusion and migration, proximity to other continents, and total land area for expansion.

Theoretical Gaps in Civilization Theory

Despite all that is known about the concept, emergence, and fates of civilizations, there remain two derisive intellectual gaps. The first we call the “delineation gap”: scholars have been unable to agree on how a civilization should be delineated and defined. Sorokin (1966:218) summarizes this gap as follows, in his review of macrosociologies of civilizations:

Despite the efforts of Danilevsky, Spengler, Toybee, and Koneczny, their concepts of "civilization" and "high culture" remain poorly delineated... What Danilevsky called one civilization, Spengler, on the other hand treats as two.... Thus, where one of our scholars

sees one cultural organism, the others see two or more, and vice versa.... Toynbee frankly acknowledged this defect in the latest volume of his *A Study of History*.

The second intellectual gap, we call the “elements gap”: scholars have been unable to agree on a set of standard elements that all civilizations (and their nested sub-systems) share in common (Lenski, 1994). Sorokin indicates this gap as follows, in his critique of Toynbee’s work:

Toynbee openly admits that his "criterion for identifying civilizations is not uniform. In some cases it is material culture, in others religion, in others race." He further admits that there were several arbitrary and "subjective elements in my original identification and demarcation of civilizations." These reasons influenced Toynbee to revise seriously his concept of civilizations and replace his earlier list of civilizations by a different one.

As Toynbee discovered (painfully, after investing 30+ years on his 12 volume project), and as Sorokin re-iterated, it is not possible to delineate civilizations without a standardized basis of comparison. It certainly appears that our inability to “carve out” a widely agreed upon “civilization” stems from our ostensible inability to agree on what components or elements warrant emphasis in guiding such a classification. But before we can agree on what elements warrant emphasis, we must first agree on what basic set of elements exist. That is to say, we need to identify the recombinant DNA, or the basic building blocks of civilizations—the basic elements that combine, re-combine, and interact to produce all of the various civilization subsystems, such as fine arts, religion, commerce, etc., which in turn drive and reinforce—and are driven by and reinforced by—the inner workings of the civilization itself. Yet, at the present time, there is no such widely agreed upon taxonomy, or classification system available to identify the building blocks of civilizations (Lenski, 1994). To borrow a term from chemistry, we lack a “table of the elements”. Thus, as a scientific community, it only seems logical that we first address the “elements gap” (by defining the basic elements), before we will be able to devise a reliable widely-agreed upon scheme to address the “delineation gap.”

The following examples illustrate this point. Chemists were unable to describe (or even understand) complex chemical compounds until they had classified (and could recognize) oxygen, hydrogen, carbon and the other naturally occurring chemical elements. Likewise, biologists were unable to describe the composition of an ecosystem

until they had cataloged the species of the plant and animal kingdoms. Similarly, medical doctors were unable to understand the source of the tremendous variation we observe in human life forms, until they had mapped out DNA. These examples illustrate the point that civilizationists—or other comparative analysts of human societies, markets, or environments—will remain incapable of clearly delineating a civilization—or its subsystems—until they have agreed on a set of basic constituent elements.

Certainly, anthropologists have studied the many facets of human culture (eg. Geertz, 1973); archaeologists have mapped the artifacts of ancient (and more modern) empires (eg. Tilley, 1989); and institutional theorists have distinguished between different varieties of socially-construed institutions (eg. Scott, 2001). But, for the most part, these efforts—and the scientific communities that produce them—remain isolated and disconnected.

Thus, by integrating a multi-disciplinary range of theories, the theoretical contribution of this chapter to the theory of civilizations is two-fold. First, it provides an analytic framework to classify, compare, and contrast the basic building blocks of similarity, and variety, across civilizations, and also, across the nested cultural, societal, religious, market, and other subsystems. Second, it eliminates the redundancy in terms, concepts, and definitions that invariably arise when researchers from different scientific schools independently study related phenomenon.

ELEMENTS OF CIVILIZATIONS: META-SYNTHESIS

Methods

Search criteria. Eligible definitions, theories, or taxonomies were selected on the basis that they provided an intelligent system of ordering the component parts of human societies, cultures, or civilizations.

Search method. Studies fulfilling the eligibility criteria were taken from publications in journals, books, and conference proceedings using a combination of computerized and manual bibliographic search methods. The computerized search utilized keywords such as civilization, culture, human society, taxonomy, ontology and focused on journals of civilizations, economics, sociology, political science, anthropology, archaeology, organization science, artificial intelligence, and history. While the computerized search

was useful to identify articles in journals, the manual method was effective in tracing papers included in books and conference proceedings. This led to the identification of 15 eligible studies contained in 15 unique publications, summarized in Table 1.

