Available online at eruditio.worldacademy.org
Eruditio
e-Journal of the World Academy of Art & Science
Volume 2 Issue 5, December 2018

Self-determination versus Techno-economic Determinism:
Managing the Cultural Challenge of Techno-economic Determinism

Leon Miller
Instructor of Business Ethics, Comparative Religion, Intercultural Communications, and International Relations; International consultant for a "Value-based Approach to Sustainable Social Economic Development"

Abstract

A culture organizes social relations in a way that maintains the group's ability to effectively respond to conditions imposed by reality. However, cultural researchers stress that there are macro-level conditions imposed on societies that are beyond their means of effective response in that current macro level techno-economic forces pose a new threat to cultures. Also, the knowledge needed for responding to the challenge could necessarily involve cooperation with the forces that are most responsible for creating the challenging conditions. This article analyzes the impact that the forces of techno-economic determinism impose on cultures and offers a theoretical model for a progressive and sustainable response (i.e. one that supports self-determination and Human Rights). This article contributes to social science research on multi-level social action by pointing out the extent to which environmentalism, sustainability, and climate change have been under-researched as factors effecting future security, conflict, peace-building, and global stability.

1. Introduction

A culture's worldview has provided the basis for its successfully managing the environmental challenges the society is confronted with (Parsons 2007, p. 421). In fact human existence can be described as an endeavor to organize social relations in a way that maintains cultural integrity in spite of imposed external challenges. However, current macro level techno-economic forces pose a new (man-made) threat to local cultures. Also, the knowledge needed for responding to the challenge necessarily involves deciding whether or not to adapt to the new technological paradigm by cooperating with the forces that are most responsible for creating the conditions or resist (Parsons, 2007, p. 423).

This article analyzes the impact of macro level technological determinism on cultures and offers a theoretical model for a progressive and sustainable response (i.e. one that supports self-determination and Human Rights). This article contributes to social science research on multi-level social action by pointing out the extent to which sustainability has been under-researched as a factor effecting future security, conflict, peace-building, and global stability. It proceeds with section two providing a detailed overview of the challenge imposed on cultures by techno-economic determinism. Section three explains the concept of culture and argues—on the basis of a critical approach to peace research—that tribal-village cultures, in particular, have continuously portrayed the capacity to respond to natural challenges in ways

that maintain a complementary connection between the culture and the forces of existence (i.e. the significance of indigenous knowledge and the value of what is increasingly referred to as ecosophy). Section four introduces the concept of technological determinism and analyzes the challenge it imposes on cultures.

The final section proposes a theoretical model for a progressive response to the dichotomy between self-determination and techno-economic determinism that allows a culture to rise above what seems to be techno-economic determinism. A Critical Theory perspective of the Human Rights concept is used as the basis for proposing a theoretical strategy for establishing a complementary connection between the necessity for the concerted and cooperative collaboration of all global stakeholders in response to environmental challenges and a culture's right to self-determination. In addition the concluding section offers a Constructivist-based contribution to the global society's effort to effectively respond to the micro-level challenges faced by particular cultures. That is to say that the article concludes by proposing a model for a cultural adjustment to the challenges imposed by technology while, at the same time, maintaining the culture's integrity.

2. The Challenge Imposed on Indigenous Culture by Techno-Economic Determinism

Experts on cultural studies have continuously stressed that cultures are challenged by the impact that conditions imposed by the forces of techno-economic determinism have on their right to autonomy and self-determination (e.g. market penetration, increased penetration of information communication technologies, plus environmental and climate change conditions). This has resulted in a discrepancy between autonomy and the *glocalization* that increasingly interconnects the global society by means of an interdependent techno-economic network. In addition, there is the possibility that an appropriate response to the challenges will demand the concerted cooperation of all global stakeholders (e.g. which could necessarily involve dialogue and cooperation with the very forces that are most responsible for creating the technological challenge) (Kavalski, 2007, p. 444; also see Comfort, 2000, pp. 280-286). This article emphasizes the normative value choices that both cultures and the global society have to make in the endeavor to reconcile the tension between technological determinism and self-determination—during a time when forces of the technological age will challenge the culture's right to autonomy and self-determination due to the extent that globalization creates interdependence and the necessity to adopt techno-economic strategies for development.

The title of the article, *Managing the Cultural Challenge of Techno-economic Determinism*, is used to depict the conditions imposed on cultures due to powerful macro-level social, economic, and technological forces. That is to say that given the current techno-economic challenges, societies exist in the midst of an approaching threat of devastation imposed upon their identity and their culture. However, cultures have always existed with the integrity and normative prescriptions that provide the ability to function in a way that enables it to experience a complementary connection between itself and the reality imposed by the surrounding forces (Geertz, 1973, p. 90). The argument is that culture has always been a manifestation of a social group's endeavor to organize social relations in such a way as to maximize the satisfaction the members of the group experience in their social relations and in a way that promotes the flourishing of culture (Durkheim, 1995, p. 17).

