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Transformative world¹ language learning: An approach for environmental and cultural sustainability and economic and political security

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In this article, the author responds to the Modern Language Association's report, "Foreign Languages and Higher Education: New Structures for a Changed World" (2007) by arguing for an explicit and interdisciplinary transformative world language learning approach toward environmental and cultural sustainability and economic and political security. Specifically, transformative world language learning incorporates a new cosmology, ecological selfhood, understanding of quality of life issues, and spirituality as key curricular content objectives to foster transformed attitudes and actions from those currently developed by a national language "policy" promulgated by militarism, monetarism, and materialism. The author also offers recommendations for higher education to take a leadership role in effecting a transformative world language learning approach.

The Modern Language Association's (MLA) report, "Foreign Languages and Higher Education: New Structures for a Changed World" (2007), commissioned to study "the current language crisis that has occurred as a result of 9/11" (Background section, para. 1), followed Heidi Byrnes' 2006 American Council for the Teaching of Foreign Language (ACTFL) plenary presentation, *The Power of Language: U.S. Language Policy Five Years After 9/11* (Byrnes, 2006) and the University of California Consortium for Language Learning and Teaching 2005 colloquium on the topic of *National Language Educational Policy*, coordinated by Claire Kramersch and Robert Blake. Kramersch (a member of the MLA ad hoc committee that authored the report) and Blake also guest edited the *Perspectives* section of *The Modern Language Journal* (Blake & Kramersch, 2007a,b) – of which Byrnes is Associate Editor – dedicated to versions of presentations from the colloquium. The report, the plenary, and the colloquium/*MLJ* coverage, advanced by leaders in the field, triangulate an important issue in foreign language studies: the lack of a real foreign language education policy in the U.S. and what one should look like in a post-9/11 world were it to exist. While each provides necessary suggestions and concerns about a national foreign language policy, regrettably none consider foreign language learning's relationship to what is arguably the greatest global concern of the 21st century causing a "changed world" and contributing to 9/11: human-induced global climate change and its

destabilizing effect on environmental, human, cultural, political, and linguistic diversity and sustainability. In this article, I respond to the MLA report by arguing for an explicit and interdisciplinary transformative world language learning approach toward environmental and cultural sustainability and economic and political security.

United Nations Secretary General Ban Ki-moon declared that global climate change is the “defining challenge of our age” (Rosenthal, 2007b), and the Nobel Committee positioned it as a major issue affecting peace and social justice by awarding Al Gore and the United Nations Intergovernmental Panel on Climate Change (UNIPCC) and Wangari Maathai the Nobel Peace Prize in 2007 and 2004, respectively. On the day Gore and the UNIPCC received their award, the German Advisory Council on Global Change and the United Nations Environmental Programme issued a report claiming that combating global climate change will lessen war and conflict in the 21st century (United Nations Environmental Programme, 2007). More recently, the European Commission warned that untreated global climate change will have major effects on international security (High Representative and European Commission, 2008). Friedman (2005, 2006, in press) argued that climate change, energy, national security – in light of 9/11 – and globalization are inextricably linked, and that U.S. students in today’s fast-changing, “flattening” world must develop content knowledge in science, sustainability, and environmental education as a means of economic, social, and geo-strategic security. Friedman’s arguments are applicable to foreign language as national standards (National Standards, 1999) include interdisciplinary content knowledge in addition to learning language and culture. While scholars have considered such issues within education for some time (e.g. Bowers & Flinders, 1990, O’Sullivan, 1999), the foreign language community has paid little attention to them as a collective focus of curriculum and instruction. As a secondary-level language teacher (Japanese, ESL, Russian, Spanish, and French), I am concerned whether adolescents consume and consider within the context of their foreign language/culture learning headlines (e.g., Archibald, 2007; Associate Press, 2007; Barringer, 2007; Brahic, 2007; Broder, 2007; DePalma, 2007; Fuller, 2007; Gelling & Revkin, 2007; Hoge, 2007; Rosenthal, 2007a, 2007b; Sander, 2007; Sappenfield, 2007), movies (e.g., David, Bender & Burns, 2006; DiCaprio, Petersen, Castleberry & Gerber, 2007), and radio and television broadcasts (e.g., National Public Radio and National Geographic’s year-long series *Climate Connections*; CNN’s 5-continent, 13-country documentary *Planet in Peril*) that warn of the dangers of human-induced climate change; as a foreign and second language teacher trainer, I am concerned with how pre- and in-service teachers reconcile the importance of global climate change and its effects with their coursework on pedagogy, methods, curriculum, linguistics, and theory. If human-induced global climate change and its impact on culture, politics, and human and planetary sustainability is indeed “the defining challenge of our age,” should it not occupy a central place in our conceptualizations of a foreign language policy? Transformative (world language) learning offers direction.

Transformative Learning

The MLA report (2007) used variations of “transform” eight times in its recommendations for foreign language education reform without calling specifically for a transformative (world language) learning approach (Goulah, 2006, 2007a, 2007b; Ivers, 2007; Mezirow, 2003; O’Sullivan, 1999, 2002a). Mezirow (e.g., 2003) introduced transformative learning approximately 30 years ago as cognitive, rationale-focused learning. O’Sullivan broadened it to “include aspects of the sensory, intuitive, emotional, experiential, and spiritual in

a more holistic, ecological approach to the individual's path of transformation" (McWhinney & Markos, 2004, p. 76). Paulo Freire's critical pedagogy influenced both views; however, whereas critical pedagogy raises awareness of social issues, O'Sullivan's transformative learning transcends awareness to facilitate realization of holistic interconnectedness with social and environmental issues so as to transform learner tendencies, attitudes, and actions contributing to them. O'Sullivan envisioned transformative learning as a corrective to our current educational system, which he argued nurtures a materialistic worldview that causes environmental destruction, climate change, and militarism to such a degree that the future of planetary life (as we know it) is at stake. He argued that the current planetary instability requires that we move from the current Cenozoic period to an Ecozoic one at a deep cultural level, articulating transformative learning as,

experiencing a deep structural shift in basic premises of thought, feelings and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-locations; our relationships with other humans and with the natural world; our understanding of relations of power in interlocking structures of class, race, and gender; our body-awareness; our visions of alternative approaches to living; and our sense of possibilities for social justice and peace and personal joy. (2002b, p. 3)