Coding process. Each theory or taxonomy was coded using a method called clustering. This time-honored approach to sorting qualitative data into classes, categories, or bins (Miles & Huberman, 1994: 248; Carley, 1990; Weber, 1990), was a predecessor to modern methods of principal component analysis and factor analysis. All of these methods provide a means of moving towards abstraction, by grouping and then conceptualizing concepts that have similar patterns or characteristics into higher level analytic categories. Practically, this was achieved with the aid of a spreadsheet matrix. Each of the individual concepts (rows) was coded with either a single “s”, to indicate that it could be subsumed by a higher level category (columns), or several “c”s, to indicate that it was a system that could not be subsumed into a single category, but in fact, consisted of elements across multiple higher level categories. After much iteration, a set of exhaustive categories and illustrative sub-categories were induced to encapsulate all of the many concepts. The final spreadsheet matrix, displayed in Appendix 1, juxtaposes the emergent categories against the original concepts, and displays the coding.

Coding criteria. Lenski (1994) proposed four criteria for developing and evaluating taxonomies suited to the study of civilizations. These four criteria were used to guide the cluster analysis exercise. First, a taxonomy should be *comprehensive*—capable of reducing large, complex civilizations down to their core elements, and yet, at the same time, all-inclusive and conducive to meaningful comparison within and across civilizations. Second, a taxonomy should be *unambiguous*—with criteria specified so precisely that they can be applied by different scholars with a high degree of dependability. Third, a *carefully nuanced* taxonomy is always preferred to a more basic one. Finally, a taxonomy should utilize the *most powerful independent variables* as the basic unit of classification.

Original definitions. Many of the concepts summarized in Table 1 need to be defined in order to preserve the original meanings that were intended by the authoring scholars. We do this row by row. Row 1 (ID No. = 1) provides a definition of culture crafted by

Kroeber & Kluckhohn (1952), after they had reviewed more than 160 definitions of *culture* defined by prior scholars in earlier projects:

Culture consists of patterns, explicit and implicit, of and for, behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiments in artifacts; the essential core of culture consists of traditional (i.e., historically derived and selected) ideas and especially their attached values; culture systems may, on the other hand, be considered as products of action, on the other as conditioning elements of further action.

Row 2 lists what Tylor (1871) considered to be the main features of culture, in his early definition of the word (see above for the full definition). Row 3, from the Dictionary of Modern Sociology (Hoult, 1969), notes the components of culture as values, norms, and artifacts. In this definition, values are defined as ideas about what in life is important; norms are expectations of how people will behave in different situations, enforced by sanctions; and artifacts—things, or material culture—derive from culture’s values and norms.

In Row 4, North’s (1990) original definitions of institutions are as follows: “Institutions are human-devised constraints that structure political, economic, and social interaction. They consist of both informal constraints (sanctions, taboos, customs, traditions, and codes of conducts) and formal (constitutions, laws, property rights).” In recent work, North (2005) puts increasing emphasis on beliefs, which he argues support both formal and informal institutions.

Row 5 offers a self-explanatory definition of culture. In Row 6 (White, 1949), the *ideological subsystem* includes ideas, beliefs, mythologies, theologies, legend, philosophy, folk wisdom and the way these things are expressed in speech or other forms of communication; the *sociological subsystem* is the sum of excepted and accepted patterns of interpersonal relations that find their outlet in economic, political, military, religious, kinship and other associations; the *technological subsystem* includes the material objects, together with the techniques of their use, by means of which people are able to live (Fellman, Getis & Getis, 1990). Row 7 is a list aggregated from three primers of archaeology, again, with self-explanatory definitions. Row 8 is a breakdown of a civilization from a network perspective. The concepts in Row 9 are similar to those in

Row 10, with the addition of environmental context, defined as the location of an artifact or feature in relationship with all other artifacts and features in three-dimensional space. Row 11 provides a typology of socially-devised institutions, directly analogous to Row 4. Cognitive-cultural elements—the operating mechanisms of the mind (North, 2005)—include shared beliefs, categories, identities, schemas, scripts, heuristics, logics of action and mental models (Scott, 2001). This is also similar to White's concept of ideological sub-systems. Normative elements include the informal norms, values, standards, expectations, regimes, roles, practices, and customs that guide behavior and decisions (Scott, 2001; North, 1990). Again, this is similar to White's sociological subsystems. Regulative elements include formal regulations and rules for governing behavior including constitutions, laws and property rights (Scott, 2001; North, 1990). This analytic typology recognizes that full-fledged institutional systems are complex, interdependent, mutually reinforcing combinations of the individual elements (Scott, 2001).

