



ERUDITIO

*“A multidisciplinary forum focused
on the social consequences and policy
implications of all forms of knowledge on
a global basis”*

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Eruditio Vision

The vision of the Journal complements and enhances the World Academy's focus on global perspectives in the generation of knowledge from all fields of legitimate inquiry. The Journal also mirrors the World Academy's specific focus and mandate which is to consider the social consequences and policy implications of knowledge in the broadest sense. The vision of the Journal encompasses major challenges facing global society and seeks to examine these issues from an interdisciplinary, multi-method and value guided perspective.

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Editorial

[“For a Universal Declaration of Democracy”](#) by **Federico Mayor Zaragoza** promotes the adoption of a universal declaration of democracy. He reminds us that the UN charter was adopted with a preface that it is being adopted on behalf of the peoples of the United Nations. While the document in the same paragraph reaffirms its faith in fundamental human rights, the term democracy doesn’t appear in any of its provisions. It is possible, of course, to imply that the reference to the peoples of the UN is as well a reference to the rights of peoples and their role in the creation of a new global constitution. He notes that democracy appears in the preamble to UNESCO’s constitution as well as in the universal declaration of human rights. He draws attention to the fact that democracy works if human rights are respected and have their most important traction within a democratic political culture. He asserts that the concept of democracy has not received adequate development and explication in terms of agreements and other UN related instruments. He believes this is an important gap and that it can’t be remedied by the development and adoption of a universal declaration of democracy. To this end he has put together the outlines for a project on a universal declaration of democracy and has articulated the framework of articles that should be reflected in the possible adoption of such a declaration. The central idea behind the impulse of democracy is shared rights and shared responsibility as a pathway to global solidarity and universal dignity. The Editor believes that this universal declaration should be adopted not only via the aegis of the UN General Assembly but by legislatures of governments throughout the world. It should indeed be endorsed by all learned associations and all progressive internal non-governmental organizations. This is an important initiative and editors of *Eruditio* hope that it would receive appropriate attention in the world community.

[“World University: Global Strategy for Higher Education”](#) by **Jüri Engelbrecht** is a short article that provides important pointers about globalizing strategies for higher education. In this space Engelbrecht views the university partly as an inter-temporal and unique human institution. He draws attention to the fact that global problems are sufficiently equipped today, which begins to challenge the very conception of the university and what universities are for. He points out that the universities’ ways of functioning implicate, inter-alia, finance, industry and manufacturing institutions which make money from knowledge generation. A problem for the future is that society needs both knowledge and money and it is a challenge to appropriately reconcile these in beneficial ways. He gives several important illustrations of innovations in higher education such as the venture capital fund “SITRA” which created courses for policy makers. This initiative, it seems to the Editor, is important because policy education often does not find an explicit academic form in the context of higher education. His article concludes with two simple rules: (1) Support quality and (2) Support young people. This is a very useful article for thinking through the globalization of higher education.

The article by **Jayasree Ahuja** on [“Human Needs Approach: A New Foundation for Knowledge Organization in the 21st Century”](#) examines the epistemology of the humanities and notes that the concept of knowledge remains somewhat ambiguous and controverted. It gives us a short overview of the development of epistemological thought in the West and

then brings us to the modern period. Central to her approach is that knowledge should have its focus on human needs and to provide clarity about what human needs are. She believes that if we organize knowledge according to human needs, it may be seen as superior to an approach based on conventional subject-oriented topics. She demonstrates the value of the needs-based epistemology and demonstrates that the link between knowledge and the human mind is better understood using the needs approach. This is a very useful contribution to examining the challenges of modern epistemology. In particular, the legal anthropology of Malinowski developed the legal categories of relatively primitive societies showing that the categories that are referenced to human needs in the jurisprudence of the policy sciences were developed by WAAS Fellows Lasswell and McDougal. These theorists took the needs idea of Malinowski and analyzed them to basic values which are cross-culturally demanded and sought on a global basis. In this sense, the values themselves form a clarification for the development of a human-centered epistemology.

J. Martin Ramirez's article on ["Aggressiveness can be Psychobiologically Mildred: How to Achieve Peace"](#) is an insightful inter-disciplinary investigation into whether aggression is built into the human DNA and makes human beings a war-prone species. The scientific evidence repudiates this and therefore demonstrates that there is nothing inevitable or natural about war; the scientific evidence points to the possibilities of globalizing a culture of peace. In short, science demonstrates that war is not inevitable and that peace is possible.

Jakob von Uexkull has written a brilliant and important observation from the battlefield. ["Science and Spirituality: Observations from the Battlefield"](#) questions the idea that science holds a monopoly on the modern path to truth. In particular, he is skeptical of the implications of scientific truth driven by a mechanistic universe and a mechanistic selection of the fittest without purpose or meaning. In contemporary secular tradition matters that cannot be explained by mechanistic laws of cause and effect are completely discarded and yet the abundance of evidence of non-mechanistic insights, for example, healing, is largely ridiculed or denied. Thus, operations, in which acupuncture is used as an anesthetic although demonstrated to be successful, cannot be the test of a specifically material causal relation between the acupuncturist's intervention and pain. Uexkull draws attention to matters of telepathy and tele-kinetic powers, and notes that the findings of quantum physics limit the validity of scientific materialism. Uexkull argues that wisdom and truths that may emerge from the spiritual tradition may well represent a broader notion of enquiry with immense benefit to mankind – matters that conventional science cannot explain. This is a brave and important contribution that will help to generate interest and concern.

["The Future of the Pacific and its Relevance for Geo-economic Interests"](#) by **Francesco Stipo et al** is a useful article which highlights the most important US-Asian relationships, especially in the area of economic organization. It touches on the issues of energy, resources and how these will play out in terms of the interests of the Pacific region. It provides an excellent summary of an important future trend.

The article by **Ljudmila Popovich**, [“Break Downs and Break Throughs: Empires through Crises and Transformations”](#), focuses on the forces of history that have generated major crises in human history and the effects such crises have had on the evolution of humanity. She notes that research and historical appraisals about such events as the decline and fall of Rome, or the decline and fall of the Axis powers are somewhat under-studied and an adequate appraisal remains inconclusive. The author takes a broader view that relates to the staging of the crises which generate a multitude of pressures and tension points and then examines the outcome of the critical precipitating events. She explores systemic patterns that emerge in terms of a long-term perspective, the condition of the humanities, the dynamic of variability and inter-dependence, a global comprehensive perspective as well as issues of sustainability and political economy. She explores these and other issues in an original and creative contribution which opens up more questions of contemporary global relevance.

In [“Panem et Informationem: Toward Inspired Responsibility,”](#) **Ljudmila Popovich** has given us a sophisticated and multi-level insight into the problems of perception, action and responsibility as a global mandate. She is concerned that the forces which seek to control and regulate how we perceive, think and act, are sustained by powerful myths that generate notions of crisis and global threats which sustain insecurity as a mechanism of securing compliance often with agendas that are non-transparent or at least not sufficiently obvious to disentangle. She sees here an immense challenge reposing in the world of information systems and how responsible intellectual engagement can change the paradigm and permit more reasoned public participation in the great debates of our time. This is a timely and challenging article.

The article by **Gerald Gutenschwager** on [“The Dialectic of Change”](#) is an exploration of some of the dominant ideas of change which he weaves into Kuhn’s explanation of scientific change. He then proceeds to examine the paradigm changing idea in the light of the current economic crises and maintains that we are going through something deeper than economic crises; we are actually going through a cultural crises and the basic paradigms are the beliefs we have about the current paradigm and the beliefs we might hold about a paradigm that is yet to come. He sees the current paradigm as one involving domination over nature and human relations and sees this as unsustainable. A new paradigm would have to be based on human solidarity, empathy, cooperation and indeed even affection. This is one of the clearest articles on the need for a global paradigm change.

The article by **Robert W. Fuller** on [“The Dignitarian University”](#) recognizes that in the university there is a hierarchical order based on rank, grades or achievement. The question is how we can reconcile evaluation and reward for merit while at the same time recognizing that all members of the community are equal when it comes to dignity and respect. What Fuller seems to suggest is that rank tends to result in the abuse of rankism. It is therefore appropriate that we construct a dignitarian community that moderates or diminishes rankism and elevates equal dignity. Essentially, Fuller is addressing the problem that society reproduces hierarchy but should clearly and unequivocally repudiate the abuse of hierarchy. And the best way to do this is to ensure that dignity essentially becomes the central node of construct. Fuller has uncovered an important problem namely, the abuse of rankism and also a solution to the problem, the culture of dignity.

Nancy Flournoy's article "[Corruption of the Scientific Method](#)" focuses on the importance of the assumptions behind the statistical categories by which science evaluates itself. She points out that there is much that is discretionary and expresses the concern that null and alternative hypotheses may well be distorted. She believes it often is in favor of vested interests.

In "[The Evolution of Sovereignty](#)", **Winston Nagan and Garry Jacobs** continue their effort to expand the understanding of the rule of law concept. In this article they give specific attention to unpacking the notion of sovereignty in terms of the global rule of law. This is an extremely useful constitution of the discourse about the challenges to global governance.

Michael Marien has given us an extremely useful and informative summary of trends in literature about the immediate future of the planet from two different perspectives. The first is the view of The Economist, [Megachange: The World in 2050 and Future Vision: Scenarios from the World in 2040](#). The Economist's predictions appear to be coincident with changes that do not require futures in which capitalism takes a back seat. We are given a tour through the four main divisions in the book: people and relationships, heaven and earth, economy and business, knowledge and progress. There is a hint that the future is not as dark as some vision it to be. There is a good chance that in 2050 we will be richer, healthier, more connected, more sustainable, more productive, more innovative, better educated and have less inequality between men and women and the rich and poor. Additionally, they see more opportunities for billions of people. In *Future Vision* the authors ask us to imagine a world of intelligence, a world of greed, a world of prudence, a world of fear. The book then goes on to provide a careful analysis of these scenarios. What distinguishes this study is that these authors provide a number of wildcards in the future scenarios. These are possible game changers and make for stimulating reading. They predict more and more change. These materials are worthy of consideration to the Fellows of the Academy.

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For a Universal Declaration of Democracy

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Abstract

The Charter of the UN, which was adopted on behalf of the “Peoples of the United Nations”, reaffirms the “faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small”... However, the term “democracy” is not used by any of its provisions.

It is only in the preamble of UNESCO’s Constitution that the “democratic principles” are mentioned: “dignity, equality and mutual respect”...

The Universal Declaration of Human Rights only mentions democracy once in Article 29.2: “...human rights based mainly, but not solely, on the requirements “of morality, public order and the general welfare in a democratic society”.

During the Cold War democracy took shelter in the regional organizations (the European Council, the Organization of American States and, sometime later, the European Union). Since 1989 democracy has continuously been dealt with in every work undertaken by international organizations: United Nations, the African Union, the Inter-Parliamentary Union...

Democracy can only exist if human rights are respected and protected, while human rights may in turn flourish only within a democratic regime.

It is the first time that democracy is dealt with as a five-fold reality which includes political, economic, social, cultural and international democracy.

Since it is based on liberty and human rights, the democratic regime is indeed the best guarantee for national and international peace, combining the efforts of all actors in social life: States, individuals, public and private organizations. Under these conditions a true culture of peace could emerge.

1. Rationale

1.1. Democracy Disregarded

1. The Charter of the UN, which was adopted on behalf of the “Peoples of the United Nations”, reaffirms the “faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men and women and of nations large and small”... However, the term “democracy” is not used by any of its provisions. The democratic nature of the government is not the main requirement for a State to become eligible to join the United Nations; nor is the violation of democratic principles – and, first of all, the violation of human rights – a reason for a State to be excluded from the United Nations.

It is only in the preamble of UNESCO's Constitution that the "democratic principles" are mentioned.

2. It's undeniable that the East-West confrontation from 1940 to 1980 is to be regarded as the explanation of the United Nations' conception of democracy. Since there were basic discrepancies about the meaning of democracy ("popular" democracy versus "real" democracy), it was only considered as another supplementary argument to be used in the conflicts between them, instead of being the stand-base for national and international peace.
3. Even at the end of the Second World War, the disagreement over the meaning of democracy was not – or at least not immediately – extended to the other essential feature that makes a human life worth living: the human rights, as evidenced by the fact that the Universal Declaration of Human Rights was endorsed in 1948. And even if the Universal Declaration of Human Rights only mentions democracy once in Article 29.2, article 21 proclaims that "everyone has the right to take part in the government of his country, directly or through freely chosen representatives". This provision allows for limitations to be applied to human rights based mainly, but not solely, on the requirements "of morality, public order and the general welfare in a democratic society". It is, therefore, with regard to the requirements of democracy that the limitations to human rights should be appraised. Democracy, which is a regime of freedom, thus becomes the tool to evaluate eventual limitations to human rights.
4. While there is a Universal Declaration of Human Rights, further developed by a series of Agreements, Treaties and Declarations, there is no such equivalent for democracy. Shouldn't the work that was undertaken in 1948 be completed with a Universal Declaration of Democracy?

1.2. The Return of Democracy

5. During the Cold War democracy took shelter in the regional organizations (the European Council, the Organization of American States and, some time later, the European Union) and it was not until the fall of Berlin Wall that democracy could find again a place within the frame of international relations. Since 1989 democracy has continuously been dealt with in every work undertaken by international organizations: United Nations has devoted a series of meetings targeted to "new democracies", many of which have drafted Declarations regarding democracy. African Nations have also drawn up their own projects, of which the African Charter on Democratic Elections and Governance of the African Union must be emphasized.
6. The project known as "Declaration of the European Council on True Democracy" is perhaps the most comprehensive, although it could not be adopted due to the opposition of one sole Member State. The Universal Declaration on Democracy of 16 September 1997, adopted by the Inter-Parliamentary Union, is also worthwhile mentioning because of the plurality of opinions it represents and the innovative concepts it includes.
7. Several UNESCO instruments should also be taken into consideration, and especially those devised by the International Labour Organization. The French and North American Declarations issued during the last decades of the XVIII century are naturally worth

mentioning, as well as the instruments (Declarations and Conventions) developed by the Organization of American States. All these tools have been taken into account when drafting the project of the Universal Declaration of Democracy.

1.3. Democracy and Peace

8. Initially peace was regarded solely as the absence of war between States or within one particular State. This somewhat negative peace was gradually replaced by a “positive peace”: the latter concept was meant to go further beyond a simple armed peace, and included all the requirements relating to security, mutual understanding, tolerance and economic and social development. Very soon it became clear that this positive peace was based on human freedom –and, therefore, on human rights – as well as on a political system of democracy understood in the largest sense of the word: from a political, economic, social, cultural and international standpoint.

“The system of democracy, based on freedom, is the most adequate means to ensure national peace and international peace.”

Ultimately, peace should be at the same time negative and positive, but first of all it should be global, that is, a matter of concern for everybody: all men and women are from now on accountable to their fellow human beings, and even to future generations, for peace in the world. If we all have a duty to strive for peace, we also have the right to benefit from peace. We are thus led to plead, in freedom, for a true human right to peace, as opposed to all sources of power, whether exerted by the State or not; a right that should be expected from all power sources and that will, above all, be attainable only by joining the efforts of all actors in social life: States, individuals, public and private organizations. And yet the system of democracy, based on freedom, is the most adequate means to ensure national peace and international peace.

9. This yearning for peace, which implies the existence of a democratic regime, makes it necessary for peace, enhanced by democracy, to become a matter of concern for everybody: but before this can be achieved, a true culture of peace has to be established. This was the target of those who, under the auspices of the UNESCO, created the Foundation for a Culture of Peace. The project developed for a Universal Declaration of Democracy is a response to this twofold target of humankind: democracy and peace.
10. Because the Universal Declaration of Democracy is intended to actually become the equivalent of the Universal Declaration of Human Rights; both include 30 articles. Article 30 is shared by both declarations: it clearly states that “nothing in this Declaration may be interpreted as implying for any State, group or person the right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein”.

2. Project for a Universal Declaration of Democracy

Whereas the Law and the international relations have for a long time ignored the political nature of State government, the effective protection of human rights requires at present the existence and free operation of a democratic regime, regarded as the government of the people, for the people, by the people;

Despite the fact that international instruments, universal and regional, designed to protect human rights, have given rise to a body of innumerable and detailed rules based on the Universal Declaration of Human Rights, the indispensable equivalent is still lacking, that could be found in a Universal Declaration of Democracy, a tool that is urgently needed to reorient the behavior and governance of human societies on a personal, local and global scale;

Whereas the drawing up of the aforesaid Declaration should enhance the intrinsic bond between human rights and democracy, based on the effective respect of the political, social, economic, cultural and international rights, at the personal and collective, national and world levels;

Whereas the World Plan of Action on Education for Human Rights and Democracy (Montréal, 1993) represents an excellent guide, and some of its points have already been incorporated into the text of the World Conference on Human Rights (Vienna, 1993);

Whereas as established in the Resolution A/67/L25 of the General Assembly of United Nations, of 21st November 2012, on Education for Democracy, democracy is a universal value based on the freely expressed will of the people to determine their own political, economic, social and cultural systems and their full participation in all aspects of their lives;

Whereas it is acknowledged that the democratic regime constitutes the best guarantee for the promotion and implementation of Human Rights;

Whereas all democratic governance has values and actions shared worldwide, while there is no single model of democracy belonging to any country or region;

Whereas the systemic and ethical crisis that humanity is facing can only be solved by a democratic spirit and behavior at all levels, in such a way that the reins of their destiny can be placed in the hands of “the peoples”;

Whereas the times of a bloodstained history based on male absolute power are over, and that the humankind, “freed from fear” and able to invent its future, will begin, with the transition from force to word, a new era;

Whereas a Universal Declaration of Democracy should, therefore cover political, economic, social, cultural and international democracy at the same time;

We now, therefore, proclaim this Universal Declaration of Democracy:

2.1. Fundamental Principles of Democracy

Article 1

Democracy is a political, economic, social, cultural and international regime, based on the respect for a human being, the supremacy and independence of justice and law, as well as on the possibility for any individual to participate in the life and development of society, in freedom and peace and in a favourable natural and cultural environment, being always fully conscious of the equal dignity and interdependence of human beings.

2.2. Political Democracy

Article 2

Political democracy represents an objective based on values shared by all peoples that make up the international community, regardless of their cultural, social and economic differences. It is, therefore, a fundamental right for all human beings, and shall be exercised under conditions of freedom, equality and responsibility, ensuring diversity of opinions, beliefs and common interest.

Article 3

- **3.1** Since it is based on everybody's right to participate in the administration of public affairs, political democracy implies freedom of meeting and association and the existence of institutions that are representative at all levels and, particularly, of a Parliament representing all constituent parts of society, endowed with real powers and having at its disposal all means required to convey the will of the people, through legislation and control of governmental action.
- **3.2** Participative democracy will be fully effective when the ways to allow civil society to express its priorities will exist, in order to adapt the expenditures and investments of the public institutions with the needs and interests of the community.
- **3.3** The modality of participation provided by the new technologies of communication and information will contribute without any doubt to widen the capacity of the citizens to freely express themselves, reaffirming in this way a genuine democracy.
- **3.4** To ensure the citizens' capacity to freely express themselves, it is essential to guarantee truthful and verifiable information, particularly on government and institutions.
- **3.5** The political power must always be attentive to the citizens' voices and views, respecting and warranting the right to disagreement.
- **3.6** The unavoidable respect to diversity of beliefs and convictions of the citizens demands the neutrality of the democratic State in all cases. It should include the guarantee of the right to freedom of thought, conscience, religion and ideology of any person.

Article 4

A very important element to ensure the democratic exercise of political power is the periodic holding of regular and free elections, allowing the people to express their will concerning the composition of the legislative body and other organs of political power within the State.

Article 5

Voting shall take place by universal and equal suffrage and by secret ballot, of women and men without any restriction, under conditions ensuring the possibility of a real choice to the benefit of voters, and allowing their opinions to be taken into account.

Article 6

The presence of election observers and national and international media shall not be considered as interference in the domestic jurisdiction of any State.

Article 7

A democratic society entails a multi-party system that must work in a spirit of tolerance: freedom to create political parties or any other political groups in compliance with the guidelines of international law shall be guaranteed. Parties can only be forbidden in those cases and under those circumstances stipulated by the law. Even if it has been elected democratically, the majority shall not abuse its right to govern by infringing the legitimate rights of minorities, to which end the appropriate regulatory mechanisms should be established. Members of the Parliament and of any other representative organ shall consistently participate in all debates.

Article 8

Political democracy requires the separation of legislative, executive and judicial powers. The role of the legislative power, which represents citizens, consists in drafting and passing laws, voting taxes and exerting control over the executive power. The executive power shall ensure in particular that law is strictly observed by the security institutions responsible for its correct implementation.

Article 9

The judicial power shall be exercised by independent judges, who shall be impartial and make decisions that are not influenced by the interests of the executive power, the legislative power or any other public authority or private group.

Article 10

- 10.1 Political democracy shall ensure that an equal and effective protection is provided to everybody against any kind of discrimination, and that every human being benefits from equal opportunities during her/his life. All provisional measures aimed to correct any kind of discrimination; the amends of the damage caused by it or for achieving the equality attainment among persons, shall not be considered as discriminatory.
- 10.2 Any kind of discrimination as well as any humiliation, by way of imprisonment or freedom privation, including death penalty, is against fundamental democratic principles which must be fully respected.

2.3. Economic Democracy

Article 11

- 11.1 Democracy shall develop economic systems based on social justice, to which all the other aspects and dimensions of economic life will be always subordinated, whose aim shall be free and fair competition as well as indispensable cooperation, in order to achieve a human and sustainable economic development growth, shared prosperity, the promotion of employment and labour, and a rational use of economic, nutritional, natural and energy resources, with the main objective of ensuring to everybody to have access to the goods and services - particularly health services - necessary for a dignified life.
- 11.2 The principles of responsibility in relation to society - transparency, permanence, tax justice - must be always taken into account to avoid the hegemony of profit.

Article 12

The democratic process requires the existence of an economic environment that favours the development of all sectors of society and that is aimed, in particular, at satisfying the essential economic needs of disadvantaged groups, in order to allow them their full integration and participation into democratic life. Public powers must ensure the regulation and redistribution of the benefits of development by means of the appropriate social and fiscal tools, for an equitable system of sharing and to prevent social exclusion.

Article 13

- 13.1 Economic democracy requires the acknowledgement of the economic rights of all human beings, amongst others the freedom of all persons and institutions to buy and sell, and the right to propriety, individual and collective, the deprivation of which shall only intervene on the grounds of public interest and under those conditions required by regulations and by the international law.
- 13.2 At the same time and with equal emphasis, requires the acknowledgement of the right of everybody to receive from the State the support and minimal income that, in case of need, will allow the full exercise of the fundamental Human Rights.

Article 14

Freedom of industry and commerce is crucial to democracy, whether national or international: all persons shall be free, except on grounds of general interest, to develop any business or to exercise any profession, art or craft they shall deem adequate. Freedom of commerce will be regulated by national and international institutions in order to promote the development of a real democracy, able to create goods and services with permanent respect for the environment and the rights of the succeeding generations.

Article 15

Freedom of contract, which is the basis of life in society, is particularly relevant for economic democracy because it allows society to freely operate within the national and international framework, provided that the general interest and the requirements of the democratic process are observed.

Article 16

Freedom to undertake, which is today regarded as an indispensable driving force behind economic and social development and, thus, behind economic democracy, is the result of freedom for all persons to exercise their rights, without hindering the rights of others, whose limits can only be established by national regulations and international law.

Article 17

Freedom to invest is an important factor of the economic development of a country; without it the economic rights could not be fully exerted because individual initiatives would lack the guarantees and protection that should always be granted to Human Rights, this being the fundamental condition for the existence of a democratic regime in any Nation.

2.4. Social Democracy

Article 18

Democracy comprises an essential social dimension, in accordance with the conditions established in article 25 of the Universal Declaration of Human Rights: the non-observance of fundamental social rights threatens equal dignity and opportunities for all human beings, which is the basis for Democracy.

Article 19

Trade union freedom shall allow workers to defend their own interests actively and without obstacles. It shall enable them to participate, on an equal footing, to free discussions with the representatives of employers and governments, which will lead to democratic decisions aimed at promoting the general good and ensure acceptable labour conditions.

Article 20

- 20.1 Social democracy requires that all citizens contribute, through taxes established to this end, to solidarity and to the fair distribution of resources of all kinds.
- 20.2 Rigorous measures shall be taken to eradicate inequalities, extreme poverty and economic, social and cultural exclusion, as well as any marginalization, in particular by providing people in need with the means to become aware of their own rights and to make themselves heard; a series of adequate services will also be made available for them, including an appropriate training aimed at reinforcing their capacities.

2.5. Democratic culture and Cultural Democracy

Article 21

- 21.1 To achieve a sustainable democracy, it is essential to understand it as culture, as a daily behaviour rooted at all levels: personal, institutional and collective.
- 21.2 It is also necessary for a democratic culture to be constantly nurtured and enriched by education, freedom of expression without restrictions and dissemination of different cultural means, as well as by access to plural information.
- 21.3 A democratic society has, therefore, the duty to promote education in its broadest sense of the word: to build free and responsible human beings who are able to act upon their own reflections. Learning to be, to know, to do, to undertake and live together in a process that includes, in particular, philosophical and artistic education, to ensure the full exercise of thought and creativity, the distinctive faculties of the human being, as well as civic education and responsible citizenship training with the perspective of education for all throughout life.

Article 22

Cultural democracy is a dynamic process that includes all segments of social life. It also concerns the relationships within the systems of values established by different cultures and the relationships among them. It implies an approach including the imperatives and objectives of culture. Inseparable from the democratic regime, it is a condition of its development and sus-

tainability. Cultural democracy plays a decisive role to overcome the domination by cultural values that are globally imposed.