O'Sullivan (1999) considered transformative learning paramount in all subjects, highlighting four requisite elements: a new cosmology (worldview), ecological selfhood, quality of life, and spirituality. First, he presented the notion of "education for a planetary consciousness" that "locates our lives in a larger cosmological context much more breathtaking than the market vision of our world" (2002a, p. 7; see also Ikeda, 2001; Lydon, 1995; Miller, 2002; Moffett, 1994; Riley-Taylor, 2002; Schaefer, 2000; Swimme & Berry, 1992). That is, humans must understand themselves, their respective culture(s), race(s), beliefs, language(s), spiritual practice(s) and so on, as well as all flora and fauna, as master narratives within the diversity of the "grand narrative" that is the unfurling of the universe. Second, within that cosmological view O'Sullivan envisioned education that cultivates a twofold deep personal planetary consciousness of "ecological selfhood" (2002a; see also Bateson, 2000; Berry, 1988; Bowers & Flinders, 1990; Gruenewald, 2003; Makiguchi, 1987; O'Sullivan & Taylor, 2004; Tucker & Grim, 1994). Such education fosters, on one hand, a renewed interest in and understanding of our environment and, on the other, a sense of our own ecological interconnectedness with the environment, other people and cultures, the planet and the universe. As we understand ourselves in this second context, we realize the necessity of understanding the importance of the first. Ecological selfhood cultivates a sense of oneness with the planet and the universe and a consequent desire and (self-)interest in protecting both.

Third, O'Sullivan stressed scrutiny of quality of life as a learning frame of reference (2002a), giving special consideration to the disparity between the "minority world" (the first world community—minority in its population) and those in the majority world (so-called third world community—majority in its population). As Cornisbee and Simms (2003) argued,

Although most of the symptoms of environmental crisis appear in poor countries, most of the causes lie in the richer ones. This is particularly true of global warming and climate change, where the energy-intensive lifestyles enjoyed in the West generate high levels of carbon dioxide emissions, dramatically affecting weather patterns and sea levels. (p. 37)

While quality of life is not only economic, our market vision has left our whole culture with a "crisis of meaning" (O'Sullivan, 2002a, p. 8). This aspect causes economic instability in

many so-called third world areas (Barber, 1995; Chua, 2003) that, coupled with majority/minority ethnic fighting, causes floundering efforts at establishing democracies. A germane example is Iraq today. Chua (2003) argued that America's domination of "every aspect—financial, cultural, technological—of the global free markets" (p. 230) disproportionate to its mere four percent of world's population provided one reason behind the 9/11 terrorist attacks. Such an argument highlights the resultant vagaries of a deep cultural focus on market and cultural hegemony that O'Sullivan charged our educational system with fostering.

With an understanding of the interconnectedness of market, cultural and ecological conditions articulated by Chua (2003), O'Sullivan advocated a "need for diversity within and between communities" (2001, p. 9) in association with issues of quality of life. This view of inclusion is crucial when considering it with Chua's argument and the recent alarming developments in global religious-based violence like that of 9/11, violence Juergensmeyer (2001) termed "cosmic" (p. 146).

Just as O'Sullivan articulated a new cosmological citizenship grounded in something more than mere market-based globalization or – in the larger view – ethnic and racial differences that now divide and destroy humanity and the world, Juergensmeyer (2001) argued that those seeking to destroy their opponent operate on "cosmic" levels "that transcend human experience...For this reason, acts of religious terror serve not only as tactics in a political strategy but also as evocations of a much larger spiritual confrontation" (p. 146). O'Sullivan's fourth element within a transformative learning vision is therefore understandably education that addresses spirituality or the spirit. O'Sullivan argued that, "educators must take on the development of the spirit at a most fundamental level. Contemporary education today suffers deeply by its eclipse of the spiritual dimension of our world and universe" (2001, p. 10; see also Moffett, 1994; Zohar & Marshall, 2000). Specifically, O'Sullivan argued,

The present escalation of diverse fundamentalisms is a case in point. We are in need of a spirituality whose scope and magnitude will open us up to the wonder and the joy of the universe. We are in need of a spirituality which has embedded within it a biocentric vision that keeps us vitally connected to the natural world and to the unfolding of the universe. We need an enchanted spirituality that awakens us to the awesome quality of our experience within this grand mystery that we have been born into. We need an embodied spirituality that connects our bodies to the deep mystery of things. We need a spirituality that expresses the multiple facets of the human (differentiation), the manifestation of our depth dimension of interiority (subjectivity), and a relational dimension that allows us to embed our lives into multiple expressions of community, opening [sic] up into a deeper appreciation of the fact that we are participants in a grand planetary community. (p. 264)

Properly understood spirituality is crucial when considering today's global socio-political state, particularly if we agree with the MLA's assessment that 9/11 has altered U.S. foreign language "policy." With respect to Arabic as "the flavor of the month," Allen (2007) argued:

I suggest that our apparent inability to understand and negotiate with the Arab world and Islam in all of their linguistic, cultural, and theological diversity and complexity presents us with the best possible rationale for studying the proverbial Other—linguistically and culturally. Our study must involve an engagement with their value systems and senses of identity within their own frameworks, rather than a view through the distorting lenses of our own perspectives. It must include the translations and interpretations of groups with particular political and religious points of view. (p. 259)

Indeed, some perceive the current wars in Afghanistan and Iraq in terms of spiritual/religious ideology, if not in spiritual under- and overtones: Christianity vs. Islam, modernism vs. pre-modernism, pax-Americana vs. pax-Talibana. Not to break down such rhetoric or to analyze critically spirituality in language classrooms is miseducation. O'Sullivan (1999) argued that fundamentalist belief systems lack the consonant components of spirituality because they seek monoculturalism. Such practices, he argued, represent a "failure of nerve in the operations of the human spirit" (p. 260). This fact is even more evident considering O'Sullivan's first three elements of transformative learning. A clash of cultures rooted deeply in exclusionary spirituality – often masked as religion (e.g., Aum Shinrikyo, al Qaeda) – has resulted in the continued development of nuclear, chemical, and biological weapons that leave ecological ruin (Schram, 2003).