TABLE 1
Summary of Prior Scholarly Efforts to Understand Culture, Civilizations & Human Societies

ID No.	Discipline (Scholars)	Taxonomy, Theory or Definition	Concepts
1	Anthropology (Kroeber & Kluckhohn, 1952)	Definition of culture	Patterns, behavior, symbols, achievement, human groups, artifacts, history, ideas, values, products of action, conditioning elements of further action
2	Anthropology (Tylor, 1871)	Definition of culture	Knowledge, belief, art, morals, law, custom, capabilities, habits
3	Sociology (Hoult, 1969)	Definition of culture	Values, norms, artifacts
4	Economics (North, 1990, 2005)	Taxonomy of institutions	Formal rules, informal norms, beliefs
5	Development (Verhelst, T. 1990)	Definition of culture	Know-how, technical knowledge, customs of food and dress, religion, mentality, values, language, symbols, socio-political and economic behavior, indigenous methods of taking decisions and exercising power, methods of production, economic relations
6	Anthropology (White, 1949)	Definition of culture	Ideological, technological, and sociological sub-systems
7	Archaeology (Malina & Vasicek, 1990; Tilley, 1989, 1990)	Aspects of material culture	Technology, design, function, social organization, history, religion, ritual, belief
8	Political Science (Wilkinson, 2003)	Network theory of civilizations	Cities, trade routes, internal relations, external relations, alliance and war relations, states-system network
9	Archaeology (Fagan, 1997)	Typology of archaeological data	Environmental contexts (ecofacts), technology systems (artifacts), social systems (sociofacts), ideological systems (mentifacts)
10	Sociology (Scott, 2001)	Typology of social institutions	Regulative, normative, cognitive-cultural
11	Sociology (Scott, Ruef, Mendel & Coronna, 2000)	Organization environment	Material-resource environment, institutional environment
12	Organization Science (Thompson, 1967)	Organization environment	Task environment, general environment
13	Organization Science (Glover, 1968)	Organization environment	Community environment, cultural environment, habitat, product environment
14	International Relations (Yurdesev, 2002)	Taxonomy of common elements of all civilizations	Common descent, language, religion, territory & geography, style, history
15	Artificial Intelligence (Cycorp, Inc., 2005)	Ontology of human knowledge	Weather, natural geography, chemistry, physical artifacts, astronomy, earth & solar system, ecology, plants & animals, law, organization, military organizations, nations, governments, geopolitics, firms, political geography, domain specific knowledge, human beings, literature & works of art, language, software, mechanical & electrical devices, vehicles, buildings, weapons, social relations & culture

Row 11 separates environmental factors into two analytic categories: those pertaining to the material-resource environment, including factors involved in supply and demand, competition, and industrial structure; and those pertaining to the institutional environment, in particular, the identities of organizational and field-level actors, and the logics and governance systems that operate in the field (Scott, Ruef, Mendel, & Corona, 2000). Row 12 offers yet another breakdown of organizational environment from an organization field perspective. The task environment is composed of customers, suppliers, competitors, and regulatory groups such as government agencies, unions, and interim associates; and the general environment covers the broader web of political, legal, demographic, socio-cultural, economic, ecological, and technological influences (Thompson, 1967). The taxonomy of organization environment listed in row 13—task environment, community environment, cultural environment, and habitat—comes from ecological or resource dependence models of environmental analysis (for a review, see Lenz and Engledow, 1986). Row 14 is a list of elements to delineate between civilizations. The definitions themselves are for the most part explanatory, except for the definition of style. Style, an idea borrowed from Kroeber (1957), is defined as the manner and form as opposed to the content and substance, and includes intellectual creativities such as philosophy, literature, and fine arts, as well as daily trivialities such as fashion and cuisine (Yurdusev, 2002). Finally, Row 15 isolates a long list of top-level categories from The Cyc Knowledge Server, a massive, multi-contextual knowledge base and inference engine developed by Cycorp Inc. (2005). The Cyc Knowledge Server is a formalized representation of a vast quantity of fundamental human knowledge about our modern Western Civilization: basic facts, rules of thumb, and heuristics for reasoning about the objects and events of everyday life.

FINDINGS

The research question is, What are the basic elements of human civilizations and their major subsystems? Six all-inclusive categories emerged from the cluster analysis exercise: actors and relations, symbolic systems, institutions, technologies, ecological context, and knowledge. (In addition, two other “non-elemental” categories emerged: history and action, which we discuss below.) Table 2 provides definitions and illustrative

sub-categories to explain, characterize, and clarify each of these elements of the “recombinant DNA of civilizations” in greater detail.

These six categories are the ingredient elements of civilizations—the analytic elements that are shared across all civilizational subsystems—i.e. fine arts, science, commerce, religion, etc. (see Sorokin, 1966). Thus, civilization subsystems are all the same, in the sense that they are all composed of these common elements. And yet they are all different, in the sense that the development, configuration, and interrelations among these elements are unique in every subsystem. For example, every religion in the world consists of actors and relations (popes, preachers, denominations, congregation, etc.), symbolic systems (the symbolism of the sacraments, altar, cross, Lotus flower, etc.), institutions (religious holidays; rules, rites, and routines of worship; ideologies of faith; beliefs of life after death; etc.), technologies (mosques; temples; altars; crosses; etc.), ecological context (the Mayans worshipped the Sun; a tribe in Uganda worships a spirit in a particular waterfall; etc.), and knowledge (i.e. knowledge of all of all the other elements; knowledge of the technologies; knowledge of the history; etc.) And yet, while every religion is similar because it consists of these basic elements, every religion is also marvelously different because the combination of these elements is wholly unique. This “all are similar, all are different” pattern also holds for the other subsystems. Ostensibly, each and every civilization subsystem is a unique “organism” made-up of a one-of-a-kind combination of actors and relations, symbolic systems, institutions, technologies, ecological context, and knowledge, the so-called “recombinant DNA of civilizations”.

