Globalization: a non Western perspective

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Abstract

Globalization is an extension of the classical modernization / development paradigm traceable to Weber and Hegel. The cultural and philosophical biases of the secularized Judeo-Christian-based Western society are ingrained in all social science, including communication. Anthropocentrism and the belief that progress involves following the West (centre) by the rest (periphery) are part and parcel of social science, which tends to project its European universalism as universal universalism. However an alternative view of globalization is possible through the perspective of Eastern, particularly Buddhist philosophy. Eastern philosophy starts with the quantum-theory backed premise that everything is interconnected. But the Buddhist / Daoist view goes further to assert that everything is also impermanent. Thus globalization is an ongoing dynamic process involving the entire environment in which humanity is only one actor. The social science oligopoly is an impediment to restructuring the social sciences to accommodate non-Western perspectives.

Introduction

This essay supports the thesis that the concept of globalization debated since the 1960s lacks universal universalism because the oligopoly of the social sciences, which includes communication science, has excluded the discussion of globalization from the perspective of non-Western cosmologies. Alatas (2006) has documented that in the contemporary world, social science exists under the guidance and control of three former imperial powers Britain, France and the United States constituting the center; and a handful of other rich countries Germany, Japan, the Netherlands, and Italy constituting the semi periphery. The academic and publishing domains in these countries determine the axiology, epistemology, and ontology relating to each

of the social sciences through an elaborate system of peer-reviewing and adherence to [Western] norms.

Leslie Sklair (2006), a British sociologist, admits that most accounts of the state of globalization literature are "almost exclusively based on the European and North American literature ... (and that) more and more critics are beginning to question this one-way traffic bias in the globalization literature". To elaborate on our thesis, we need to clarify the terms globalization, social science, and communication science.

Globalization has been defined in various ways by a vast array of scholarship. Following a survey of literature, Sheila Croucher (2004) defines globalization as "a cluster of related changes (not limited to economic, technological, cultural, and political realms) that are increasing the interconnectedness of the world". From an Eastern philosophical or the quantum theory perspective, the interconnectedness of the world is a reality. This definition, therefore, applies to human action alone, and implicitly claims the supremacy of humankind over nature. Some have used the term globalization to refer primarily to economic globalization, meaning the integration of national economies into the international economy through trade, foreign direct investment, capital flows, migration, and spread of technology while others have used it ideologically to refer to the neoliberal (Reagan/Thatcher) form of economic globalization. The anthropocentric bias of this basic definition, as well as the globalization discourse documented below, is obvious.

The social sciences refer to a group of anthropocentric (humanity-centred) subjects that developed into academic disciplines in the Western world. These disciplines claim to differ from the humanities/ arts in the sense that the social sciences tend to emphasize the use of the scientific method in the study of humanity, including quantitative and qualitative methods. The earliest claimants to social science status were anthropology, economics, geography, political science, and sociology. Later claimants included communication, criminology, cultural studies, linguistics, law, psychology, social psychology, and development studies. Because Buddhist philosophy in particular includes the total environment of all beings within the meaning of society the Western control of social science has automatically excluded the axial Eastern perspective of globalization.

Communication as a field of study is a hybrid of social science and humanities, a spurious dichotomy that arose when *natural philosophy* declared independence from *philosophy* during Newtonian supremacy and called itself *science*. Backed by Enlightenment thinking, science gained prestige because of its supposed neutrality and objectivity in uncovering universal reality / truth. Humanities bifurcated into social science when some areas of study adopted the ways of science for both prestige and precision. After communication studies gained academic legitimacy in the 20th century, disagreements among scholars gave rise to its bifurcation into communication science and communication arts, the latter emphasizing the humanities approach. Science professed to focus on epistemology, leaving philosophy/ humanities to deal with axiology (values, aesthetics, and ethics) and ontocosmology (metaphysics in relation to human nature as understood in Chinese philosophy). As a social science, communication also looks at globalization exclusively as a humanity-centered phenomenon thereby excluding the Buddhist/ Daoist perspective.

The exclusively humanity-centered social science, which has been transplanted in the developing world by the oligopoly of former imperial powers, suffers from the in-built biases of orientalism, Eurocentrism, intellectual imperialism, and other metatheoretical ills as well. Thus the culturally biased concepts of the modernization/development paradigm have re-appeared in the globalization discourse. From the Buddhist/Daoist perspective, we also must develop global multidisciplinary approaches to study the interaction (the feedback loops) and interdependence (harmony) among humans and all other clusters constituting the biosphere. Communication science scholars must collaborate with colleagues in other disciplines to investigate how communication occurs between humans and these various clusters.