The current challenges are different in that they are not imposed by natural forces but are made by human activity. This creates a unique challenge for cultures in that they have to discern not only how to appropriately respond to the forces of nature—in a way that reinforces the complementary connection between the culture and the natural forces that surround the culture—but also to effectively respond to the powerful industrial and technological forces which seem to be most responsible for the challenges thus are most responsible for creating the current reality imposed on cultures.

The Critical Theorist perspective on peace research and Human Rights is used as the framework for analyzing the problem because it provides insight into the connection between globalization and self-determination (e.g. natural rights). That is to say that a Critical Theorist perspective on peace research proclaims that "To achieve 'peace with nature' [both locally and globally] human behavior has to be brought back in line with the wholeness of nature, plus increasing hazards and disasters are an expression of the disharmony and lack of peace of humankind with nature" (Spring et al., p. 2014). The Critical Theorist perspective represents a viable framework from which to analyze the dichotomy between the right to self-determination and techno-economic determinism because it represents an interdisciplinary intersection between disciplines that address issues related to conflict reduction and peace-building: e.g. an intersection between international relations, peace research, the social sciences, and international legal philosophy. This article contributes to macro social science research on eco-justice in that it points out the extent to which environmentalism, sustainability, and climate change have been under-researched by international relations scholars (i.e. as a factor effecting future security, conflict, peace-building, and global stability) (see Patomäki, 2001, pp. 723-724; also see Jutila & Väyrynen, 2008, pp. 630-633).

The primary hypothesis is that there are two factors involved in the capability of a culture to adjust to the current macro level techno-economic challenges (i.e. thus a culture's ability to exercise its right to autonomy and self-determination). The first is the fact that the phenomena that the culture is adapting to represent an integration of internal and external processes that result from cultures necessarily having to adjust to the conditions imposed by the progression of civilization (Firestone et al., 2006, p. 2; Sauer, 1952, pp. 6-14, & Barker 2006, pp. 3-5). In particular is the impact of ever expanding socio-political units, adjusting to the impact of Modernity, and adjusting to the impact of the industrial revolution and its techno-economic forces. The second factor is the proposition that the knowledge needed for successfully responding to the challenge requires dialogue and cooperation with other segments of the larger society and the global community—which could necessarily impel the culture to consider whether or not to make use of technological means for a successful social-economic adjustment (Onuf, 2007, p. xiii).

3. A Culture's Complementary Connection with the Forces of Existence

The late Talcott Parsons—regarded as one of the most influential thinkers of the 20th century (especially in regard to both economics and sociology)—defined culture as an organized and systematic strategy for structuring social relations so as to effectively manage the complicated processes involved in the interchange between its members and the environing system(s). That is to say that a culture exists in a state of interpenetration and interchange with processes internal and external to its system (e.g. the culture is embedded in some other

more extensive system(s)). As a result, according to Parsons, a culture is subject to being influenced by phenomena that it did not constitute but phenomena that are able to influence its system—thus the culture can be challenged by the need to establish an effective response to forces that could otherwise threaten the flourishing of the culture. To withstand the forces that could diminish the vitality of the culture a social group institutionalizes normative and structural systems that serve as functional strategies for maintaining *equilibrium* (i.e. the endeavor to maintain a complementary integration between the culture and its environment) (Parsons, 2007, p. 423).

"Equilibrium is a fundamental reference point for analyzing the processes by which a system either comes to terms with the exigencies imposed by a changing environment, without essential change in its own structure, or fails to come to terms and undergoes other processes, such as structural change [and/or] dissolution as a boundary-maintaining system" (Parsons, 2007, p. 426). Parsons explains that given the variability of a system's relation to its environment the integrity of the culture can only be maintained by means of the culture engaging in goal-orientated (i.e. goal-attainment) behavior. The goal or intended outcome is to reduce the discrepancy between the constraints imposed by the environmental forces and the normative principles of the culture (i.e. the cultural worldview and its principles that determine how to fulfill its material need and realize its intrinsic values). In other words, an effective adaptation to the variability of external environmental constraints demands maintenance of the culture's social processes, its material and aesthetic artifacts (i.e. material and aesthetic systems), and its boundaries but in a way that is in line with the culture's endeavor to perpetuate its intrinsic and higher order values.