When judged against Lenski’s first three criteria for evaluating taxonomies, the outcome is agreeable. Certainly, the proposed taxonomy is *comprehensive*. But, breadth and generality always come at the cost of depth and detail. And so, it is not surprising that the taxonomy scores less satisfactorily against the criteria of *unambiguousness* and *careful-nuance*. Table 2 was provided to partially address this concern, by developing clear definitions and illustrating with explicatory sub-categories and examples. Finally, judgment on the last criteria, *selection of most-powerful independent variables*, is withheld until after the empirical test of validity, in Chapter 2.

TABLE 1
Elements of Civilizations and Subsystems Framework

Categories	Sub-Categories	Examples	Definitions
Actors & Relations	Individuals, collectives, relations & networks	Individual humans; Collective groups, soccer teams, social clubs, private firms, religious societies, courts, not-for-profit organizations, alumni networks; Links, affiliations, and networks between individuals and collectives	Actors are the individuals, groups, organizations, governments, and other collectives within a civilization. Relations are the dealings or connections between actors in social, business, diplomatic, or other matters.
Symbolic Systems	Logic & music, conceptual works, communication systems	Mathematical operators, numbers, money, musical scales; Conceptual artworks, paintings, sculptures, statues, movies; Language, literature, hand gestures, ceremonies,	Symbolic systems are human-devised characters, objects, events, relationships, and other symbols within a civilization that are attributed meanings or significance.
Institutions	Cultural-cognitive, normative, & regulative	Tacit human-devised belief, script, identity, schema, role; Informal norm, value, protocol, taboo, custom, tradition, code of conduct; Formal constitution, law, rule, regulation, property right, sanction, rite	Institutions are human-devised cultural-cognitive, normative, and regulative elements that support, guide, and constrain human behavior. ^a
Technologies	Materials, tools, infrastructure & buildings	Materials, cement, asphalt, glass, plastic; Tools, pencils, sextants, GPS systems, scaffolding, pumps, trucks, heavy equipment, computers; Infrastructure & buildings, roads, warehouses, telecom systems, dams, bomb-shelters, retaining walls, foundation systems, theatres, shopping malls	Technologies are human-devised materials, tools, infrastructure, buildings, and other naturally occurring elements of the ecological context within a civilization that have been adapted or altered by human actors.
Ecological Context	Natural environment, exploitable natural resources, plants & animals	Terrain, geography, groundwater, soil, vegetation, bacteria, earthquake events, landslide events, monsoon seasons, freeze-thaw cycle; Oil, water, minerals, timber; Edible plants & animals, poisonous plants & animals; dangerous animals	Ecological context is the naturally-occurring three-dimensional space that provides life support for human civilization, includes plants, animals, and inanimate objects in the natural environment, all of which are made up of matter and energy.
Knowledge & Capability	Knowledge of other elements, history, action, specific domains	Knowledge of actors & relations, symbolic systems, institutions, technologies, ecological context; Knowledge of legends, history, folklore, myths; Knowledge of time, motion, change, causality; Knowledge and capability in food production, biology, astronomy, medicine, engineering	Knowledge is a familiarity, awareness, or understanding gained by experience, training, or study of other elements, history, activity, or specific domains. ^b

^a Please see the text (above) for definitions of the individual cognitive-cultural, normative, and regulative elements of institutions.

^b Partially adapted from The American Heritage Dictionary (2000) and Nonaka (1991).

Challenges

Several challenges were encountered during the cluster analysis exercise.

The first challenge was how to treat the categories *history* and *action*. They are not structural elements per se, and yet, far too many scholars have mentioned them to exclude them from the framework. Is *history* actually an element of a civilization, or is it just a type of knowledge about the past? (Wikipedia, 2005, defines it in both ways.) Is *action* really an element of a civilization, or should it simply be viewed as a product of those elements that exist at a particular time, in a particular place?