This essay also draws attention to the fact that the concept of globalization, as defined by the social scientists from various disciplines, is very much an extension of the modernization / development model. Dani Nabudere (1997) traces modernization as a theory of development to Max Weber's theory of modernization and traditionalism. Weber's own views are part of the ideologies of the Age of Enlightenment in which "progress" was modelled after Newton's physics, which, with its scientific methodology and secure growth, was supposed to provide a solid foundation for a paradigm of knowledge in general. This vision provided the basis

for coming to the conclusion that with this new scientifically derived knowledge, the modern age would be able to overcome the old and inherited "superstitions, prejudices and errors," and this process of modernization was supposed to encompass moral improvement as well.

Globalization, whether it is interpreted in economic, technological, cultural, political, or any other terms, carries the same underlying view as modernization / development That the rest must follow the West. Jan Servaes and Patchanee Malikhao (2008) point out that the modernization paradigm has defined development as economic *growth*. The paradigm took an evolutionary perspective, and conceived development as (a) directional and cumulative, (b) predetermined and irreversible, (c) progressive, and (d) immanent with reference to the nation-state. All societies would have to go through the same stages to move from traditional to modern to reach equilibrium through the mechanisms of demonstration, fusion, compression, prevention, and adaptation. Quantifiable criteria, such as the gross national product, urbanization, literacy, mass media exposure, and political participation, determined progress. Thus, the concept of modernization implicit in this paradigm appeared to be "a veiled synonym for 'westernization'"

The same thread of modernization makes its way into the Orientalist/ Eurocentric discourse on globalization as filtered through the social science oligopoly.

Globalization discourse

Jan Scholte (2003) says that the term globalization has been commonly used to mean four things—internationalization, liberalization, universalization, and Westernization. These four clearly refer only to anthropocentric concerns. Internationalization "refers to increases of interaction and interdependence between people in different countries." Liberalization denotes a world "without regulatory barriers to transfer resources between countries." Universalization refers to the wider spread of people and cultural phenomena across "all habitable corners of the planet." Westernization is associated with the process of homogenization wrought by post-colonial imperialism. None of these four terms has been examined in relation to how it affects the ongoing natural globalization process that links the human species with all other species and elements within the global cooperative. The historian, Robbie Robertson (2003) asserts that globalization emphasizes interconnections. "Human transformations—or at least their consequences—have always been global". Thus, for example, the transition of *Homo sapiens* from

hunting to agriculture signified globalization. So we European speakers into West and South Asia. Howeverly illustrate the universalization perspective of

of proto-Indohistorical events cocentric discourse.

David Held and Anthony McGrew (2003) point out that the use of the term globalization in its current sense began only in the 1960s although the work of intellectuals such as Saint-Simon, Marx, and MacKinder had recognized how modernity was integrating the world (meaning the anthropocentric world). In the context of a debate about the growing interconnectedness of human affairs, world systems theory, theories of complex interdependence and the notion of globalization itself emerged as largely rival accounts of the processes through which the fate of states and peoples [my emphasis] was becoming more intertwined.

Sklair (2006) divides the studies on globalization theory and research into four categories: world-systems, global capitalism, global culture, and global society. The world-systems approach analyses the world in terms of a center, semiperiphery, and periphery—the three tiers that signify the international division of labor in a world dominated by ruthless capitalism focusing on ceaseless accumulation. The global capitalism approach locates the dominant global forces in the structures of an ever more global capitalism; and concludes that "we are only at the beginning of the global era". The global culture approach deals with the problems that a homogenizing mass media-based culture poses for national identities; and a subset of this approach draws our attention to *globo-localism*. The global society approach asseverates that a believable global society has emerged only in the modern age because of the impact of science, technology, industry and universal values.

Chase-Dunn (2006) writing from the world-systems perspective, asserts that different types of globalization have different temporal characteristics. These types include economic globalization, political globalization, cultural globalization, and globalization of communication connected with the new era of information technology. He documents that hegemony in the modern world system or globalization has occurred in a series of "systemic cycles of accumulation". He implicitly uses the Daoist *yin-yang* model to demonstrate the long-term interaction between the expansion and deepening of capitalism and movements toward socialism. He calls this the spiral of capitalism and socialism, a notion that agrees with Eastern philosophyGiovanni Arrighi, Beverley Silver(1999) and their collaborators who interpreted anthropocentric history of the modern world-system

from the 16th century to the present, point out the clear prevalence of Hegelian thinking in the ideology of the Dutch world hegemony and the subsequent British world hegemony. Because these authors used the world as the unit of analysis, they were able to analyze four interrelated controversies in a worldwide context: changing balance of power among states, the balance of power between states and business organizations, the power of subordinate groups, and the changing balance of power between Western and non-Western civilizations. Yet, from the Eastern philosophical perspective, it is not a global study for it does not examine the interaction of all natural elements constituting the ongoing process of globalization.