Emile Durkheim—considered to be the father of the science of sociology—claimed that cultures construct an identity based on their understanding of what constitutes an appropriate relationship with the natural order. Durkheim stressed that there is a complementary affinity displayed between nature and tribal-village cultures that they have maintained. At the elementary stage of cultural development social identity was a reflection of the interconnection that individuals felt they had with each other, the earth/nature, and with existence. In this respect Durkheim was not only proposing a theory regarding what constitutes a culture but "Simultaneously (and in his view necessarily) a theory of how human mentality constitutes itself" (Durkheim, 1995, p. 17). Thus, cultures constitute what they believe to be the fundamental principles that perpetuate a harmonious and beneficial interchange between its members and the environment (i.e. which is the basis of a cultural worldview or the formation of a culture's collective consciousness). The material productions and normative principles of the culture are constructed means for systematically reenacting the culture's nature-culture complementarity (Durkheim, 1995, pp. 17-23).

It is in this sense that a culture's worldview serves as a normative basis for a society's conception of the principles necessary for promoting its preservation, perpetuating its vitality, and serves as the basis for its flourishing. A culture's worldview is a conceptualized and constituted means for maintaining cultural processes, for maximizing the culture's ability to enjoy its social experience (in terms of its social relations, social activities, and its relationship with the natural order). Thus, according to Clifford Geertz, a cultural worldview establishes the tone, quality, and character of a culture's life, its ethos, and its understanding of the aesthetic qualities necessary for maximizing its enjoyment of life. In short, a cultural

worldview, its normative principles, and its institutionalized systems represent a structured means by which a social group organizes its internal and external processes so as to maintain its vitality, its cultural integrity, regulate its boundaries (i.e. to protect its boundaries), and the means by which the culture is able to perpetuate its existence (Geertz, 1973, p. 90).

Culture in this sense acts as an undergirding force that mediates between the environmental reality and the understanding that people have of how to maintain a proper relationship or connection with their ancestral lands, with each other, and with the comic order. In fact, traditional cultures, in particular, and the environment are interwoven in such a way that individual identity, social identity, the understanding of how to respond effectively to the encroaching social, economic, and technological demands of Modernity are all tied to the cultural understanding of the connection between the human world and the natural world. For traditional cultures their sense of identity is closely connected with their environment: a particular geographic space defines the culture's identity and cosmology, its sense of cultural origins, and the notion of well-being is closely connected with the well-being of the natural world. In other words there is believed to be a reciprocal interplay between what decimates the environment and what decimates the harmony of the culture. The people of traditional cultures continue to believe that their future flourishing is based on the effectiveness of their culture's particular normative principles and the adequacy of their cultural perspective for managing inescapable encroaching macro level power forces that are manifest on multi-levels and in multi-dimensions.

In relationship to cosmology both geography and topography are matters that have special meaning for cultures. That is to say that a culture develops in relationship to a particular place and it is the culture that gives the place substance, a unique topography, a special history, and is what gives the place a particular or special meaning. "Place incarnates the experiences and aspirations of a people" (Yi-Fu, 1979, p. 387). It is in this sense that culture also involves protecting boundaries (i.e. protecting how its place is defined and the topography that develops in a particular locale). Boundary protection is necessary because there are forces (natural, human, and factors resulting from the advancement of civilization) that intrude on a culture's space. The human forces intrude for political, economic, and/or ideological reasons but today the intrusion also involves the consequences of technology and globalization.

Equally important is the fact that culture defines how to manage the problem of the maleficent aspect of reality (e.g. things that appear to be in opposition to what is in the best interests of the overall culture and its individual members thus is a disruptive intrusion into the culture). The maleficent aspect of reality can be described as that which threatens the culture in a way that the culture has no conceptual or material resources for managing thus there is no way for the culture to avoid suffering. The maleficent aspects of reality become a threat to a culture when they are experienced as forces that have the potential to serious disrupt, cause the culture to suffer, or threatens to decimate the culture. The damage to the culture is due to the fact that the culture has not been able to devise a workable set of ethical or normative guides to govern appropriate and effective action in response to the challenge (Geertz, 1973, p. 106). What threatens decimation are those things considered contrary to what the culture believes will maintain its established harmony with its environment thus are also things considered by the culture to upset the natural order (e.g. in some cultures they are things that can be designated as taboo).

In terms of the research of cultural anthropologists the earliest outside factors influencing a culture (i.e. the phenomenon of intrusion) are referred to as contamination (e.g. the most typical initial intrusions were new inventions and technologies like the bow and arrow, the plow, and the windmill but more recently they include trade items such as mobile phones, portable music devices, and the automobile which alter the traditional processes of a culture). However, the cultural contamination resulting from such things as radios, televisions, refrigerators, washing machines, vacuum cleaners, and computers also represent a type of intrusion that involves, on the one hand, the power of developed societies to expand their markets or open new markets by permeating the borders of a culture while, on the other hand, have an effect on a culture that gradually results in techno-economic dependence (Agnew & Duncan, 1989, p. 3).