It is useful to draw formal definitions of these concepts. *History* is information about the past, not merely all the phenomena of human life, but those of the natural world as well; it includes everything that undergoes change; thus, a whole civilization, and every element of it, have a history (partially adapted from the 1911 version of Encyclopedia Britannica, available online via Wikipedia, 2005). *Actions* are events that are carried out by some "doer". Actions are any event by which one or more actors effect some change in the (tangible or intangible) state of the world, typically by an expenditure of effort or energy.²

In the end, I chose to omit *history* and *action* from the "elements framework", recognizing instead that the chronicle through *history* determines the matrix of elements that exist in a civilization at any point in time, and recognizing that at the present time, the matrix of elements that exists enables and constrains the *actions* that do actually occur. Thus, in a sense, *history* is the cause, and *action* is the effect, of the current configuration of elements.

The second challenge was that it was not always easy to draw a sharp boundary between several of the general categories that emerged. For example, symbolic systems, knowledge of those systems, and cognitive-cultural institutions exist as tightly nested systems of stimuli and response. And in the interactive, high-velocity mental processes of every day life, they are difficult to differentiate. But, they are differentiable, on the following grounds. Symbolic systems exist as the sets of stimuli themselves—characters,

² Adopted from Cycorp, Inc. (2005). Note that it is not required that any tangible object be moved, changed, produced, or destroyed for an action to occur; the effects of an action might be intangible (such as a change in a bank balance or the intimidation of a subordinate). Note also that the doer of an action, though typically an actor, need not be (e.g. a falling rock that dents a car's roof). Depending upon the context, doers of actions might be animate or inanimate, conscious or nonconscious.

cues, phonetic sounds, musical notes, mathematical operators, and the like. Knowledge is the meaning associated with the interpretation of those symbols. And cognitive-cultural institutions represent the taken-for-granted, tacit, habitual application of that knowledge to guide action and decisions in everyday life.

The third challenge was that, even once general categories had emerged, concepts with broad or imprecise definitions were difficult to sort consistently in a way that would be replicable by another researcher. For instance, when I asked my wife to code the concepts (with the set of categories that I had determined), most of our coding decisions were similar, but in several cases, her logic and categorization were extremely different from my own. For example, when coding Tylor's broad concept "law" (Row 2), she interpreted it as a single element—a formal regulative institution—whereas I interpreted it as a larger subsystem consisting of actors and relations, symbolic systems, technologies, and domain specific knowledge. Other concepts for which our coding decisions diverge are as follows: "conditioning elements of further action" (Row 1), "religion" (Row 5), "methods of production" (Row 5), "cities" (Row 8), "material-resource environment" (Row 11), "general environment" (Row 12), and "mechanical and electrical devices" (Row 15).

For many of these abstract concepts, it is not surprising that we would have differing interpretations. Certainly, real world subsystems are very complex, and what's more, the human-devised concepts that we use to describe these subsystems are necessarily vague and imprecise, for the sole purpose of coping with this overwhelming complexity. Thus, our differing interpretations are not solely a limitation of the analytic framework, so much as they are an indication of the intricacy of real-world subsystems, and the imprecision of our socially-constructed concepts and language (Berger & Luckmann, 1967).

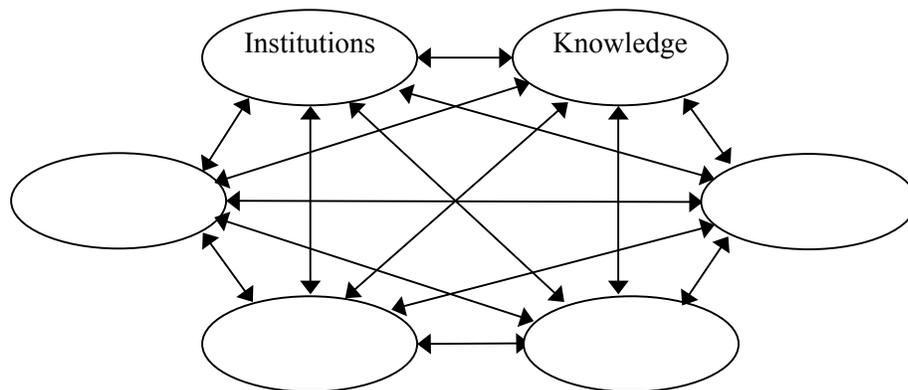
This partial lack of inter-rater reliability stemmed from a much deeper issue, which was the fourth challenge. Many civilizational sub-systems could not be subsumed into a single general category, because they involve, or consist of, multiple, interconnected, nested sets of sub-systems that cut across many of the analytic categories in Table 2. It is best to illustrate this point with an example. The legal system in the United States is not just a set of legal statutes (regulative institutions). When broken down, it consists of

multiple government agencies (collectives), many legal societies and connections between law firms (networks), a formal constitution (regulative institution), case law and interpretations of past rulings (history and norms), gavels and witness stands (tools), courthouses and libraries (buildings), courtroom security guards, paralegals, and stenographers (individuals and specialized knowledge), legal terms and jargon (language). Indeed, the scaffolding that humans erect is marvelously complex; thus, disentangling the interdependencies between elements with an abstract analytic coding scheme is next to, if not, impossible.