Similarly, Immanuel Wallerstein (2004), the founding father of world-systems analysis, got it wrong when he concluded that *la longue durée* world-economy was confined to a few countries in Western Europe during the long 16th century, when the modern world-system supposedly began. Had Wallerstein applied the wisdom of Eastern ontocosmology, he would have recognized that the mutual interaction of all global elements contributed to the rise of Europe at that particular juncture just as much as the ever-changing global elements plunged Europe into the "Dark Ages" after the fall of the Western Roman Empire. Quantum physics provides the proof that nothing is local for everything is the result of the interaction of all interdependent global elements.

Held and McGrew (2003) provide a grand summary of the debate on globalization between the globalists and the skeptics. The two authors point out that a primary reason for disagreements between the two camps is the different meanings and interpretations attached to concepts. The globalists are talking about "one world, shaped by highly extensive, intensive and rapid flows, movements and networks across regions and continents" whereas the skeptics are talking about regionalization and internationalization, not globalization. Then the authors point out the disagreements of the two camps in relation to five main aspects of globalization: political power, economy, culture, inequality, and order.

In relation to power, the globalists see the rise of multilateralism and the decline of the nation-state -loss of sovereignty, autonomy, and legitimacy. The skeptics see the nation-state continuing as the fundamental unit of governance, which uses various forms of intergovernmentalism to resolve wider issues and problems. In relation to the economy, the globalists see a transnational economy built on global informational capitalism, which has engendered a new division of

labor. The skeptics see a new imperialism marked by triadization of the center and development of regional blocs. In relation to culture, the globalists see the emergence of global popular culture, hybridization, and erosion of fixed political identities. The skeptics see the resurgence of nationalism and national identity. In relation to inequality, the globalists see the erosion of old hierarchies and growing inequality within and across societies. The skeptics see the widening of the North-South divide, and irreconcilable conflicts of interest. In relation to order, the globalists see a global civil society and polity, cosmopolitanism, and multilayered global governance. The skeptics see the primacy of the ethically bounded community, persistence of political conflict between states, an international society of states, and international governance and geopolitics.

Some social philosophers have examined the key theoretical issues arising from the intersection of globalizing processes—economic, cultural, political, and legal—with democracy and democratization. For example, Macleod (2006) makes a distinction between *thin* and *thick* interpretation of free markets and democracy, and asserts that only the thicker versions of these two ideals engender the adequate implementation of the principles of freedom and justice. Globalization has posed specially pressing questions within communication studies as well, and some have advocated an ethnographic (anthropocentric) approach to international communication theory so as to avoid "the more worrisome systemic aspects of globalization".

It should be clear from the foregoing summary that the globalization debate has given the short shrift to the Eastern / Buddhist perspective. Even on the economic dimension, the debate has failed to link the realized and potential effects of human action (Spirit or Geist) on Nature, which Hegel wanted to keep under control. If the discourse had been about the ongoing natural process of globalization relating to the entire biosphere, it would have focused on issues such as the following: the effect of human action to overpower Nature that can upset natural checks and balances and cause the extinction of human species from earth sooner than later; and the ways humans can adopt to live in harmony with Nature to achieve true globalization and avoid potentially disastrous consequences. Some 250 million years ago, a 6-kilometer-wide comet slammed into the Earth and wiped out 90 percent of the marine species and 70 percent of the land species. Again, some 65 million years ago, a giant meteorite crashed into the ocean creating vast volcanic disturbances and climatic changes that wiped out the dinosaurs. Now, the human

species has invented weapons of mass destruction, which can wipe out the *Homo sapiens*. from Earth. Robinson (2003) reminds us: "We evolved from chimps over seven million years ago. Only in the last 500,000 years we have been identified as Homo sapiens".

Despite the emphasis on rationality from the Enlightenment onwards, humans also behave irrationally and selfishly by increasing the emission of carbon dioxide that can engender adverse effects on life on earth. Steven Combs (2007) says, "Species die when the environmental field cannot enable and sustain them. Ultimately, humans may tragically learn that the natural way [valued in Daoism] stands above human convention".