Article 23

When fulfilling the functions it must exercise within the field of education and knowledge, the State shall not hinder the right of parents to choose, in addition to the public general education curricula, the teachings provided to their children in accordance with their religious, philosophical and ideological beliefs.

“International democracy not only implies an equal and equitable representation for all States, it also covers the social, economic and cultural rights and duties of States.”

Article 24

- 24.1 Democracy implies the possibility for everybody, without discrimination, to participate in, to access and benefit from cultural life, information and social communication. All cultural communities, including those placed in a disadvantageous situation because of their small size or because they have a cultural ethnic, religious or any kind of specificity, shall be entitled to develop their own cultural policy, provided that it does not infringe on any human right or the rights of other communities. Due to their prolific variety, their diversity and the mutual influence they have on each other, all cultures are part of the common heritage of humankind.
- 24.2 An important aim of cultural democracy is to associate identities very different among them but all belonging to the same world community, that implies equal rights for all without any discrimination.

2.6. International Democracy

Article 25

- 25.1 Democracy shall be regarded as an international principle to be observed by international organizations and States in their international relations. International democracy not only implies an equal and equitable representation for all States, it also covers the social, economic and cultural rights and duties of States.
- 25.2 At the scale of the United Nations whose Charter calls for action to be taken by “We, the peoples of the United Nations”, it is needed that, with the appropriate structures, they are directly represented and, all together with the representatives of the Governments of Member States, can always take into consideration the concerns of representatives of other organizations of civil society, voiced through different ways, as associations, professional entities, public and private groups, social networks, including and in particular those national and regional elected representatives.

Article 26

- 26.1 International democracy implies that it is incumbent on States to ensure that their behaviour complies with international law; that they shall not resort to threat or the use of

force against the territorial integrity or political independence of any State; and, finally, that they shall strive to settle their disputes by peaceful means, in agreement with international law, taking advantage of the international jurisdiction, and, in particular, of the International Court of Justice.

- 26.2 High level legal institutions, which all human, technical and financial resources need for most effective action, will be provided, in order to ensure that in all contexts and scales the principles of the Universal Declaration of Human Rights and this Declaration are fully observed.

Article 27

Democracy shall play an increasingly important role in conducting regional and international affairs. To that end, the international community, integrated in the United Nations as expression of democratic multilateralism, shall support States in the transition to democracy. It shall also have to show solidarity towards people that are oppressed or live under conditions that are detrimental to their human development.

Article 28

- 28.1 All persons have the right to the establishment of an international and social order in which the rights and freedoms proclaimed in the Universal Declaration of Human Rights and in the present Declaration will become fully effective.
- 28.2 No State shall be entitled to make appeal to the principle of non-intervention of the United Nations in domestic affairs when faced with denunciation of Human Rights violations.

2.7. Duties Towards Democracy

Article 29

All human beings have the duty to respect and defend democracy and peace in their various fields of operation: political, economic, social, cultural and international. They shall in no circumstances exercise or defend their rights in ways contrary to the aims and principles of the United Nations.

Article 30

Nothing in this Declaration may be interpreted as implying for any State, group or person the right to engage in any activity or to perform any act aimed at the destruction of any of the rights and freedoms set forth herein.

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World University: Global Strategy for Higher Education*

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Abstract

The paper presents some ideas about the development of contemporary universities. Being probably the oldest existing institutions in the modern society, universities are ready to face challenges of globalisation, combining old traditions and new thinking. In principle, universities should always be some steps ahead of the society, both in terms of education and research. Education in universities should not address the current needs alone but equip graduates for activities in the future. And in research one should understand that contrary to pragmatic ideas about innovation, research is much wider including studies about man, society and the world, about culture and human perception. To be effective, simple rules should be followed: support quality, support young people.

Universities have a very special place in the society because they have faced challenges over centuries being probably the oldest existing institutions in modern society. The Bologna University was founded in 1088, followed by Oxford, Cambridge, Salamanca, Padua and others. Their assets were and are wise people and independent thinking and a clear idea to educate young people. It is well known that mankind has faced many problems during the last millennium of its existence and that the role of universities has been enormous in all fields of human activities. The reason is simple: the research into new knowledge makes people involved to find rational arguments and to base the solutions on scientific evidence. In a nutshell – as it is said in old British universities – university is a place where people think. Certainly, thinking is not enough and the motto of WAAS enlarges it in the following way: promoting leadership in thought that leads to action. And wise actions are needed in the contemporary world; otherwise, society cannot find its sustainable way for the future.

We live in a networking society and its academic subparts – universities, academies, research centres, etc. – have complicated links with the whole. Much has been spoken about the challenges faced by mankind i.e. society. Indeed, the problems of welfare, environment, health, energy, poverty, natural hazards are all to be solved. But sometimes, the most important problem is overlooked which is how mankind could cope with it all. It means how individuals, groups and countries behave and communicate and manage in our complex world. Clearly, the new ICT technologies have changed the environment which leads to a new question how people will manage to live in such a world. It is noteworthy that in the EU the new framework called Horizon 2020 stresses the importance of humanities and social sciences.

* This paper is based on the author's presentation at the international conference on 'Opportunities and Challenges for the 21st Century – Need for a New Paradigm' organised by the World Academy of Art and Science and the United Nations Office in Geneva on 3rd June, 2013.

The problems around us are acute and it is no wonder that the pragmatics would like to get the results immediately. This also concerns the attitude towards universities. There is a growing tendency to see universities as sources of marketable commodities, but universities are not enterprises with a defined product. A detailed analysis on the role of universities in the contemporary world is presented by the League of European Research Universities (LERU) – see G.Boulton and C.Lucas, *What are the universities for?* (LERU, 2008) and here their ideas are followed.

If we use an extremely simplified scheme then we could say that universities make knowledge from money, economies/industries make money from knowledge. Society, however, needs both – knowledge and money. The question is how to balance all that and move on in the most optimal way.

A more detailed look at universities gives two main keywords: education and research. In both fields of activities one should find new ways to act not forgetting this enormous experience universities have gathered in their past.

First – research. Following the ideas of LERU, research not only contributes to innovation and to economic development, it is about man, society and the world, about culture and human perception, about inquiry into phenomena, a response to societal problems, to natural hazards and to climate change, a way to improving health and education and so on.

Second – education. Education in universities should not address the current needs only; it is to develop the thinking and the mental and conceptual skills and habits that equip the graduates to adapt to the changes and steer changes in the future. Even more so, the graduates should be able to face uncertainties of the world.

It is very difficult to determine a new paradigm for future strategies of universities. The existing celebrated rankings of universities do not reflect the real role of universities; that is why new value systems are now elaborated by many communities – in the EU, for example the U-Map, the U-Multirank, etc. Characteristically to those, the attention is not only to the research performance or the number of graduates but also to the role of every university in a local environment.

In general terms, however, society should also understand the immediate and future needs and to be sometimes more flexible in funding activities which will be useful in the future. In this context, education is important; decision-makers and politicians all the more so. Let me give an example from one of the smaller EU countries – Finland. About 20 years ago, a venture capital Fund SITRA started courses for policy-makers. As my Finnish colleagues told me, the first reaction was not very positive but after some years the courses by SITRA became popular. We know that now Finland is doing pretty well both in research and education (cf PISA tests). One cannot forget the science education at the early age in order to prepare children for inquisitive work.

The universities from their side should not only perform facing the future (see above) but also explain to society what they are doing, what the new knowledge is and what could be done using the new knowledge.

And what is important in the society is mutual understanding about all the activities of its actors. Although the principle of understanding is not a new idea, it should probably be a basis for a global paradigm and joint efforts. The key words for actions could be flexibility, openness, networking and trust. The communication as known in semiotics of sign systems between the parts of the system is decisive for understanding each other.

“The key words for actions could be flexibility, openness, networking and trust.”

I am tempted to finish by using some notions from my own field of research – nonlinear dynamics and complexity. In the theory of fractals usually simple rules govern building up a very complicated structure which is not only characteristic for a certain process but in addition has a special beauty. Only these simple rules must be applied many times consecutively. In a university two simple rules are important: support quality, support young people. But this support should be applied every day, every term, and every year in order to get results.

I agree that the unemployment of young educated people is a general problem. However, the voice of young researchers gets stronger and stronger. At the Annual meeting of New Champions organised by the World Economic Forum in Tianjin (2008), the InterAcademy Panel (IAP) and the European Federation of Academies (ALLEA) organised sessions for young scientists. They said: “Making a better world needs better science – we young scientists are ready to contribute our share”. Indeed, equipped with such a support, ALLEA has constantly stressed the importance of young people in formulating the EU’s future strategies. And youth academies have been launched in several European countries (the Netherlands, Germany, Austria, Sweden, Poland, etc), who bring the voice of young researchers to society including the policy-makers. The Eurodoc society unites European PhD students and junior researchers. It works on many themes such as social security and unemployment which are important for young people.

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Human Needs Approach: A New Foundation for Knowledge Organization in the 21st century

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Systems and Tools based on “Human Needs” Approach

Abstract

Knowledge organization has a major role to play in effective and efficient storage and dissemination of information. Traditionally, enumerated subject heading lists, library classification systems, controlled vocabularies etc. were used to organize knowledge. However with the advent of information and communication technologies like Internet and world wide web, knowledge organization has acquired new significance as people are relying heavily on these technologies to store, transmit and disseminate information. In this digital age, when computers and other such gadgets are taking the role of information service providers, replacing human interfaces designing efficient and effective knowledge organization systems and tools has become paramount in order to enable machines to understand, interpret and satisfy the information requirements of people not only belonging to academic and scientific community but also belonging to various sections of the society. In addition to the traditional systems, new tools like ontologies, concept maps etc. are being developed to organize knowledge. In spite of all these efforts, developing effective Knowledge Organization systems and tools still remains as a distant goal to be achieved. Primary reason for persistency of the problem is knowledge organization systems and tools developed till date are based on the philosophical view which equates knowledge with facts and treats knowledge as independent of the subject i.e. human being. This paper attempts to discuss the limitations of such philosophical basis for developing knowledge organization systems and tools and suggests an alternative approach based on human needs as human needs are the fundamental driving force for man to seek knowledge.

1. Introduction

Knowledge organization has a major role to play in effective and efficient storage and dissemination of information. Traditionally, enumerated subject heading lists, library classification systems, taxonomies, controlled vocabularies and thesauri were used to organize knowledge. However with the advent of information and communication technologies like the Internet and world wide web, knowledge organization which was earlier considered to be more relevant only in places like libraries, archives and museums, which collect and organize different sources of information such as books, magazines, and artifacts etc. has acquired new significance as people are relying heavily on these technologies to store, transmit and disseminate information. In this digital age, when computers and other such gadgets are taking the role of information service providers, replacing human interfaces, designing efficient

and effective knowledge organization systems and tools has become paramount in order to enable machines to understand, interpret and satisfy the information requirements of people not only belonging to the academic and scientific community but also belonging to various sections of the society including industries, businesses and even amateur and enthusiastic common man on the street whose information requirements are different from another. In addition to the traditional knowledge organization systems, new tools like ontologies, concept maps and topic maps etc are continuously being developed to organize knowledge suiting to the information requirements of the modern society. In spite of all these efforts, developing effective KO systems and tools still remains as a distant goal to be achieved.

2. Reasons for the Persistency of the Problem*

“Knowledge” as a concept is still ambiguous and there is lot of debate over what constitutes knowledge. A peep into the developments that took place both in epistemology and knowledge organization systems over the centuries reveals how western philosophers since ancient to contemporary times while trying to define knowledge took many seemingly contradictory positions, and how it got reflected in knowledge organization systems which organize knowledge based on the theories of knowledge postulated by philosophers.

2.1. Ancient, Medieval and Modern Periods

In ancient Greece, Plato theorized that knowledge is merely an awareness of absolute, universal *Ideas* or *Forms*, existing independent of any subject trying to apprehend them. Later Aristotle, the student of Plato, while working on his teacher’s postulates emphasized on gathering such knowledge through logical and empirical methods and thus laid the foundations on what developed the modern day science. Following the Renaissance with the invention of instruments such as the microscope and telescope etc. the world gave rise to two distinct schools of thought namely empiricism and rationalism. Empiricism views knowledge as a product of sensory perception formed by the mapping of the external objects by human mind through sensory organs with the help of different observation instruments. According to these empiricists, though knowledge has no a priori existence, as described by Plato, it is still absolute, in the sense that any piece of proposed knowledge is supposed to either truly correspond to a part of external reality, or not. At the same time rationalists consider knowledge as a product of rational thinking.

Later, Immanuel Kant developed a theory of knowledge with the objective of providing a solution that is a synthesis of empiricism and rationalism. According to Kant, knowledge results from the organization of perceptual data on the basis of inborn cognitive structures, which he calls “categories”. Categories include space, time, objects and causality. This epistemology does accept the subjectivity of basic concepts, like space and time, and the impossibility to reach purely objective representations of things-in-themselves. Yet the a priori categories are still static or given.

One of the prominent and fundamental characteristics of these western theories of knowledge is their emphasis on external objects, which are absolute and permanent and their inde-

* Contents of this section are based on the information provided on the website: Epistemology, introduction - Principia Cybernetica <http://pespmc1.vub.ac.be/EPISTEMI.html>

pendence from the subject. Knowledge organization systems which came into prominence mainly after the Renaissance period have adopted the existing theories of knowledge. This influence would very clearly be seen through the writings of pioneers of library classification schemes like Henry E. Bliss, Melvil Dewey among others. One of the 30 principles evolved by Henry E. Bliss, the creator of the Bibliographic classification, states that, if a classification is to serve with maximum efficiency, it should conform fundamentally to the organization of knowledge established in the scientific and educational consensus.¹ Similarly Dewey developed the Decimal classification system based upon the structure of knowledge developed by Sir Francis Bacon during the scientific revolution. Francis Bacon was famous for working further on the theories postulated by Aristotle. Even the canons of classification such as mutual exclusivity, part-whole, etc were also developed based on the principles formulated by natural philosophers while developing the taxonomies of the biological organisms. They also brought objectivity, which suggests that scientists, in attempting to uncover truths about the natural world, must aspire to eliminate personal biases, a priori commitments, emotional involvement, etc – the founding principle of modern science in those KO systems. They believed that a relatively permanent order of sciences has been established and it would remain stable despite interrelations, complications and even ‘revolutions’. Thus it would constitute a permanent framework for organizing knowledge even in the times to come.²

2.2. Contemporary Period

In the next stage of epistemology development which is called as pragmatic, knowledge consists of models that attempt to represent the environment in such a way as to maximally simplify problem-solving. It is assumed that no model can ever hope to capture all relevant information. Therefore, several models exist simultaneously, even if they appear to be contradictory. A model will be chosen depending on the problem to be solved. There is an implicit assumption that models are built from parts of other models and empirical data on the basis of trial and error complemented with some heuristics or intuition.

By this time advanced information and communication technologies have become the major medium for information storage, transmission and dissemination resulting in information explosion and information overload. It has grown beyond human capabilities to analyze and make sense of such large chunks of information. So, in order to enable computers to process that information, computer scientists have started developing ontologies, to designate the building blocks of concepts, out of which models of the world are made whereby an agent such as a computer program will be in a position to process information, as represented by those models. As it is not possible to develop a computer program which can perceive the whole world, as Michael Lesk speculates that while a single KOS would be advantageous, it is unlikely that such a system will ever be developed. Culture may constrain the knowledge classification scheme so that what is meaningful to one culture is not necessarily meaningful to another.³ Therefore, we live in a world of multiple, variant ways to organize knowledge. So, there will be several models representing several building blocks of knowledge depending upon the situation and depending on the point of view in which a particular chunk of information has to be processed.

Whatever may be the focus of all these theories of knowledge, all those theories are trying to define “WHAT” Knowledge is. It is justified as far as epistemology is concerned,

but when it comes to devising a system to organize knowledge, apart from the “what” aspect of Knowledge, the “WHY” and “HOW” aspects of knowledge i.e. Why knowledge is sought and how the human mind organizes the knowledge so acquired are also very vital because after all the sole purpose of any knowledge organization system is to provide information about the objects (those objects could be about tangible entities or intangible and abstract ideas, beliefs etc.) to subjects i.e. human beings. In other words, the design and development of any knowledge organization system has to be in accordance and in synchrony with the methods and processes adopted by human mind to organize knowledge within.

“Man seeks knowledge to fulfill his aspiration.”

3. Why is Knowledge Sought?

To live and grow are the fundamental instincts of all living beings. Other living forms are able to survive and grow because of the biological instincts. But in human beings their aspiration is the key for their survival and growth. Man seeks knowledge to fulfill his aspiration – to attain perfection, freedom and happiness.⁴ To achieve happiness, man aims to fulfill his fundamental needs including basic needs such as food, shelter, health etc. cognitive needs such as curiosity to know and understand mysteries of the nature, expressing through various forms of arts and culture, sharing his knowledge with other members of the society etc; and social and emotional needs such as religion, customs rituals, and institutionalizing all these activities etc. All these fundamental needs are interdependent and impact and get impacted by each other.

Professor György Márkus* while systematizing the ideas of Karl Marx on human needs describes that “humans are different from other animals because their vital activity, work, is mediated to the satisfaction of needs, which makes a human being a universal natural being capable to turn the whole nature into the subject of his/her needs and his/her activity, and develops his/her needs and abilities (essential human forces) and develops himself/herself, a historical-universal being. Work generates the breach of the animal subject-object fusion, thus generating the possibility of human conscience and self-conscience, which tend to universality (the universal conscious being). A human being’s conditions as a social being are given by work, but not only by work as it is not possible to live as a human being without a relationship with others: work is social because human beings work for each other with means and abilities produced by prior generations. Human beings are also free entities able to accomplish, during their lifetime, the objective possibilities generated by social evolution, on the basis of their conscious decisions. Freedom should be understood both in a negative (freedom to decide and to establish relationships) and a positive sense (dominion over natural forces and development of human creativity, of the essential human forces. To sum up, the essential interrelated traits of human beings are: a) work is their vital activity; b) human beings are conscious beings; c) human beings are social beings; d) human beings tend to universality, which manifests in the three previous traits and make human beings natural-historical-universal, social-universal and universal conscious entities, and e) human beings are free”. In other words human beings perceive “Nature” as a source to fulfill their needs of self and of the society.

* A Hungarian philosopher. See <http://www.jornada.unam.mx/2007/03/09/index.php?section=opinion&article=02601eco>

Similarly McGarry in his book titled “The Changing Context of Information” explains the reasons for the growth of disciplines.⁵ He says, “No matter how theoretical a discipline may be its origins lie in a social need of some kind and it also satisfies some of the social needs of its members. Not least among these needs are intellectual curiosity and self esteem”. Peter Drucker the management guru of the 20th century also expresses the same view when he says, “Knowledge like electricity or money is a form of energy that exists only when doing work.”⁶ Thus, man through a continuous process of learning seeks knowledge to sustain and improve the quality of life as an individual and of the society as a whole not only for the present but for the future too. Thus, at the physical level, knowledge has two purposes; firstly to enable humans to use the knowledge to solve their individual, social and societal needs, secondly to pass on the knowledge accumulated while solving the human needs to next generations, through education and also as a knowledge base. At a level higher than physical, the purpose of knowledge is to enable human being to know himself.

3.1. Constituents of Knowledge

This is the reason why human beings seek knowledge, then knowledge constitutes facts, perspectives, concepts, beliefs, judgments and expectations, methodologies, and know-how and much more. With its unique characteristics, mind is capable of dwelling on physical objects or non-physical phenomena without resorting to the aid of the physical senses and the channel of sensation that accumulates observed facts. This is the beginning of the birth of knowledge. All knowledge is founded upon assumptions, perspectives, information and previous understanding that consciously or subconsciously determine the pattern of our observation and understanding and, thereby, govern the acquisition of further knowledge.⁷ Thus knowledge is the mental reference model created in the Human mind because of the cognitive ability of human mind to deduct, infer, comprehend and document/develop reference models in response to:

- The interactions and dynamic relationships that humans establish with their environments (including both natural that is physical as well as social environments).
- The interactions and dynamic relationships that operate between various components of natural/physical and social environments.
- The results and outcomes of those interactions.

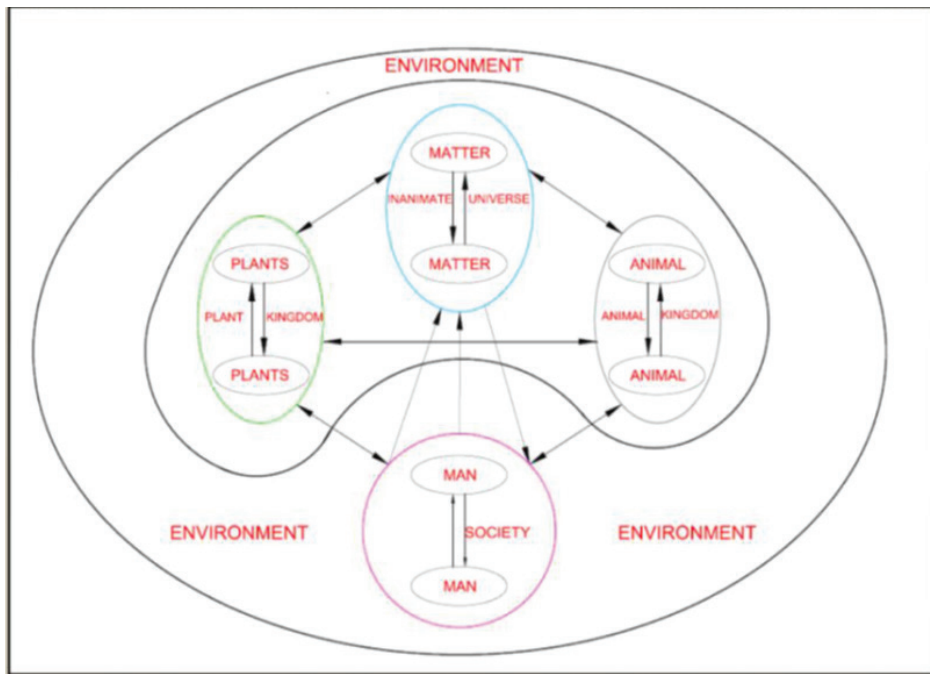
Development of these mental reference models are conditioned by various social, economic, political, cultural situations in which human beings perform; and also the kind of functional roles performed by human beings in the society within the geographical spaces and time frames.

As depicted in Figure 1, this universe with all its components like matter, meta matter, plants, animals, human being himself (as an individual and as a collective), planets and planetary systems is the source for fulfilling his needs. In order to use these sources as a means to fulfill his needs, man seeks knowledge about these sources in terms of

- their fundamental composition
- their intrinsic properties, behaviour

- the dynamic relationships that exist among these various components of the universe and their influence and impact on each other.*
- the ways and means by which these components of the universe can be used to fulfill the type of his needs (for eg: certain plants can be used to meet his needs of hunger, certain plants can be used to cure his disease and keep him healthy and certain other plants can be used to cover his body etc.)

Figure 1: Scope of Knowledge



In other words, “human need” is the fundamental link between human mind and knowledge. Human mind perceives everything in this universe including man himself as a means to fulfill his needs and the knowledge so created when shared with others becomes the ‘universe of knowledge’. The knowledge so formed when shared among other members of the society or community, becomes external knowledge.

* The dynamic relationships those exist between various components of the universe: Each of the components depicted in figure 1, while creating an environment within the same type of components become the environment to the other components belonging to other categories (eg. Entire plant kingdom becomes the environment for other plants of same type and different types as well as for animals, matter, and human being, similarly animals. For human beings, the human society becomes the environment for human beings within themselves and also for other components namely matter, plants and animals). Each of these components will have either direct or indirect linkages among themselves and impact each other either positively or negatively in one of the following ways:

- Enriching both the components involved in the relationship (symbiotic and synergetic relationship)
- One of the components gets enriched, while the other component deteriorates (parasitic relationship – This is one of the most important reasons for conflicts between various components of universe. Some of the common conflicts seen today are man versus environment conflicts, ethnic conflicts, gender conflicts, socio, economic and political conflicts, and religious conflicts etc.)
- One of the components causes a change in the other but does not get effected (catalytic relationship)
- Detrimental to both the components involved in a relationship
- No apparent impact on either of the components (peaceful coexistence)

4. Knowledge Organisation by Human Mind

Human mind tries to know about things of the external world by dividing them into small parts and viewing each part as a whole in its own right. The process of learning includes understanding facts and phenomena about self, surroundings, and environments and also learning about personal, individual, social and societal needs and problems, etc. and forming opinions, values, beliefs etc through analysis, evaluation and comparison. Understanding is at primary level. Evaluation, analysis and comparison are at higher levels.⁸ Thus, human mind learns and understands by division. However, while finding solutions to human needs, human mind does so by integrating the knowledge acquired by division. In other words while working on solutions to human needs, mind with its unique abilities like combining and recombining different types of knowledge and information in order to gain new understanding; applying the solution of one problem to a new and different situation retrieves information from all the relevant components of the knowledge base cutting across all arbitrary divisions like natural sciences, physical sciences, social sciences etc. Molecular biology, artificial intelligence and biotechnology are some of the examples that illustrate these unique abilities of human mind. Similarly with its other unique ability of using a single system of thought in multiple ways and translating knowledge from one context to another human mind,* it applies same knowledge in different contexts to address different needs. For example, human mind is capable of using music, which is a form of art for recreation, for therapeutic purpose in medicine, may use it as an income generating activity or may use it as a tool for creating awareness, so on and so forth. These complex cognitive processes are possible because human mind recalls information through commonality and associations (semantic relationships) that are established among different phenomena rather than by any other organization.⁹

"Human mind tries to know about things of the external world by dividing them into small parts and viewing each part as a whole in its own right."