Implications

There are two exciting implications to discuss. The first implication is that when the elements of civilizations framework is harnessed to complexity theory (see above), and to Giddens (1979) theory of structuration, it provides the basis for a large number of theoretical hypotheses to predict the dynamics of civilizational change. We know from complexity theory that civilizations are nested, complex systems of interrelated sub-systems, with open boundaries, that adapt according to positive and negative feedback loops, and non-linear relations. Structuration theory proposes that human-devised structures effect—and are effected by—human-devised schema. Applying these dynamic notions of reciprocal cause-and-effect to the elements of civilizations framework, we are able to formulate 30 hypotheses, displayed conceptually in Figure 2 and verbally in Table 3.

FIGURE 2
Dynamic Interdependencies between Nested Elements of Civilizations



We can use this framework to understand the path-dependent evolution of any modern civilization or civilization subsystem (North, 2005). For example, consider the following description of the illegal economy in Thailand, described by Phongpaichit, Piriyarangsan, and Treerat (1998):

The largest sectors are gambling (casinos, the underground lottery, and football betting) followed by prostitution. Trading in drugs and contraband arms fall in the middle range. Trafficking in people and oil smuggling are relatively small... These activities are linked together in networks of organized crime. Guns are exchanged for drugs. Gambling profits

TABLE 2
Hypotheses Related to the Structuration of Civilizations and their Subsystems

No.	Hypotheses
1,2	The development of institutions in a civilization effects the configuration of actors & relations, & vice-versa.
3,4	The development of institutions in a civilization effects the development & use of knowledge, & vice-versa.
5,6	The development of institutions in a civilization effects development & use of the ecological context, & vice-versa.
7,8	The development of institutions in a civilization effects the development & use of symbolic systems, & vice-versa.
9,10	The development of institutions in a civilization effects the development & use of technologies, & vice-versa.
11,12	The configuration of actors & relations in a civilization effects the development & use of knowledge, & vice-versa.
13,14	The configuration of actors & relations in a civilization effects development & use of the ecological context, & vice-versa.
15,16	The configuration of actors & relations in a civilization effects the development & use of symbolic systems, & vice-versa.
17,18	The configuration of actors & relations in a civilization effects the development & use of technologies, & vice-versa.
19,20	The development & use of knowledge in a civilization effects the development & use of the ecological context, & vice-versa.
21,22	The development & use of knowledge in a civilization effects the development & use of symbolic systems, & vice-versa.
23,24	The development & use of knowledge in a civilization effects the development & use of new technologies, & vice-versa.
25,26	The development & use of ecological context in a civilization effects the development & use of symbolic systems, & vice-versa.
27,28	The development & use of ecological context in a civilization effects the development & use of technologies, & vice-versa.
29,30	The development & use of symbolic systems in a civilization effects the development & use of technologies, & vice-versa.

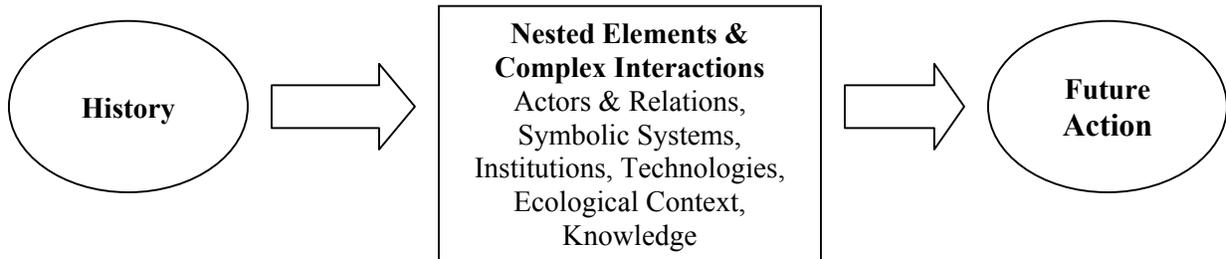
are invested in prostitution. Routes and systems for smuggling drugs are adapted for traffic in people. Protection networks span across the whole range of the illegal economy... (pg. 258) Thailand's illegal economy is very firmly established. It is also well integrated with the power structure of the police, politicians, and local influential people. (pg. 264)

Applying the framework to the evolution of the Thai situation, note that over time, as relations between police and politicians (actors and relations) have grown stronger, they

have influenced informal norms of illegal activity (institutions) [H2], which in turn effect the types of activities—gambling, prostitution, etc.—that the Thai people determine to be most profitable (action) (see North, 2005). Ostensibly, these institutions have also affected the evolution of the Thai language (symbolic systems) to include many new phrases and terms to describe these illegal activities [H7], and over time, this language has reinforced the illegal activities, and has become engrained in the cognitive-cultural mindset of the society (institutions) [H8]. As the informal institutions have become entrenched, the natural environment has been re-deployed to grow drugs, and new trade routes have been established (alteration of ecological context) [H5], both within the constraints of the terrain, weather, and presence of plants and animals (ecological context) [H6]. At the same time, to secure the investment in these resources, the organized crime rings (actors and relations) create norms of fair play (institutions) [H2], which effect the organization of hired gunmen [H3] (actors and relations) who actively seek knowledge of the happenings of the underground community [H11]; and in turn, the number of protection organizations determines the need for and development of new guns and weapons (technologies) [H17], and so on, and so forth.