Cultural knowledge represents a depth of insight that for millennia has been essential for providing the means for effectively integrating human, environmental, and cosmic forces into harmony (Habermas, 1987, 138). In fact, a significant feature of culture is that it represents a peculiar (micro) perspective on how to maintain harmonious and beneficial relationships with macro power dynamics. Without knowledge of how to manage the powerful forces that lie beyond the culture certainly great harm would befall the culture. That means that decimation can be avoided when cultural principles are applied to human interactions and to relationships with the natural order but applied in a particular way that is proven to enable its members to avoid the pitfalls of reality. In terms of what this means in connection with contemporary cultures—given the prospect that large portions of global society will increasingly be challenged by a common disruptive force—the depth of insight available from indigenous knowledge could be an important source for a future *ecosophy* (i.e. ecosophy is defined as the philosophy of ecological harmony or equilibrium).

Ecosophy is "A methodology suggested by the maxim 'all things hang together'. This has application to and overlaps with the problems in philosophy, the placement of humanity in nature, and the search for new kinds of explanation of this through the use of systems and relational perspectives" (Naess, 1989, p. 36). The proponents of ecosophy propose that individuals exist within a global ecosystem thus within a globally interdependent system; that this is not a simple, but a complex, dynamic, and fluctuating system; plus, that the natural dynamics of the system create change that must be managed by constant self-organizing and Constructivist collaboration. That is to say that successfully adapting to the dynamics of the system requires a Constructivist-based process of dialogue and collaboration in order to generate mutually beneficial and satisfactory outcomes. In this sense the re-conceptualization of the ontological perspective of nature-human relations involves a macro-level shift in perspectives that will have a beneficial impact at the micro-level and, equally important a shift that is in line with micro-level normative and value commitments.

4. Techno-economic Determinism versus the Right to Self-determination

> *"The driving force behind any future international order must be in a belief, however expressed, in the value of individual human beings irrespective of national affinities or allegiance and in a common and mutual obligation to protect their well-being"* (Carr, 1942, p. 44).

The history of human existence is a testimony to the fact that most cultures have created or adopted ways to manage, alter, or exploit their environment to some extent. Of course, the most obvious examples are the adjustments many cultures made from hunting and gathering to the agricultural revolution, later in history to the industrial revolution, and most recently to the technological age. In this respect most (but not all) social systems developed together (i.e. along with technology) a way that the culture believed did fit its adjustment demands, its own notion of value, its cultural worldview, plus its ideas about constructive development and socio-economic progress (this was the case right up to colonialism). If the history of human existence is looked at from the perspective of necessary technological adjustments then social, economic, and environmental conditions have continuously impelled cultures to invent or import new technologies that would provide a means for better coping with reality. In fact, 'civilization' became a term for distinguishing societies that had developed or adopted techniques for mastering and transforming nature (as opposed to those who had not thus were considered primitive, savage, and/or barbaric).

"The development of nature and the transformation of the environment [began to be considered] a primordial act, transforming chaos into order, imbuing the environment with human form—a divine-like act to create a new world and a new reality" (Eliade, 1965 10-11). This means that for some cultures technology became the very means by which they believed their social-political systems would flourish and would be able to influence underdeveloped and undeveloped cultures. For other cultures technology is a means of adjusting to the demands of the progression of civilization thus some cultures believe that progress requires assimilating technology into their social systems (in spite of the impact it has on their cultural integrity). However, cultures preferring to remain totally immersed in nature believe that technology threatens such serious disruption of the culture that their response can be described as resisting adapting modern technology even though it induces the risk of annihilation. In this respect technology has created a culture-modernizing dialectic that deserves careful and critical analysis because of the role it potentially plays in "Profoundly modifying [culture and creating a] radical transformation of the environment [that results in altering a culture's] routine of life" (Mumford, 1955, p. 3).

Critics of Modernity refer to this phenomenon as representing a manner of thinking that conceives of development as an increase in the extent to which a virtual reality replaces what is natural thus the real begins to decrease and what is made as a result of human ingenuity increases. The most radical alterations result when cultures that were completely immersed in nature (i.e. completely dependent on its resources and processes) adapt to progress by becoming increasingly reliant on technological advancements for coping with their internal and external processes. When that happens, "Technique integrates everything. When technique enters into every area of life, including the human, it ceases to be external to man but becomes part of his very substance" (Ellul, 1964, p. 6).

According to Critical Theorist Jürgen Habermas, "The term culture [stands] for the stock of knowledge from which participants in communication supply themselves with interpretations as they come to an understanding about something in the world [and] the term society [is] the legitimate orders through which participants regulate their memberships in social groups and thereby secure solidarity" (Habermas, 1987, p. 138). That is to say that

for Habermas culture is a means by which a social group organizes its life-world in order to effectively maintain equilibrium. In this respect, indigenous knowledge is the basis of a culture's capacity for self-determination in that its normative principles have continuously provided the means by which the culture maintains, perpetuates, and protects its life-world and its cultural boundaries. The normative principles and worldview of a culture is the means by which it is able to withstand the powerful external forces it is confronted with.