4.1. Semantic Relationships used by Human Mind

Of the many semantic relationships identified by psychologists, linguists and computer scientists, semantic relationships such as genus-species, part-whole, instance of, paradigmatic, causal relationships are the ones most often used for organizing knowledge both by conventional KO tools such as taxonomies, thesauri and classification systems as well as advanced KO tools like semantic networks.^{10, 11} All of them are developed based on "is a" relationship to represent super ordinate and subordinate, cause and effect relationships. These semantic relationships form the core in understanding what knowledge is.

However, human mind, apart from "is a" relationship, organizes knowledge based on another important relationship namely "required for" because, the fundamental purpose of seeking knowledge is to fulfill the needs, i.e. all phenomena are fundamentally perceived,

* Marc D. Hauser, an American professor of psychology, evolutionary biology, and biological anthropology, who has written widely on human and animal cognition, summarizes the distinguishing characteristics of human thought under four broad capacities. These include: the ability to combine and recombine different types of knowledge and information in order to gain new understanding; the ability to apply the solution for one problem to a new and different situation; the ability to create and easily understand symbolic representation of computation and sensory input; and the ability to detach modes of thought from raw sensory and perceptual input.

evaluated based on their capacity to fulfill various human needs. Human mind due to its unique capabilities simultaneously organizes knowledge in more than one way. During the process of learning and understanding these associations are organized hierarchically, while applying that knowledge to fulfill the needs the same phenomena are associated with each other as networks based on “required for” relationship. For example both cotton plant and lady finger (okra) plant belong to the family *Malvaceae*. While understanding about these plants, it organizes them together hierarchically based on “is a” relationships. However while evaluating their usability, mind associates cotton plant for fulfilling the clothing needs, whereas okra (lady finger) is associated with food based on “required for” relationship.

5. Organizing Knowledge based on ‘Human Needs’- An Alternative to Subject-based Approach

Since human needs are eternal, universal and the motivators for humans to seek knowledge. Organizing knowledge based on ‘human needs’ provides an efficient alternative to subject-based approach. Throughout the history of mankind, human needs remained constant, because human being the ‘Homo sapien’ is the same since its origin, however the means adopted by humans to fulfill and meet their needs have kept on changing as man went on acquiring more and more knowledge. Human needs are universal in nature and are same irrespective of national boundaries, economic status of nations, religions, beliefs and cultures followed by populations of the world. Hence knowledge organization model based on human needs will have

- universal applicability,
- adaptability,
- scalability,
- interoperability and
- suitability to both electronic as well as conventional environments.

Human needs are multi-dimensional and multifaceted because they originate, and operate within the social and natural environments in which human being lives and as a response to the dynamic interactions and relationships human being develops with its environments. Thus, whatever may be the level and type of the human need, it will always influence and be influenced by social, economic, environmental, political, scientific, technological situations and factors of the society at physical level and judged by beliefs, values, opinions at higher level within the context of space and time. As a result the external knowledge created by man will also be multi-faceted and multidimensional. If we consider ‘human-needs’ as the basis for designing knowledge organization and information retrieval tools then the tools so developed will be able to represent and accommodate these intricate and complex relationships that operate in the society.

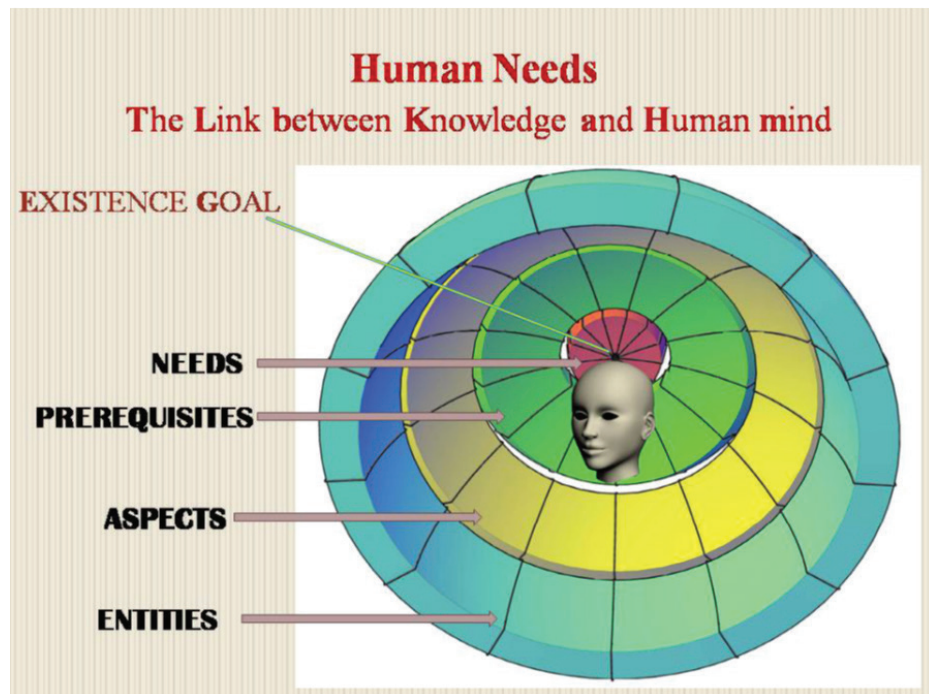
6. Features of the Proposed Scheme*

Knowledge is organized at four levels. Fundamental needs are placed at level 0, followed by pre-requisites at level 1, Aspects at level 2 and entities at level 3.

* This section of the paper is an improvised version to the original version presented by the author in a national seminar on classification in the digital environment in 2001, organized by Sarada Ranganathan Endowment for Library science, Bangalore, India.

- Fundamental Needs Level 0
- Pre-requisites Level 1
- Aspects Level 2
- Entities Level 3

Figure 2: Human Needs - The Link between Knowledge and Human Mind



6.1. Basic Needs – the Fundamental Categories

Since fulfillment of human needs is the prime motivator of knowledge, all the basic needs become the first level categories, which are called as the “Fundamental Categories”. The universe of knowledge is then placed under these categories depending upon the fundamental need they fulfill. Figure 2 gives a diagrammatic representation of the basic framework for organizing knowledge based on “human needs” approach.

Fundamental Categories

- Health
- Food
- Clothing (includes personal care and beautification etc)
- Human Settlements (shelter)
- Knowledge Acquisition and Communication
- Recreation, Entertainment, Creativity
- Environment and natural resources

- Philosophy/Religion
- Society (Social Security, includes governance, law & order, public administration)
- Emotional Security (social relations, culture, rituals, life styles)
- Economy, Industry, employment and resource optimization and management
- Infrastructure
- Trade, Commerce, Business

6.2. Pre-requisites

There will be certain pre-requisites to fulfill the human needs. All those components, which are essential to fulfill the needs, are placed under each fundamental category.

For example, health is one of the fundamental categories in the new scheme. Diet, exercises, hygiene, diseases, prevention/curing systems, pharmaceuticals, pharmaceutical industry, knowledge about human body, infrastructure, psychology, management and administration of medical facilities, role of government/NGOs/ other organisations etc. are the “Essential Components” required to achieve the objective of Health. All phenomena that perform the function of the Essential Components are placed in this level.

6.3. Aspects

The core facets of each of the pre-requisites. For example, while Diet is one of the pre-requisites to fulfill the need of health, it may have the following core facets (see *illustration*):

- Dietary Types
- Dietary Habits
- Specific Dietary Regimens (specific age, sex, physical condition, occupation etc.)
- Developmental Nutrition
- Nutrition Policy/Planning/Programs
- Nutrition Education
- Nutritional Requirements
- Nutrition Productivity
- Environmental Aspects of Nutrition
- Nutrition Indicators/ Surveys/ Statistics
- Socio-economic, Cultural, Religious Influences on Diet

6.4. Entities

All individual entities in each of the facets will be grouped at this level. For example the entities in diet types will be as follows:

- Carbohydrates
- Proteins
- Fats
- Vitamins
- Minerals

7. Advantages of this approach

7.1. Ease of Use

The categories and sub-categories are all designed based upon the fundamental needs. Therefore, it will be very easy to analyse the subject content of documents depending upon the fundamental need they fulfill and organise them at appropriate places in the scheme. As every human being is familiar with most of the basic needs, they can easily relate documents with the categories. It requires very little training.

7.2. Permanency and Sustainability

Social needs do not change with the changing times. What changes is the means adapted to fulfill these needs. For example, health is a basic need of man from times immemorial and it will remain so even in future. However, the means adopted by man to have good health have certainly changed with the changing times. Earlier man used to believe in superstitions and mysticism to cure his ailments. Today he uses more scientific means such as medicines and other such means to cure his diseases. So if we structure our knowledge based upon the fundamental needs, it can sustain itself through the changing times.

7.3. Proactive

The divisions and categories of the scheme are natural and developed based upon the human and societal needs, whatever be the growth of the knowledge, it just fits into the scheme.

7.4. Holistic and Comprehensive

By this approach all the subjects and disciplines whether basic or applied which fulfill a particular fundamental need are brought together. This enables users to see a particular topic in its totality and give due importance to the topic depending on the role it plays to fulfill the fundamental need. This approach also helps in understanding the topic better and its relation with other topics and also provides more options to deal with problems. As Millis, an advocate of the educational value of classification puts it, "Classification structures assist seekers of information realise the connectedness of concepts in a store of information ... It presents a clear picture not only of the concepts involved but also of their generic contexts and their syntactic relation."¹²

7.5. Displays the Relationships that Exist between Subjects and the Fundamental Needs they Fulfill very clearly and explicitly

Due to the inherent principle of organising knowledge based upon the fundamental needs, the relationship between subjects and disciplines. For example pharmaceutical industry in conventional classification schemes would be located under industry in the main category of economics. Because of this separation, the relationship which exists between health and pharmaceutical industry either gets hidden or is totally lost. But under this new scheme pharmaceutical industry is placed under health because the fundamental need it fulfills is health. Pharmaceutical industry has come into existence because of health, not the other way around. Though it certainly contributes to national economy and revenue, the primary objective and purpose of the industry is to fulfill the health needs of people.

8. Conclusion

So far, the objective of creating comprehensive, universal systems of knowledge organization remained unfulfilled because every attempt of knowledge organization has followed subject-based approach. However, we can attempt to create comprehensive and universal knowledge organization systems if we follow the human needs approach, as Human needs are eternal and universal in nature and are same irrespective of national boundaries, economic status of nations, religions, beliefs and cultures followed by populations of the world. Hence if we consider ‘human-needs’ as the basis for designing knowledge organization and information retrieval tools then the tools so developed will be able to represent and accommodate these intricate and complex relationships that operate in the society. Such KO tools will provide comprehensive and stable framework to organize knowledge both in physical as well as in digital environments.

“We can attempt to create comprehensive and universal knowledge organization systems if we follow the human needs approach.”

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Bibliography

1. Jayasree, A. (2008) Knowledge organization tools based on “human needs” for digital and Internet environment, SRELS Journal of Information Management, Vol.45(2), p.129-142.
2. Jayasree, A. (2001) From “Subject” to “Need”: A shift in approach to classifying information on the Internet/web, Neelameghana, A. and Prasad, K.N.(eds.), Proceedings of the National seminar on classification in the digital environment, Sarada Ranganathan Endowment for Library Science, Bangalore, p.1-17.
3. Khoo, Christopher S. G. et al (2006); Semantic Relations in Information Science
4. URL: http://www.ntu.edu.sg/home/assgkhoo/papers/khoo_na.semantic_relations.ARIST.2006.pdf
5. Mokyr, J. (2002) The Gifts of Athena - Historical origins of the knowledge economy, Princeton University Press, Princeton and Oxford, p5.
6. Nair, R. et al (2009), Semantic structure and finite-size saturation in scale-free dependency networks of free software, URL: <http://arxiv.org/abs/0901.4904v3>
7. Weingart, P. A short history of knowledge formations; URL: [csid.unt.edu/files/.../Weingart_History-Disc_\(final-formatted\).doc](http://csid.unt.edu/files/.../Weingart_History-Disc_(final-formatted).doc)

Notes

1. Henry E Bliss, *Organisation of knowledge in libraries*, Second Edition (New York: H.W. Wilson & Co., 1934)
2. A. Umarani, “Knowledge classification – A permanent structure for dynamic knowledge, In: Cognitive paradigms in knowledge organization,” Proceedings of the second international ISKO conference Madras 26-28, August 1992, Sarada Ranganathan Endowment for Library Science, Bangalore, p. 211.
3. Michael Lesk, *Practical Digital Libraries: Books, Bytes, and Bucks* (San Francisco: Morgan Kaufmann Publishers, 1997)
4. P.B. Saint-Hilaries, *The future evolution of man: The divine life upon earth – Selections from the works of Sri Aurobindo* (Pondicherry: Sri Aurobindo Ashram, 2007)
5. Kevin McGarry, *The changing context of information – an introductory analysis* Second Edition (London: Library Association Publishing, 1993)
6. Peter F Drucker, *The age of discontinuity* Second Edition (New Brunswick: Transaction Publishers, 1992)
7. Garry Jacobs, “New foundations of knowledge for science,” *International Center for Peace and Development* www.icpd.org/science/new_foundations.html

8. Benjamin Bloom et al., *Taxonomy of educational objectives: the classification of educational goals; Handbook I: Cognitive Domain* (New York: Longmans, Green & Co, 1956)
9. Carl Pacifico, "The human thinking process - A hypothesis in evolutionary neuropsychology," *Drexel University* <http://idea.library.drexel.edu/bitstream/1860/509/1/Human%20Thinking%20Process.Pacifico.pdf>
10. Vanda Broughton et al., "Knowledge organization," *The University of Arizona Campus Repository* http://arizona.openrepository.com/arizona/bitstream/10150/105851/1/KnowledgeOrg_chapter%25207.pdf
11. Birger Hjørland, "Semantic relations," *Lifeboat for Knowledge Organization* www.iva.dk/bh/lifeboat_ko/CONCEPTS/semantic_relations.htm
12. J. Millis, "Introductory address, In: Knowledge organisation for information retrieval, proceedings of the sixth international study conference on classification research," University College London, 16-18 June 1997, The Hague, Netherlands, FID, 1997, p.1.

Aggressiveness can be Psychobiologically Milded: How to Achieve Peace

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Abstract

The Seville Statement on Violence (SSV) was originated by an ISRA-(International Society for Research on Aggression)launched UN-Committee in the late seventies of the past century. Its final product was presented in Seville in 1986, at the VI Coloquio Internacional sobre Cerebro y Agresión (CICA). Three years later, it was endorsed by the 25th General Conference of UNESCO, in Paris. Its main message was that violence, and consequently war too, are avoidable and aggressiveness can be tamed. The present paper wants to offer its next step, showing how we can prevent the problems of violence and war and achieve a culture of peace: understanding aggression, violence and war, as well as the real meaning of peace, stressing the importance of peace education, schooling of emotions, and techniques for non-violent conflict resolution, and suggesting that the main goal for it will be the development of inner peace.

The main message of the Seville Statement on Violence (SSV), elaborated in the early 80s of the last century by scientists from all the world and from many different disciplines and endorsed by the 25th General Conference of UNESCO, was that peace is possible and that wars and violence can be ended, making clear that there is nothing in biology that stands in the way of making a world without war (Adams, 1991).

That first ‘scientific step’ towards peace concluded that, far from condemning humanity to violence and war, falling into the psychological trap of believing that people cannot change and that peace is therefore impossible (Tyler, 2012), psychobiology tells us that aggressiveness can be tamed and consequently it is possible to end violence and war and to achieve peace. On the occasion of an international conference in Dubrovnik on ‘Nuclear threats and Security’ in September 2012, the Academy’s President Ivo Šlaus said that “war is useless”. And the very same day (14 Sept 2012), during his visit in Lebanon, Pope Benedict XVI stated that, far from being peace which is the only thing that works, “violence destroys; it is not useful at all”. We can therefore happily join the Beatles (or more specifically John Lennon and Yoko Ono), and sing with them that “War is over, if you want it” (1969).

Once we are aware that violence, and consequently war too, are avoidable, that aggressiveness can be tamed (Ramirez, 1994, 2003, 2012), and that peace is the only thing that works (Benedict XVI, 2012), we scientists have to analyse how to achieve a culture of peace. Obviously achieving peace is not an easy task at all, even if the wish for peace expresses a

much-felt need in our days. But we should never forget that, if peace is possible, in order to influence our surroundings positively, we must learn to develop inner peace within our minds, because peace must begin in the mind of each person with the belief that it is possible... This is the main message of the SSV, quite in conjunction with the spirit of WAAS, expressed in the words of Albert Einstein: "The creations of our mind shall be a blessing and not a curse to mankind."

"Peace must begin in the mind of each person with the belief that it is possible."

Within this universal and transdisciplinary task for constructing peace, scientists have a specific role to play. The challenge is to find the peace we are looking for. Where does one start and how to do it in order to counteract the prevailing culture of violence which has pervaded so many societies and to transform it into a culture of peace? Let me offer a few precise suggestions, perhaps a little bit disjointed, and without the pretension of being comprehensive.

First, we have to understand the problem and its possible solutions: to know what is aggression, violence and war, and what peace really means in its deepest meaning, as well as what their interacting biological and cultural factors are.

And, second, we should emphasize the potential value of education which provides a major contribution to the control of aggression, in the prevention of violence and in the achievement of peace, stressing the importance of a comprehensive and global education with a transdisciplinary approach, which may allow us to school emotions and develop inner peace. This task is especially important during the early critical periods of development. We should convince the society about the benefits of investing adequate resources in such extensive educative efforts, instead of limiting its resorts to control aggression and to solve conflicts by means of threats or punishment.

While problems are relatively obvious, even if you are not in direct contact with aggression, you often can be indirectly affected; effective resolutions are not affected. They depend on understanding problems. A most effective means of understanding them is a **systematical study of aggression, violence and war**, utilizing scientific techniques. For example, in our case, with a greater knowledge of the many causes and kinds of aggression, we can develop an appreciation of the possibilities for controlling it, as well as an understanding of some of the reasons why we have failed to effectively control it in the past, such as lack of an appropriate definition and measurement (Ramirez, 1997).

Here, I will just state that biology and environment taken separately are never causes of anything in an organism's development. The human brain should no longer be considered as a generator of possible – or, even less, inevitably occurring – aggressive behaviour (with improper emphasis on some humoral factor or even a single gene thought to be specifically implicated), but rather as the mediator of a dialogue which may take on an aggressive form for reasons that can only be truly clarified through joint interdisciplinary efforts. Biology is the foundation of all behaviour only in the same way that bricks and paper are the founda-

tions of all (traditional) libraries, but the content of the library, whilst being printed on paper, is not otherwise dependant on the bricks and paper.

“Since there is no one factor that overwhelmingly produces aggression, what we need is a comprehensive approach integrating different perspectives on violence, with an appreciation for the various objectively supported contributions of biology, learning mechanisms, social experiences, and, what is more important, their dynamic integration.”

Biology is the means by which information is accumulated and transmitted both in day-to-day interactions between people (in brain), the generation to generation transmission of adaptations right up to speciation information (the genome). But it is the interaction with the environment that steers these changes. It is just as true, then, to say that the environment is the foundation of the content of behaviour and that the interaction between the environment and the phenotype determines which behaviours will be selected i.e. reinforced. Behaviour, then, is the selection of what can be done (the phenotype) from what is available (the environment, including conspecifics) with the ultimate goal of maximum survival of current and future generations. In humans, survival of non-physical elements may be treated highly or higher than the physical: one's reputation, legacy, knowledge, religion, people, country, political belief and so on may be the object of behaviour over and above one's physical survival, inheritance and legacy (see: Robert Karl Stonjek, evolutionary-psychology.yahoogroups, 2012). In other words, organisms are open systems in more ways than one. Behavior is controlled not only by biological characteristics, mainly of the brain and nervous system, but also in large part by external events surrounding and impinging upon that brain and nervous system. Human beings possess biological structures conducive to use of language, true, but without a “linguistic environment” those structures would not function.

Delimitating this assertion to our topic, an adequate control of aggression is not an unrealistic goal for a society, but it is certainly a reality in innumerable discrete settings. Since there is no one factor that overwhelmingly produces aggression, what we need is a comprehensive approach integrating different perspectives on violence, with an appreciation for the various objectively supported contributions of biology, learning mechanisms, social experiences, and, what is more important, their dynamic integration.

Our purpose has to begin with the process of integrating the various domains of science that are studying the development of aggression and peace, in an attempt to use science to guide society in its efforts to prevent and control harmful aggression. Basic scientists, within their experimental settings, may have the luxury of separating the biology of aggression from its psychosocial and environmental context with questions arising within their isolated domains. But, if we want to reach the ultimate goal of application of scientific information in the real world, we can never separate them. There is a constant and circular interaction. As Craig Ferris likes to say, “development is 100% environment and 100% heredity”, in a dynamic interaction (Ferris & Grisso, 1996).

This brings me to the next major feature. If we want to achieve peace, we need to know **what peace really means** in its deepest meaning. According to Paul VI, the new name of peace is *development* because, if we understand as peace the harmonic whole of all what people need, personally and socially, for their happiness, development is a very good way for achieving it. Development embraces dimensions so distinct and integrated as culture, economy, education, politics, and promotion of the weakest, as well as a profound respect for human dignity and human life, and of the environment in which we live.

An optimal approach towards peace, therefore, would be to prevent the problems of violence and war with a political, cultural and economical intervention, alleviating poverty and other social conditions that breed these problems (Ramirez, 1996, 2009). A true peace thus has to be supported by development and social justice, with a more just distribution of the world's resources within and between societies. The only sure foundation on which to lay a better welfare state, a happier society and a more pleasant life is a real development of humanity subordinating all goods and technical resources to human dignity. Therefore, peace = development + justice.

“One way to contribute towards the transformation of a culture of war into a culture of peace is to permanently shift attitudes, values and behaviour in order to promote peace and social justice.”

And, since we would like to live in a permanent state of peace and well being, we have to lay down solid foundations to make peace education available (Ramirez, 1994b). **How to achieve a culture of peace?**

One way to contribute towards the transformation of a culture of war into a **culture of peace** is to permanently shift attitudes, values and behaviour in order to promote peace and social justice, and the non-violent resolution of conflict and security through a transdisciplinary approach. This primary scope, which is the aim of the UNESCO's Culture of Peace Programme (1994), requires cooperation at all levels, everyone working together for peace and reconciliation.

Education becomes a preventative measure that creates a culture that recognises the **value of human life** and is less conducive to aggression, informing individuals and caregivers about how to deal with the causes of aggression and with its control (e.g. by reducing wealth differentials, emphasizing achievement rather than competitiveness, reducing the availability of weapons and removing other triggers for aggression) (Hinde, Nelson & Wrangham, 2010). Starting with pre- and postnatal healthcare, it would progress through the raising and **formal education** of children, and continue into adult social settings.

A very specific point which has to be raised is the in-group versus out-group issue: **us vs them**. It is well known that, whereas prosociality is directed primarily towards the group to which the individual belongs, selfishness is much less inhibited towards out-group members. This explains why acts of aggression are shown more readily to strangers and members of other groups than to members of the same group. And its most extreme act, killing, which

is morally forbidden in virtually all human societies, except where legitimized by societal consensus, in war is sanctioned and even praised for enemies, because they are portrayed as dangerous and even sub-human by propaganda.

Thus, much depends on where the boundaries between in-group and out-group are perceived to lie. Given the genetic uniformity of the human species, there is no biological justification for feelings of in-group favoritism and out-group derogation, based on an inexistent in-group superiority. It is possible and praiseworthy to love one's own culture (patriotism), but we can do it without denigrating others (nationalism). In this way, we can expand the scope of the in-group, providing better education which gives greater emphasis to our common humanity than to cultural differences, thereby continuing to extend the perceived boundaries of the in-group (Hinde, et al, 2010).

This increased connectedness of peoples around the world inspires a vision of a future in which the common humanity of all peoples will be globally recognised. This attitude matches quite well with the already mentioned spirit of WAAS, which is seen in its 1960 founding Manifesto: Fellows share the ambition "to rediscover the language of mutual understanding," surmounting differences in tradition, language, and social structure which, unless fused by creative imagination and continuous effort, dissolve the latent human commonwealth in contention and conflict. It was also said within the Middle East conflict by Pope Benedict during his above mentioned visit to Lebanon: "If we want peace, we have to see in the other a person to be respected and loved" (14 Sept 2012). Expanding the scope of the in-group can be expected to continue to promote increased prosociality. "Instead of Us Versus Them, Us Plus Them" (Pittinsky, 2012).

The importance of family in education should always be stressed. Rearing by a parent-figure sensitive to the child's needs and exercising firm but reasoned control is especially potent in promoting prosociality. Consequently, a positive task would be to foster **parenting programs**, helping parents to improve their skills, and ensuring that parentless children are supported by others. A flagship program is known as the Triple P -positive parenting program, created by Matthew R. Sanders and colleagues at the University of Queensland in Australia. It evolved from a small "home-based, individually administered training programme for parents of disruptive preschool children" into a comprehensive preventive whole-population intervention programme invested in heavily by public bodies in the UK and beyond. Although it has been hailed as a success around the world, a new study led by Philip Wilson, at the University of Aberdeen in collaboration with researchers from the Universities of Glasgow and Gothenburg, assessing the outcomes of Triple P programmes of 33 English language studies, has called into question its effectiveness, recommending a more rigorous methodological report. For instance, they pointed out that only mothers reported an improvement in their children's behaviour, but no significant difference was noted by fathers or independent observers of the children's behaviour (Wilson et al., 2012). This may be another data point in the ongoing argument about whether you can 're-make' people, even if I don't doubt at all that some people can be helped to get along better in society. But it seems to me just another example of people seeing what they HOPE to see in the analysis of these behavioral intervention programs.

Besides formal education, one needs to learn how to deal with emotion, how to transform anger and fear into love and compassion, how to develop forgiveness, how to communicate positively with others... In one word, how to become happy, assuming we really can 're-make' people.