Connecting a proper spirituality with a cosmological perspective, O'Sullivan (1999) argued, "Our relation to the universe community involves us in the broadest context that the human spirit can understand... We are members of the universe community that makes of us the stuff of stars" (p. 261). But we are also the stuff of earth, O'Sullivan (1999) continued: "Before we are humans, we are earthlings. Our souls are nourished within the earth's matrix. It is a matrix that exhibits incredible variety and enormous grandeur. The earth's landscape is rich nourishment for the human spirit" (p. 262). Such spirituality, O'Sullivan argued, has been supplanted by the hegemony of a Western-influenced mechanistic worldview of consumerism that has global reach and dismantles sustainable systems (see also Langton, 2003; Ota & Chater, 2007; Posey, 2003; Riley-Taylor, 2002; Wals, 2007; Wenden, 2004). For O'Sullivan, our educational focus must necessarily aim at realizing the Earth and universe via a new eco-spiritual cosmology that places Earth at the center in a way that changes practices currently causing global warming and its politically, socially, economically, and environmentally unstabilizing nexus of destruction.

Language scholars have examined issues in O'Sullivan's transformative learning, such as environment (e.g., Donato & Tucker, 2007; Pessoa, Hendry, Donato, Tucker & Lee, 2007) or spirituality (e.g., Goulah, in press; Johnston, 2003; Smith & Carvill, 2000; Smith & Osborn, 2007) independently or in partial combination; however, few explicitly considered how such learning facilitates transformative learning as O'Sullivan defined it. Goulah (2006, 2007a, 2007b) applied O'Sullivan's ideas and requisite elements in praxis to adolescent, standards-based foreign/second language education within a Vygotskian sociocultural context of deep culture evident in a language's sense versus meaning (2005, 2007b), to language acquisition (2005), and as a planetary literacy bound in deep culture (2005, 2006, 2007a, 2007b). In all applications Goulah argued that in order to facilitate the type of learning O'Sullivan envisioned, O'Sullivan's requisite transformative learning elements must first be considered as *content objectives*. That is, with regard to adolescent learning, interlocking structures of power, class, race, spirituality, environment and so forth must be *explicitly* discussed as content and critically analyzed if students are expected to engage in the attitudinal and behavioral transformative learning O'Sullivan envisioned. Students in Goulah's studies had no prior understanding of key transformative learning elements, so transformative learning was impossible irrespective of class activity/method. Once Goulah and students explicated key elements in L1 and L2 (based on level), students were able to consider and apply those elements in activities via the L2 in a way that facilitated the type of transformative learning O'Sullivan envisioned. Hereby, we see the beginnings of explicit and interdisciplinary transformative learning that seeks not only the

accretion of knowledge, but also a resultant change in thought and behavior facilitated by study of transformative learning content via language/culture study.

Transformative World Language Learning and the MLA Report

So how does a transformative world language learning approach advance the field in light of 9/11 and the ensuing language ‘crisis’? Goulah’s applications within a broad cosmo-sociocultural framework answer Magnan’s (2007) and Herman’s (2002) call to locate future policy in a sociocultural approach. Beyond this, however, if the MLA is sincerely “prepared to lead the way in the reorganization of language and cultural education” (2007, Background section, para. 3), it must recognize the fundamental ideological incompatibility between its statement,

In fulfilling its charge, the [MLA] committee found itself immersed in a dynamic, rapidly changing environment marked by a sense of *crisis*² around what came to be called the nation’s language deficit. The United States’ inability to communicate with or comprehend other parts of the world became a prominent subject for journalists, as language failures of all kinds plagued the United States’ military interventions in Afghanistan and Iraq and its efforts to suppress terrorism. (Background section, para. 2, italics, superscript, and note added)

and its support of Daniel Yankelovich’s comments to study foreign language and culture to be “less ethnocentric, less patronizing, less ignorant of others...” (Background section, para. 3). In other words, foreign language and culture study for militarism, monetarism, or materialism cannot cultivate knowledgeable valuation of a language and culture deep enough to transform our ecologically damaged, spiritually and geo-politically divided world. Contrary to the committee’s opinion, the “environment” (read: context) in which the committee sought to fulfill its charge is not unlike any in the past. Only the languages and countries are different. If we continue to attach language education – and language education policy – to governmental foci of military and economic crisis shifts (Blake & Kramsch, 2007a, 2007b; Brecht, 2007; Herman, 2002), we will forever move from language to language and from country to country, remaining at a surface level of cultural understanding and appreciation while developing resentment and dwindling enrollment along the way (Allen, 2007; Herman, 2002). A transformative world language learning approach seeks to cultivate language learning in a context much broader than money or guns. A cosmological perspective seeks to identify with other cultures and languages as part of our planetary-based ecological selfhood. For in dialoging with the Other in a Bakhtinian sense (Holquist, 2002; see also Blake & Kramsch, 2007a), we understand something akin to what Buddhism terms “dependent origination,” or our existence because of our dependence on the Other:

The whole world depends on mutual interdependence. Nothing exists in isolation. Modern cosmology, the results of ecological study and the Buddhist doctrine of dependent origination all teach us this: We live in a system of interrelations with other humans, nations, societies and the natural world. Human spiritual poverty spews forth in war and environmental pollution, which disrupt these relations. (Ikeda in Krieger & Ikeda, 2002, p. 111)

Such dialogism will not happen, as it has not happened (Herman, 2002), via historic rationales popularizing foreign language study in the U.S. A spiritually divided, post-9/11 world cannot sustain a policy of foreign language study for militarism (Al-Batal, 2007; Allen, 2007;

Brecht, 2007; Hamilton, 2002; Wiley, 2007) or monetarism/materialism (Blake & Kramersch, 2007a; Jensen, 2007), all of which cause climate change and its attendant nexus of destruction. However, Arabic and Chinese's 126.5% and 51% respective growth in enrollment since 2002 (Furman, Goldberg & Lusin, 2007) illustrates that the U.S. "policy" of learning, teaching, and funding languages for militaristic and economic reasons has not changed (e.g., Al-Batal, 2007; Allen, 2007; Brecht, 2007; Byrnes, 2006; Wiley, 2007). Arabic was popularized because of its strategically critical label associated with terrorism, the wars in Iraq and Afghanistan, and the vitriol toward Iran. Iraq and Iran not coincidentally are countries rich in oil, which underscores the relationship between energy, pollution, environment, climate change, politics, and language learning vis-à-vis Arabic. Chinese enrollment grew concomitant with China's economic growth. But as China grows economically, environmental disaster and epic pollution lie in its wake (Bradsher, 2007; French, 2007; Kahn, 2007; Kahn & Yardley, 2007; Yardley, 2007a, 2007b, 2007c).