Habermas describes this as a society's process for anchoring a cultural system or, in other words, a strategy for institutionalizing a social group's processes for individual-life-world integration which is what keeps the life-world from falling apart. Habermas goes on to assert that cultures can be threatened by external forces that have the power to subject the culture to what he calls the colonization of their life-world. The colonization of the life-world seems to subject a culture to the role of being a subsystem of another powerful techno-economic force. Thus, in terms of how the colonization of the life-world applies to the issue of techo-economic determinism versus self-determination, scholars have increasingly recognized and addressed the fact that there are civilizational extension systems (e.g. techno-economic forces) that can create an imperative that "burst the capacity of the life-world they instrumentalize" (Habermas, 1987, p. 155)*; According to Habermas, techno-economic reproductions can be a means by which one civilization advances itself by* intervening in another culture in order to realize its political and economic aims.

The difference created between a culture's initial sense of nature-culture complementarity and a culture's understanding what is necessary for adapting to the demands of a technologically advanced means of survival is discussed in cultural literature as the dichotomy between a culture's right to self-determination and the subjection of a culture to demands for modernizing. That is to say that the issue of the cumulative impact that technology has had on cultures could be considered as affecting the freedom and capacity of some cultures to achieve sustainable growth in ways that are aligned with their cultural values, heritage, and worldview (Natarajan & Khoday, 2012, p. 37). The right to self-determination is a general principle of international law and enshrined by a number of charters, treaties, and conventions: e.g. The UN Declaration on the Rights of Indigenous Peoples; The International Convention on Civil and Political Rights; and the International Covenant on Economic, Social, and Cultural Rights. Self-determination is defined as "The legal right of people to decide their own destiny in the international order" (LII, 2015, p. 1). Widespread acknowledgement of the right to self-determination was achieved when the UN drafted the Declaration on the Rights of Indigenous Peoples. For example, Article 1, paragraph 1 of the UN's International Covenant on Economic, Social, and Cultural Rights states that "All peoples have the right of self-determination. By virtue of that right they freely determine their political status and freely pursue their economic and cultural development" (UN, 1976, p. 1).

According to the renowned expert of international relations E. H. Carr, the right to self-determination has persisted as a basic principle shaping relationships between social systems since the time that the classical principles of interstate relations were established because it mediates the tension between three forces that have consistently tended to shape the international order: the nationalistic, mercantile, imperialistic tendencies of political-economic systems; the unifying and or homogenizing trends that accompany enlarging

political-economic systems (i.e. initially the trend toward enlarging regional empires but today the trend toward globalization); and the exclusionary tendencies of traditionalists that resists outside interference as well as consider it a disruption to their cultural integrity) (Carr, 1942, pp. 36-38 & 40-51). In accordance with the conceptual basis for sovereignty self-determination means that a social body has the right to self-rule (an idea that is fundamental to the notion that the individuals of a social unit have the right to self-determination—also defined as the right to sovereignty which should not be interfered with by outside political and economic power forces). Carr described the Post World War II era (i.e. the post-colonial era) as a time when self-determination was conceptualized by frameworks for international relations and international law as an internationally constituted right to sovereignty—a principle which establishes the force undergirding the capacity of a culture to effectively insulate itself from being subjected to the influence of external power forces.

The most significant hindrance to the ability of cultures to enjoy their right to self-determination is directly related to the problem of techno-economic determinism in two respects. First, one aspect of the problem occurs due to the fact that as part of an endeavor to adapt to the strategies for economic development prescribed by the established paradigm for the progression of civilization thus for modernizing many cultures (if not most) have chosen to adopt technologically advanced means for participating in progress although the choice to adopt has meant an increase in the dichotomy between nature and the culture. The second aspect of the problem occurs due to the fact that the progression of civilization has made it increasingly necessary for cultures to integrate their systems into the global network as a result of the notion that, in accordance with the assumptions of Modernity, in order for an undeveloped or underdeveloped culture to become developed it must accept technological transfer (i.e. its infrastructure must be built to provide for technology). Thus, if a culture intends to adapt to environmental challenges and to climate change in a way that is best for maintaining the flourishing of the culture while, at the same time, promoting development, it will be compelled to decide which side of the technological divide it would like to be on—or it must discern how to resolve the dichotomy.

To resolve this dichotomy, the Critical Theorist perspective to peace research proposes a theoretical basis for establishing a global infrastructure for sustainability. The concept is a viable conceptual foundation for international cooperative initiatives in that it coincides with a concerted effort underway by a large number of governments: including signatories to documents of international agreements and treaties on how to manage the environmental and climate change crises; scholars proposing international law as a relevant basis from which to approach climate change; the UN's effort to offset an imposing global crisis by promoting sustainability and an increase in overall Holistic human well-being; plus self-determination as a basic aspect of Human Rights [See Development as Freedom (Sen, 1999)]. This has become necessary because the notion of progress has pushed humanity to the point of being compelled to discern how to resolve the dichotomy between using technology and power to exploit natural resources in order to increase material prosperity (e.g. to the point that it threatens existence) and the realization that our future existence demands a nature-human complementarity by implementing sustainable strategies for social-economic flourishing.