An important aspect of this global education is the **schooling of emotions**, given the influencability and malleability of the feelings, especially during the early years. The affective education movement of the 1960s – psychological and motivational lessons were more deeply learned if they involved an immediate experience of what was being taught conceptually – has rather become the emotional-literacy movement of the turning of the century: instead of using affect to educate, it educates affect itself. Prevention programs are far more effective when emotional and social competences are taught: such as impulse control, managing anger and finding creative solutions to social predicaments. Emotional skills have to be also stressed: self-awareness, identifying, expressing and managing feelings; impulse control and delaying gratification; and handling stress and anxiety... (Goleman, 1995)

Chronic anger is a habit that can also change through education: for instance, teaching basic elements of emotional intelligence, particularly mindfulness of anger as it begins to stir, ability to regulate it once it has begun (substituting reasonable thoughts for cynical, mistrustful ones), and empathy (for frustrating encounters, you learn the ability to see things from the other person's perspective). As Redford Williams said, "the antidote to hostility is to develop a more trusting heart. All it takes is the right motivation. When people see that their hostility can lead to an early grave, they are ready to try" (1989; see also: Ramirez et al., 2002).

Forgiveness of offenses is another of the ideas people have to fill their heads with, if one really wants to achieve peace in the world, because it can be a powerful means to healing. Although you still see the wound, you forget its pain. And consequently it helps you to keep going ahead.

In its broadest sense, forgiveness encompasses a multitude of virtues. Michael Henderson (2009) analyzes five critical components: 1) dialogue, addressing the root causes of conflicts, instead of searching for revenge; 2) reaching out to 'the other', because without forgiving and trust many good initiatives will be fated to fail; 3) moving beyond victimhood (Henderson refers to a very illustrative story: an Orthodox Jew, Yitzak Frankelthal, after Hamas kidnapped and killed his son Arik, founded an organization, Parent Circle, to bring together parents from both sides for personal support and for meeting with governmental representatives and decision makers); 4) taking responsibility; and 5) creating safe space.

Forgiveness can be considered at the personal and the public levels. Offenses are easier to forgive to the extent that they seem small and understandable and when we see ourselves as capable of committing a similar action to the offender. In this context, having been taught from an early age to be more empathetic, we lean toward relationship building and do not emphasize the vengeful side of justice (Exline et al., 2012). And, in the public realm, a pivotal piece of forgiveness is related to historic grievances, leading to apologies and reparations. Are we condemned to follow a wrong past, or can we make a break with it, if new situations allow us to adopt new truths?

Conflict resolution in a non-violent way is another interesting point that can be meliorated via education, fostering a deeper understanding of conflict and violence prevention, learning the many choices for dealing with conflict besides passivity or aggression. Given the futility of violence, it has to be replaced with concrete skills. When tension erupts, you can seek out a mediator to help settle arguments that otherwise can escalate. You have to learn to think differently about disagreements, and to recognize an expanded range of feelings.

Given the diplomatic load of this parliament, I would like to stress the importance of an adequate training in preventive diplomacy for conflict resolutions. We need outstanding peacemakers, helping resolve disputes in the world: arms control, nuclear matters, hostage-taking, conflicts between Arabs and Israelis, wars in Africa, Middle East or wherever..., and remembering that, as Anthony Zacharzewski of the British think-tank Demsoc, says, “successful politics is not about finding people who agree with you. It is about making difficult decisions without killing each other.” (2013)

A good agreement is one which is wise and efficient, and which improves both parties’ relationship. Wise agreements satisfy both parties’ interests and are fair and lasting, most notably where there is a major imbalance of power. This is the approach of a technique called “principled negotiation”, taught by Roger Fisher through his **Harvard Negotiation Project** (he was 40 years on the faculty of Harvard Law School). It allows parties to decide questions on their merits rather than on the haggling skill — or willpower — of the people involved. “In any negotiation — even with terrorists — it is vital to separate the people from the problem; to focus on the underlying interests of both sides, fine-tuning their demands, rather than stake out unwavering positions; and to explore all possible options before making a decision. The parties should try to build a rapport, check each other out, even just by shaking hands or eating together. Each should “listen actively” to what the other is saying. They should recognise the emotions on either side, from a longing for security to a craving for status. And they should try to get inside each other’s heads.” (Fisher, Ury, 1981).

Among many situations where Fisher put his theory into practice, I will mention only one, closer to me because of family connections: **his** success in ending apartheid in South Africa: the Afrikaner cabinet and ANC officials, trained separately by him in negotiation workshops, agreed to end apartheid without resorting to violence.

These considerations are valid not only in a public context, but also at a personal level. Negotiation is a fact of our daily life. Whether we want or not and whether we know it or not, we all are negotiators. We negotiate something nearly every day: what to do today, what to have for supper, how or where to spend the weekend. We try to agree on a price for a house or bargain for a souvenir in a market. Who has not tried some haggling tricks in a souk: pretending not to be interested, refusing to react to pressure, being prepared to walk away. All are examples of questions that are decided among people with different interests. Even if at first look we may think they are competing, maybe they overlap, or they complement one another and only the positions of the parties are actually at odds. Maybe by focusing on the interests, rather than the positions, parties can invent options for mutual gain and resolve issues to everyone’s satisfaction.

Finally, I have to remark that this important task of achieving a culture of peace, which has been suggested to get through a series of steps, such as peace education, schooling of emotions, and conflict resolution, is not an exclusive domain of government, police and other security forces, or any other public institutions or authorities. On the contrary, it demands the participation of the entire society: educational institutions, religious movements, mass media, families and, last but not least, everybody. Each of us has a specific part of responsibility in this achievement because, although these tasks may be mainly institutional and collective, they also rest upon the consciousness of individual participants for whom pessimism and optimism are crucial factors. Finishing with the same words of the *Seville Statement of Violence* (1986), just as “wars begin in the minds of men, peace also begins in our minds. The same species who invented war is capable of inventing peace.” The responsibility lies with each of us!

“The time has come to take on the commitment to heal our society, the world, and ourselves by the power of truth, life and justice, especially through science.”

On the occasion of his 1987 visit to Gdańsk, cradle of Solidarity, John Paul II told the youth that “before there is a revolution in the world, it has to be a revolution in our hearts, minds and characters, out of which will come truth, life and justice” (Luxmoore, Babiuch, 1999, p. 214). Even if until now we have not had time for peace, the time has come to take on the commitment to heal our society, the world, and ourselves by the power of truth, life and justice, especially through science. I am aware that this is really difficult to apply into our mind and hearts, and that patience must become a habit that will help us deal with life more ‘peacefully’. But with the confidence of knowing that peace is possible, we will be able to influence our surroundings positively and making the world better, even it is indeed a hard task. And, in order to achieve it, we should never forget that we must learn to **develop inner peace** within our minds.

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Bibliography

1. Adams, D. (1991), *The Seville Statement of Violence: Preparing the Ground for the Constructing of Peace*, Paris: UNESCO
2. Eibl-Eibesfeldt, I. (1979), *The Biology of Peace and War*, London: Thames & Hudson
3. Exline, J.J., Baumeister, R., Zell, J., Kraft, A. and Witvliet, C. (2012). Not so Innocent: Does Seeing One's Own Capability for Wrongdoing Predict Forgiveness?, *Journal of Personality and Social Psychology*
4. Goleman, D. (1995), *Emotional Intelligence*. New York: Bantam Books
5. Ferris, C.F. & Grisso, T. (1996), *Understanding aggressive behavior in children*, New York: Annals of New York Academy of Sciences
6. Fisher, R., Ury, W.L. (1981), *Getting to Yes*, Penguin Group
7. Henderson, M. (2009), *No enemy to conquer: forgiveness in an unforgiving world*, Waco: Baylor University Press
8. Hinde, R.A., Nelson, R.J., Wrangham, R. (2010), War is not inevitable: Aggressiveness can be tamed, unpublished Statement.
9. John Paul II (1987), Homily directed to the youth gathered in Westerplatte, Gdańsk <http://jp2.wojsko-polskie.pl>
10. Lorenz, K. (1963), *Das sogenannte Böse. Zur Naturgeschichte der Aggression*. Wien: Borotha-Schoeler
11. Luxmoore, J. Babiuch, J. (1999), *The Vatican and the Red Flag: The Struggle for the Soul of Eastern Europe*. New York: Geoffrey Chapman

12. Pittinsky, Todd (2012). *Us Plus Them: Tapping the Positive Power of Difference*. Cambridge: Harvard Business Press
13. Ramirez, J.M. (1994), *Violence. Some alternatives*, Madrid: Centreur
14. Ramirez, J.M. (1996), Developing in peace: poverty, migration and violence. 46th Pugwash Conference on Science and World Affairs, Lahti 2-7 September 1996, Commissioned paper
15. Ramirez, J.M. (1997), Aggression. In: G. Greenberg & M.M. Haraway (Eds) *Encyclopedia of Comparative Psychology*, New York: Garland, pp 649-658
16. Ramirez, J.M. (2003), *Human Aggression. A multiphaceted phenomenon*. Madrid: UCM/Centreur
17. Ramirez, J.M. (2009), Poverty as a Deterioration of Human Rights: Poverty can physically impair brain through stress, 58th Pugwash International Conference on Justice, Peace and Nuclear Disarmament, The Hague, The Netherlands, 17-20 April 2009
18. Ramirez, J.M. (2012), *Aggressiveness can be psychobiologically milded: 1. Biology does not condemn humanity to violence*, International Conference on Nuclear Threats and Security. Dubrovnik, 14-17 September 2012
19. Ramirez, J.M., Santisteban, C., Fujihara, T. & Van Goozen, S. (2002), Differences between experiences of anger and readiness to angry action: A study of Japanese and Spanish students. *Aggressive Behavior*, 23(6): 429-438
20. Seville Statement of Violence (1986), *Cahiers du Mouvement Universel de la Responsabilité Scientifique*, 5: 51-59 (1986).
21. Tyler, P. (2012), *Fortress Israel: The Inside Story of the Military Elite Who Run the Country—And Why They Can't Make Peace*. Farrar, Straus and Giroux
22. Williams, R. (1989), *The Trusting Heart*, New York: Random House
23. Wilson, P. et al. (2012). Past evidence of success of flagship parenting programme called into question. *BMC Medicine*. November 5th, 2012
24. Zacharzewski, A. (2013). Retrieved from <http://www.demsoc.org/>

Science and Spirituality: Observations from the Battlefield

Jakob von Uexkull

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"The most common misunderstanding about science is that scientists seek and find truth. They don't – they make and test models."

Neil Gershenfeld, MIT ('Edge' Magazine, Jan. 2011)

"We know this rich and complex world in many ways, among which physical science is important, but our immediate experience is much more so."

Mary Midgley ('The Guardian', 5.2.11)

"It suits the purposes of our economists, technologists and politicians to pretend that living organisms are machines, since the benefits provided by the state and the formal economy cater above all for humanity's mechanistic needs."

Edward Goldsmith ('The Ecologist', March/April 1990)

Abstract

As society today finds itself confronted by a tabula rasa, a void created by science's increasing lack of authority to interpret reality and its over-identification with a specific world-view, it is time to consider another alternative, and a legitimate, modern path to truth. Instead of merely accepting science as another à la carte belief system, purpose or meaning to our existence can be provided by spirituality.

However, coexistence between spirituality and science is currently recognised only on the terms of the latter and sparks concern with regard to the dangers of scientific fundamentalism. Rather than managing to disprove spiritual truths, modern science has led to a research methodology which excludes even the possibility of immaterial realities.

To this end, the need to pursue open-minded spiritual research cannot be under-emphasized in order to cease the ongoing subservience of science to the creed of scientific materialism. On the path to harmonious cooperation between science and spirituality lies a rebuilding of the concept of community in order to provide a new beginning based on humility and circumspection. Such reconciliation would facilitate modern society to develop a lifestyle of modest sufficiency, one which may only be achieved by understanding spirituality as a science in its own right.

Discussions on this topic usually start from the premises that science provides the only legitimate modern path to truth, and that we live in a mechanistic universe, where the material level is the ultimate reality and life, a 'blind' trial-and-error selection of the 'fittest' with no

purpose or meaning. This dismal “Western creed”, based on a “firm foundation of unyielding despair” (Bertrand Russell), is presented by celebrated scientists and philosophers as proven beyond doubt. While it is recognised that many people, including scientists, need spiritual crutches to cope with their ultimately meaningless existence, any suggestion that there are other realities and paths to truth are dismissed as a dangerous retreat to the past, opening the floodgates to irrationality.

Co-existence between science and spirituality is thus seen as acceptable only on terms set by science, i.e. recognising it as the only modern path to truth. But, while “the opposition of faith to reason has behind it an old tradition, ... the opposition of faith to truth is a desperate novelty and dangerously favours any self-imposed deception.” (Czeslaw Milosz)

Darwinism is then no longer a powerful scientific theory but “the most important bastion of the humanistic-liberal worldview. If it falls, ... it will not be long before the ostracism of all leftists, homosexuals and pro-abortionists begins”, according to the liberal German weekly DER SPIEGEL (52/05).

In a recent report the same magazine described the teaching of homeopathy at German Universities under the heading “Fall-back to the Middle Ages”. Homeopathy was dismissed as “scurrilous... humbug”, comparable to “voodoo medicine” and “long disproven”. An open-minded attitude on this issue was only proof of “moving ever further away from international medical standards”.

My issue here is not whether homeopathy works – although I saw it curing my son from nightly epileptic fits after one treatment. My concern is with our ways of ascertaining reality. The scientific method of doing so has been ideologically and dogmatically reduced to a narrow mechanistic path, impoverishing science and modern life in many ways. The ‘dissident’ scientist Prof. Rupert Sheldrake – who faced a call from the editor of a top scientific publication, ‘NATURE’, to burn his books – recently spoke of the dangers of scientific fundamentalism. Thus, homeopathy must be only a subjective placebo effect – despite its many successes with children and animals – because anything else would threaten the materialistic world-view imposed on us in the name of science.

Spiritual seekers are bad consumers and care little about economic growth. Therefore research into non-material realities and non-mechanistic paths to (spiritual or inner) truth is very difficult to fund. If, on the other hand, you can present your research as scientific, then money is no problem, however weird your project is. The “Biosphere 2” project in Arizona was based on the belief that we understand enough about interactive natural eco-systems to be able to replicate them. “Biosphere 2” was to show how humans can survive nuclear war or environmental collapse by escaping underground or, preferably, into space. It attracted huge publicity and hundreds of millions in funding. Support from top universities, NASA, etc. gave it credibility. It proved completely unworkable – the “bionauts” inside had to smash the walls to escape suffocation.

It was the pet project of a charming, eccentric professor and his group of young female assistants. Had their quest been spiritual, the media would have had a field day, denouncing the waste of private and public funding for this “sect”. But, because it was “scientific”, it escaped such scrutiny.

There are other problems. Physics still cannot explain why the universe now consists almost entirely of matter, although matter and anti-matter are supposed to have been created in equal quantities in the Big Bang. Even less can our experts explain the Big Bang itself: why would nothing suddenly bang?

Those acquainted with research into so-called paranormal phenomena will spot another fundamental problem with the scientific quest. One such well-documented phenomenon is telekinetics, i.e. the ability of certain individuals to influence and move objects with the power of their minds. While research into such phenomena is not regarded as respectable or fundable in the West today, it was seen as potentially military use and thus well-documented in the Soviet Union. In one famous experiment, witnessed by US researchers, a Leningrad house-wife lifted heavy objects from a table and moved them purely with her mental telekinetic powers.

“The findings of Quantum Physics limit the validity of the scientific materialism still dominating our social sciences. While this materialism and its ‘science’ of economics destroy the concept of community, leaving us both alone and meaningless, quantum physics re-asserts the primacy of consciousness and re-creates community by re-connecting us with the world around us.”

Modern science has not disproven spiritual truths. It has developed a research methodology which excludes the very possibility of immaterial realities. When confronted with such phenomena, it capitulates: “I don’t want to discuss evidence... It’s too complicated.” (Richard Dawkins on telepathy. Network Review, Winter 2007 www.scimednet.org.) Those who have debated with so-called scientific sceptics know that ‘what cannot be must not be’. George Vithoulkas has revived classical homeopathy and teaches packed courses to medical doctors from many countries on the Greek island where he lives. A few years ago he told me excitedly about looking for evidence for the medical efficacy of homeopathy. It looked promising, but soon after the participating doctors resigned. I suggested to one of them that he was afraid of what would happen to his reputation if the study confirmed the effectiveness of homeopathy. He readily admitted that this was the case.

Of course, homeopathy is not spirituality. Nor is it telepathy. But both are evidence of non-material realities. The subservience of science to the creed of scientific materialism explains the difficulties of finding common ground between it and the vast experiences of human spirituality. The failure to pursue open-minded spiritual research has made us less knowledgeable about key issues of our existence than many of our ancestors. We have exchanged their often harmless superstitions for a dangerous belief in the paramount powers of markets, “growth” and technological fixes, which now threaten our common future. It is symptomatic that the only new Nobel Prize introduced by the Nobel Foundation is for economics! Religious fundamentalism made the crusades, pogroms and 9/11 possible. But modern science made Hiroshima and Nagasaki possible. And the scientists responsible did

not even know if the nuclear chain reaction would get out of control and set the Earth's atmosphere on fire...

The findings of Quantum Physics limit the validity of the scientific materialism still dominating our social sciences. While this materialism and its 'science' of economics destroy the concept of community, leaving us both alone and meaningless, quantum physics re-asserts the primacy of consciousness and re-creates community by re-connecting us (religare!) with the world around us. It also warns us that, as integral parts of this whole, it is very unlikely that we will ever be able to understand it fully. It certainly makes it doubtful if we can do it from the outside. If we want to understand more, we have to develop our inner self-knowledge and creative intelligence. Serious spiritual students have documented many experiences which are intra- and inter-personally replicable.

I had long wondered if the proponents of the dismal creed of modern science really believe what they say, or are just following fashion. For, if they really thought their life and existence meaningless, why would their discoveries have any objective validity? And would someone as brilliant as Bertrand Russell really not have spotted this contradiction? Well, it appears that he did, but did not want to admit this, preferring to keep up his image as the 'courageous' atheist, facing down despair.

Some years ago I came across Kyros Markides' biography of Daskalos, *The Magnus of Strovolos*, the remarkable Cypriot spiritual teacher, healer and mystic. Markides quotes from the respectful, inquiring letters to Daskalos from a "famous philosopher". Recognising their style, I asked the author if they were from Russell, which he confirmed.

Nor is this an isolated example. David Loye's "Darwin's Hidden Theory of Love" reveals a Darwin seeing human evolution as a struggle for moral growth, opposed to the mechanistic evolutionism of his followers but unwilling to distance himself from them publicly. And 'The Origin of Species' closes with his conviction that life "having been originally breathed into a few forms or into one..."

But who breathed? And how can inter-active and dynamic structures and functions of living organisms come into existence by chance? The tadpole and the frog belong to different species – so do the caterpillar and the butterfly. Yet they are different stages of the same animal. How is this possible without a plan? As my grandfather biologist (and 'father' of bio-semiotics) remarked, Darwinists have "turned nature into an idiot who feels around blindly and starts all sorts of experiments of which most are failures..."

No wonder spirituality is back in fashion. The pilgrimage route to Santiago de Compostela (Spain) has regained so much popularity that the facilities along the path – almost empty a decade or two ago – are struggling to cope. The recently deserted monasteries on Mount Athos are rapidly filling up with new monks from many countries.

The issue is no longer the role of spirituality in a scientific world. We face a tabula rasa where no method or authority is trusted to interpret reality. Science has lost that authority by identifying and allying itself with a specific world-view, which is losing credibility because of the problems it has caused or failed to solve. Can we really do no better? Its protestations of non-responsibility are no longer believed, as too many scientists have become propagandists "in the name of science" for many of the mega-projects which are now seen as dangerous monuments of a false "progress".

When she learnt that her boss Enrico Fermi had become sick worrying about testing the new bomb they had developed, Manhattan Project nuclear scientist Leonora Libby describes in her autobiography how she burst into his bedroom and asked how he as a scientist could justify not finding out if the H-Bomb would work? German Chancellor Angela Merkel has stated that she is in favour of nuclear energy because she is a physicist...

Science risks becoming another à la carte belief system, quoted when convenient but regarded as capable of massive fraud. A few years ago my brother-in-law gave the Kindergarten teachers he was training a book by Rupert Sheldrake to encourage their critical thinking vis-à-vis ruling dogmas, but the results were not what he expected.

The young women told him that Sheldrake's heretical thinking was interesting "and of course the moon landings did not really happen either"...

Even the mainstream media now accept the reality of events which "defy medical science", as the 'Financial Times' recently reported from the Malaysian Thaipusam festival, where pilgrims pierce their cheeks and tongues with spears, and backs with hooks, without any bleeding. My friend Prince Alfred von Liechtenstein recently described bringing a Philippine 'spiritual surgeon' – whose methods also defy medical and scientific explanation – to operate in a Vienna hospital. After their initial shock and amazement, the assembled doctors decided not to investigate what they could not understand – but concluded that they must have been hypnotised, and that their colleague who had extended the invitation must be fined for allowing an operation by an un-licensed individual...

At this time of accelerating global crises, threatening simultaneous "peak-everything", we can afford neither superstition, nor a science corrupted by money, power and arrogance. We need a new beginning based on humility and circumspection – grounded but open-minded – where science and spirituality cooperate to help us develop the life-styles of modest sufficiency which our planet now demands.

The US bio-semiotics pioneer Prof. Thomas Sebeok was asked by the US Government to develop danger signs for nuclear waste installations which could still be understood in 10,000 years. He replied that he regarded this as impossible and instead recommended the establishment of a self-perpetuating "nuclear priesthood" to guard these wastes. Thus, when science does not know how to deal with the consequences of its creations, it calls for priests...

The physicist and World Future Councillor Hans-Peter Dürr believes that "science and religion are not just called to reconciliation, but also to always remain aware of their mutually dependent complementary roles." And his countryman, the philosopher Jürgen Habermas asks "if modernity committed to market radicalism can regenerate itself by its own resources, i.e. without religious content."

But a serious reconciliation requires the understanding that spirituality is not just a belief system but a science in its own right, another path to profound truths. Even my Baltic-Ger-

"A serious reconciliation requires the understanding that spirituality is not just a belief system but a science in its own right, another path to profound truths."

man biologist grandfather expected the major discoveries of the next generations to be “diesseits”, i.e. inside ourselves. Only thus can the calls of Dürr and Habermas become more than exhortations in a moral void. As Plato noted, we understand at the level at which we are and perceive. Scientific materialism has deepened our knowledge but narrowed our consciousness. As Aldous Huxley wrote in ‘Heaven and Hell’ (1953), “Like the earth of a hundred years ago, our mind still has its darkest Africas, its unmapped Borneos and Amazonian basins.”

The spiritual explorer is also on a quest for knowledge. To quote William James, “mystical states... are states of insight into depths of knowledge... illuminations, revelations, full of significance...” (‘The Varieties of Religious Experience’, N.Y. 1902, p.371).

The remarkable Swedish scientist and spiritualist Emanuel Swedenborg saw his investigations of spiritual realities as a logical continuation of his other scientific experiments. Indeed, to quote his biographer Lars Bergqvist, “his knowledge of nature had been a prerequisite for his insights into spiritual things,” (‘Swedenborg’s Secret’, p.382) His findings were open to empirical confirmation, by using his methods of investigation, which were open to anyone and did not require a lifetime of asceticism, which he rejected.

I entitled this paper “Observations From the Battlefield” as I do not believe it is helpful to re-define modern science and spirituality until they can be nicely reconciled. As they currently stand, they represent contradictory realities, paths and worldviews. Only by accepting that the scientific methodology must be re-thought and expanded to include a broader range of human experiences can we move to the new synthesis we now urgently need.

“Only by accepting that the scientific methodology must be re-thought and expanded to include a broader range of human experiences can we move to the new synthesis we now urgently need.”

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The Future of the Pacific and its Relevance for Geo-economic Interests

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Abstract

The Report forecasts that free trade initiatives in the Pacific will become polarized between the Trans-Pacific Partnership and the Regional Comprehensive Economic Partnership.

The Report identifies two factors that will slow Chinese economic growth and reduce U.S.-China bilateral trade in the next 30 years: the development of additive manufacturing and the increase of Chinese cost of labor.

In the next 30 years there will be a redistribution of global energy demand that will change the global political scenario: the discovery of large quantities of oil and natural gas in North America will reduce foreign energy demand in the United States and increase the availability of energy to cover Chinese demand. The short-term consequences will be reduction of competition between the US and China for sources of energy, increase of Chinese reliance on Middle Eastern and Latin American oil and growing Japanese imports of liquefied natural gas from the United States. This scenario will change when renewable energy will become more cost effective and will replace oil and natural gas as the main source of energy.

The Report laments that large nations and international organizations have been mostly concerned with security and trade in the Pacific while disregarding the protection of natural resources. It recommends massive restoration and anticipatory planning to make the resources sustainable. The Report finds that poor environmental conditions will affect the health of the population of Asian Pacific countries. It recommends mandatory vaccinations and stricter environmental protection laws to improve the health of the populations in the region.

1. Legal and Political Issues

1.1. The Development of Free Trade Agreements in the Pacific Region

Over the past decade, the center of world's economic growth has moved away from the Atlantic to the Pacific region. The development of international trade between America and

* The biographies of co-authors can be found at www.usacor.org

Asia has made the countries in the Pacific region open their economic borders and create a free trade area in the region.

The first step has been the creation of APEC in 1986 (Asia-Pacific Economic Cooperation), which is a forum to promote free trade and economic cooperation in the Pacific region. When APEC was established in 1989, average trade barriers in the region stood at 16.9 percent, but had been reduced to 5.5% in 2004.¹ However, the Bogor Goals that called for complete trade liberalization by the year 2010 have not been achieved.