Based on O'Sullivan and Goulah's transformative (world language) learning, a content-based approach that places examination of a new cosmology, ecological selfhood, quality of life, and spirituality as explicit and primary curricular content objectives tied to language and culture learning offers the field a fundamental shift. As Pessoa et al. (2007) and Donato and Tucker (2007) indicated, foreign language-based learning of environmental issues is possible from an early age. Neville and Britt (2007) showed that a similar but more problem-based (engineering) means of language learning is possible at the college level. As Byrnes (2006) argued,

The foreign language field has yet to figure out a principled way of linking content *and* language learning in such a fashion that both goals can be, as they must be, completely integrated at all educational levels. Obviously such an integration will look very different at different levels, and with different learner ages; it is likely to look different as well for different languages. (p. 9)

I examine such a curricular reevaluation within the context of Japanese foreign language, as it provides insight for Chinese and Arabic (among others). Moreover, as MLA's activities, by its own admission, have "focused on the major and minor European languages and their literatures" (2007, Background Information on Languages in the MLA section), and as the MLA report provides examples tied only to European languages, Japanese, the only Asian language among the top five frequently taught foreign languages in U.S. high schools, broadens the discussion.

Japanese Foreign Language as Example

Japanese—like Russian in the 1950s and Arabic today—was first popularized in the U.S. educational system during wartime (Masuyama, 2001; Miura, 1998), and continued while Japanese was deemed a militarily critical language (Sundlun, 2003). Thereafter, secondary- and college-level enrollment grew during Japan's "bubble economy" of the 1980s as students sought proficiency to augment occupational possibilities (Miura, 1998), much like Chinese today. When the bubble burst, college-level registration in Japanese declined, although the U.S. government still deems Japanese economically critical. While Japanese is still marketed, taught, and studied accordingly (e.g., Bartlett & Erben, 1996; Kroon, 1990), overall enrollment has declined (Japan Foundation, 2006), realizing Byrnes' (2006) argument that the U.S. government ghettoized certain foreign languages "by reducing their richness to issues of 'security' or, a bit less anxiety-producing, to commerce and trade, the latter designation applying particularly to Chinese, or,

more generally, by foregrounding the need to build a global workforce in the United States” (p. 6).

Environmental and cultural instability linked to geopolitics and marketization has created the opportunity for a new and necessary transformative curricular goal of Japanese foreign language. Japanese foreign language, in line with many global eco-democratic initiatives promulgated by Japan – such as its proposal of the approved UN Decade of Education for Sustainable Development, its hosting the 2005 Aichi World Expo on environmentalism and sustainability, its hosting the Kyoto Protocol, and so on – should be examined in light of the elements of transformative learning in the curricular context of target language-mediated study of physics, mathematics, engineering, history, and so on with the expressed goal of creating a planetary literacy of environmental and cultural sustainability, transformative learning-influenced content knowledge, and Japanese language/culture acquisition. In other words, Japanese foreign language education must move beyond the traditional scope of teaching for language and culture acquisition toward a content- and standards-based approach that cultivates global citizens focused on actualizing Japanese in an ethic and practice of environmental and cultural sustainability while providing national and economic security threatened post-9/11 (Friedman, 2005, 2006, 2008). As Galtung (Galtung & Ikeda, 1995) stated, although Japan has “already consumed tremendous amounts of marine resources and forests, including rainforests in the Third World in general and Southeast Asia in particular,” it should “divest itself of its present client status in relation to the United States, thus setting the model of nonaggressive autonomy” (pp. 141-2), both in terms of resources and “military.” In this sense, a transformative world language learning approach would not “essentialize” Japanese (Kubota, 2003), but would cultivate honest examination of current Japanese geo-politics in light of its past (Brecher, 2000; Makiguchi, 1987).

Henderson (Henderson & Ikeda, 2004) envisioned a similar possibility for Japan in terms of ecological selfhood and the development of a new economy:

Letting an environmentally concerned “Green Economy” take root and opening society outward will take time, but we must realize that there is no other way. Japan can lead in this area too. The Japanese people can become models for the world by saving more money, for instance, and investing in helping the peoples of Asia and Africa develop solar energy, wind power, hydrogen, clean cars, public transport, health and education. There are many things in which investment provides good returns in completely new areas. (pp. 160-161)

Beasley (1992) combined Galtung’s (Galtung & Ikeda, 1995) and Henderson’s (Henderson & Ikeda, 2004) perspectives about Japan’s potential for peace and a green economy, locating it within a deep cultural vision of “*wa* (harmony and order)” (p. 33). Despite Japan’s having a 40 year history of logging sacred forests, damming nearly all the rivers on the four home islands, constructing nuclear power plants in earthquake zones, draining precious wetlands and despoiling delicate offshore coral formations, at the close of the Earth Summit in 1992 “the Japanese government announced the commitment of at least \$7 billion in new environmental assistance programs for developing nations over the next half decade (compared to a meager \$250 million per year pledged by the US)” (Beasley, 1992, p. 32). As Beasley stated,

With the demise of the Cold War, Japan appears poised on the threshold of a new type of international domination. Prevented by its postwar constitution from fielding a major

military force, the way now seems open for the country to proceed at full throttle with its own brand of “green” consumerism. (p. 37)

Finally, Beasley (1992) added that “(u)nquestionably, Japan wants to play a leadership role in the post-Cold War greening of global consciousness” (p. 36), seeking over the next 100 years to restore “the Earth’s functions to its state prior to the industrial revolution” (p. 37).