It is noteworthy that the discourse on globalization has occurred within the disciplinary boundaries of social science. Held and McGrew (2003) point out that globalization has a material aspect (e.g., flows of trade, capital, and people worldwide), a physical aspect (e.g., infrastructure, transport, and banking systems), a normative aspect (e.g., trade rules), and a symbolic aspect (e.g., English as the dominant language). These are the visible artefacts of worldwide interconnectedness although the ongoing natural globalization process has operated under invisible laws of nature that interconnect all elements in the universe. A multidisciplinary approach is a *sine qua non* for any analysis of globalization. The analyst must demonstrate the interaction and interconnectedness of relevant factors that drive the globalization process.

Bias of social science

The bias of social science arises from limiting the meaning of *social* and *society* to humanity only, and the presumption of the supremacy of humanity over Nature. Therefore, social science has paid little attention to other issues immanent in Eastern philosophy such as the need to live in harmony with Nature in contrast to the Hegelian will to control it. It should become clear now that the globalization discourse, filtered through the social science oligopoly, inherently contains the very cultural and philosophical biases of social science, a creation of the West for application in Western society.

The values associated with the main themes of the secularized Judeo-Christian cosmology—e.g., self (individualism/ freedom/ competition/ equality/ rights), Nature

(rationality/control of Nature), space-time (divided world/ bounded time), knowledge (efficiency/ atomism/ deductivism), and the transpersonal (Supreme Being/Value)—are embedded in the social sciences, including their offshoots like communication studies. Imperialism and colonialism enabled the West to propagate its values in most parts of the world through the introduction of social science. The West considered these values to be universal, but a stage upward from the traditional, which accounted for the backwardness of the colonized. This presumption is behind the ongoing metatheoretical allegations of Orientalism and Eurocentrism against the social science oligopoly.

The academic dependency metatheory elucidates the operational mechanics of this oligopoly, which has created the environment requiring the periphery's dependence on it for ideas (at the various levels of theory), the media of ideas (the structure of ownership and control of publishing houses, journals, working paper series and Web sites), technology of education (computing facilities, audio-visual aids, laboratory instruments), funding for research and training, direct educational investment in the developing world, and deployment of the pool of under-used brainpower available in the developing world to carry out projects conceived by the oligopoly.

Free from the hurdles of values and metaphysics, science declared its ability to discover objective truth/reality until quantum mechanics confounded the logical positivists by asserting that objectivity was an oxymoron. The social sciences, which attempted to transfer analogically the theories and covering laws of the natural sciences to social situations, have had a harder time proving objectivity. For the axiological and ontological impressions of the culture within which the social sciences had their birth and growth preclude them from claiming a universal universality applicable to any culture.

What is obvious to the non-West is the culture-bound nature of the very criteria used by the West for judging objectivity. In the social sciences, the selection of a topic for investigation (e.g., freedom of the press), the operational definitions of concepts (e.g., social responsibility), the methodology used for data collection (e.g., opinion polling), and data interpretation are all bound to Western cosmology.

One could also compare and contrast the East-West philosophical divide in terms of the nature of society, human nature, ontology, and epistemology.

Eastern perspectives on globalization

We shall now turn to examine globalization from the perspective of two axial-age Eastern philosophies, which some European intellectuals—Hegel, Marx, and Weber, among others—blamed for the lack of Spirit among the Oriental peoples Dussel (1998). Today, many scholars see striking parallels between these philosophies and modern science.

Buddhist perspective

The Buddhist view of globalization is embedded in its cardinal doctrine of interdependence or dependent co-arising (paticca samuppada in Pali), also translated as dependent co-origination, conditioned genesis, or conditioned co-production. Samyutta Nikaya explains paticca samuppada as a four-part formula: "This being, that becomes; from the arising of this, that arises; this not being, that becomes not; from the ceasing of this, that ceases". Accordingly, nothing can exist independently or autonomously. Trinh Xuan Thuan (2001) explains that according to this concept, "The world is a vast flow of events that are linked together and participate in one another. There can be no First Cause, and no creation ex nihilo of the universe, as in the Big Bang theory. Since the universe has neither beginning nor end, the only universe compatible with Buddhism is a cyclic one".

Buddhism sees no need for invoking an *anthropic principle* or any notion of design. Reality appears through the dynamic interaction of interdependent matter and flows of consciousness, which have co-existed for all times. As Joanna Macy (1991)explains,

In this [dependent co-arising] doctrine, [all] factors, mental and physical, subsist in a web of mutual causal interaction, with no element or essence held to be immutable or autonomous [our] suffering is caused by the interplay of these factors and particularly by the delusion, craving, and aversion that arise from our misapprehension of them. We fabricate our bondage by hypostatizing and clinging to what is by nature contingent and transient.