More recently, in 2005, the Trans-Pacific Strategic Economic Partnership was formed between Brunei, Chile, New Zealand and Singapore. In 2012, negotiations started to expand the TPSEP and create a Trans Pacific Partnership (TPP), a free trade agreement involving the members of the TPSEP, the United States, Australia, Canada, Peru, Malaysia, Mexico, Japan and Vietnam, which would eventually be the forerunner of a Free Trade Area of the Pacific (FTAAP).[†]

The US-sponsored TPP overlaps part of its membership with APEC and represents the beginning of a polarization of free trade initiatives in the Pacific between China and the USA. China's response to the TPP is the creation of the Regional Comprehensive Economic Partnership, which promotes free trade between China and its main trade partners.²

Many of these partners are members of the ASEAN bloc, the Association of South-East Asian Nations, which is planning to complete its import duty integration by 2015.³ The RCEP would strategically benefit China and economically benefit ASEAN countries.

The first element that emerges by the historical analysis of free trade agreements in the Pacific is the fragmentation of trade liberalization among different organizations. These organizations work for the same goals but cover separate geographic areas.

Initially, the outcome will be a polarization of free trade among 2 areas: the US-sponsored TPP, which could merge with the Pacific Islands Forum, and the Chinese-sponsored Regional Comprehensive Economic Partnership with the ASEAN bloc.

“Free trade agreements can boost economic growth and prosperity but, if not supported by the guarantee of minimum wages, they can cause an uneven wealth distribution with long term adverse effects.”

However, in the next 30 years, once the cost of labor becomes more uniform, these areas will eventually merge into one single Free Trade Area of the Asia-Pacific that will eliminate custom duties and guarantee equality of treatment among goods originating in different Pacific countries.

Free trade agreements can boost economic growth and prosperity but, if not supported by the guarantee of minimum wages, labor laws that protect worker and human rights, and a common environmental policy, they can cause an uneven wealth distribution with long term

[†] See http://sice.oas.org/Trade/CHL_Asia_e/mainAgreement_e.pdf

adverse effects. It is our recommendation that free trade agreements in the Pacific be carefully planned to include these provisions.

1.2. The Future of US-China Relations

The new leadership within People's Republic of China (PRC), under the General Secretary Xi Jinping, seeks to continue economic growth and the limited domestic reforms that began under General Secretary Deng Xiaoping in the 1970s. Relations between China and the U.S. have remained stable since Xi assumed office, and he has continued the policies of his predecessor, Hu Jintao.

1.3. Potential Game Changing Scenarios

A major source of rivalry between the US and China is the demand for energy, in particular oil and natural gas. The economic growth of China, which started when the country entered the WTO and increased the manufacturing and export of consumer products, has dramatically increased the country's demand for energy. Since China is not a major oil and natural gas producer, it has turned to foreign countries to import energy. At the same time, the United States' demand for energy has also increased, as its national production has not been able to cover the internal demand. The result is an economic rivalry between the two world's largest economies, which is evident in different regions of the world, such as in the US support of South Sudan's independence as opposed to China's support of the government of Sudan, Chinese rapprochement with Brazil and Russia with the formation of the BRICS alliance, and Chinese opposition to sanctions on Iran in the United Nations.

One game changer will be the redistribution of global energy demand. Currently the United States is importing energy, in particular oil, from Saudi Arabia, Venezuela, Mexico and other countries in the Middle-East. The discovery of large quantities of oil and natural gas in different regions of the United States will reduce the foreign energy demand in the United States and increase the availability of energy for China, India and Japan. The short term consequence will be a reduction of the competition between the US and China for sources of energy and the increase of Chinese reliance on Middle Eastern and Latin American oil and natural gas. However, this scenario will change in the long term when renewable energy will become cost effective and replace oil as the main energy source.

Another important consideration is the trade balance between China and the United States. China has a net current account surplus in relation to the US and the rest of the world. The two elements of Chinese success in their export strategy are low labor costs and a devaluated currency. However, at least two factors may change this position in the short term:

- The development of additive manufacturing, a process of making a three-dimensional solid object of virtually any shape from a digital model. This process is conducted by machines and requires minimal human labor. The development of 3d manufacturing will obliterate Chinese cost of labor advantage and reduce US imports from China while increase US export to other countries, in particular Latin American countries because these countries do not possess the technical advancement of the United States and the main factor to determine the cost of an exported product will be the cost of transportation and the U.S. is less distant than China from Latin America. The devel-

opment of free trade areas in the Americas will increase US competitiveness in South America.

- Changes in the Chinese cost of labor: The cost of labor has been increasing in China and a recent study showed that China has currently the third highest labor cost in emerging Asia, with an average of US\$ 2,250/year versus \$1,152 in Vietnam, \$943 in India and \$401 in Myanmar.⁴

The combination of these two factors will slow down Chinese economic growth in the next 50 years and reduce US-China bilateral trade.

1.4. Revolution or Coup D'état

If the interests of the People's Liberation Army and of the raising middle class conflict with the Chinese Communist Party at some point in the future, there may exist a moment where a coup would be seriously considered by the military, in the interest of maintaining stability. Any shift in China away from a civilian to a military-led form of government would be disastrous for the region and the world. The installation of a military-led government would increase the likelihood of war in the Asia-Pacific region, as well as significantly reverse progress in Chinese economic growth since the 1970s.

The Future of U.S.-Japan Relations and the Role of Pacific Islands

The security of the Pacific Ocean generally rests on the shoulders of the US military.[‡] In cooperation with 22 Pacific Island Countries and Territories (PICTs) and 30 Pacific Rim countries, the US generally provides support for maritime trade.[§] Instead of one large multilateral security treaty like NATO, the US has bilateral mutual defense treaties with Japan, Philippines, Australia, New Zealand, and South Korea, defends several current and former US territories in the region, and cooperates closely with regional law enforcement.[§] NATO expansion in the Pacific region would strengthen cooperation among democratic countries which are not located in the North Atlantic and incorporate bilateral mutual defense treaties with the United States into a multilateral defense organization. China would respond with another defense military organization which could stem from the Shanghai Cooperation Organization polarizing military alliances in the Pacific.

Japan is a major foreign source of financing for the U.S. national debt and will likely remain so for the foreseeable future. Japan is also a significant source of direct investment in the United States, and the United States is the origin of much of the foreign investment in Japan. In other words, if the US does well, Japan will likely do well, and vice versa. However, with China's increased economic influence in both countries, the relative significance of Japan and the United States as each other's economic partner has diminished. By specifically adding the PICTs to Japanese and US trade and development priorities, the Japan-US alliance can be further strengthened.[¶] The key element to strengthen the political relationship between the two countries relies upon two factors:

[‡] US Pacific Command (USPACOM), headquartered in Honolulu, Hawaii, is generally responsible for peace and stability (i.e. defense) of the Pacific.

[§] For example, Samoa has signed a bilateral Shiprider Agreement with the US that allows Samoan law enforcement officials access to US Coast Guard vessels; the Japan-U.S. relationship in the field of security is based upon the Japan-U.S. Security Treaty originally signed in 1951. See: <http://www.us.emb-japan.go.jp/english/html/japanus/japanusoverview2009.htm>.

[¶] Source: U.S. Department of the Treasury, "Japanese holdings of U.S. Treasury securities underscore the debtor/creditor link between the United States and Japan," p.8, found at: <http://www.ustreas.gov/tic/>

- The future production of nuclear energy in Japan;
- US' ability to supply Japan with Liquefied Natural Gas.

After a tsunami hit Japan in 2011 severely damaging Japan's nuclear reactors, nuclear energy production was halted in the country. However, Japanese authorities have consistently declared their intention to continue production of nuclear energy.⁶ Nuclear energy in Japan has a dual importance: economic, since Japan does not extract oil and natural gas, and strategic, because Japan, a signer of the nuclear nonproliferation treaty, with at least 4.7 tons of reactor-grade plutonium reserves, is a quasi-nuclear armament country, which means that it would be able to build 700 nuclear warheads in less than one year.⁷

Japanese demand for energy could be covered in part by U.S. export of natural gas. However, natural gas trading remains primarily isolated within the producing regions and lacks the infrastructure to be a true global commodity. Natural gas maritime shipping takes place in liquid form, because Liquefied Natural Gas has volume that is much smaller than its original volume in compressed form. Liquefaction and transport require special treatments and are highly capital intensive.⁸ Morgan Stanley has estimated that North American Liquefied Natural Gas (LNG) export capacity may exceed 10% of the current US daily production by 2015.⁹ The increased supply of LNG would reduce the prices of both LNG and oil in the global markets, but increase them in the domestic U.S. market. On one side, it would improve U.S. balance of payments, on the other it would risk to create inflation.¹⁰ The U.S. administration shall carefully consider these implications in formulating its energy policy. For Japan, which is an energy importing country, natural gas would constitute cleaner energy than coal, oil and nuclear energy. Furthermore, the increasing role of China in geo-economic interests will strengthen strategic cooperation between US and Japan.

1.5. The Strategic Role of Indonesia in the Asia Pacific Region

The relationship between Indonesia and China is centuries old, however the present Chinese regime was not officially recognized until 1957. In 1967, after the replacement of the Sukarno administration by the Suharto government, diplomatic relations were suspended and not resumed until 1990. China is currently one of Indonesia's main trading partners. The Association of South East Asian Nations is China's fourth largest trading partner. Indonesians, however, are hostile to the flood of expensive products entering Indonesia from China.

Increasing concern over conflict over the South China Sea is now exacerbating tensions between the two nations, however. Although Indonesia is not one of the six claimants to the rights in the islands, sea and seabed resources, hostile conflict in the area poses a threat to Indonesia and potentially to its shipping routes. The six claimants to the Sea are China, Malaysia, Brunei, Philippines, Vietnam and Taiwan. In an attempt to ameliorate relations, Indonesia has hosted forums for discussion in which the Chinese delegation has participated, but not formalized any solutions to conflict. China has also indicated its potential claims to regions close to the Natuna Islands, which are in the Indonesian territory and hold potential oil deposits.

Despite these potential conflicts, China and Indonesia have strengthened their military ties, expanding their joint military exercises. In January 2013, the Indonesian Deputy Defense Minister, Sjafrie Sjamsoeddin met with the Chinese Defense Minister in Beijing and

agreed to closer ties that will expand exercises and training relevant to the Sukhoi Su-27 jet fighter and other technological and educational exchanges. This is seen as a counter-balance to increased presence of the United States in the area. Notwithstanding the improvement in the relations between Indonesia and China, Indonesia remains a close ally of the United States in South East Asia and its strategic importance is destined to increase. In fact, its competitive cost of labor, abundance of natural resources and proximity to both India and China give Indonesia a geo strategic advantage that will benefit the country in the near future. It is in the interests of the United States to nurture its relationship with Indonesia through direct aid and a bilateral or multilateral free trade agreement (such as Indonesia joining the TPP).

1.6. The Role of Australia

Given the fact that Japan and Australia were enemies in World War II and that combatant casualties on both sides were high, it is to the credit of both nations that since the close of the War in 1945, relations between the two nations have dramatically improved. The Commerce Treaty of 1957 laid the groundwork for this reorientation of the two nations. Japan is a purchaser of Australian resources and a provider of well-made manufactured goods. Japanese and Australians have invested in each other's economies and financial markets.

The goal of the two nations is to liberalize trade between them, lowering trade barriers and tariffs.

In contrast to the Australia-Japan Joint Business Conferences mentioned above, the Australia-China Business Conference is disjoined, with the conferences held in Australia being compromised by the Chinese counterparts in China who organize independent conferences and have the effect of discouraging businesses in China that might be interested in doing business in Australia.

2. Energy and Resources

2.1. The Future of the Pacific Rim's Natural Resources

A sustainable future for the natural resources of the 42 Pacific rim nations depends heavily on how these nations choose to steward their resources. The Asian nations historically drew copiously on their resources, but now are clearly dwindling non-sustainably. Development activity of the last two centuries built industrialization in Pacific temperate-zone nations, while large portions of their populations remained agricultural. The Pacific Ocean, Earth's largest feature, appeared infinite to the Pacific-rim peoples for millennia. Surprisingly, at the Second Millennium's end, resources have limits. Rapid Pacific fisheries' depletion due to factory ships form a "Canary in the Mine": lack of stewardship, lack of restoration, lack of judicious usage, and lack of national concern to marshal Pacific-commons fish resources.

2.2. Water

The Pacific contains 622 million cubic km water, a major portion of the earth's water.¹¹ Water cycling from evaporation of the Pacific Ocean is critical not only for the nations rimming the Pacific, but the Pacific Ocean water oscillates weather patterns creating precipitation in the Atlantic and Indian Ocean also. Water cycling from Pacific evaporation is critical not only for the Pacific-rim nations but for the Atlantic and Indian Oceans. The Central

Pacific ocean temperature oscillations “El Nino and La Nina” control Atlantic rainfall and storms.¹² Brazil’s weather patterns vary with these oscillations.¹³ Evaporation from the Central Pacific affects the storms and snowfall in the central Indian Ocean’s Himalayas. Since water was formed prior to the origin of the earth in outer space and is a conservative factor for the planet, this Pacific water is a highly important component of life on earth.

The accelerating usage of water in the next 50 years is far more serious a matter which in Central America will double, in South and North America increase by 165% (157 to 258 and from 560 to 903); in China and S. Korea is accelerating greatly.¹⁴ Water deficit may prove to be of extreme difficulty for China, which is facing rapid desertification. Throughout the Pacific Rim, water must be marshaled in industry and sewage so that precipitation is recycled rather than pollutants inserted into rain. The dumping of polluting materials into surface water is a highly unwise use of rivers.

2.3. Marine Ecosystems and Fish

The largest global ecosystems are found in the Pacific marine ecosystems covering 33% of earth’s surface (165.2 million km²). Unfortunately, degradation is acute of all Pacific northern hemisphere and south-western sub-basins. FAO indicates that there are only two sustainable fisheries in the world primarily in the south east Pacific–Chile/Peru and around the corner where Antarctic-Pacific waters flow to Argentina/Uruguay.¹⁵ Prof. Daniel Pauley reaffirms this with detailed catch statistics of artisan fishing asserting that the Pacific Ocean fish stock will be depleted in 50 years as we fish “down the food chain”.¹⁶ At the interface of the Pacific and terrestrial rim are its estuaries, the earth’s most productive and biodiverse area which systematically stripped of natural resources over the last century by developments. The policy decisions to be made and solutions including restoration of the services of wetlands, seagrasses, coral reefs, and fisheries need rethinking to renew oceanic vitality. Economics of eco-services lost by degradation and the cost-effectiveness of ROI restoring the nearshore resources are central to present societal decisions. The new biological restoration technologies need distribution throughout newly industrializing nations so each nation can choose policies to restore their valuable resources including large amounts of carbon sequestered in estuarine plants, the fisheries habitat, sediment stabilization and enhanced biodiversity.

2.4. Forests and Soils

Forests originally covered most of the nations of the Pacific, adding oxygen, soil stabilization, habitat, energy sources, and biodiversity throughout the Pacific region.¹⁷ Due to massive logging for development and traditionally for fuel, plus clearing for agriculture, forests have been removed and large-scale soil erosion is accelerating throughout the Pacific basin to pollute estuaries by cutting light to fish nurseries. Southeast Asia and China are prime examples.

2.5. Estuaries

The estuaries are the most productive point of earth. The more ancient and more biodiverse Pacific flora and fauna contain two to six times the number of Atlantic species. We are reaching limits of sustainability on the Pacific estuaries including the estuaries most recently developed in the Western Hemisphere. The estuaries of many Asian areas have been highly

modified and no longer provide the eco-services that even a half century ago they were able to provide such as fish nurseries, near-shore fishing for impoverished villagers.

2.6. Arctic and Antarctic

Arctic and Antarctic are the least polluted areas of the Pacific, due partly to the large volume of the slow deep circulation of the Pacific (which up-wells water from pre-industrial times to form surface waters of the Antarctic and the Arctic).¹⁸ Due to glacial melt in the Arctic passages are opening.^{**}

2.7. Energy

The regions' conventional fossil fuels (wood, charcoal, oil, gas and coal) are in decline in Asia while needs must adapt to the abundant ocean and wind energies plus methane hydrates. Resources of fossil energy lies as presently explored in the North Pacific, especially near the Arctic, and beneath the sea in the East and South China Seas, and Indonesia. Energy demand will increase in North America from 16 billion barrels of fossil fuel to 22 billion barrels; in S. America from 1.5 to 6 and in Central America from 0.1 billion barrels to 0.4 billion. In China, in Japan, S. Korea, and in Indonesia energy demand will minimally double.

2.8. Minerals

Mineral expanses are found in the Pacific nations due to the "Ring of Fire"; volcanic activity has geologically brought minerals to the surface, cooling into mineable ore. Manganese nodules, sand, gravel, rare earth metals, and placer form the chief present minerals found plus iron, copper, nickel, titanium, cobalt, and trace metals.¹⁹

2.9. Solutions

The public policies of resource conservation put into place post World War II are not sustaining the Pacific Rim natural resources. The United Nations and regional agreements have been inadequate to keep harmful effluents, overfishing, and extractive operations functioning for the common good in the Pacific global commons. What progress is being made by the Law of the Sea in terms of enforcement of its specific agreements? What stewardship is the UN demanding of those nations whose fair share is not of concern to their commercial entities operating in the Pacific water such as factory fishing ships?²⁰ Is China simply one of the 200 nations and should it be able to maximally extract one-two hundredth of the fish?²¹ Is the IMO operating according to its agreements in the Pacific? Indeed who is policing the UN regulations and treaties in the middle Pacific? Who is enforcing the treaties in the 200 mile limits of the small island nations? Who stands to lose the most resources?

Pacific resources exploitation for short-term economic and political gains appears to overshadow the longer-term sustainable stewardship of the Pacific's resources. Many nations watch the resources dwindle and become non-sustainable, while creating no replacement activity for soil, fish, forests, and fresh water. Massive restoration and anticipatory planning throughout all nations including the southern hemispheric nations aimed at keeping specific Pacific resources sustainable should occur everywhere as a beginning to the solutions for this region. Since small nations to massive Russia are at a turning point perhaps a new operational

^{**} Arctic Council Report 2012

model for resources can occur. The model should include not only micro-credit but definitely microenterprise.²²

Helping lift people from poverty will help sustain resources, since extreme poverty around the Pacific is creating large resource losses in the region. Solutions can be and are available to those nations acting rapidly and expertly to sustain critical resources that range from soil and clean water to fisheries and minerals. Biodiversity and richness of the Pacific commons along with the eco-services the commons provide are to be stewarded rather than squandered in the next several decades.

3. Religion and Health

3.1. Religion

As the contemporary world subscribes to an increased prominence of religion in public life, the Pacific area will also be affected by religion on issues of identity and economics. The public role of religion in the future of the Pacific area will become visible in social relations and government policies.

3.2. Religious Makeup of the Pacific: Restrictions, Hostilities and Migration

In general, hostilities against religion are triggered by the competition for resources and identity clashes, which take place at the intra- and/or interstate level. For example, according to Human Rights Watch in China, despite a constitutional guarantee of freedom of religion, the Chinese government restricts religious practices to officially approved mosques, churches, temples, and monasteries. The government also audits the activities, employee details, and financial records of religious bodies. Religious personnel appointments, religious publications, and seminary applications are subject to government review. Unregistered spiritual groups such as Protestant 'house churches' are deemed unlawful and the government subjects its members to fines and prosecution. The government classifies Falun Gong—a meditation-focused spiritual group banned since July 1999—as an 'an evil cult' and arrests, harasses, and intimidates its members."²³ *The Global Restrictions on Religion* study published in 2009 reported that at the global level, restrictions on religion are placed by governments and by private actors.

Economic migration affects also the religious landscape of the Pacific not only due to the religious identity of the immigrant, but more so because religious organizations are often established in the destination country through an internal mission developed by each organized religion. The Asia-Pacific region is the largest source of migrants in the world (214 million), while North America, Europe, Australia, are the largest destinations. Counting all the persons who had been living for one year or longer in a country other than the one in which he or she was born, the largest single share of international migrants (214 million) has come from the Asia-Pacific region. China is also the fourth largest source of migrants (8.4 million), with over one million Buddhists, about two million belonging to other religions, and over four million who are religiously unaffiliated.²⁴ According to a Pew-Templeton Global Religious Future Project, the United States has been a leading destination for immigration. The United States is the world's top destination for Christians (74% of all foreign-born people living in the United States); of Buddhists (coming mainly from Vietnam), and for people with no

religious affiliation (including many from China). The United States is also the world's second-leading destination for Hindu migrants, after India, and for Jewish migrants, after Israel. As for Muslim migrants, the United States²⁵ ranks just seventh as a destination, behind Saudi Arabia, Russia, Germany, France, Jordan and Pakistan.²⁶ For example, while about half of the Buddhists usually move into countries in the same region, large numbers have moved to North America, as well as to Europe. In the Pacific region, the top sources of Buddhist migrants are China (1,270,000), Japan (390,000) and South Korea (210,000); moving into the United States (1,730,00), Hong Kong (370,000), Australia (340,000), Canada (290,000) and Japan (240,000).²⁷ Therefore, considering the outlook on religious freedom along with the forecasted birth rate, and growth of religion's influence in the public life for the next 40 years, religion becomes even more relevant to public policy.

3.3. Health

Health spending in the Pacific region as a percent of GDP ranges from a low of around 2.5% for Indonesia to a high of 18.9% for the Marshall Islands, the actual dollar amounts per capita can be as low as \$85, which may as well be \$0 for all the benefit it provides for the people. Access to medical care varies significantly in the region with the wealthy countries like Japan having around 2.1 doctors per 1,000 people while Papua New Guinea has fewer than 0.05 physicians per 1,000 people, compared to the 1.8 per 1,000 in China, 2.4 per 1,000 people in the United States (considered a "doctor shortage") or as many as 4 per 1,000 in some of the European countries.²⁸ Unfortunately, the countries with the fewest physicians also have the fewest nurses and hospitals and hospital beds per 1,000 people with only 0.6 hospital beds per 1,000 people in Indonesia and 1.3 per 1,000 people in Kiribati, compared to 3.0 per 1,000 in the US (behind China's 3.8 per 1,000) and 13.7 hospital beds per 1,000 people in Japan.

The developing nations of the Pacific have higher than average rates of tuberculosis, malaria, dengue, sexually transmitted infections (including HIV) and other infectious diseases.²⁹

Access to clean drinking water will continue to be a problem in some areas and should be given a higher priority as it is a significant factor in reducing infection and improving quality of life. When we discuss drinking water, many fail to recognize the fact that 45% of the world's population still does not have the luxury of piped water in their homes and 11% have no access to treated water at all.³⁰

As some of the less-developed countries in the Pacific become more industrialized, we may see a shift from indoor air pollution to more outdoor air pollution due to the decreased use of solid fuels for cooking and increasing numbers of factories and cars. Air pollution is closely linked to chronic obstructive pulmonary disease (COPD- including chronic bronchitis), pneumonia, lung cancer and other cancers.^{††} Currently, there are an estimated 360,000 deaths each year in the Western Pacific due to outdoor pollution and 500,000 deaths each year due to indoor pollution with a likely switch between the two in coming years.³¹ A recent report estimates that more than 1.2 million people die prematurely each year due to air pollution in China alone.³² The particulates in air pollution usually cause the most harm to health, so the use of more efficient burning technologies and particulate capture technologies should reduce the illness and deaths from pollution in the short term as we work toward cleaner future technologies.

†† Fast facts about particulate matter, Environmental Protection Agency <http://www.epa.gov/pm/fastfacts.html>

Increasing funding for and emphasis on education would be the single greatest benefit to the region as long as those educational programs include nutrition, hygiene, safe drinking water and other public health topics.

Some of the health problems could also be reduced by increasing access to healthier foods and more water purification. Vaccination programs can reduce some of the spread of infectious diseases and we may see vaccines developed for tuberculosis, dengue, malaria and even HIV in the coming years. Increased access to health education and medical professionals in the remote, underserved areas can be attained through video conferencing technologies.

We cannot see the future but the most likely problems are continuations of the current ones so we can have an idea of how we can act now to try to change our future.