Alas, the above considerations must play a central role in U.S. students’ study of Japanese, particularly as enrollment spurred by militaristic and materialistic rationales is beginning to decline (and assuredly will decline in currently en-vogue languages popularized for the same rationales). Such a “geo-green(ist)” (Friedman, 2008) approach to language study may sustain enrollment in the 21st century as the country and the world re-conceptualize educational approaches to cultivate a transformed eco-consciousness to combat climate change with renewable technology and sustainable development. Obviously, this should not be limited just to Japanese. Each language and country has cultural practices and attitudes toward climate change that can be examined in the classroom (Goulah, 2006). It is especially important for U.S. students to develop a transformative eco-consciousness in their content-based dialogue with the Other of the target language and culture. Arguably in this sense, the solipsistic materialism cultivated by current education (O’Sullivan, 1999) will also be transformed so that students’ occupational monetarism will become grounded in renewable technology and sustainable development in a host of fields related to their content-based learning. As Henderson (Henderson & Ikeda, 2004) argued, “Amazingly, none of the new green technologies are getting the amount of investment they need or could use. The European Union has committed matching government funds, but the United States still subsidizes waste, pollution, resource depletion and the dying fossil-fueled industries” (p. 161). Henderson’s analysis above warrants a related orthographic examination of Japanese:

The turnabout necessary in society and the economy requires the complete reconstruction of the field of economics. The Japanese word for economics, *keizai*, is actually an abbreviation of a longer term that means to manage the world and save the people. This indicates another of its goals, at least in theory. (Ikeda in Henderson & Ikeda, 2004; p. 161)

Nathan (2004) suggested that the essence of Japan lies in its language and the cultural identity underlying that language. He argued, “Throughout their history, the Japanese have been prompted by familiar, troubling questions about identity to focus on their language as evidence of who they are and, more important, what makes them special” (p. 5). Nathan continued that Japanese language is not only evidence of Japanese uniqueness, but its source. As Japan looks to its language to connect with its own deep culture, we in second and foreign language must do the same in applying transformative learning. Only when such consideration occurs will the field advance a foreign language education policy. We must implement a system that begins at the elementary level with introductory language learning embedded in grade-/age-appropriate content learning in which elements of transformative (world language) learning inform the application of content. With each grade, the depth/variety of content examination increases concomitant with language exposure and usage. Pessoa et al. (2007) and Donato and Tucker (2007), as two examples, showed that this type of learning is possible. A transformative world language learning approach would add explicit elements of content study to develop planetary literacy of eco-human interconnectedness from an early age to foster necessarily transformed attitudes and actions.

Brief Examples in Practice

Below I provide two examples of what transformative world language learning may look like in practice. One example can be applied to a basic unit on food. Keeping with Japanese, I often used *Obentoo 1* (Williams, Xouris & Kusumoto, 1997), unit 8. Basic instruction might include teaching provided vocabulary and grammar, facilitating conversation accordingly. A critical approach might include, for example, related “Why” questions: Why does the book provide vocabulary and pictures of *Coca-Cola*, but neither the word nor pictures for *water* anywhere in the book? or Why does the book provide the word and photographs of *McDonald’s*, but not for traditionally Japanese eateries, fast food or otherwise? A transformative world language learning approach, after explicating the key elements, might include (beyond consideration of our connection with such issues) examination of Japanese newspaper grocery advertisements, which often include information and attendant orthography for origin of produce. Japanese markets publicize domestic and internationally grown produce. Students and teachers can discuss why certain produce comes from certain regions (linking it back to earlier grammar in the book, such as *Where does such and such come from?*). Thereafter, students and teachers can discuss our interrelation with foods, how food is grown, why it is sold in foreign countries when that country oftentimes also produces that same exact type of produce, etc. Of course, depth is added if teachers lead students also to consider inherent social, political, and economic issues.

A related example might involve students’ consideration of U.S. beef production and how that informs U.S.-Japan beef import practices. Teachers might end here or they could continue to examine why beef is historically eaten less in Japan than in the U.S., and the ecological, geographical and spiritual (historically Buddhist) implications of that (Brecher, 2000; Ohnuki-Tierney, 1997), paying particular attention to the use of oil in beef production and how that production-to-exportation-to-consumption contributes to increased CO₂ emissions. These latter aspects might be new material to a food unit at higher levels.

Another example might include an interdisciplinary unit beginning with a teacher-posed question explicitly targeting transformative learning key elements, such as *What is spirituality?* Students can then engage in real or virtual tours of Japanese Shinto shrines and Buddhist temples, discussing their understanding/feeling of spirituality present at each. Such a lesson will provide linguistic opportunities for students to compare and contrast not only the temples and shrines, but also differences between spirituality and religion. Thereafter teachers might encourage students to consider the environmental atmosphere of each location in their respective feelings of representative spirituality. Simple questions such as *Which has more trees? Are there ponds? Which is more spiritual? Why? How are those locations and such and such local locations different?* can begin students’ understanding and transformative learning via L2-based language and culture study. Thereafter, teachers can cross disciplines to engage students in the role of Shintoism in promulgating the Japanese World War II efforts. Teachers can then lead students in a discussion of the role of spirituality/religion in current wars, further broadening interdisciplinarity. Finally, students can consider results of such wars on planetary life in affected areas and their own interconnection with that destruction.

I offer the above examples in the context of pre-existing language courses in a way so that students examine geo-political, -social, and -economic issues interdisciplinarily via language and culture study through a transformative world language learning approach. I also recommend courses be designed that allow students to study physics, engineering, mathematics, social and

environmental policy, sustainability, and so on in Japanese (and other world languages) so that their understanding of these issues is developed in the contextual lens of the target language and culture like that delineated in the previous section. These courses should also operate in a way where the content is considered and applied with a focus on the elements and goals of transformative learning. This is a radically different style of learning than that present today. However, students educated under such curricula will develop embodied and emerging identities (Gee, 2004) as speakers of world languages who can also specialize (in the target language) in new “geo-green(ist)” (Friedman, 2006, 2008) fields (physics, engineering, and so on) necessary to combat climate change and its attendant nexus of destruction in a post-9/11 world. High school graduates of such study are thereby capable of the advanced content- and problem-based language study Byrnes (2006) and Neville and Britt (2007) envisioned and demonstrated is possible. Finally, students educated in such a system from elementary through college will—if they choose to enter the foreign language teaching profession—begin a new cycle of student to teacher (Herman, 2002) with a worldview (Blake & Kramsch, 2007a, 2007b; Goulah, 2006; O’Sullivan, 1999) and content-based foreign language proficiency Goulah (2006) and Wilbur (2007) argued is necessary for the 21st century.