Macy (1991) asserts that one cannot apprehend the meaning of dependent coarising aside from the doctrine of impermanence (anicca), the first of the three characteristics of existence, the other two being suffering (dukkha) and no-self (anatta). All that a sentient being perceives and feels and thinks is anicca. Thus, dependent co-arising is the pattern of change itself. This view of order within change parallels the view of contemporary complexity science. In the sixth century B.C., it was a radical view in contrast to the unilinear causality views of both the Vedic (Hindu) and the non-Vedic schools.

Analytical theorizing of the nature of causal relationships reached a high degree of sophistication and complexity in the later *Abhidharma Pitaka*, a scholastic elaboration of the philosophic aspects of Buddhism. Abhidharma makes a distinction between the mental and physical realms, and between conventional (or relative) reality, which we are familiar with in our daily lives, and ultimate (or absolute) reality, which has the quality of vacuity.

Thuan (2001) explains, "Conventional reality concerns the transformation and change of things in the phenomenal world. These changes are governed by causal laws that are similar to the physical laws discovered by science in Nature. In that sense, the Buddhist view of conventional reality is very much like that of a scientist, with the difference being that Buddhism also introduces the laws of karma"

Conventional reality, however, is mere appearance (*maya*). On the deeper level, phenomena do not have an objective existence. The act of observation and analysis changes the information that nature sends to the observer. "Human beings cannot observe nature in an objective manner. There is constant interaction between our inner world and the outer world....The inner world, when projected onto the outer world, prevents the scientist from seeing the 'bare' objective facts. We only see what we want to see".

Quantum mechanics, as clarified by Heisenberg and Bohr, makes it clear that the very act of observing can modify reality because of the interdependence between observer and reality. The Einstein-Podolsky-Rosen paradox, Bell's theorem, and the Aspect experiment provide conclusive proof of the interdependence of particles in the subatomic world. The difference between conventional reality and ultimate reality can be compared to that between a photon (what the observer can see) and the wave function that correlates it with its antiphoton, which may be separated by billions of light years (what the observer cannot see).

Thus, modern physics confirms that everything depends on everything else, and that reality is not local. Moreover, the concept of interdependence implies ongoing change (impermanence) of all elements constituting conventional reality.

The Buddhist view is that "consciousness has co-existed, co-exits and will co-exist with matter for all times. The same goes for the animate with the inanimate". From the Buddhist perspective, "one can thus interpret the Big Bang as the manifestation of the phenomenal world from an infinite potentiality already in existence. ... Once it has come into existence, the universe goes through a series of cycles, each composed of four cycles: birth, evolution, death and a state where the universe is pure potentiality but has not manifested yet itself. This cyclic universe has no beginning nor an end".

The foregoing analysis makes it clear that globalization, from the Buddhist perspective, means the ongoing process of change encompassing all elements in Nature, both physical and mental, which are mutually interdependent. Globalization, therefore, cannot relate only to humankind aside from the context of everything else in Nature.

Daoist perspective

We may more aptly call this the Chinese perspective because both Confucians and Daoists more or less agree on the principle of the dialectical completion of relative polarities that underlies creation. The Chinese view of globalization is implicit in the five-millennia-old *Yijing* (Book of Changes) model, which clearly explains the mutual interdependence of unity and diversity. Amazingly, the *Yijing* model of creation resembles a prototype of the Big Bang theory. In *Daodejing*, Laozi explains the interconnection between unity and diversity thus.

Dao gives birth to one,

One gives birth to two

Two give birth to three,

The three give birth to ten thousand beings, Ten thousand beings carry yin on their backs and embrace yang in their front,

Blending these two vital breaths (qi) to attain harmony (he).

The Dao is the ineluctable Supreme Reality, also called the Way, which assumes the two alternating states of *Wuji* (the Non-Polar) and *Taiji* (Supreme Polarity)- a mutually defining unity. The Dao has its counterpart in the singularity that caused

the Big Bang. The Dao produced the one—temporal/spatial reality. The One produced the Two-the opposite charges of positive (*yang*) and negative (*yin*). The Two produced the Three-matter, energy, and the laws of nature. The Three created everything in the universe. Thus, as in the Buddhist perspective, all things are interconnected and interdependent. Unity and diversity are complementary.

Whereas the Buddhist perspective presumes the co-existence of consciousness and matter for all times although they are subject to the law of ongoing change (anicca) as all other elements, the Daoist perspective presumes creation although no divine creator is involved. Buddhist and Daoist views are almost identical on the interconnection and interdependence of everything except for the absence of karma in the Daoist version. The Daoist perspective can be adapted to fit the scheme of a divine creator as well.