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Bibliography

1. Trade Flows between Australia and China, An opportunity for a free trade agreement, Daniel McDonald, Roneel Nair, Gil Rodriguez and Benjamin Buetre, the Australian Bureau of Agricultural and Resource Economics; 49th Annual Conference of the Australian Agricultural and Resource Economics Society Coffs Harbor, New South Wales, 9-11 February 2005.
2. Text "Agreement Between the Government of Australia and the Government of the People's Republic of China for Cooperation in the Peaceful Uses of Nuclear Energy"; Australian Government Department of Foreign Affairs and Trade.
3. "Trans-Pacific Partnership (TPP): Bad News for Brazil and China?" World Outline April 6, 2013; Tamara Santos
4. The Australian-Indonesian Security agreement-Issues and Implications; Research Paper 25 1995-96; Gary Brown, Frank Frost and Stephen Sherlock Foreign affairs, Defence and Trade Group, Parliament of Australia.
5. Australia and Japan-Enduring Partners in the Asia Pacific: Address by the Hon. Tim Fisher MO, Deputy Prime Minister, Leader of the National Party, Minister for Trade, to the Japan-Australia commerce Agreement 40th Anniversary Seminar, Sydney, 14 July 1997
6. Australian-Japan Free Trade Agreement negotiations; Australian Government Department of Foreign Affairs and Trade
7. Does Australia Have a Constitution? Part I: Powers—A Constitution Without Constitutionalism; Kenneth R. Mayer, Howard H. Schweber; UCLA Pacific Basin Law Journal Vol.25:228
8. Choosing Ahead of Time? Australia, New Zealand and the US-China Contest in Asia; Robert Ayson; Contemporary Southeast Asia Vol. 34, No. 3 (2012) pp. 338-64
9. You Don't Always Get What You Pay For: No Bill of Rights for Australia; James Allan; New Zealand Universities Law Review, Vol.24, pp. 179; Dec 2010
10. The Executive Power of the Commonwealth of Australia: Section 61 of the Commonwealth Constitution, 'Nationhood' and the Future of the Prerogative; Peter Gerangelos; Oxford University Law Journal; pp. 97
11. Australia, Issues in National Politics; Malcolm Mackerras; European Law Journal of Political Research 45: 1035-1041, 2006
12. Politics of a Different Kind: Chinese Immigration Litigation in the Post White Australian Era, Jia Gao; Cosmopolitan Civil Societies Journal. Vol. 3 No. 1. 2011
13. Fusion: The Party System We Had to Have? Charles Richardson; Policy Vol. 25 No. 1 Autumn 2009
14. Hollow Avowals of Human Rights Protection—Time for an Australian Bill of Rights?; Julie Cassidy; Deakin Law Review Vol. 13 No. 2 pp. 131; 2008
15. Neoliberalism and the Decline of Democratic Governance in Australia: A Problem of Institutional Design?; Ian Marsh; Political Studies: 2005 Vol. 53 22-42
16. Selecting Leaders in Democracies (Indirectly); Don Alexander; Social Alternatives Vol. 26 No. 4, 2007 pp. 22

Notes

1. "A Mid-Term Stocktake of the Bogor Goals," *Asia-Pacific Economic Cooperation* <http://www.apec.org/>
2. Associated Press, April 25 2013 <http://bigstory.ap.org/article/china-15-other-asian-nations-start-trade-talks>
3. Forbes, August 26 2007 <http://www.forbes.com/feeds/afx/2007/08/26/afx4054320.html>.

4. "China Now Has Third Highest Labor Costs in Emerging Asia," *China briefing* <http://www.china-briefing.com/news/2011/01/19/china-near-top-of-the-list-for-wage-overheads-in-emerging-asia.html>
5. Henrike Seidel and Padma N Lal, "Economic Value of the Pacific Ocean to Pacific Island Countries and Territories," *IUCN Oceania*. https://cmsdata.iucn.org/downloads/economic_value_of_the_pacific_ocean_to_the_pacific_island_countries_and_territories_p.pdf
6. "Japan's Liberal Democrats pledge to restart nuclear reactors – Nikkei," *Reuters* <http://in.reuters.com/article/2013/05/10/liberal-democrats-nuclearreactors-nikkei-idINDEF9490ER20130510>
7. "De facto nuclear state," *Wikipedia* http://en.wikipedia.org/wiki/Japanese_nuclear_weapon_program#De_facto_nuclear_state
8. "LNG, CNG and LPG: What is the difference?," *Bright Hub Engineering* <http://www.brighthubengineering.com/power-plants/40017-lng-cng-and-lpg-what-is-the-difference/>
9. "LNG Export: A U.S. Natural Gas Game Changer?" *Seeking Alpha*. Retrieved on June 6, 2011 from <http://seekingalpha.com/article/273436-lng-export-a-u-s-natural-gas-game-changer>
10. James Bradbury, "U.S. Natural Gas Exports: Friend or Foe?" *WRI Insights*. Retrieved on May 8, 2013 from <http://insights.wri.org/news/2013/05/us-natural-gas-exports-friend-or-foe>
11. Harald U Sverdrup, Martin W Johnson and Richard H Flemings, *The Oceans: Their Physics, Chemistry and General Biology* (Prentice Hall: Upper Saddle River, 1970), 1057
12. Richard J Beamish, "Climate and Exceptional Fish Production off the West Coast of North America," *Canadian Journal of Fisheries and Aquatic Sciences* 50, no. 10 (1993): 2270-2291
13. Robert M Garrels, Fred T Mackenzie and Cynthia Hunt, *Chemical cycles and the global environment: assessing human influences* (Los Altos: William Kaufmann Inc., 1975)
14. Anitra Thorhaug et al., *Future of the Western Hemisphere* (GCEE Publishers: Miami, 2011), 235
15. S.M. Garcia and R.J.R. Grainger, "Gloom and Doom? The future of mariculture and capture fisheries," *Philosophical Transactions of the Royal Society B: Biological Sciences* 360, no. 1453 (2005): 21–46
16. Daniel Pauly et al., "Toward Sustainability in World Fisheries," *Nature* 418, no. 6898 (2002): 689-695
17. FAO, 2005. Forestry, deforestation maps of South America, Pacific, and Asian Nations. Rome, Italy.
18. Klaus Wyrtki, "The thermohaline circulation in relation to the general circulation in the oceans," *Deep Sea Research* 8, no. 1 (1961): 39–45
19. Peter Thomson, "Sustainable Exploitation of the Pacific Ocean's Minerals and Resources," *United Nations Chronicle* <http://www.un.org/wcm/content/site/chronicle/home/archive/issues2013/water/thesustainableexploitationoftheoceansmineralsandresources>
20. Pauley and Sukuyama, *ibid.*, 2004.
21. Helen Pearson, "China caught out as model shows net fall in fish," *Nature* 414, no. 6863 (2001): 477-482
22. Oerke, A.H. 2012. Microcredit/ Microenterprise: Past, Present, and Future. Pp 21-35. In A. Thorhaug, Jane Pratt, ed. *The Future of Microcredit*. USA Club of Rome, by GCEE Press. (in Press).
23. "China," *Human Rights Watch* <http://www.hrw.org/world-report/2013/country-chapters/china>
24. Phillip Connor et al., *Faith on the Move: The Religious Affiliation of International Migrants* (Washington, DC: Pew Research Center's Forum on Religion and Public Life, 2012), 14-15
25. "The World Factbook 2013-14," *Central Intelligence Agency* <https://www.cia.gov/library/publications/the-world-factbook/index.html>
26. *Ibid.*, p.16
27. *Ibid.*, p. 40
28. "World health statistics 2013," *World Health Organization* http://www.who.int/gho/publications/world_health_statistics/EN_WHS2013_Full.pdf
29. *Ibid.*
30. "Progress on Sanitation and Drinking Water: 2013 Update," *World Health Organization and UNICEF* http://apps.who.int/iris/bitstream/10665/81245/1/9789241505390_eng.pdf
31. "Indoor air pollution and health factsheet," *World Health Organization* <http://www.who.int/mediacentre/factsheets/fs292/en/index.html>
32. "Global Burden of Disease Study 2010," *The Lancet* <http://www.thelancet.com/themed/global-burden-of-disease>

Break Downs and Break Throughs: Empires through Crises and Transformations

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Abstract

As we attempt to assess the scope and the short and long-term consequences of today's multifaceted crisis, a necessary point of entry into its problematics and convoluted paradoxes is by taking a look into the historical rear-view mirror. Examining formative forces of history, albeit sketchingly, this paper refers to the decline of Rome and the two World Wars in order to observe a set of critical issues, tensions, and tendencies that have culminated in socio-cultural and econo-political raptures these historical events brought about. As far apart as these historical crises may be chronologically, they are analyzed for their cumulative and decisive effects on the formation of the European West founded on the institutional structures of Rome; as well as for their formative effect on the 20th and 21st century and the emergence of the U.S.A as the modern global superpower. Imperial socio-political formations of Rome, Germany, and the U.S., are assessed through the observation that the empires have the greatest unifying as well as the greatest destructive capacities. Consequently, this paper asks how we can transform the modern empire from within and use the institutions in place and forces in power to re-direct their resources to serve not the few but all. After a brief historical overview, the paper summarizes key factors in those historical crises and identifies their aftermaths and outcomes through an evolutionary lens. In assessing the relevance of these former crises for today's critical issues, the paper seeks to make an analytical contribution by identifying specific systemic patterns and features that need to be addressed and accounted for in any proposed solution for the culminating and comprehensive crises of our times.

1. Introduction

As we attempt to assess the scope and the short and long-term consequences of today's multifaceted crisis, one quality point of entry into its problematics and convoluted paradoxes can be by taking a look into the historical rear-view mirror. Examining formative forces of history, this paper finds in looking back a powerful and necessary means to navigating of the present. The metaphor, of course, is modern but the concept of reflection and of orienting oneself in relation to and with regard to the past is quite old. In this sketching reference to some critical periods of human history, such as the decline of Rome or WW II, which saw the rise and fall of Nazi Germany and rise of the U.S., the objective is to observe a set of critical issues, tensions, and tendencies that have culminated in socio-cultural and econo-political raptures these historical events brought about, even as the research about these events and crises remains inconclusive. The intent here is to identify patterns of beliefs, principles, and actions that have informed, driven, and catapulted today's sense of the catastrophic. Rather

then enumerate the losses and lay out the statistics of these devastating events, I look into the staging of the crises through the build up of multiple pressures and tensions and then look at the resulting effects in the aftermath of the events in terms of the societal restructuring and rebuilding.

Identifying key factors that threw societies over the critical threshold and brought on cumulative turmoil, I point to the decline of Rome and World War I and II. The historical events here chosen were instantaneously dramatic with grand-scale scope and long-term influences that both caused devastating effects and spurred dramatic social changes. Moreover, I am interested in the fall of Rome and the staging of the two World Wars, as far apart as they may be chronologically, for their decisive effects on the formation of the European West founded on the institutional structures of Rome; as well as for their respectively formative effect on the 20th and 21st century. The developments of the 20th and 21st century are only showing the intensification of the traumatic on a grander and more frequent scale. The temporal proximity of the two World Wars and their spatial spread confirm that technological advances coupled with aggressive military expansion and economic growth only magnified and sped up destruction. While a glance at the most evident historical crises is an obvious choice, what continually needs to be tracked and accounted for is the steady undercurrent of the slower and gradual, but continual, persistent and inerasably long term accumulation of damages done over time. These kinds of harms done to the environment and animal species, to predominantly underdeveloped countries and poor people, Rob Nixon calls slow violence.¹

This research is guided by the evolutionary idea of social transformation, whereby evolution is understood as a learning process of development. Examining the advancement of the global economy in correlation with global politics, George Modelski applies the evolutionary approach and explains:

The features of the evolutionary approach might be seen more clearly when contrasted with the standard “rational choice” paradigm of neoclassical economics. . . . [S]uch an approach naturally inclines toward a long-term perspective; it focuses on structural transformations rather than on equilibrium states; it does not require the postulate of rationality and it sees collective choice processes as resulting from trial and error search and selection procedures. Best of all, it gets away from a purely instrumental rationality and allows for ends to be seen to be changeable, and for constraints to be altered as the result of evolutionary processes.²

The challenge to and the danger of the evolutionary approach taken this way are that, while it recognizes trials and errors as part of the evolutionary process of development, it might see traumatic events as necessary part of such trials and, potentially, get away with relieving us individually and collectively of responsibility and accountability for a more conscious and conscientious development. Nonetheless, it is a less paralyzing and more dynamically positive approach that allows for the recovery of spirit necessary for initiating, steering, and realizing changes.

“Historical self-reflection of our social evolution is a necessary step in the re-definition and re-vitalization of our humanity.”

Observing the correlation of these macro events to the micro scale of individual evolution at its deeply psycho-emotional level, I point to the psychological work of Kazimierz Dąbrowski developed in his “theory of positive disintegration,” which resonates closely with such evolutionary approach to general human development.³ Dąbrowski, considered the founder of gifted education, understands personal crises as necessary disintegrative processes that are productive and ultimately positive. Personal developmental potential stages crises marked by intense anxieties and depressions. Those conditions trigger questioning of all values and former basis of identification via productive self-examination and self-reflection and resulting in personal growth. Personal transformations are possible, of course, only if the most immediate and vital personal concerns, such as basic physical survival, are protected. Viewed through this lens, historical self-reflection of our social evolution is a necessary step in the re-definition and re-vitalization of our humanity. Analogies with Dąbrowski’s theory present a critical warning to us as we address the modern global crisis. The bare minimum of our social transformation rests on the vital precondition that our physical survival cannot be threatened by devastation of natural resources and the nuclear or biological wars.

2. Historical Overview

2.1. The Decline of Rome

Looking back at the decline of the Roman superpower and the fall of the Western part of its Empire, we find that it has been viewed through the historical prism of many different socio-historical theories. They typically differ in the amount of stress they put on a particular cause. Taken together, these historical theories add up to a series of such causes, whose cumulative effect is our best estimate of the reason for the Roman fall. The issue and example of Rome are, of course, enormous. However, the correlation between that empire and the military-corporate complex of the U.S. led Western imperium is dramatic. Besides the fact that socio-cultural structures of Rome served as the foundational basis for the modern Western institutional system, the parallels are there in terms of the dominant culture, technology, military force, and civilizational project. It is not my intent to prophesy here the doom of our modern empire but to bring out historical examples in order to point to the necessity of the modern empire’s transformation and to call for the re-definition and re-direction of its multiple resources for the greater humanity’s well-being.

During its peak in the 1st and 2nd century CE and the decline in the 4th and 5th century, Rome overextended itself into Europe, North Africa, and deep into western Asia. It got progressively more complex, rigid in control, less creative, requiring more bureaucracy to run the system, extracting more energy and enforcing increased taxation. The last two centuries brought disintegration of Rome’s political, economic, military, and social institutions; ever-increasing need for massive energy to sustain the empire; and barbarian invasions coupled with internal usurpations. Crisis of the Third Century led into the centuries of decline and included the convergence of invasion, civil war, plague, and economic depression. Romans solved the problem of the shortage of energy, such as labor force, grains, and metals by conquering their neighbors to appropriate their energy resources. That is, however, only a short term solution that worsens the overall conditions over time and creates more complicated problems of maintaining ever-greater structures of military, judicial, and communication control. Added to these came the problems of environmental degradation by excessive graz-

ing, decline of the overall agricultural output, deforestation, increased irrigation and salinization, and farmer's migrations to the bulging Roman cities.

The Crisis of the Third Century brought about a greater decentralization of the imperial rule. In its aftermath, two emperors usually ruled over different regions resulting in the administrative division between East and West parts. In those terms, the Roman Empire underwent a re-structuring that transformed it into its smaller, Byzantine form; thus continuing, nonetheless, for many centuries and experiencing recovery and a period of remarkable creativity and thriving.

2.2. World War I

For the West, the inheritors of Roman institutional structures and expansionist mindset, on the wings of the Enlightenment, the end of 19th century was marked by the optimistic faith in the progress of humankind and relative time of peace. That can be stated only conditionally, however, on the basis of the fact that particular colonialist power structure has been in order and established by then. The period of colonial expansion, armed by the advents of the Industrial Revolution, from roughly 1500-1800 led to establishing the conquered foreign territories into full fledged European colonies. By the end of the 19th century, the West had instituted its economic, political, and cultural dominion over most of the world. The British spearheaded West energized its empire and fed its exorbitant accumulation by the dramatic resource extraction of human labor and raw materials from its colonies and by the creation of colonial markets for the placement of its products devised by and from those same resources. The Empire's expansionist desires were strengthened by the notions of social Darwinism and sanctified by the self-appointed civilizing mission, whose elevated summery we can find in Rudyard Kipling's 1899 poem, "The White Man's Burden." The spirit of the poem, originally dedicated to the United States to praise its annexation of the Philippines that year, found its motivational and legitimizing counterpart in the American notion of "manifest destiny."

Underneath the elevated spirit of the times, what marks this peak period leading into early 20th century and into the combustion of WW I is the cresting of multiple socio-economic-political tensions. There ensued a great polarization among nations into the technologically advanced and the disadvantaged. Moreover, industrialization in general changed the nature and character of human work, affected the natural environment, and further divided the industrialized nations internally between the rich and the poor. Growing numbers of people were migrating to the urban areas only to become a mass of working class. They lost the security of owning land and became increasingly vulnerable and at the mercy of the industrialists. Lower class protests and revolts were happening both in the urban and the rural areas. Between 1855 and 1861, there were almost 500 peasant uprisings across Europe.⁴ Their acute conditions and destitute grievances turned the peasants' and workers' desperate call for some social reform into a full-scale revolution in Russia.

What exacerbated and sped up these cumulative conditions of unrest was the vicious competition among European powers, whose mindsets were framed by the coupling of nationalism and industrialism, for obtaining and securing colonies throughout the world. Austro-Hungarian and German claim to domination in Eastern Europe, triggered the liberatory impulse in the Austro-Hungarian dominion of Bosnia and resulted in a young Serb assas-

sinating the heir to the Austro-Hungarian throne, Archduke Francis Ferdinand. Accusing neighboring Serbia of its implication in the assassination, Austro-Hungary declared war on it. Clashes along a particular line of geo-political interests created the alliances among Austro-Hungary, Germany, and the Ottoman Empire on one side as the Central Powers, and the Allied forces with Serbia, Belgium, France, Great Britain, and Russia on the other side. The unprecedented losses of this grand scale human-produced disaster seemed to be irresolvable and unstoppable. What tipped the scale in favor of the Allied forces is the decision of the United States to get involved once German submarines started sinking unarmed passenger ships in 1917. The truce in November of 1918 marked not only the cease fire and territorial resolution but also the rise of the United States as the world power and the humiliation of Germany, which will propel mobilization of the Teutonic spirit into the next total war.

Devastation of the spirit, populations, and economies of Europe, both of the Central Powers and the Allied nations, made the U.S. into a great creditor nation. However, the Pyrrhic victory also highlighted the interconnectedness of the U.S. economy to those of the world conditions. Upon the inevitable crash of inflated stock prices in 1929, the U.S. economy came to a devastating standstill, which marked the beginning of the Great Depression to last till the 1940s.

2.3. *World War II*

Only twenty years after WWI, even more devastating war erupted. WW II can be seen as a second wave of the same power struggle that only got amplified over time. Multiple nations got involved along the same lines of division. An unfathomable number of people were killed with decimated populations in concentration camps fueled by discriminatory ideology of purification. All methods of destruction were utilized culminating in the U.S. dropping the atomic bomb on Hiroshima and Nagasaki.

In the aftermath of WW I and humiliating peace terms, the bankrupt Germany with unbearable unemployment was gripped out of paralysis by the commanding spirit of Hitler and the full militarization of the nation through the building of the Nazi party. To mobilize the national spirit for change and to create a unified focus, they used the method of finding a particular culprit for their misfortunes and, through national propaganda, of producing a national enemy. Production of threat for the mobilization of masses has been a known method taken up by the Nazi's to the highest level of ideological sanctification, which backfired and resulted in positing the Nazi party and their leader as the arch epitomes of humanity's enemy. Armed with the self-righteous and highly-charged ideological motivation that dedicated itself to the creation of enormous military power, Germany swiftly ran over numerous countries by sea, air, and land. Such power only provoked über measures of countering and overpowering by the launch of the U.S. atomic bombs on Japan. This mind-boggling display of power generated the spread of the universal fear of the suicidal capacity of humanity.

This period of upheaval and devastation of the two world wars produced an emergence of radical social transformation and the rise of the centralized regime of totalitarianism. Parallel to the rise of totalitarianism in Germany, communist revolutions in Russia post WW I and in China post WW II brought on a massive socio-cultural and econo-political transformation of re-distribution of power and wealth and terms and means of production but with eventually

centralized governing grip and at tremendous costs. Additionally, post WW II period ushered in the anticolonial movement sweeping along multiple locales, bringing in the liberatory sentiment along with the establishment of new conglomerate nations and countries founded on the imperial institutional scaffolding.

3. Summary of Factors

What emerges here is a pattern of unbridled expansions, aggressive military development, and several repeated factors that create societal tensions, eruptions, and break downs. Among them the most prominent are: uneven population growth and their demands between the rich and the poor; rapid development of urban centers; ever-increasing energy demands; environmental damage and depletion done in the process; economic instabilities and the widening wealth accumulation gap; disenfranchising of certain population groups; overextending of complex bureaucratic institutions.

While our observations of the decline and fall of Rome tend to focus on the most immediately dramatic historical facts such as political intrigue and dissention, unbridled power drives and usurpations, Thomas Homer-Dixon focuses rather on what he calls the thermodynamics of empire.⁵ Examining the relationship between the/an empire's complexity and its resilience to crisis, Homer-Dixon points out that larger input of high-quality energy required to maintain complexity reduces resilience. To several stresses such as: population growth, energy, environmental damage, climate change, economic gap between the rich and the poor, he adds two catastrophe multipliers: rising speed and global connectivity of activities, technologies, societies; and an escalating power of small groups to destroy massively. Convergence of stresses creates a synergistic effect and results in synchronous failure.

4. Aftermaths and Outcomes

As we look over the general historical periods: ancient, classical, and modern; and the development of empires through the econo-political revolutions: agricultural, industrial, and modern global communication, we see the increase in the speed and the scale of development, as well as the increase of the connectivity among systems and people. Connectivity can be both beneficial and detrimental however. It can help educate, engage, and mobilize people with unprecedented speed; and yet, it can facilitate the panic-inducing spread of fear and disease.

Most obviously, empires have the greatest unifying and the greatest destructive capacities. While, post World War II, we saw a greater atomization of the imperial territories and the stunning fear of potential human erasure, we also envisioned a greater unification through the formation of the United Nations. The Great Depression brought the reform of American capitalism by Roosevelt. Military-driven inventions spurred by the power competition during the world wars and the Cold War Era spread into everyday consumption and usage by the greater number of civilians. The period engendered a

“Consideration of the environmental issues is inherently intertwined with other aspects of human activity (economic, political, scientific), which will require a thorough transformation of the same.”

greater integration of the other half of humanity, women, into the public sphere as economic-political subjects.

It appears that our challenge is to re-claim, appropriate, and transform the imperial power structures already in place and to unhinge the relationship between the militaristic motivation for invention and their general benefits; that is, to de-militarize our inventions. In other words, our challenge is to envision types and modes of expansion and human unification without the detrimental effects and the damage control in the aftermath of crises those advancements cause. Informing people about and engaging them around the environmental crisis today provides the most unifying platform. The environmental crisis, unfortunately, is itself a product of neglect and abuse of the earlier critical times and governing mentality that guided them and still pervades today. Moreover, consideration of the environmental issues is inherently intertwined with other aspects of human activity (economic, political, scientific), which will require a thorough transformation of the same.

What the critical times addressed earlier direct us to re-evaluate is the effects of evolution versus those of revolution, as well as the question of the roles and responsibilities of leadership – the charismatic figures of great leaders as well as the power of the greater public. Noam Chomsky repeatedly points out that after the Cold War the only counterbalancing force to the Western Empire is the Public. Furthermore, we are realizing that the problem of man-made disasters and natural disasters are increasingly overlapping and entangled. As a bare minimum, the coalescing of multiple stresses needs to be diffused so that their cumulative eroding effect is alleviated. If we want to look for ways of such diffusion, we may want to start by recognizing that the economic crisis of today is not necessarily a world crisis – there are economies that are doing well overall, as well as economies whose underdevelopment may not be a point of pride but has, paradoxically, protected them from collapse. At this stage in which those economies find themselves, it is critical that we choose the course of their development by taking into account that the developed countries do not seem the best models in many ways. However, because unemployment is actually the greatest component of the crisis and most intensely felt in the U.S. and some European countries, it is exactly because of the scope of the U.S. economic-political influence combined with environmental issues that amplifies this historical moment to its critical tipping point. While the power of the modern empire is at its critical point, it is also positioned to recognize the need for its transformation. As Slavoj Žižek points out “We used to say the world needed United States. Today we say, the United States needs the world.”⁶

5. Today

These are not only lessons in history but inherited problems that carry over from a historical event and period onto the next with a cumulative sweep. As inheritors of previous socio-economic-political patterns and the agents of current set of near-sighted decisions, we find ourselves today precariously overextended between warding off imminent harm and alleviating the undercurrent of the long-term accumulated damages. Addressing both currents at the same time will require acting with a set of immediate measures as well as setting in place a set of rules and regulations that would slow down and alter the behaviors and practices that add to the cumulative degrading of peoples and environments.

David Harvey addresses a grave paradox that we are today in a position to have to help the rich and the econo-political decision-makers of the global U.S. led power to preserve the capitalist system and econo-political governing systems from the capitalist themselves running it into the ground in order to be able to evolve through organized transition beyond the capitalist dynamic into an organization more fair to all.⁷ This is an acute issue especially in relation to the land-grabbing in Africa and Latin America. Accumulation and advancement of technological progress are unsustainable exactly because of the paradoxical nature of the capitalist tenets and free market mentality as we have it – affluence is fueled by a self-perpetuating lack; sense of lack and insecurity propels consumption and militarization; ever-increased need for raw material propels expansion and resource grabbing.

6. Systemic Patterns

Multiple and increasing modern pressures involving issues with energy, space, population (especially poor, migrant, young, and urban) have engendered the new discipline of Human Ecology. The discipline focuses on interrelated world conditions and human systems and creates an interdisciplinary field and perspectives for the study of the same. Roy E. Allen points out that its structural components are four quadrants or building blocks of human ecology: a) human populations; b) belief systems; c) social agreements; d) physical environments and resources.⁸ Any institution or organization will find itself at the intersection of these quadrants and for any solution all four will have to be taken into account with careful consideration of each as well as their interrelationship. Outlining a new framework for global sustainability through Human Ecology Economics, Allen enumerates that such an approach includes:

- long-run time perspective
- use of Humanities
- the notion that everything varies and is interdependent
- the emphasis on global systems
- the juxtaposition of sustainability issues with economic issues

The notion of sustainability should be compared to and evaluated with the notion of resilience, as seen in Homer-Dixon. Dennis Meadows issues a warning again by distinguishing between sustainability and resilience as different consequences of the phases of advancement in our growth. Pointing out that we have gone past the possibility of sustainability since the warning publication of *The Limits to Growth*, Meadows asserts that now we have to focus on resilience of what we are left with; that is, damage control rather than proactive initiative.*

I find that the key systemic features that need to be taken into account as we address critical issues are: correlations/correspondences, relationships, paradoxes, and continuum. Addressing any critical issue today, we need to take into account its multifaceted relationship to other aspects of our human condition. We will have to see the correlations between the

“To address any critical issue today, we need to take into account its multifaceted relationship to other aspects of our human condition.”