To prepare for and implement a transformative world language learning approach, I recommend higher education take the lead in advocating the following:

- K-tertiary foreign language studies must shift their focus to a national standards- and content-based approach focused on understanding and correcting global climate change and its destabilizing effect on environmental, human, cultural, and linguistic sustainability, while at the same time fostering linguistic and cultural proficiency. I recommend that schools of education shift to a similar transformative (world language) learning focus, thereby addressing gaps Goulah, (2006), O’Sullivan (1999), and Wilbur (2007) identified in our profession.
- Higher education must advocate for dramatically increased K-7 foreign language learning availability and experience by requiring consistent K-12 foreign language experience as part of its admissions requirements. It must also incorporate foreign language-based essays as part of its admissions processes, giving especial weight to those evidencing transformative learning. Colleges and universities should conduct oral and written foreign and heritage language-based interviews as part of their admissions process, using pre-established assessments such as the ACTFL proficiency scale.
- Graduate and undergraduate schools must create sequential courses that provide content study (physics, engineering, mathematics, environmental policy, etc.) taught from a transformative learning perspective in a broad variety of world languages.
- ACTFL, MLA, and other similar organizations must send delegations to participate at international conferences dedicated to global climate change and sustainability (and related social, political, and economic issues), and develop and disseminate curricula based on that participation.
- High schools must radically transform curriculum and instruction to provide all students access to foreign language and K-12 content-based learning in one or multiple world languages, wherein that content is grounded in an ethic of transformative learning and focused on cultivating a related planetary literacy.

This article begins discussion of a truly transformative approach to language learning at all levels, but more contributions are essential, particularly as they relate to specific languages and levels, to effect the change I have outlined. As the MLA report states, “The time is right for this

transforming approach to language and culture study...” (Continuing Priorities section, para. 1). The question is, is the field ready to change with the times?

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Notes

¹ Our field continues to debate phraseology—*foreign* language vs. *world* language vs. *modern* language, etc. (Kubota & Austin, 2007). I use transformative *world* language learning for two reasons: 1.) it provides a larger, inclusive framework, whereas *foreign* connotes exclusion and unconnected difference; 2.) *world* more appropriately provides contextualization of a planetary ecological view of languages as part of the unfurling of the universe congruent with transformative learning argued herein. However, like the MLA report, I use *foreign language* to refer to the field, education, and policy.

² The MLA's framework that a 'crisis' (used three times in the introductory section of its report) of language deficit exists is clearly limited. In their view, the 'crisis' is not about Scandinavian languages, for example, but Pashto, Arabic, and so forth. But the 'crisis of deficit' in these latter languages did not exist on September 10, 2001, when ostensibly teachers of these languages could not find jobs or students desiring them had little availability. The real crisis is that we encourage language study for reasons of militarism and materialism like that precipitating the undertaking of the MLA report. A broader, more inclusive 'crisis' like human-induced global warming and its nexus of destruction (language/culture loss included among it) must advance a language policy of which languages to offer and how to study/teach them.

References

- Al-Batal, M. (2007). Arabic and national language educational policy. *The Modern Language Journal*, 91, 268-271.
- Allen, R. (2007). Flavor of the moment: Whence, why, and how? *The Modern Language Journal*, 91, 258-261.
- Associated Press. (2007, December 10). Climate change could heighten tensions, conflict worldwide, UN agency says. *International Herald Tribune*. Retrieved December 10, 2007, from <http://www.ihf.com/articles/ap/2007/12/10/asia/AS-GEN-Bali-Climate-Conflict.php>.
- Archibald, R. C. (2007, December 9). Western states agree to water-sharing pact. *The New York Times*. Retrieved December 9, 2007, from <http://www.NYTimes.com>.
- Barber, B. R. (1995). *Jihad vs. mcworld: Terrorism's challenge to democracy*. New York, NY: Ballentine.
- Barringer, F. (2007, September 13). U.S. Court backs state's measures to cut emissions. *The New York Times*. Retrieved September 13, 2007 from NYTimes.com.
- Bateson, G. (2000). *Steps to an ecology of mind*. Chicago, IL: University of Chicago Press.
- Beasley, C. (1992). Two faces of Japan. *Buzzworm*, 4(6), 32-37.
- Berry, T. (1988). *The dream of the earth*. San Francisco, CA: Sierra Club Books.
- Blake, R. & Kramsch, C. (Eds.). (2007a). Closing remarks. *The Modern Language Journal*, 91, 282-283.
- Blake, R. & Kramsch, C. (Eds.). (2007b). The issue: National language educational policy. *The Modern Language Journal*, 91, 247-283.
- Bowers, C.A. & Flinders, D.J. (1990). *Responsive teaching: An ecological approach to classroom patterns of language, culture, and thought*. New York, NY: Teachers College Press.
- Bradsher, K. (2007, December 8). Trucks power China's economy, at a suffocating cost. *The New York Times*. Retrieved December 8, 2007 from <http://www.NYTimes.com>.
- Brahic, C. (2007, November 19). War has historic links to global climate change. *New Scientist*. Retrieved December 10, 2007, from <http://environment.newscientist.com/article/dn12936-war-has-historic-links-to-global-climate-change.html>.
- Brecher, W. P. (2000). *An investigation of Japan's relationship to nature and environment*. Lewiston: The Edwin Mellen Press.
- Brecht, R. (2007). National language educational policy in the nation's interest: Why? How? Who is responsible for what? *The Modern Language Journal*, 91, 264-265.
- Broder, J. M. (2007, November 15). Governors join in creating regional pacts on climate change. *The New York Times*. Retrieved November 15, 2007 from <http://www.NYTimes.com>.
- Byrnes, H. (2006). The power of language: U.S. language policy five years after 9/11. Plenary session panel at ACTFL 2006. Retrieved October 1, 2007, from <http://www1.georgetown.edu/departments/german/faculty/byrnes/lecturesandpresentations/Byrnes.ACTFL.11-06.pdf>.
- Chua, A. (2003). *World on fire: How exporting free market democracy breeds ethnic hatred and global instability*. New York: Doubleday.