This implication is exciting because it provides a rich, all-encompassing view of the many interconnected elements of an economic subsystem, and implies how those elements cause, and are effected by, changes in other elements over time, within and across systems and subsystems. Clearly, understanding the dynamics, as well as the statics, is essential to accurate interpretations of history, and to intelligent forecasts of future activity (Northrop, 1946). And this leads us to the second implication.

FIGURE 3
History, Structure, & Activity in Civilizations



Many scholars have noted the path-dependent notion that historical origins effect present civilization structures, which in turn effect the possible set of future action and processes (eg. North, 2005; Toynbee, 1964; Yurdusev, 2002). Applying this idea to the elements of civilizations framework was the basis for Figure 3. The figure illustrates that the totality of history leading up to the present point in time is what determines the existence, configuration, and interaction of the nested, complex elements of a civilization, and its subsystems. And in turn, these are the elements that shape the action that can occur in future time periods. As time presses forward, this cycle continues inevitably, and thus, civilizations are in an everlasting state of dynamic change, flux, and motion.

CONCLUSION

The theoretical contribution of this chapter is a new, dynamic view of civilizations and their subsystems that will be of interest to both civilization theorists and international business scholars. To international business, this perspective offers a broad, explicit, theoretically grounded conceptualization of foreign markets—a glimpse of the whole elephant situated within the broader civilizational context. To civilization theorists, this perspective provides a new taxonomic lens of analysis to compare and contrast similarities and differences—and potentially to move towards more reliable delineation—of human civilizations and subsystems.

Traditionally, taxonomies have played a far more important role in the development of the sciences than is generally recognized, both in the formulation of basic theory, and as a basis of innovative research (Lenski, 1994). The proposed taxonomy of civilizational sub-systems, which is grounded in prior theory, highlights two broad implications for future scientific development. The first is a set of 30 hypotheses of civilizational interconnectedness and structuration. The second is a model of how civilizational structuration unfolds dynamically over time. This perspective suggests that the variety across all human civilizations can be explained in terms of the existence, arrangement, and interaction of these basic elements, just as the variety across all chemical compounds can be explained by the presence, structure, and interfaces of the basic chemical elements.

Future research might go in several directions. First, it would be beneficial to have other scholars go through the cluster analysis exercise, to attempt to sort the concepts listed in Table 1 into a set of basic, non-redundant, exhaustive categories. Clearly, this is an interpretive process, and if a broadly-accepted taxonomy of the “recombinant civilizational DNA” is ever to be developed, it will require the interdisciplinary ideas, input, and involvement of the broader scientific community.

Second, once we are able to agree on the basic elements of civilizations, the next step is to apply these elements to re-trace the footprints of Toynbee, Sorokin, and others, to delimit the boundaries of civilizations on a basis that is standardized and verifiable.

Third, it would be beneficial to develop and test the relative salience of the 30 hypotheses about civilizational structuration outlined in Table 3. These hypotheses are the basis of a unified understanding of processes of civilizational change, and will be helpful to integrate the current predominant views: Diamond (1998) has focused primarily on the effects of the ecological context on the other elements; North (1990) and Toynbee (1964) have stressed the effects of institutions on other elements; Wilkinson (2003) has noted the influences of networks between actors; Northrop (1946) has made a case for the critical importance of interdependent feedback loops between elements. And by all means, all of these views can be simultaneously correct. But we will advance our understanding if we can put all of these pieces together into an articulate, balanced picture of overall civilizational history, composition, and change.

Finally, the main area of future research with respect to the original motivation of this Chapter—which was to provide a broad, formalized reconceptualization of foreign markets—would be to apply the “elements framework” to sort and organize the many attributed meanings of the phrase *foreign market* in the IB literature. (We start to do this in a limited way in the next chapter, by employing the “elements framework” as a lens of analysis to investigate and compare five different foreign market intelligence reports.)