* Dennis Meadows’s address at the Club of Rome conference “Think Globally, Act Locally,” Bucharest, 2012.

inside/outside and macro/micro aspects of it. In terms of paradoxes, we need to be perceptive and proactive about the counter effects of our inventions, solutions, and initiatives. In their coalescence, we are ultimately and unavoidably lead to the question of the mindsets, motivations and interests, principles and values that inform and guide our historical actions.

6.1. Correlations/Correspondences

In terms of correspondences, the polarization of inside/outside needs to be rethought and transformed. Both distinction aspects of inside/outside and macro/micro are within themselves interrelated. One of the most daunting examples is the problem of trash and it cannot hold the distinction inside/outside. Whether it is trash dumped at the drinking waters of the village of Beranselo in Montenegro, dumped in an underdeveloped country, or thrown out of a car – whichever scope it may be, it boils down to the same problem that the notions of “outside not inside,” and “there and not here” is a matter of mere shuttling. Consciousness and conscientiousness about trash there being a problem here (or vice versa) is of the highest and most urgent order as the new problem of “space junk” is alarmingly reminding us.

From the correspondence between macro and micro scales of human condition, we recognize the connection between personal crisis and the greater societal crisis. The depletion of natural resources is correlated to the energy and spiritual depletion of humans and the epidemics of depression. Additionally, there needs to be a renewed respect for and learning from the micro perspectives of smaller countries, marginalized ethnicities, as well as re-incorporation and adaptation of the traditional ways of being into the modern context. In the increasingly interconnected world, there are no “small” perspectives.

6.2. Paradoxes

As for the paradoxes, the very liberatory promises of capitalism and democracy, and especially their relationship of embeddedness need to be reevaluated. The tenets of capitalism, such as progress, productivity, and competition create opposite tension pulls. Within the notion of prosperity, they create a paradox of the self-perpetuating of lack and scarcity; thus, preempting prosperity promises only to be re-asserted as mere promises on the ever-receding horizon of fulfillment. We are seeing today a tremendous anxiety over the future and personal security coupled with excessive industry of insurance on everything. While we are alerted to start saving for college before our children’s birth, the funds can disappear in a swiping, momentous financial crash. Mega insurance industry is nested within the aleatory environment of finance market set up. The paradox of connectivity has already been pointed out earlier. In the face of multiple systemic paradoxes (obesity through access to more food; greater food productivity through GMO food; greater interdependence through connectivity for example), the self-preservation impulses of many people make them turn to the extremes of indifference or fundamentalism.⁹ On the heels of a socio-political and environmental awareness, we see a paradox of more bureaucratic offices opened to address those issues, which only adds to the overextending complexity of the system.

6.3. Relationships

Relationships among issues as well as methods of addressing them need to be taken into account. There is an immediate relationship with a beneficial long-term effect between population (self) management and women’s capacity to have control over their own body through

the education of women and introduction of self-regulated birth control. Moreover, relationships among agents of change need to be invested into. Who else can be brought into this collective discussion and on what converging terms? How can we appeal to and gather techno-digital wizards, military establishment, spiritual leadership, and corporate philanthropists, for example, at the same table? The appeal to sectorial leadership needs to be on personal terms. At a 2011 economic conference in Budva, Montenegro, the president of a well-known local bank reacted to the call for the re-distribution of wealth and stricter financial policies by exclaiming smugly: “I’m a banker; I am not an altruist!” Granted that they are relationship managers, bankers will have to take into consideration multiple relatedness of running finances as relationships. Negating altruism as a way one relates to others, the banker negated aspects, roles, and responsibilities as well as benefits of being a son, a father, a partner, a member of a community. Such mindset is not a sustainable way of existing as a human – it is impossible to exist in the isolation of one individual function.

If the greatest systemic threat is the convergence of pressures and stresses, than partnerships and coalescing of positive actions and re-vitalizing energies of many activist organization with the existing institutions should be its counterbalance and remedy, through which we do not only alleviate the damaging causes but will certainly experience collective transformation.

6.4. Continuum

Relating all of the above, we have to pay attention to the time / space continuum of problems and solutions, such as the continuity and interrelatedness of the long and short term measures as well as interconnectedness of regions through climate, economic relations, and distance reduction by transportation and information technology. A certain paradox of green development demonstrates that we need to take into account time value in the relationship between product and process. While having cars run on electricity may seem to be an alternative to gas, the long-term problem of the disposability of batteries has to be considered as well.

All of the systemic features of correspondence, relationship, paradox, and continuum are themselves interrelated. They need to be taken into account simultaneously and turned into informative factors to engage public around their decisive roles. To address any issue, we have to address it from the interrelated aspects of that issue’s correlations, continuum, relationships, and paradoxical counterpoints in mind and in action. From these perspectives our priorities change so that, for example, the issue of gay marriage would not be taking so much collective energy when considered from the perspective of relationships needed for collective sustainability. In fact, paradoxically to many who base their argument on the reproductive foundation of marriage, gay relationships might be an alleviation of the population growth problem. As our priorities are re-set under the pressures of multifaceted crisis, we realize that solutions will have to start with greater inclusivity, collaboration, and collective movements in mind.

7. Prompting Questions

In summation and response to the historical looking back and futuristic looking forward, a set of productive questions should be opened.

- Whose crisis is this? Who and what will manage; and can we do without it?
- What and who has to change first?
- Who is the Public? As we take into consideration the distinctions of inside/outside and macro/micro aspects, we will increasingly come to conclusion that there cannot be outsiders and small perspectives in relationship to critical issues.
- Who leads and will lead the change?
- What beliefs, principles, and motives lead us to such change? What are the universal needs and desires to which we can appeal? What kind of values will be renewed and/or invented?
- What is the nature of today's power? What can and will constitute collective power in the future?
- What kind of beliefs does today's econo-political power rely on and what is it energized by?
- What kind of economy? What kind of governance?
- What are the core aspects of general human well-being?

Granted that, as stated earlier, empires have the greatest unifying capacities and the greatest destructive capacities as well, how can we use the institutions in place and forces in power to re-direct their resources to serve not the few but all? Rather than call for the break down of the empire, it seems that a less traumatic and more long-term productive way to go would be to transform it from within.

There is no lack of initiative; rather, the question is of how to channel the initiatives toward the change in a more frontal, co-creative, and comprehensive manner. The collective energies and collective intelligence produced by the Occupy movement, for example, (movement whose wave can be traced in a continuum from the Arabic Spring, to the streets of Spain and Italy, to Wall Street) should be coupled with the legislative capacities of international institutions. How can they be engaged not as antagonistic forces but as co-creative energies, and not for the sake of co-option and protection against social unrest, but rather for social transformation?

To whom can we reach out? Change requires big change in economic and political order, which is met with opposition from powerful and entrenched interest groups. How do we mobilize those groups for change – financial investors, military, corporatocracy? How can we bring in international organization; corporate philanthropists; disillusioned veterans and military leaders; academic organizations keen on serving with socially applied academics; NGO's; digital tech wizards; women, migrants, the young?

If the public is mediatized through social networks and the marketing of consumerism, then that position can be turned around and used for what Gayatri Spivak called “the rearranging of desires” and for the paradoxical reversal of that position into the empowered sense of a consumer's buying power and its negotiation capacity. What is crucial here is individual education on the capacity to self-initiate, however small. That way we are capitalizing on the very premises of entrepreneurial mindset. That way we will be “growing people from reactive consumer to pro-active members.”¹⁰ The change in attitudes is a key factor that can actualize the motto of “small is beautiful” of E. F. Schumacher to counter the consumerist

“bigger is better.”¹¹ Some small economies, such as Montenegro, can be seen as paradoxically “protected” from the collapsing effect of the crisis exactly by its underdevelopment.

The increasing rift between the rich and the poor; the developed and the developing playing the game of catching up should be re-evaluated for its potentially positive aspects in the light of the current crisis. As we take into account the paradox of a developing country with growing economy but with population growth experiencing growing poverty, the question of the direction the developed will take is of the utmost importance. Should they go through the same growing pains and mistakes they are set on by following, or enforced to follow, the developed countries’ example? Is there a possibility of alleviation of conditions from the position of lagging behind? How can uneven industrialization and uneven globalization be used to steer the course rather than to get others to “pick up the speed?”

Can we move beyond continual human re-staging of the human socio-econo-political crises? Can we develop a model of evolution that does not involve grand crises even as it may involve contrasts and struggles but not on a continual and catastrophic scale. Nature itself, inflamed by our own influences, provides a critical reference nudging our organization, preparation, securing, and preserving.

While we recognize that we transform ourselves and develop ourselves through our artefacts and the ways we invent for their production, we will also have to see that it is possible to have no limits to growth not through accumulation but through consciousness and creativity.

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Notes

1. Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011).
2. George Modelski, “Innovation and Evolution in the World Economy,” in *Human Ecology Economics: A New Framework for Global Sustainability*, ed. Roy E. Allen (London: Routledge, 2008), 28.
3. Kazimierz Dąbrowski, *Positive Disintegration* (Boston: Little, Brown and Company, 1964). Kazimierz Dąbrowski, *Personality-shaping through Positive Disintegration* (London: J. & A. Churchill Ltd., 1967). Kazimierz Dąbrowski, Andrzej Kawczak, Michael Marian Piechowski, *Mental Growth through Positive Disintegration* (London: GRYF Publications Ltd., 1970). Kazimierz Dąbrowski, a founding figure in gifted education, laid out his keen observations in several major works of developmental psychology.
4. Gloria K. Fiero, *The Humanistic Tradition: The Early Modern World to the Present* 6th edition (New York City: McGraw Hill, 2011).
5. Thomas Homer-Dixon, *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization* (Washington, D.C.: Island Press, 2006). Homer-Dixon refers to and builds on two key scholarly works. The first one is Joseph Tainter’s work in his *The Collapse of Complex Societies* (1988), which relates the increase in a system’s complexity to the decrease in its resilience. And the second one is the “panarchy theory” of Crawford Holling, the founder of ecological economics, which examines relationships of complexity, potential, and resilience in a system and stresses the importance of creating and maintaining adaptive cycles of the system’s subsystems at different points so as to diffuse the convergence of stresses.
6. Slavoj Žižek, “Signs from the Future,” Subversive Forum: The Future of Europe, Zagreb, May 17, 2012. <http://www.youtube.com/watch?v=pOTufvP9-6U>. Slavoj Žižek, *Living in the End Times* (London: Verso, 2011).
7. David Harvey, *The Enigma of Capital and the Crises of Capitalism* (New York City: Oxford University Press, 2010). David Harvey, *The Limits to Capital* (London: Verso, 2007).
8. Allen, ed., *Human Ecology Economics: A New Framework for Global Sustainability*. Allen points out that as early as 1937 H.G. Wells called for the foundation of Human Ecology in his paper “Work, Wealth, and Happiness of Mankind” published in Harper’s Magazine.
9. Ian H. Angus, *Identity and Justice* (Toronto: University of Toronto Press, 2008).
10. Saša Popović and Ljudmila Popovich “Economics of Dignity: Growing People from Consumers to Members,” *Eruditio* 1, no. 1 (2012) http://www.worldacademy.org/eruditio/files/Issue_1/Eruditio_Issue1.pdf
11. E. F. Schumacher, *Small is Beautiful: A Study of Economics as if People Mattered* (New York City: Harper and Row, 1973)

Panem et Informationem: Toward Inspired Responsibility

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Abstract

Starting by addressing the present global crisis and the issue of how we think, this paper proposes an approach that attends to the vital interests of humanity. International institutional powers and the media aligned with them are steering public discourse about the global crisis predominantly between threat-creating means on the one hand, and distraction, on the other, along the lines of narrowly defined and biased interests. Both tugs, however, vie for public approval – the first by soliciting endorsement for global interventions and the other by appeasing via diversion. As the inhabitants of the developed and trend-setting centers oscillate between mobilization and distraction, the greater part of humanity exists in deprivation of both sustenance and basic understanding of the issues that are decided upon in their name and, most often, at their expense. The global issues at stake are calling for an alteration not only of our material conditions but also, and most importantly, for a transformation of our consciousness which has the capacity to envision and create comprehensive changes. In that name, this paper calls for transformation and redistribution of wisdom, wealth, and well-being by subverting the intimidation-distraction governance pole, starting here from reforming the Roman notion of Bread and Games (panem et circenses) into a call for Bread and Information. Furthermore, the pun effectively brings into the discussion two crucial issues of our times which are critical for our future, those of agriculture and food production on the one hand, and of literacy and information distribution on the other.

1. Between Punishment and Reward: Catastrophizing, Distraction and Slow Violence

The insight offered here is as much a proposal for addressing critical issues at hand as it is a critique of the way we present problems and questions, which does not so much invite an observant response but induces a reaction. The concern at stake is that the notion of crisis (financial and otherwise), planetary catastrophe, and the state of emergency are posited in terms which demand immediate mobilization. Presentment of crises is of such grand scale and wide scope, such general nature that we hear over and over again from academic podiums to newsstands, to pulpits alike (and they do resemble each other increasingly in terms of the fear-inducing methods and threat-creating means) that these are terrible times we live in. This in and of itself presents a crisis and a crisis of possible dialogues, and it seems to be leading to increased and increasingly uneven enforcement of global regulations – a justification for planetary disciplining and monitoring along uneven axes of power and responsibility.

I want to consider representation of crisis as a presentment, to which we are ineluctably summoned, and start from there as a point of departure to see if we can look forward to more hopeful ways of engaging people without threatening them into action. In that sense, this is a call for and toward a change in the way we communicate critical issues. A change is needed in the paradigm of public interaction that has always resorted to inflaming threat and conditioning people to react and act only between the poles of reward or punishment and only to the most explosive issues of the day. Mobilizing people by fear is an act of aggression; repeated catastrophizing about our terrible modernity leads to militantism, panic, despair, or numbness – what Ian Angus has recognized as lapsing into Indifference or resorting to Fundamentalism.¹ Furthermore, focusing primarily and aggressively on critical issues of spectacularly catastrophic events also underestimates and neglects various forms of what Rob Nixon calls “slow violence,”² a gradual and unregistered violence, particularly on the bodies of the poverty-stricken, which has a long term effect and whose detrimental significance is revealed only over time.

“The global issues at stake are calling for an alteration not only of our material conditions but also, and most importantly, for a transformation of our consciousness which has the capacity to envision and create comprehensive changes.”

Starting by addressing the present crisis and the issue of how we think, this assessment subsequently proposes an approach that attends to the vital interests of humanity. International institutional powers and the media aligned with them are steering public discourse about global crisis predominantly between threat-creating means on the one hand, and distraction, on the other, along the lines of narrowly defined and biased interests. Both tugs, however, vie for public approval – the first by soliciting endorsement for global interventions and the other by appeasing via diversion. Most importantly, both pulls are serving predetermined means of engagement thus not only limiting and controlling our capacities to invent and enact multiple and different approaches to the critical issues but also limiting who can actually respond on such preset terms. However, what should be recognized here is the powerful influence of the general public as state apparatuses; governments, political figures, and political alliances are increasingly anxious about public opinion, public exposure, and public backing. Particular stress should be put exactly on such vulnerability of systems of overpowering. Additional encouragement should be given to people to realize their capacities to influence and shape social realities and to self-organize around vital issues. As the inhabitants of the developed and trend-setting centers oscillate between mobilization and distraction, the greater part of humanity exists in deprivation of both sustenance and basic understanding of the issues that are decided upon in their name and, most often, at their expense. The global issues at stake are calling for an alteration not only of our material conditions but also, and most importantly, for a transformation of our consciousness which has the capacity to envision and create comprehensive changes. Such course necessitates an essential change in values and requires the formulation of a new cultural environment based on those changes. In that name, this paper calls for transformation and redistribution of wisdom, wealth, and well-being by sub-

verting the intimidation-distraction governance pole, starting here from reforming the Roman notion of Bread and Games (*panem et circenses*) into a call for Bread and Information.

2. Bread and Information

Re-considered here as common sense and basic needs, Bread and Information are also taken up as aspects of the most critical issues currently at stake. They primarily refer to Agriculture and Literacy (multiple forms of literacy) – bare minimums sustaining us as physical and political bodies respectively. Furthermore, they are vital concerns that share the characteristics and history of slow violence. The consequences of their deficiencies or misuse can be witnessed only after a significant amount of time passes and may be grossly neglected till dire conditions prevail. Together they combine what we know to be the greatest challenge for the future of growing humanity and our environment and what we know to be the greatest innovation of our time. The two have been distinctly marked by the struggle to increase food production in order to accommodate population with basic nutrition that sustains us in the world on the one hand, and the fight for the control over representation that informs our worldview and determines our place in and our relationship to the world, on the other. Both agriculture and information technology have been expanding tremendously with proliferation which has been an advantage and a major challenge. As such, they are the primary domains of our responsibility – to feed people literally and politically in order to provide, support, and build up the basic foundation for equal physical comfort and socio-political growth of each and every human.

Technologies for greater food production have been radically developed to maximize yields. We have been able to provide never-seen-before amounts and varieties of foods. However, hunger is still devastating populations even in the countries which are able to feed their own. Paradoxically, the type of food provided in the developed countries has gone full circle from the outburst of the modified and heavily processed to the much demanded return of the organically grown, thus bringing the nutritional awareness of the developed economies closer to the traditional necessities of the smaller, underdeveloped markets. Conversely, as the evergrowing speed of information sharing is dramatically increasing, so is the gap between the literate and illiterate both in traditional as well as in the new technological terms. However, the new technologies have multiple capacities to actually bring up the illiterate to current pace much faster than ever before because of their interactive and powerful audio-visual nature. The challenge here is the accessibility and affordability of the hardware, software, and services as well as the channeling of the information (learning what and how to read selectively and with particular focus) so as to manage potential blurring and overload. Furthermore, information technology if made even more widely accessible has the capacity to increase knowledge exchange not only by connecting certified experts from all over the globe but also, and particularly, by training the poverty-stricken to share their survival strategies and we have yet to recognize and learn from their ingenuity. By raising awareness both about forms of literacy necessary and about forms of food production demanded, the intent here is neither to threaten nor to divert but to seek out ways of inviting action from a safe and informed place. What is sought here with the optimistic appraisal of the capacities of both agricultural and informational technologies is inspiration via information rather than intervention; neither assertion nor distraction but attraction.

3. Reconfiguring the Language, Rearranging Desires

Toward such hopeful responsibility we begin by reassessing our own positions as researchers, thinkers, experts, and activists. The concern here is of epistemological nature and deals with the ways we construct our objects of knowledge; as such, it is attentive to a series of initial questions. Do we present and stage crisis in certain ways so as to amplify a sense of urgency and posit ourselves as the solution-bearers, a redemptive intellectual force? Is this a cognitive bias? To what extent do we do this? Do we take into account that creative thinkers bring about crisis as a critical point of creation? How do we, then, precipitate the critical point for re-creation? How do we re-think about crisis as a contrast stimulating positive and creative engagement? How do we inform but not inundate? How can we understand our own position within systems of knowledge which condition our ways of thinking about the world? In other words, how are we participating in staging and invoking crisis because we operate within dominant systems which have determined our relation to it already?

“When we catastrophize in our speeches and our research, aren’t we acting in sensational ways? Aren’t we amplifying tremendously a sense of doom? Aren’t we reproducing the apocalyptic narrative much like the institutionalized religions in order to terrify people into expansion?”

Crises need to be rethought and re-focused from a breaking point and emergency to a turning at which we realize that recoveries, regenerations, and reinventions hinge upon and start from the attitude which we choose now. At the shrill call for attention, can we respond without inducing panic attacks, depression, and resignation that will only exacerbate problems in the long term? The other side of crisis is to be considered as that which creativity stages and brings about and has the potential to open up spaces for stimulated ingenuity. When we catastrophize in our speeches and our research, aren’t we acting in sensational ways? Aren’t we amplifying tremendously a sense of doom? Aren’t we reproducing the apocalyptic narrative much like the institutionalized religions in order to terrify people into expansion? Such sense of threat only increases the need for greater surveillance, greater consumption and resource-grabbing in the developed countries and pillaging of the struggling countries of the South, which have been treated as the global dumping-ground. Further, such presentments bring about a conception of environmentalism which dictates and purifies along the axis of power again; greater gated-community construction; and an overall depletion of spirit. How do we balance such representational violence by expanding ways in which we register and address different aspects and forms of aggression such as “slow violence,” the less perceptible but long-term devastations?

During the Cold War tension, Martin Luther King spoke of it as the time of guided missiles and misguided men. In our contemporary moment, we can, quite similarly, end up with numerous means, strategies, resources, and technologies, but without guiding people in the complexities, paradoxes, and consequences of their beliefs that in turn determine the use of those means, we can end up with hit and miss outcomes, haphazard and detrimental results,

as well as accidental and short-lived celebrations, pyrrhic victories. I find in education, particularly in the interdisciplinary training in critical skills which Humanities can offer, the key component and a powerful means of engaging people and inspiring their action regarding planetary concerns. In the modern abundance of fast-flowing information, we find the following issues affecting possibilities of general public engagement and activism: the questions of the direction of the flow, the control and the dissemination of, and the access to information. The goal is to create a dramatically greater access to information worldwide, open up multidirectional channels of information flow, and multiply democratic means of informing. All this is intended to evolve further the awareness of humanity about the hindrances as well as possibilities of its growth and expansion. The means are meant to be educating and informing without terrorizing because we cannot terrify anybody into expansion, and the goal is individual expansion rather than extension of global control – expansion rather than coercion which has a short-term effect and only results in having to re-invent means of mere damage control in the long run.

How can we globally ensure that information about individual rights and responsibilities is disseminated in ways that introduce and circulate new perspectives of understanding and also develop social systems that can support individual decision-making? Human needs and desires are the most powerful drivers and we know that we inherently desire ever-greater things. Along those lines, Gayatri Spivak calls for the uncoercive re-arranging of desires³ as a way of re-directing our focuses on the most critical concerns of global well-being. Of utmost importance here would be to develop means of recognizing what is critical to one in relationship to another on all levels of social organizing. Then, we create multiple alignments of our human preoccupations and needs and invest personal energies in the understanding of the interconnectedness and interdependence of our microecologies, supporting them by thusly-conceived action toward greater good for a greater number of people. By re-focusing the desires of the people toward well-being in all aspects of their human condition, which is of intrinsically relational and social nature, rather than amassing and hoarding only the material, we would have people and communities coalesce around commonalities and values they are willing to work and stand up for.

Spivak points out that only capital and information globalize – everything else is damage control.⁴ Into what will we invest our capital then? About what will we be informing? It seems that we should start from putting capital in informing about the ways in which capital and consumerism have been directed so far and got us here, for the sake of broadening and developing critical perspectives, intellectual and innovative resources, and action-propelling awareness.

4. Deconstructing Control, Deactivating Crisis

Every regime, state control apparatus, and indoctrinating system always has within it the mechanism of its own deconstruction and deactivation. They are forced to face their systemic insufficiency and instances of impotence at the very moment of their greatest exertion of power. That is when they are at their most critical – they find out that controlling people can only go so far until it produces a counter reaction. We have been learning in the neoliberal, capitalist societies that rather than enforce direct control the most efficient means of controlling becomes indulging certain desires or creating desires (marketing systems are ex-

perts that way). Understanding this, we can start from creating new and different desires which are already present in human potential. The greatest power lies not in controlling others into submission to one's will but in gathering, motivating, and being awarded people's support and following of their own inspired volition. Liberalism would then create conditions, actualize itself that is, for the quickening of the self-governing capabilities of individuals.⁵ Liberalism is thus not an eradication of control but reconfiguration, redistribution, and transfer of power. The question of control in governance is not necessarily relinquished especially as it is the underpinning logic of organization at multiple levels of social organizational scales. And yet, control as governing conduct and action can be re-directed, reformed, re-envisioned so they can stem from the volition and self-directing of the very socio-political subjects in the social structures they inhabit. With such internalization of social authority and the knowledge that the sharing individual is a happier individual, with a deeply seated need for community (sharing in communication and communion – partaking of bread and information), we can re-focus people's desires toward means which will support both their need to connect and share and their will to self-motivated decision and action.

"How is it that the index of national happiness happens to be the highest in what we thought were under or undeveloped countries?"

Crises as critical points of decision-making may never be eradicated. But much like control of the exerted power, they have within them a possibility of their alleviation and refinement of solutions. We can choose our battles wiser indeed; we can transform crises into contrasts that give rise to inspired rather than desperate decision-making. Most importantly, we can choose what kind of mentality, attitude, and mindset we can apply in times of crises so as to alleviate the anguish and proceed with reinvigorated stamina and recharged motivation. We choose in our personal lives and organizational appointments the kind of intellectual and emotional attitude to engage around crises so as to model them and allow them to creatively reverberate with and resonate into the public spheres we are attempting to influence. Contrast, likewise, is a valuable means of discernment; it causes us to define our aspirations. Human spirit is capable of replenishment as well as achieving greatest feats out of greatest despair.

5. Poverty-Stricken, not Poor: From Struggle to Ingenuity

People who are on the margins are, in fact, the ones who are at this very moment out of their contrast and disadvantage shouting high-pitched calls and creating most resolute and specific desires that will be the compelling energy setting future courses. In terms of catastrophizing, it is fascinating to examine the film industries of the privileged countries as representational indicators of social conditions and cultural climates. Catastrophic films predominantly come from developed countries, who can afford to indulge in fantasizing about grand events that would shake them up and revive the intensity of life. Filmic stories of inspiration and hope largely come from the places of challenge and struggle. People who face catastrophes in actuality happen to learn how to savor and value life one day at a time. How is it that the index of national happiness happens to be the highest in what we thought were under or undeveloped countries – what is there to be learned from what to us appears as their demise? What is it in the developed countries that ultimately causes the depletion of excitement and exhilaration and becomes an epidemic of depression, such as in the U.S.

which has positioned itself as the global uber-power? What is there to be learned in exchange of perspectives and reconfiguration of the basis of wisdom, wealth, and well-being?