- Cornisbee, M. & Simms, A. (2003). *Environmental refugees: The case for recognition*. London, UK: nef pocketbooks.
- David, L., Bender, L., & Burns, S. Z. (Producers), & Guggenheim, D. (Director). (2006). *An inconvenient truth* [motion picture]. Paramount Classics & Participant Productions.
- DePalma, A. (2007, July 11). Warming report warns of increased flooding. *The New York Times*. Retrieved July 11, 2007, from <http://www.NYTimes.com>.
- DiCaprio, L., Petersen, L. C., Castleberry, C., & Gerber, B. (Producers), & Petersen, L. C., & Conners, N. (Writers/Directors). (2007). *The 11th hour* [motion picture]. Warner Independent Pictures.
- Donato, R. & Tucker, G. R. (2007). K-12 language learning and foreign language educational policy: A school-based perspective. *Modern Language Journal*, 91, 256-258.
- French, H. W. (2007, November 24). Far from Beijing's reach, officials bend energy rules. *The New York Times*. Retrieved November 24, 2007, from <http://www.NYTimes.com>.
- Friedman, T. L. (2005) *The world is flat: A brief history of the twenty-first century*. New York, NY: Farrar, Straus and Giroux.
- Friedman, T. L. (2006, January). The new 'Sputnik' challenges: They all run on oil. *The New York Times*, A 19.
- Friedman, T. L. (2008). *Green is the new red, white and blue*. New York, NY: Farrar, Straus and Giroux.
- Fuller, T. (2007, December 11). Global climate talks divided on emissions targets. *The New York Times*. Retrieved December 11, 2007, from <http://www.NYTimes.com>.
- Furman, N., Goldberg, D., & Lusin, N. (2006). *Enrollments in languages other than English in United States institutions of higher education, fall 2006*. Modern Language Association.
- Galtung, J. & Ikeda, D. (1995). *Choose peace: A dialogue between Johan Galtung & Daisaku Ikeda*. London: Pluto Press.
- Gee, J. P. (2004). *Situated language and learning: A critique of traditional schooling*. New York, NY: Routledge.
- Gelling, P. & Revkin, A. C. (2007, December 3). Climate talks take on added urgency after report. *The New York Times*. Retrieved December 3, 2007, from <http://www.NYTimes.com>.
- Goulah, J. (2005). *Sensing Cosmic Culture: Transformative Second and Foreign Language Learning toward Cultivating a Deep Culture of Global Citizenship and Global Literacy for the 21st Century*. Unpublished doctoral dissertation. University at Buffalo.
- Goulah, J. (2006). Transformative second and foreign language learning for the 21st century. *Critical Inquiry in Language Studies*, 3, 201-221.
- Goulah, J. (2007a). Toward *pax terra-humana*: Cultural transformative learning and a planetary literacy in the foreign language classroom. *Journal of Transformative Education*, 5, 163-176.
- Goulah, J. (2007b). Village voices, global visions: Digital video as a transformative foreign language learning tool. *Foreign Language Annals* 40(1), 62-78.
- Goulah, J. (in press). Navigating identity reformation, marginalization, and "soft" colonization in former Soviet immigrant students. *Journal of Language, Identity, and Education*.
- Gruenewald, D. A. (2003). The best of both worlds: A critical pedagogy of place.

- Educational Researcher*, 34(4), 3-12.
- Herman, D. M. (2002). "Our patriotic duty": Insights from professional history, 1890-1920. In T. A. Osborn (Ed.), *The future of foreign language education in the United States* (pp. 1-29). Westport, CT: Bergin & Garvey
- High Representative and the European Commission. (2008, March 14). *Climate change and international security*. Report retrieved March 17, 2008 from http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/eu/reports/99387.pdf.
- Hoge, W. (2007, September 24). U.N. chief urges immediate climate action. *The New York Times*. Retrieved September 24, 2007, from <http://www.NYTimes.com>.
- Ikeda, D. (2001). *For the sake of peace: Seven paths to global harmony, a Buddhist perspective*. Santa Monica, CA: Middleway Press.
- Ivers, J. J. (2007). Metacognition and foreign language cultural instruction. *Journal of Transformative Education*, 5, 152-162.
- Japan Foundation. (2006). *Survey on Japanese language-education abroad-2006*. Retrieved December 11, 2007 from http://www.jpjf.go.jp/e/japan/news/0711/11_01.html.
- Jensen, J. (2007). National foreign language policy: A state language coordinator's perspective. *The Modern Language Journal*, 91, 261-264.
- Johnston, B. (2003). *Values in English language teaching*. Mahwah, NJ: Lawrence Erlbaum.
- Juergensmeyer, M. (2001). *Terror in the mind of god: The global rise of religious violence, (updated ed.)*. California: University of California Press.
- Kahn, J. (2007, October 14). In China, a lake's champion imperils himself. *The New York Times*. Retrieved October 14, 2007, from <http://www.NYTimes.com>.
- Kahn, J. & Yardley, J. (2007, August 26). As China roars, pollution reaches deadly extremes. *The New York Times*. Retrieved August 26, 2007, from <http://www.NYTimes.com>.
- Krieger, D. & Ikeda, D. (2002). *Choose hope: Your role in waging peace in a nuclear age*. Santa Monica, CA: Middleway Press.
- Kubota, R. (2003). Critical teaching of Japanese culture. *Japanese Language and Literature: Journal of the Association of Teachers of Japanese*, 37(1), 67-87.
- Kubota, R., & Austin, T. (2007). Critical approaches to world language education in the United States: An introduction. *Critical Inquiry in Language Studies*, 4(2-3), 73-83.
- Langton, M. (2003). The 'wild', the market, and the native: Indigenous people face new forms of global colonization. In S. Vertovec & D. A. Posey (Eds.), *Globalization, globalism, environments, and environmentalism: Consciousness of connections—The Linacre lectures* (pp. 141-170). Oxford: Oxford University Press.
- Lydon, A. (1995). An ecozoic cosmology of curriculum and spirituality. *Journal of Curriculum Theorizing: An Interdisciplinary Journal of Curriculum Studies*, 11(2), 67-86.
- Magnan, S. S. (2007). Reconsidering communicative language teaching for national goals. *The Modern Language Journal*, 91, 249-252.
- Makiguchi, T. (1987). *The complete works of Tsunesaburo Makiguchi*. Tokyo, Japan: Daisan Bunmeisha.
- Masuyama, K. (2001). *A comparative analysis of the expansion of pre-collegiate Japanese language instruction in Oregon and Indiana: Motivation, strategy, and management*. Unpublished doctoral dissertation, University at Buffalo, New York.