5. Resolving the Techo-economic Determinism and Self-determination Dichotomy

"No problem can be solved from the same level of consciousness that created it."
(Einstein, 1946, p. 7).

Cultures are faced with a techno-economic determinism and self-determination dichotomy in two respects: on the one hand is the fact that cultures are faced with an impending challenge imposed by very powerful macro-level forces that not only represent agents that could subject undeveloped and underdeveloped cultures to the developed world's notion of modernizing. That is to say that a culture is subject to forces that can be described as accompanying the established paradigm for progress, development, and modernization that most cultures are adapting. On the other hand, the techno-economic determinism and self-determination dichotomy offers the possibility that the micro-level perspective of culture—regarding the ontological nature of existence (e.g. their notion of nature-human complementarity)—could contribute to resolving the macro-level challenges faced by the global society as a consequence of the assumptions of Modernity. That is to say that increasingly indigenous knowledge is believed to inherently possess values that promote preserving the pristine conditions of the environmental topography and offsetting the threat to the pristine conditions of nature resulting from the impact of techno-industrial alternations of natural conditions. This shift to respect for indigenous knowledge provides a potential perspective from which cultures at various levels can reflect on the normative principles prescribed for maintaining nature-culture harmony. This eco-philosophical ontological perspective would provide the foresight necessary for a practical and workable conceptual model for resolving humanity's current dichotomy between its materialistic pursuits and its higher order values.

This claim is supported by the United Nations and published in their report entitled *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation.* The report asserts that, "Collaborative research—bringing together indigenous peoples and natural and social scientists—has led to a growing volume of published materials in the scientific literature" (Nakashima, et al. 2012, p. 25). This perspective on knowledge generation increases the realization that indigenous knowledge contains valuable insight on how to combine local knowledge with global scientific models to ensure that adaptation measures are aligned with local needs and priorities. The collaboration between traditional cultures and the global community would be the basis of a model for implementing a global social contract that would serve as a normative basis for constituting the greening of the democratic principle. This model is in line with the democratic principle in that the integrative concept indicates how knowledge can be transformed into the potential power needed for resolving the problems agents are confronted with when the agents engage in a collaborative, Constructivist inquiry to determine how to solve their problems in a way that is found satisfying and beneficial by all participants.

Specialist in global environmental politics and International Political Science Peter Haas, describes such an approach to knowledge generation as a potential new form of power and a new form of power relations that could give birth to usable solutions to one of the world's most pressing problems. Haas refers to knowledge as a type of power that—given the present global challenge and the need for a concerted progressive response—could even have an impact at the highest level of power and such knowledge could exert a type of influence that

impacts policy decisions. In short, he proposes that the Constructivist dialogic process is a means by which knowledge engages power (e.g. the ideological forces, political economic forces, and forces that are clearly impacting the nature-human experience) to create outcomes more beneficial for all global stakeholders "Particularly with regard to the management of complex environmental issues associated with sustainable development" (Haas, 2004, p. 25). Haas believes that generating such knowledge "Requires a reorientation of collective understanding and of formal institutions to focus on the key intersecting and interacting elements of complex problems" (2004, p. 570).

"There is a need for a macro-level social science discourse that is inclusive of cultural knowledge as part of its theoretical and methodological scope."

The notion of new forms of power and power relations (e.g. knowledge is power and the claim that knowledge is the most valuable commodity—which is also stressed by descriptions of the contemporary global political economy as the network economy) is the basis of a global social network era conceptualization of the power needed for an integrative approach for managing climate change that is referred to as The Eco-leadership Theory (ELT). The eco-leader is an agent that acts as a knowledge entrepreneur: i.e. is able to discern how to resolve the present tension that exists between the prior industrial era view that progress and development is a matter of increasing material abundance and the new knowledge age paradigm that views progress and development in terms of a Holistic perspective on how to achieve sustainability, establish knowledge networks that collaboratively co-create value outcomes found beneficial for a larger number of stakeholders, and promotes the integration of humanity's material/economic values with humanity's higher order values (Wielkiewicz & Stelzner, 2010, pp. 22-23). When cultural agents act as a mediator to generate and disseminate such knowledge the outcome has the power to produce a unique normative viewpoint for promoting complementarity or, in other words, beneficial outcomes in human to human and nature-human interactions. In this sense particular cultures act as knowledge entrepreneurs or act in terms of what proponents of eco-leadership call a knowledge manager to generate collaborative networks that gather, share, and test knowledge regarding the possibility of ubiquitous culture-technology interactions.