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APPENDIX 1

Cluster Analysis of Prior Definitions, Theories & Taxonomies

ID No.	Concepts from Definitions, Taxonomies, & Theories	Actors & Relations			Symbolic Systems			Institutions			Technologies			Ecological Context			Knowledge & Capability		
		Individuals	Collectives	Relations & networks	Logic & music	Conceptual works	Communication syst.	Cultural-cognitive	Normative	Regulative	Materials	Tools	Infrastruc. & bldgs.	Natural environment	Natural resources	Plants & animals	Knowledge	History	Action
1	Patterns	c	c		c	c		c	c	c	c	c				c		s	
1	behavior																		
1	symbols				c	c	c												
1	achievement																		
1	human groups	s																	
1	artifacts				c	c	c				c	c	c						
1	history																		
1	ideas							c	c									s	
1	values							c	c										
1	products of action	c	c	c	c	c	c	c	c	c	c	c	c						
1	conditioning elements																		
1	of further action	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c			
2	Knowledge																	s	
2	belief							s											
2	art				c	c	c												
2	morals							c	c										
2	law	c	c	c			c	c	c									c	
2	custom						c	c											
2	capabilities																	s	
2	habits						c	c											
3	Values							s											
3	norms							s											
3	artifacts (physical)				c	c	c			c	c	c							
4	Beliefs							s											
4	informal institutions							s											
4	formal institutions								s										
5	Know-how																	s	
5	technical knowledge																	s	
5	customs of food and dress							s											
5	religion	c	c	c	c	c	c	c	c		c	c	c	c	c	c			
5	mentality							s											
5	values								s										
5	language																		
5	symbols				c	c	c					c		c					
5	socio-political behavior	c	c	c				c	c	c		c	c	c	c	c		c	
5	economic behavior	c	c	c				c	c	c		c	c	c	c	c		c	
5	indigenous methods of taking decisions							c	c	c									
5	indigenous methods of exercising power							c	c	c									
5	methods of production		c		c			c	c	c		c	c	c	c	c		c	
5	economic relations	c	c	c				c	c	c								c	
6	Ideological sub-system					c		c											
6	technological sub-system						c				c	c	c					c	
6	sociological sub-systems	c	c	c					c										
7	Technology																		
7	design							c	c	c		c	c	c	c	c		c	
7	function							c	c	c		c	c	c				c	
7	social organization	c	c	c					c	c									
7	history																	s	
7	religion	c	c	c	c	c	c	c	c	c		c	c	c	c	c		c	
7	ritual							c	c										
7	belief							s											
8	Cities	c	c	c		c	c	c	c	c	c	c	c						

Appendix 1 (con't)
Cluster Analysis of Prior Definitions, Theories & Taxonomies

ID No.	Concepts from Definitions, Taxonomies, & Theories	Actors & Relations			Symbolic Systems			Institutions			Technologies			Ecological Context			Knowledge & Capability		
		Individuals	Collectives	Relations & networks	Logic & music	Conceptual works	Communication syst.	Cultural-cognitive	Normative	Regulative	Materials	Tools	Infrastruc. & bldgs.	Natural environment	Natural resources	Plants & animals	History	Action	
8	trade routes			c				c	c				c						
8	internal relations	c	c	c															
8	external relations	c	c	c									c						
8	alliance and war relations	c	c	c									c						
8	states-system network	c	c	c									c						
9	Environ't'l context (ecofacts)												c	c	c				
9	tech. systems (artifacts)									c	c	c							
9	social systems (sociofacts)							c	c										
9	ideol'g'c'l systems (mentifacts)							c	c										
10	Regulative institutions																		
10	normative institutions																		
10	cognitive-cultural institutions							s											
11	Material-resource environment	c	c	c			c			c	c	c	c	c	c		c		
11	institutional environment						c	c	c										
12	Task environment	c	c	c						c	c	c					c		
12	general environment						c	c	c	c	c	c	c	c					
13	Community environment	c	c	c															
13	cultural environment						c	c											
13	habitat												c	c	c				
13	product environment									c	c	c							
14	Common descent			s															
14	language							s											
14	religion	c	c	c	c	c	c	c	c	c	c		c	c	c	c	c		
14	territory & geography												c	c	c				
14	style		c	c		c	c	c	c	c	c	c					c		
14	history																s		
15	Weather												s						
15	natural geography												s						
15	chemistry												c				c		
15	physical artifacts				c	c	c			c	c	c							
15	astronomy												c					c	
15	earth & solar system												s						
15	ecology												c	c	c		c		
15	plants & animals														s				
15	law	c	c	c		c	c	c	c									c	
15	organization	c	c	c		c	c	c	c									c	
15	military organizations	c	c	c		c	c	c	c									c	
15	nations	c	c	c		c	c	c	c										
15	governments	c	c	c		c	c	c	c										
15	geopolitics	c	c	c		c	c	c	c									c	
15	firms	c	c	c														c	
15	political geography	c	c	c				c	c	c			c	c				c	
15	domain specific knowledge																	s	
15	human beings	s																	
15	literature & works of art				c	c	c							c					
15	language						s												
15	software						c			c	c			c					
15	mechanical & electrical devices									c	c			c					
15	vehicles									c	c			c					
15	buildings											c		c					
15	weapons									c	c			c					
15	social relations			s															
15	culture						c	c											
	Totals	27	31	31	12	14	27	40	44	31	18	23	25	26	15	11	30	3	7