For instance, Hyun Chul Paul Kim (2001) points out how the key aspects of the Chinese yin-yang worldview can be relevant and helpful for interpreting the biblical texts, ideologies, and theologies. Kim asserts that four major aspects of the yin-yang dynamics can enrich the hermeneutics of the biblical texts: (1) duality and plurality, (2) *both-and* (rather than *either-or*) in contradiction and paradox, (3) reciprocity and change, and (4) harmony and balance.

The one prominent feature of yin-yang dynamics is the idea of duality and plurality, in that one source has two aspects and those bipolar entities together construct a multidimensional whole. Within this complex structure, the opposite components exist together in a "both-and" mutuality rather than "either-or" reduction. Instead of repelling against or reducing to one, the two contradictory ideas are often placed together in a dynamic correlation. This dynamic correlation is not static but fluid, constantly changing and flowing within the mutual reciprocity. Two opposite entities not only stand side-by-side but also coerce, challenge, and correct each other in constant mutual interaction. This mutual interaction does not occur at a random accident but rather for the dynamic retrieval, retaining, and return to the centrality of balance.(Kim 2001, p.307)

The *Yijing* model of 64 hexagrams illustrates how the yin-yang interaction creates an entire interconnected system. The one bifurcates into the two primal sources: yin (-- broken line) and yang (solid line). The bifurcation of yin and yang produces four bigrams-two originating from yang and their two complements/contrasts

originating from yin. At Level 3, the four bigrams bifurcate into eight trigrams—four originating from yang branch and their four complements/contrasts originating from the yin branch. Period doubling begins at this level. The eight trigrams exponentially go through three bifurcations to produce 64 hexagrams. Each bifurcation produces an equal number of complements/contrasts on the yang and the yin halves of the bifurcation tree. Thus, at the sixth hierarchical level of the bifurcation tree, one-half of the 64 hexagrams will occupy the yang domain, with their complements/contrasts occupying the yin domain. Kun or Earth (Pure Yin) represents the yin extreme while Qian or Heaven (Pure Yang) represents the yang extreme. All other hexagrams with varying combinations of yin and yang lie between these two extremes.

One should note that each of the 64 hexagrams is made up of two trigrams (one atop the other) to produce unique combinations. Each trigram has a name and a specific meaning. When they are combined into hexagrams, they too acquire names and specific meanings that describe an exhaustive set of human situations. This model could expand into further hierarchies to provide an infinite progression. Applying the model to the Big Bang, one can presume the continuing yin-yang expansion of the universe "to generate ten thousand beings" (a metaphor for all beings in the 40 billion or so galaxies in our universe) through bifurcation or period doubling. It provides the template to study the mutual relationships and networks within any phenomenon bearing system characteristics, including globalization.

Katya Walter (1994) demonstrates the parallels between complexity science, an offshoot of quantum physics, and the *Yijing* model both of which deal with bifurcations and fractals. All bigrams, trigrams, and hexagrams contain both binary and analog values. Binary values are derived by reading each *Yijing* form horizontally and coding yin as zero, and yang as one. From the Buddhist perspective, they show the conventional reality. One can attempt to uncover ultimate reality (meaning relational or analog value) through a bottom-up vertical reading of a trigram's three lines, treating each upper line as a fractal of the line below. Walter, who describes the derivation of the two values in detail, points out that "each rising line doubles its polar complexity" showing exponential expansion. Thus, the vertical Period 3 window "is in effect a triple-decker fraction, a 'strange attractor' fractal". The interaction of the two trigrams, each a 'strange attractor,' within each hexagram

causes its trajectory to move toward the edge of chaos leading to its bifurcation and self-organization.

Conclusion

Now that we have outlined the essentials of Buddhism and Daoism as they pertain to globalization, it is necessary to clarify that this essay is neither an attempt to equate Eastern philosophy with Western science nor an attempt to vilify social science. Most of the studies associated with social science have been quite useful in the Western social context, but are less suitable for application in non-Western societies. Outstanding examples that illustrate this point include the modernization/development paradigm and the putative globalization paradigm associated with social science.

The evolutionary steps needed to progress from traditional to modern (Western) are defined in measureable economistic terms. The modernization paradigm represents an attempt by the social science oligopoly of the West to establish the supremacy of Occidental cosmology. The ensuing discourse on globalization is another veiled attempt to promote the same cosmology irrespective of what it is called—Westernization, internationalization, liberalization, or universalization. The presumption is that the path to progress lies through capitalism, individualism, competition, reason, and other secularized Judeo-Christian values. In this sense, the compilation of globalization indexes listing countries of the world sorted by their globalization could be construed as promotion of Western values.