Although, on the one hand, cultures exist with conditions created by what is increasingly regarded as an outdated development paradigm, on the other hand, cultures increasingly recognize that the transition to the sustainability paradigm offers a 'window of opportunity' to express their model eco-leadership in a way that lends to a solution that could have macro-level impact (Mintrom, 2009, p. 652). In fact, proposing its cultural perspective and values as a solution to macro-level challenges is a necessary opportunity the culture must pursue because of its own predicament. But the predicament that cultures are in is also the factor that motivates it to develop its potential for eco-leadership. This would put each culture in the position of forming proactive responses to their own dilemma that would provide a viable vision for the global future. Proponents of eco-leadership state that there are four characters that must be evident if an agent is to be able to display the capacity to act as an eco-leader:

the agent must have a particular complementary perspective on the ontological nature of existence, have an extremely acute awareness of and sensitivity to the problem, the agent must be in a position to generate knowledge by means of Constructivist collaborative networks, and the agent must display a model for a solution that would be considered operable for other global agents (Mintrom, 2009, p. 654).

In this respect a traditional culture itself would engage other agents and institutional structures in the process of instituting a Constructivist oriented communication network that works to collaboratively transform knowledge into powerful ideational forces and processes for integrating the earth's natural resources to co-create a future where humanity experiences a complementary connection with nature (Pettenger, 2007, pp. 6-7). The literature on eco-leadership describes this type of agent as one who takes on the responsibility of facilitating the integration of micro-level cultural norms, principles, and values with macro-level (international) normative discourses; and facilitate an interactive dialogue between proponents of conceptual models of sustainability (Fogel, 2007, p. 100). By taking on this responsibility the agent also acts to contribute to the Critical Theory perspective on relations between cultures in that the process would illustrate the constraining and constitutive relationship between normativity/valuation and discourse as a factor shaping the construction of global social reality—which has been downplayed in the established global political economy paradigm. That is to say that from the Critical Theorist perspective "Regulative norms constrain actors' behavior by altering the incentive structures they face; norms [also] affect behavior through learning processes through which the norm becomes fundamental to actors' identities and interests" (Fogel, 2007, p. 100).

Such possible power-laden and ethical dimensions of normative convergence are often overlooked in research regarding the relations between cultures which results in an unproductive demarcation between the theory and practice of intercultural relations and strategies for addressing one of the most urgent issues confronting the global society (Lahsen, 2007, p. 184; & Never, 2010, p. 2). In spite of the fact that the field of global international relations (i.e. analyzing global social existence), since its inception, has focused on analyzing the factors and forces impacting the global arena (e.g. especially in terms of what contributes to peace, conflict, and security) the restrictions of the field's established theoretical and methodological paradigm did not allow for analyzing the impact of climate change and the role that the environmental crisis plays in shaping interstate relations and global normative relations. However, this article argues that because the environmental challenge and climate change are now central to the international political agenda as well as that of global political economy there is a need for a macro-level social science discourse that is inclusive of cultural knowledge as part of its theoretical and methodological scope.

Author Contact Information
Email: leonmonroemiller@yahoo.com

Bibliography

1. Agnew, John. & Duncan, James. (1989). *The Power of Place*. (Agnew, John. & Duncan, James. Edits.). Boston: Unwin Hyman Inc, 3.
2. Barker, Graeme. (2006). *The Agricultural Revolution in Prehistory: Why did Foragers become Farmers?* Oxford, UK: Oxford University Press.
3. Carr, Edward. (1942). *Conditions of Peace*. London: MacMillan and Company, Ltd, 44.