- McWhinney, W., & Markos, L. (2004). Editors' perspectives: Building on and toward a shared vision. *Journal of Transformative Education*, 2(2), 75-78.
- Mezirow, J. (2003). Transformative learning as discourse. *Journal of Transformative Education*, 1(1), 58-63.
- Miller, G. D. (2002). *Peace, value, and wisdom: The educational philosophy of Daisaku Ikeda*. New York, NY: Rodopi.
- Miura, A. (1998). Japanese language teaching in the U.S.A.: A historical overview, *The Breeze Quarterly*, 18, 2-9.
- Modern Language Association. (2007). *Foreign languages and higher education: New structures for a changed world*. Retrieved October 1, 2007, from <http://www.mla.org/flreport>
- Moffett, J. (1994). *The universal schoolhouse: Spiritual awakening through education*. San Francisco, CA: Jossey-Bass.
- Nathan, J. (2004). *Japan unbound: A volatile nation's quest for pride and purpose*. New York, NY: Houghton Mifflin Company.
- National Standards in Foreign Language Education Project. (1999). *Standards for foreign language learning in the 21st century*. Yonkers, NY: Author.
- Neville, D. O. & Britt, D. W. (2007). A problem-based learning approach to integrating foreign language into engineering. *Foreign Language Annals*, 40(2), 226-246.
- Ohnuki-Tierney, E. (1997). McDonald's in Japan: Changing manners and etiquette. In J. L. Watson (Ed.), *Golden arches east: McDonald's in East Asia* (pp. 161-182). Stanford, CA: Stanford University Press.
- Osborn, T. A. (2006). *Teaching world language for social justice: A sourcebook of principles and practices*. Mahwah, NJ: Lawrence Erlbaum.
- O'Sullivan, E. (1999). *Transformative learning: Educational vision for the 21st century*. New York, NY: Zed Books Ltd.
- O'Sullivan, E. (2002a). The project and vision of transformative education: Integral transformative learning. In E. V. O'Sullivan, A. Morrel, & M. O'Connor (Eds.), *Expanding the boundaries of transformative learning: Essays on theory and praxis* (pp. 1-12). New York: Palgrave.
- O'Sullivan, E. (2002b). Transformative learning and holistic learning. *Wholistic Education: Special Interest Group Newsletter*, fall, 3.
- O'Sullivan, E.V., & Taylor, M.M. (Eds.). (2004). *Learning toward an ecological consciousness: Selected transformative practices*. New York, NY: Palgrave Macmillan.
- Ota, C. & Chater, M. (Eds.). (2007). *Spiritual education in a divided world: Social, environmental & pedagogical perspectives on the spirituality of children and young people*. Abington, Oxon: Routledge.
- Pessoa, S., Hendry, H., Donato, R., Tucker, G. R. & Lee, H. (2007). Content-based instruction in the foreign language classroom: A discourse perspective. *Foreign Language Annals*, 40(1), 102-121.
- Posey, D. A. (2003). Fragmenting cosmic connections: Converting nature into commodity. In S. Vertovec & D. A. Posey (Eds.), *Globalization, globalism, environments, and environmentalism: Consciousness of connections—The Linacre lectures* (pp. 123-140). Oxford: Oxford University Press.
- Riley-Taylor, E. (2002). *Ecology, spirituality, & education: Curriculum for relational knowing*. New York: Peter Lang Publishing.

- Rosenthal, E. (2007b, November 17). U.N. report describes risks of inaction on climate change. *The New York Times*. Retrieved November 17, 2007, from <http://www.NYTimes.com>.
- Rosenthal, E. (2007b, November 18). U.N. chief seeks more climate change leadership. *The New York Times*. Retrieved November 18, 2007, from <http://www.NYTimes.com>.
- Sander, L. (2007, July 31). Chicagoans protest as Indiana lets refinery add to lake pollution. *The New York Times*. Retrieved July 31, 2007, from <http://www.NYTimes.com>.
- Sappenfield, M. (2007, December 6). Could climate change fuel world conflict? *The Christian Science Monitor*. Retrieved December 11, 2007, from <http://www.cbsnews.com/stories/2007/12/06/tech/main3584844.shtml>.
- Schaefer, P. (2000). Emerging adolescence: Finding one's place in the cosmos. *The NAMTA Journal*, 25(2), 95-111.
- Schram, M. (2003). *Avoiding armageddon: Our future, our choice, companion volume To the PBS series from Ted Turner documentaries*. New York: Basic Books.
- Smith, D. I. & Carvill, B. (2000). *The gift of the stranger: Faith, hospitality, and foreign language learning*. Grand Rapids, MI: William B. Eerdmans.
- Smith, D. I. & Osborn, T. A. (Eds.), (2007). *Spirituality, social justice, and language learning*. Charlotte, NC: Information Age Publishing.
- Sundlun, B. (2003, February 9). We must study more tongues. *The Providence Journal-Bulletin*, 1-9.
- Swimme, B. & Berry, T. (1992). *The universe story: From the primordial flaring forth to the ecozoic era, a celebration of the unfolding of the cosmos*. New York, NY: Harper Collins.
- Tucker, M. E. & Grim, J. A. (Eds.) (1994). *Worldviews and ecology: Religion, philosophy, and the environment*. Cranbury, NJ: Associated University Presses.
- United Nations Environmental Programme (2007, December 10). *Climate change and conflict: New report weighs the risks and pin points the hotspots*. Retrieved December 10, 2007, from <http://www.reliefweb.int/rw/RWB.NSF/db900SID/MUMA-79RACY?OpenDocument>.
- Wals, A. E. J. (Ed.). (2007). *Social learning: Towards a sustainable world*. The Netherlands: Wageningen Academic Publishers.
- Wenden, A. L. (Ed.). (2002). *Educating for a culture of social and ecological peace*. Albany, NY: SUNY Press.
- Wilbur, M. L. (2007). How foreign language teachers get taught: Methods of teaching the methods course. *Foreign Language Annals*, 40(1), 79-101.
- Wiley, T. G. (2007). Heritage and community languages in the national language debate. *The Modern Language Journal*, 91, 252-255.
- Williams, P., Xouris, S. & Kusumoto, K. (1997). *Obentoo I*. Victoria: Nelson.
- Yardley, J. (2007a, September 28). Beneath booming cities, China's future's drying up. *The New York Times*. Retrieved September 28, 2007, from <http://www.NYTimes.com>.
- Yardley, J. (2007b, November 19). Chinese dam projects criticized for human cost. *The New York Times*. Retrieved November 19, 2007, from <http://www.NYTimes.com>.
- Yardley, J. (2007c, December 5). China's endangered turtles, emblems of a crisis. *The New York Times*. Retrieved December 5, 2007, from <http://www.NYTimes.com>.
- Zohar, D. & Marshall, I. (2000). *SQ: Connecting with our spiritual intelligence*. New York: Bloomsbury Publishing.