The essay has clarified the meaning of globalization from the perspective of Eastern philosophy and modern science a clarification that goes well beyond what Jan Nederveen Pieterse (2006) describes as Oriental globalization. Everything in the universe—and, therefore, on Earth—is reducible to matter/energy and information. Thus, the phenomenon of globalization cannot be confined to the human species alone. If we concede this absolute truth, the call of Thussu et al. (2005,p.6)) to "engage critically with the concept of globalization in relation to culture and media" reflects the Newtonian ploy of examining the part without the context of the whole.

This essay also highlighted the remarkable parallels between Eastern philosophy and science to dispel Hegelian views on the East that still persist in the West. Quantum physics tells us that all elementary particles (i.e., electrons, protons, neutrons, etc.) have corresponding antiparticles (i.e., positrons, antiprotons,

antineutrons, etc.) of equal mass and opposite electric charge. Although matter and antimatter tend to explosively annihilate when they come into contact with each other, the universe is overwhelmingly matter, and not antimatter-possibly a feature of the initial conditions of the universe. The "baryogenesis" hypothesis suggests that this discrepancy is caused by an imbalance between baryons (i.e., protons and neutrons) and anti-baryons.

Let's look at this phenomenon from the standpoint of the *Yijing* model so we may dispel Hegel's views on Eastern philosophy and Nature. In Chinese onto-cosmology, *yang* represents the particles while *yin* represents the antiparticles. Their interaction creates everything ("ten thousand beings") in the universe—atoms, molecules, cells, organisms, etc. Nothing can exist by itself. Everything has its complement or contrast within the bounds of the two polarities. The fractal properties of the various combinations of *yin* and *yang* (e.g., bigrams, trigrams, and hexagrams) engender nonlinear (analog) relationships among them thereby causing the asymmetry between matter (yang/Qian) and antimatter (yin/Kun). This implies that the autopoietic creation of a complement/contrast for each *yin-yang* combination in the bifurcation process does not produce an exact symmetry of the two primal sources.

The Buddhist doctrine of dependent co-arising reinforces the *Yijing* model's explanation of the mutual interdependence and interaction of all things in the universe in the contexts of both conventional (visible) and ultimate (invisible) reality. The EPR experiment, Bell's theorem, and the Aspect experiment provide the evidence. Ongoing change or impermanence (*anicca*), which engenders nonlinearity, causes the simultaneous occurrence of order and chaos. Impermanence—birth, evolution and death—applies to everything. Stars are born, live their lives, and die. Even the mutually interdependent universe and consciousness, which have no beginning or end, must go from an unrealized state to a realized state. Once it arises from its unrealized state, the universe must go through the stages of birth, evolution, death, and transition to a state of pure potentiality. This Buddhist perspective offers an alternative to the Big Bang and the creationist views of the universe. Anindita Balslev (2001) says "the ideas of karma, rebirth, and that of a beginningless world-process remain pan-Indian concepts" because Hindu and Jaina traditions also subscribe to similar notions.

One cannot study a part (or a particle) without the context of the whole because of the natural law of interdependence or what Buddhist philosophy identifies as dependent co-arising (paticca samuppada). Scholars in communication science, as well as scholars from other social sciences, have been guilty of deemphasizing or ignoring this natural law. They have concentrated on the communication dimension without adequately looking at the totality of dimensions that engendered their particular focus. They have used the terms global, international, and transnational as if they were interchangeable.

Colin Sparks (2005) correctly points out, "The first problem is that there is no single theory of globalization upon which all social scientists, let alone everybody else, are agreed". Moreover, John Thompson (2003) attests that globalization, defined in the most general sense as "growing interconnectedness of different parts of the world, is indistinguishable from terms such as *internationalization* and *transnationalization*, which are "often used interchangeably in the literature".

Kevin Robins (2003) asserts that one must see the globalization process "in terms of the complex interplay of economic and cultural dynamics involving confrontation, contestation and negotiation". The political power and order dimension are missing from this view. Robert McChesney (2003) who points out that the global media market has come under the domination of eight transnational corporations "rounded out by a second tier of four or five dozen firms", states that "the fate of the global system is intricately intertwined with that of global capitalism" (268). He too brings up a highly relevant anthropocentric concern without attempting to link its effects to the total global environment as do others who have looked at press freedom from the world-systems perspective. John Tomlinson (2003) argues that globalization, far from destroying cultural identity, "has been perhaps the most significant force in creating and proliferating cultural identity". Had Tomlinson extended his thesis to argue that anthropocentric globalization is helping to create and proliferate the identity of all mammalia and other species, he would have touched on an important aspect of the ongoing natural globalization process. The social science/ communication oligopoly should begin to accommodate the Eastern philosophical perspective by welcoming the new systems approaches representing complexity science. If social scientists were to adopt the Buddhist dependent coarising paradigm, which parallels network analysis, then they would do away with bivariate analysis altogether and engage in the more realistic analysis of mutual

causality of a network of factors relevant to an issue. Communication scholars would have to engage in interdisciplinary research and learn to apply nonlinear mathematics to analyze the *analinear* behavior of the factors constituting a network or system. Moreover, communication research would go beyond human communication to explore human-and-environment communication.