4. Comfort, Louise. (2000). Disaster: Agent of diplomacy or change in international affairs? *Cambridge Review of International Affairs*. Volume 14, Issue 1, 280-286.
5. Durkheim, Emile. (1995). *The Elementary Forms of Religious Life*. (Fields, Karen. Trans.) New York: The Free Press.
6. Einstein, Albert. 1946. *The Real Problem is in the Hearts of Men. New York Times*, 7.
7. Eliade, Mircea. (1965). *The Myth of the Eternal Return: Cosmos and History*. New York: Pantheon Books.
8. Ellul, Jacques. (1964). *The Technological Society*. Toronto, Canada: Random House of Canada Limited, 6.
9. Fogel, Cathleen. (2007). Constructing Progressive Climate Change Norms: The US in the Eary 2000's. *The Social Construction of Climate Change: Power, Knowledge, Norms,* Geertz, Clifford. (1973). *The Interpretation of Culture*. New York: Basic Books Inc, 90.
10. *Habermas, Jürgen. (1987). The Theory of Communicative Action (volume II). (McCarthy, Thomas. Trans.).* Boston, Massachusetts: Beacon Press, *138*.
11. Hass, Peter. (2004). When does power listen to truth? A constructivist approach to the policy process. *Journal of European Public Policy.* Volume 11, Issue 4, 569-592.
12. Jutila, M. Pehkonen, S. & Väyrynen, T. (2008). Resuscitating a Discipline. *Peace Research*. *Millennium: Journal of International Studies.* Vol. 36, No. 3, 623-640.
13. Kavalski, Emilian. (2007). The fifth debate and the emergence of complex international relations theory: notes on the application of complexity theory to the study of international life.' *Cambridge Review of International Affairs* Volume 20, Issue 3, 435-454 .
14. LII (Legal Information Institute). (2015). Self-determination (International Law). Cornell, New York: *Cornell University Law School*, 1.
15. Lahsen, Myanna. (2007). Trust Through Participation? Problems of knowledge in Climate Decision Making. *The Social Construction of Climate Change*. (Pettenger, Mary. Edit.). Hampshire, England: Ashgate Publishing Limited.
16. Lyngdoh, Mary. (1991). *The Festivals in the History and Culture of the Khasi*. New Delhi: Vikas Publishing House.
17. Mawlong, Banshaikupar. (2015). *Environment-Cultural Interaction and the Tribes of North-East India*. (Mawlong, Banshaikupar. &Mitri, Marco. Edits.). Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
18. Mintrom, M. & Norman, P. (2009). Policy Entrepreneurship and Policy Change. *Policy Studies Journal* 37, 649-667.
19. Mumford, Lewis. (1955). *Techniques and Civilization*. London: Routledge and Keagan Paul Ltd, 3.
20. Naess, Arne. (1989). *Ecology, Community and Lifestyle: Outline of an Ecosophy.* Cambridge, UK: Cambridge University Press.
21. Nakashima, D.J., Galloway McLean, K., Thulstrup, H.D., Ramos Castillo, A. and Rubis, J.T. (2012). *Weathering Uncertainty: Traditional Knowledge for Climate Change Assessment and Adaptation*. Paris, UNESCO, and Darwin, UNU, 25.
22. Natarajan, Usha. &Khoday, Kishan. (2012). Sustainable Development as Freedom: on the Nature of International Law and Human Development. *The Global Community Yearbook of International Law and Jurisprudence 2010*. (Capaldo, Giuliana. Edit.). New York: Oxford University Press.
23. Never, Babette. (2010). Regional Power Shift s and Climate Knowledge Systems: *GIGA Research Programme: Power, Norms and Governance in International Relations*. Hamburg, Germany: German Institute of Global and Area Studies.
24. Onuf, Nicholas. (2007). *The Social Construction of Climate Change.* (Pettenger, Mary. Edit.). Hampshire, England: Ashgate Publishing Limited.
25. Parsons, Talcott. (2007). An Outline of the Social System. *Classical Sociological Theory.* (Calhoun, Craig. Gerteis, Joseph. Moody, James. Pfaff, Steven. & Virk, & Indermohan. Edits.). Malden, Massachusetts: Blackwell Publishing Ltd.
26. Patomäki, Heikki. (2001). The Challenge of Critical Theories: Peace Research at the Start of the New Century. *Journal of Peace Research*. Volume 38, number 6, 723-738.
27. Pettenger, Mary. (2007). *The Social Construction of Climate Change: Power, Knowledge, Norms, Discourses*. (Pettenger, Mary. Edit.). Hampshire, England: Ashgate Publishing Limited.
28. Sauer, Carl. (1952). *Agricultural Origins and Dispersals*. New York: The American Geographical Society.
29. Sen, Amartya. (1999). *Development as Freedom.* New York: Random House.
30. Spring, Úrsula. Tidball, Keith. &Brauch, Hans. (2014). *Expanding Peace Ecology: Peace, Security, Sustainability, Equity and Gender*. (Spring, Úrsula. Tidball, Keith. & Brauch, Hans. Edits.). New York: Springer Publishing.
31. Syiemlieh, Magdalyne. &Nonglait, Naomi. (2015). Ecology and Spirituality: Eco-Theology of the Khasis. *Environment-Cultural Interaction and the Tribes of North-East India*. (Mawlong, Banshaikupar. &Mitri, Marco.Edits.). Newcastle upon Tyne, UK: Cambridge Scholars Publishing.
32. UN. (1976). International Covenant on Economic, Social and Cultural Rights. Geneva, Switzerland: *Office of the United Nations High Commissioner for Human Rights,* article 1, paragraph 1.
33. Wielkiewicz, Richard. & Stelzner, Stephen. (2010). An Ecological Perspective on Leadership Theory, Research and Practice. *Leadership for Environmental Sustainability*. Redekop, Benjamin. Edit.). New: York Routledge.
34. Yi-Fu, Tuan. (1979). Space and Place: Humanistic Perspective. *Philosophy in Geography*. (Gale, Stephen. & Olsson, Gunnar. Edits.). Dordrecht, Holland: Published by D. Reidel Publishing Company.