If communication scholars insist on using the concept of globalization in an anthropocentric sense, then they must take greater care on how they use the term. Webster defines *global* as "relating to, or involving the entire world." Thus, a global system of communication means a worldwide system. Globalize means to make something worldwide in scope or application. Globalization is the relevant noun. International means "of, relating to, or affecting two or more nations." Therefore, global is not the same as international. Global media are those that reach the entire global system. Transnational means "extending or going beyond national boundaries." Thus, transnational conglomerates are not necessarily the same as global conglomerates. The latter must have a worldwide presence. Moreover, transnational is most commonly associated with business enterprises, not with nation-states. The term regional can refer to a part of the world or a part of a country. Thus, the Middle East is an Asian region (international), and the Midwest is a U.S. region (local). Consistency in usage is vital to avoid confusion.

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Figure - 1

Yin and Yang Bifurcate into Bigrams and Trigrams

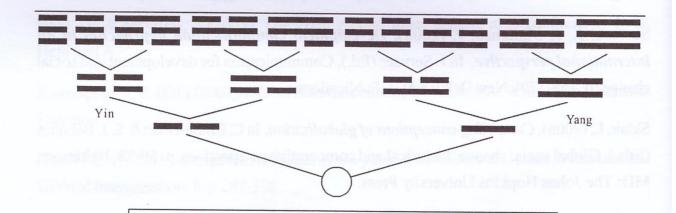


Figure - 1

Yin and Yang bifurcate into bigrams and trigrams

Figure 2

Period Doubling of the Eight Trigrams into 64 Hexagrams

(Contrasting pairs appear in numerical sequence)

Lower Trigram	Upper Trigram							
	Qian	Kun	Kan	Li	Zhen	Gen	Sun	Dui
Q ian	1	11	5	14	34	26	9	43
Kun	12	2	8	35	16	23	20	45
Kan	6	7	29	64	40	4	59	47
Li Li	13	36	63	30	55	22	37	49
Zhen	25	24	3	21	51	27	42	17
Gen	33	15	39	56	62	52	53	31
Sun	44	46	48	50	32	18	57	28
Dui	10	19	60	38	54	41	61	58

Table I

Concepts of Eastern and Western philosophy

Eastern Philosophy

Western Philosophy (Adapted from Burrell & Morgan. 1979)

Philosophy of change

- (a) Buddhism: Concedes that everything is subject to ongoing change (anicca), the first of the three characteristic of existence (ii-lakkhana), the other two being no-selfness (anatta) and unsatisfactoriness (dukkha). Nothing is permanent.
- (b) Daoism (Yijin): Refers to a comprehensive system of cosmology, culture, and ethics. Guan is the process used to observe changes. Grounded in practice, it is both subjective and objective, for it allows space for emotions and experiences. Change is seen as divination which provides a way to reveal limitations in one's life and a way to change one's situation by acting appropriately (cf., Western concepts of agency and structure).

Philosophy of human nature

- (a) Buddhism: Individual co-exists with other living beings in an environment. Ergo, existence means no-selfness (anatta). Egotism is detrimental
- (b) Chinese ontocosmological view: Individual action is interrelated to the experiences of nature, and are shaped according to each situation. It is this unity between individuals and cosmos that defines Chinese human nature as opposed to the West where human nature is seen as centered in the individual.

Philosophy of knowledge.

- (a) Buddhism: Four Noble Truths is the basis of all knowledge.
- (b) China has several schools of thought: observational ontoepistemology in the Zhouyi, epistemology of virtues

Nature of society. Society is seen as stable or not. The regulatory or ordered perspectives seek to explain society in terms of unity and cohesion, where small changes lead to equilibrium. The radical change and conflict views seek to explain society in terms of deepseated structural conflicts, domination, and contradictions.

Human nature. Often seen from voluntarist and determinist perspectives. Voluntarists believe that a person has free will when determining what to believe in. Determinists hold that each state of affairs is necessitated (determined) by all the states of affairs that came before it.

Ontology. The metaphysical study of the nature of being and existence. Reality is considered as ranging from subjective perspectives (reality is dependent on thought) to objective perspectives (reality is independent of thought).

Epistemology. The study of the nature of