Index of national happiness can be significantly high in certain countries of Africa, while the continent has long been an actual and symbolic repository, dumping ground, and experimental arena of the colonizers and modern neo-colonizers of all sorts. It has also been a favorite humanitarian project. Whether by disparaging its development or by aiding it, oftentimes in pursuit of our own redemptive role of “self-appointed moral entrepreneurs,”* Africa has been repeatedly patronized, abused, and degraded. What is necessary is support in empathy and cooperation in reciprocity at multiple levels. The ones that are in need of support should be approached with respect and acknowledgement of their intrinsic dignity – that they are there in a co-creative manner and that there are invaluable understandings they have acquired in their times of need. By increasing and evolving re-distribution of knowledge, power, wealth and well-being, we open up multiple pathways of learning among different worldviews, among different parts of the world, and among our own internal aspects. Sheer survival drive makes virtue out of necessity and triggers ingenuity; it keeps it on its toes to pulse vitally in times of critical need, struggle, and strife. The ones on the margins thus compensate for the lack of political say and power by developing inventive survival strategies and tremendous creativity.

Historical examples that continue to change the world come from the women’s struggle for equality and their existential resilience; from the political and cultural heritage of Black Americans; from the adaptive capacities of immigrants; from the worldviews of interconnectedness and spiritual imperatives of Native Americans, to name just a few. The creative magnitude of the Aborigine or the Inuit, for example, is yet to be recognized along with the terrible injustices and harms done to them, by which we shorthand and undercut ourselves in the long run. Furthermore, incorporation of the traditional knowledge and resourcefulness into new advents and discoveries is energized from the marginalized perspectives, which afford a greater picture and instill empathy. It should be our basic human responsibility to support fellow humans in their growth if for nothing else other than for the purpose of bringing in, consulting, and benefiting from the multitude of capacities, skills, inventiveness that would come from so much human potential that remains or is kept uncommunicated, undeveloped and undernourished. The sense of global crises is, in fact, exposing such neglect but also revealing the need and possibility to expand and honor everyone’s contribution because humanity’s future and our individual fulfillment depend on the greater collective state of being. The role of crisis should be evaluated in the greater scheme of human social evolution – while crisis causes ruptures it can also create break-throughs. It is in the hopes of transforming critical destruction into creative deconstruction that we recognize that what constrains, limits, and pressures it also gives a point of departure, a platform and contrasting springboard from which more refined desires, visions, and ingenuity can be initiated. How can we then re-configure crisis into contrast that gives impetus for change and action and thus soften its hard edges? Both ingenious creativity and solidarity arise and greater possibility for self-determination is spurred in times of crisis. How can we focus on those and maximize them? How can we understand and expand through contrast without detrimental and stunted suffering?

* Gayatri Spivak’s phrase.

6. Ideals, Global Governance, and Governmentality

While the call for Bread and Information is the call for the basic needs for everyone, it might appear idealizing even though it is pressingly achievable. Just as we are not able to dispense of certain forms of control and governance, we cannot afford to evacuate ideals. Between the poles of idealization and conspiracy, we need to create a way of thinking that actually utilizes their means and goes beyond both of them. The question of governance is redirected here to governmentality,* redefined as the governing mentality that needs to be transformed, as well as transfer and re-distribution of power. Re-focusing and re-defining governmentality on very personal terms would transfer means of governance, in fact, to the greatest possible number of individuals. This would be a re-arranged and re-thought individualism that recognizes that the self is more than one. This is the individualism which validates the individual as a unique perspective, a participating observer, and a co-creator whose well-being resides in sharing of the self and the world. At this turning point we decide what kind of ideal to aspire to and our intentions need to be pitched resolutely higher and significantly broader.

To understand the place where we find ourselves now, we should examine systems of governance and global engagement that are already in place. With hopeful guidance on the one hand, we should invest in informing about numerous organizations already in place which offer multiple means of humanitarian and activist engagement in the world and strive for their greater collaboration. Granted that they are put in place of having to vie for their respective funding and support, creating partnerships and associations among numerous such organizations would alleviate their competitive attitudes, fragmentation of involvement, and limitation of outreach. Particular focus should be put on and extra support should be given to informing smaller struggling communities across the globe about self-organizing and starting their own local humanitarian and self-help endeavors and resources. With vigilant evaluation, on the other hand, we should inform about the organizations of global governance and their intended purposes already set in place (such as UN Security Council, The International Criminal Court, The International Banking System, The Bank for International Settlement, The International Organization of Securities Commissions, and The World Economic Forum for example) that have been steering the course of global trends. The question of what should be done in the world and for the good of greater humanity has to be evaluated in relationship to such institutions and to the means and modes of their operation already mobilized.

How can institutions of intellectual eminence use the resources, the means, and the strategies of these organizations in order to steer, turn, and transform that which we, as critical observers at this critical point, see as detrimental turns? These overarching organizations make claims to human rights, democracy, welfare, and international justice in whose name they assert their function. How can we take up these heavily laden claims at what they have produced in action along with what the ideological underpinnings of their application have been in the world? In that attempt, we may have to turn our critical eye on our own critical speak as we take into account our privileges and our intellectual capital invested in institutions of power. What kind of knowledge are we producing? What kind of action are we suggesting so that we are not increasing control and enforcing measures but are rather working for greater democratization, dissemination of knowledge, and inspired action generated by

* Michel Foucault's term; translation of the French *gouvernementalité*.

the voluntary movement of people and their ideas? What is necessary is recognition of one's own politico-cultural habitus while taking into account the mentality and interests of others as we lean toward self-governing individuals who are supported by the transfer of power from the institutional regulations toward personal responsibility. How can we relate to, learn from, compliment, re-direct, and remedy means of global governance already put in place in ways in which we can generate forms of global governmentality that are not constituted by threat, coercion, and overpowering? While the idea and logic of global unification arise amidst a series of self-serving politico-economic moves and trends, they are simultaneously motivated by our increasing desire for greater connectivity, universal bonding, equality and mutual affirmation.

7. Food for Thought

Forms of governance and institutional control will persist but also continue to evolve. The impulse to control others stems from our belief that we would secure something by such means, and it goes hand in hand with our shared desire to control our lives and destiny. Now, that desire needs to be transfigured into desire toward greater individual freedom and belief in our greater collectivity as intertwined and mutually dependent rather than oppositional. Human explorations continue regardless of regulations and ethical debates that accompany them – ethical debates, in fact, will be lagging and will have to catch up with inventions, discoveries, and advances of bio-sci-techno explorations. Our desire for expansion is insatiable and limitless and, as such, will always take precedence over our dilemmas of their moral validity. In fact, they are always undertaken under the basic premise and belief that we will be better off, in one way or another, if we pursue them. As such, bio-sci-techno explorations and expansion will always be underpinned by amoral reasoning (not moral or immoral) presented rather as purified research and it will be up to us to decide daily and individually how we position our beliefs and our attitudes, our lives in relation to them. We will be imbuing them with significance of general good or threat. The question will remain to be debated for what good and purpose and for whose benefit and use. Thus, informing people about the consequences along with possibilities becomes crucial in support of benevolent individual decision-making about the use of available means and creation of future desires.

Bread and information are, in terms of control and expansion, both critical and promising. To secure sustenance for everyone, agricultural production faces a series of concatenated challenges. Agriculture emits more gas pollution than the entire industrial sector does while it also takes most of the earth's water. Pollution, agri waste, oil and water usage that are sucking up rivers and lakes are the most exhausting aspects of it. And yet, we have not exhausted farming soil, which with re-thought planning and re-distributing of pastures and farmlands can open more, new, as well as innovative farming spaces. What is required is a cooperative forum of conventional farmers, organic production advocates, farmers, ecological experts, and nutritionists. Our agriculture will also have to re-connect with nature in order to re-discover the bioeconomy of the natural world and focus on processes of symbiosis, bio-recycling and re-use of waste that occur in nature. Fuel substitutes for oil and alternative energy sources are already being considered and explored, while urban planning and de-forestation need to be re-considered in cooperation with farmers. New innovative branches of agriculture such as permaculture, hydroponics, and aquaponics have been developing and need greater investments and broader applications. It is exactly smaller and struggling countries that have

been pioneering projects emerging from the research and experimentation with innovative and integrated food and shelter production.

While we face challenges with the production of food, we are increasingly concerned with the consumption side of information. In terms of effective education and information dissemination, the information influx and diversity of informational modes only increase. The important question here is then: What kind of readers in the general sense and observant participators are we and are we going to be? This is a simultaneously methodological and an ethical question as we keep deciding on what is important to read, what is readable by the greatest number of people, how to read and for what purpose. In that sense, we need to be preoccupied with information nutrition in terms of its variety and quality. On both sides of the issues, we need to disseminate greater quality information regarding possibilities of changing our food demands and improving our nutrition, while we need to treat information as our mind food and demand greater variety of quality representational material.

Granted that creative industries are the leading-edge and ground-breaking activities, greater investments in quality independent, informative, and inspired filmmaking and information technologies should be made. As people have discovered tremendous possibilities for global outreach and socio-political activism through social networking, it should be made available to as many people as possible. Internet access could be effectively provided via open community centers everywhere; investments should be made in creation and wide-distribution of free software. Providing a greater sense of safety, mobile phones equipped with cameras have been instrumental in recording injustices and informal testimonies of personal histories, which, posted and circulated on the internet, have been rallying people internationally around their shared sense of wrong-doing and need for empathic engagement. An organization and a program called “Witness” has been active globally to provide people with cameras so that they would be able to record struggle, expose injustice and suffering and disseminate that information internationally. Moreover, greater and more democratic access to publishing is already being explored and provided via the internet. As digital technology increases possibility for greater global supervision, it should also be used to its greatest democratic capacity by everyone to counter the vigilance of authoritarian surveillance.

Continued popularization of science will raise the awareness about scientific findings which give a resolutely more hopeful vision of our world while calling for greater responsibility for our actions and our thoughts in the world. Our re-discovered knowledge about entanglement and interconnectedness in the participatory universe in which nothing stands still and nothing is really wasted, brings about increasingly overlapping realizations and shared affinities between mystical spirituality and leading-edge science. By narrowing those gaps of beliefs, we can ensure reaching out to a greater number of people by ennobling scientific research with spiritual values while transforming and modernizing religious sentiments with scientific grounding. Gnome project discoveries of our genetic encoding will be playing a significant role in opening up our ethno-racial narrow-mindedness. This research will make us reconsider notions of ethno-racial purity and “natural” antagonism; it will make warring sides reconsider their stereotyping, which capitalize on the nationalist politics of pure blood ties. In our continued research, we are repeatedly validating a multitude of traditional beliefs and views right along with ground-breaking discoveries. Rather than work by renunciation of the old and the traditional, they should be brought into the fold of scientific research and

called upon in our attempts to engage more people and wider range of cultures into the most current human inquiries. Different cultural practices have the capacity to re-invigorate our meticulous explorations with intuitive knowledge and visions which resonate with general human needs shared across cultural and generational divides. Thus untapped local knowledge and ingenuity would inform and inspire organizations with greater scope of influence; and people would be the technologically empowered recorders of cultural heritage and knowledge, be historical witnesses and more individualized.

In terms of our intellectual heritage, along with the scientific and spiritual knowledge, we should bring forward and out the most current discussions in Philosophy and Critical Theory on possibilities of political activism, ethics and community, love, life forms, and animals, to name just a few. Thus, we would be demystifying philosophy without taking away the intricacies and refinement of critical discourse within the proper context. Toward that, Humanities and Aesthetic Education would have to be rescued from increased budget cutting. Humanities as an interdisciplinary field tracking, questioning, and evaluating the overall trajectory of human development (our conditions and accomplishments) is instrumental for developing our scrupulously critical reading skills while keeping in sight a more comprehensive, bigger picture. As such, it increases our capacity not only to appreciate finer human achievements but also to read into agendas and ideologies (something not confined just to the darker sides of our past), that may be currently shaping our lives and might not be in actual alignment with our best long-term interests. Proliferation and speeding up of information are evident and inevitable; the new critical literacy will be even more demanding as we keep sifting carefully through the influx of information. Regarding questions of how we will read, interpret, and utilize information, we realize that limits to our reading skills are thus limits to our capacity to strategize, predict, and envision. We need to address currently the detrimental sides to capitalism and globalizing capital whose logic exclusively focuses on productivity, consumerism, returns and gains. Critical skills and interdisciplinarity of the kind Humanities and Aesthetic Education can afford will have the capacity to counter, alleviate, and transform such logic from within. To do so will require a community of interpreters.

Information as a means for framing minds and mindsets in ways that dispel dogmatic and propagandistic tendencies and lead toward critical engagement with self and the world should be approached from a tremendously powerful understanding that what we know we cannot unknow – once exposed to information which makes us create powerful connections in understanding we cannot undo that kind of informational command, we can only transform that knowledge further. There is the potential for hope, whereby information and education are seen and applied as dynamic means of the continual processes of becoming. What is critical here is the uneven access to diverse technologies and methodologies of literacy, education, and information. To introduce and bring up to speed the marginalized and the exploited with the discussions that are ongoing socially, technologically, scientifically and in ways in which they are readable, understandable to them while ennobling to others, we need to re-invent storytelling. Personal and collective accounts in storytelling, the ancient and most empathically effective means of communication, are a form of activism in itself through which we need to revive communities of storytellers as historical witnesses and conduits of living knowledge.

Our knowledge will need to engage multiple intelligences in an intercultural, interdisciplinary, and intermediary fashion. We need to nourish critical skills that will activate and

cultivate multidirectional thinking and perception along with greater conscious awareness, already present potential within us, that our thoughts and beliefs precede action and inform ourselves, our place in the world, and the world we inhabit.

In a robust public life, – democratic in unifying without uniformity – motivation for reform and transformation is prompted when people feel that they are emotionally invested in them; when they feel that they can initiate and direct those changes. While this is intended in part to educate and empower the marginalized and the violated, it is also meant to give dignity back to them. They would see themselves as and recognized as invaluable human presences who are contributing to humanity from their own disadvantaged circumstantial positions but through advantageous perspectives and feedback. Simultaneously, this is to inform, sensitize, and guide those who are in power in order to show them that if they are depleting locales, economies, people and opportunities without careful consideration for the well-being of others, they are depleting their own humanity which cannot exist in the long run in the cliquish and elitist context they are attempting to create and preserve. They are positioned in the intersecting spaces of marginalization and elitism along different lines of our existence. Our work would be to recognize our vulnerabilities along with our privileges; our sense of injustice right along with our own complicities with power structures. Continual and varied exposures to different perspectives, personal accounts and testimonies are crucial in recognizing our positions in the greater scheme of global social organizations as well as possibilities of serving from within for the greater collective good.

“A greater number of us are positioned in the intersecting spaces of marginalization and elitism along different lines of our existence.”

“It is hopeful visions of consciousness expansion that guide our material, physical, environmental, technological, and scientific growth.”

With multiplicity of perspectives and diversification of means we are changing the rationale and motivation for choices we make in every aspect of our human condition by tapping into our intrinsic desire for betterment (first to reach out for feeling better from the condition in which we find ourselves and then to work on bettering oneself from and out of given circumstances). Providing the basic prerequisites to increase the capacity of people for self-determination and self-guided decision making, we need to engage solidarity and support in empathy and recognition and cooperation in reciprocity – the very measures of our magnitude and magnanimity. We have to believe in our visions not as controlling doers, activists, saviors but as insightful co-creators – this simultaneously redistributes responsibility while it acknowledges the dignity and contribution of many deemed hopeless. In the multifaceted capacities all we have is the future of our opening up and out. Our development in all aspects of our humanity – physical, emotional, psychological, intellectual, intuitive, spiritual – is where we are going for the emergence of a more whole human being. The internal multiplicity, diversity, and multifaceted capacity of such a human being are to be actualized in the interconnected network of our microecologies.

In the light of the critical issues presented here for consideration, the particular alliance between WAAS and Club of Rome could see us through Limits to Growth to the vision already put forth of the Limitless Growth.⁶ It is hopeful visions of consciousness expansion that guide our material, physical, environmental, technological, and scientific growth; while these very advances, in turn, have already propelled the refinement of our needs and desires for a transformation of consciousness. Every human takes pride and gets a sense of self-esteem not only in our ability to produce but particularly in our capacity to create. In that respect, our recognition that we live in a participatory universe will have at least two-fold immediate effect – simultaneously our hopeful recognition that we can change, replenish, regenerate things and our acceptance of even greater, more immediate and intimate responsibility in the re-creation and re-invention of ourselves and our circumstances. M. L. King insightfully pointed out that it is our greatest fear to recognize how powerful we are because while it empowers us it also bestows on us a greater sense of responsibility. We are, then, to instill hope; to infuse belief in the capacity and conscious contribution of every single one of us just as we find ourselves right now in our immediate circumstances; and to invoke a sense of responsibility toward hopeful growth of re-distributed wisdom, wealth, and well-being.

In the participatory universe, we know that we give our attention to ultimately what we face around us in response to and confirmation of that which we infused with our intention, energy, and belief. We hear repeated complaints that we live in utterly skeptical times where people are lost and unable to subscribe to spiritual belief or they resort to blind and unexamined following of monolithic religious institutions. If truly perceptive faith (observant neither in renunciation nor in submission but in its higher critical appreciation) is to be engendered, it is to be renewed and transformed by belief in the human potential and our intrinsic desire not only for more but also for the better across any divides we might have constructed along the way. How can we cultivate in ourselves, in others, and in the way we relate to others belief in the evolving well-being and a sense of greater safety and connectedness while refining all resources for the betterment of our individual condition as it intertwines with our collective? Toward such sense of responsible interconnectedness, continued transformational education leads by fine-tuning us into sympathetic vibration. Such vision traces our individual growth from the struggling survivors to political subjects to self-governing individuals, and into the co-creators as we rise along the consciousness scale of our own capacities and responsibilities to ourselves, each other, our planet and beyond.

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Notes

1. Ian Angus, *Identity and Justice* (Toronto: University of Toronto Press, 2008)
2. Rob Nixon, *Slow Violence and the Environmentalism of the Poor* (Cambridge: Harvard University Press, 2011)
3. Gayatri Spivak, *An Aesthetic Education in the Era of Globalization* (Cambridge: Harvard University Press, 2012)
4. Ibid.
5. Nikolas Rose, *Inventing Ourselves: Psychology, Power, and Personhood* (Cambridge: Cambridge University Press, 1996). Rose astutely observes that individual autonomy is not antithetical to political power; rather, it is the object and the instrument of modern governmentality.
6. Garry Jacobs and Ivo Šlaus, "From Limits to Growth to Limitless Growth," *Cadmus* 1, no. 4 (2012): 59-76

The Dialectic of Change*

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Abstract

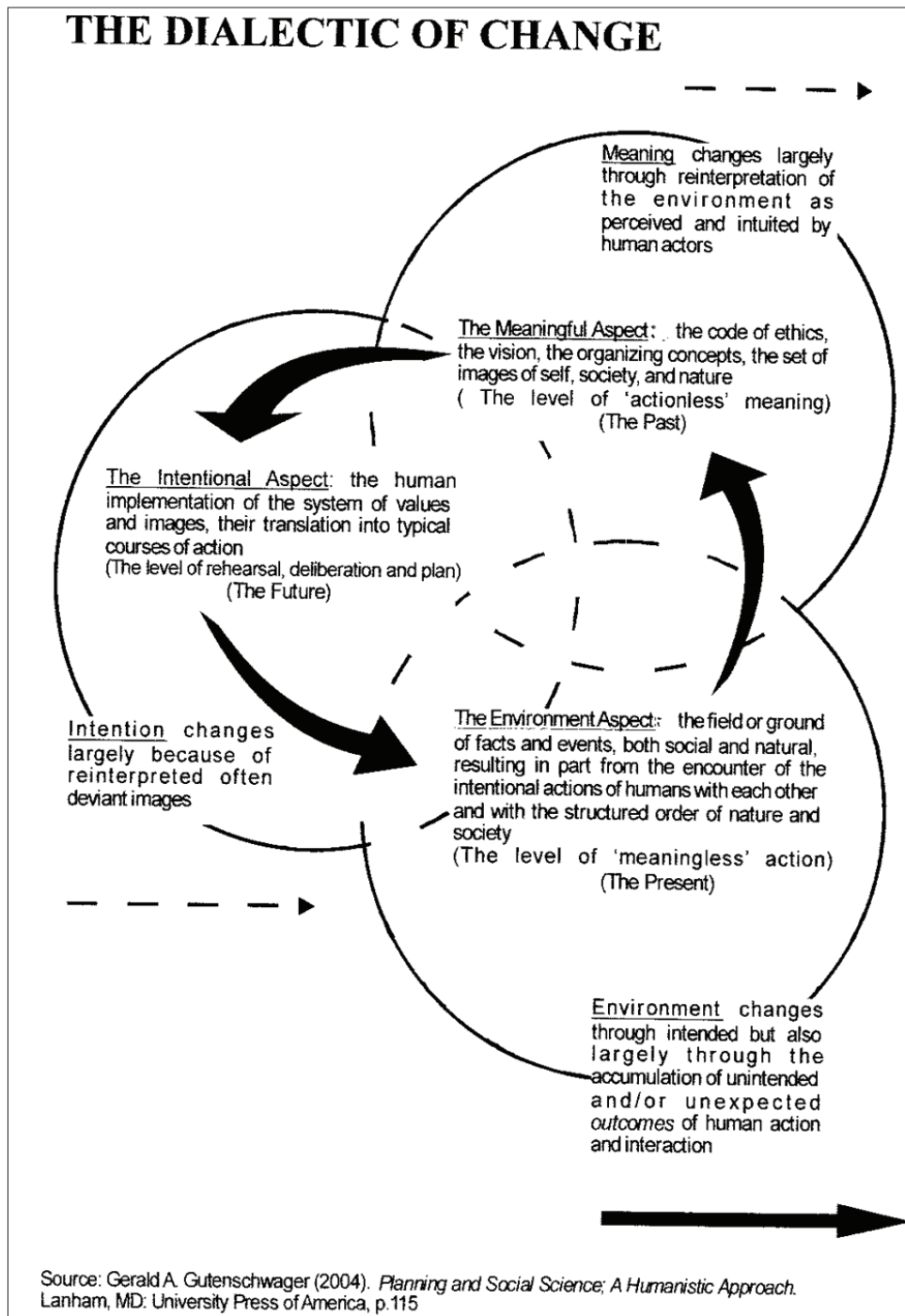
The dialectic between opposing forces or ideas takes many forms, but always implies a resolution into some new form or synthesis, as Hegel refers to it. Not all conflict situations, however, are necessarily dialectic, as they may sometimes result in the total destruction of one or both sides of the conflict. The dialectic, when appropriate, is a useful way of understanding the idea of a constantly changing or emerging reality as understood by the new biology. Examples of the dialectic can be seen in McNeil's history of infectious diseases, in Kuhn's history of paradigm change in the natural sciences and in Berger and Luckmann's idea of a dialectically or socially constructed (social) reality, something echoed in quantum physics' discovery that the scientist's observation alters the physical reality under study. The current economic crisis can be understood within this broad dialectical framework, and can even best be seen as reflecting a broader social and cultural crisis. The subjective side of this crisis consists of the prevailing paradigmatic social science ideas and the philosophical (ontological and epistemological) assumptions underlying them, while the objective side is the severe cultural and economic crisis recorded in all the statistics that are tracking it. Resolving this crisis requires that we deal with both sides of the dialectic as we search for a new synthesis.

1. Introduction

It would appear that the dialectic between opposites is a universal law of nature. Heraclitus spoke of it metaphorically as "war, the father of all things", which when combined with his phrase that "all things flow or change" suggests that the dialectic is a continuously evolving process in nature, which is, therefore, ever emerging. Quantum physics (Nadeau and Kafatos 1999) uses the term 'complementarity', which is the dialectic relationship between the wave and the particle that can never be observed or tested jointly without altering their attributes, but which together constitute the totality of the universe. The Chinese express it with the Yin and Yang symbol, each side incorporating the other. Toynbee spoke of it as 'challenge and response', the tendency of societies to change in response to challenges from their environment. Hegel believed it to be the essence of society as a never-ending process of thesis-antithesis-synthesis, where the conflict between two opposites is dissolved in a new reality. For him the social dialectic was an interchange between the ideal and the real or practical. In his dialectic the ideal provided the challenge, whereas for Marx it was the practical or material reality that stimulated the changes in the ideas governing any given period in history.

* Background paper for the World Academy of Art & Science and Library of Alexandria organised Workshop, "Opportunities & Challenges for the 21st Century – Need for a New Paradigm," in Egypt on June 5 & 6, 2013

Figure 1: The Dialectic of Change



In cybernetics it can be seen in the feedback process, which corrects or balances the workings of any given mechanism, whereas for Aristotle it was the never-ending search for the “golden mean” in a process that would require first experiencing or at least knowing the extremes before the mean could be realized. It might also be seen (see Figure 1) as the never-ending dialectic between what you remember from your past and what you are able to predict about any given situation you might encounter (Gazzaniga 2008, p. 368).

For Isaiah Berlin it was the never-ending danger that the liberating ideas of one historical period would become “suffocating straightjackets” in the next, thus hindering the ever-emerging reality that characterizes our biological existence. In other words, we must learn to recycle our ideas in the social realm even as we are now learning to recycle our products in the environmental realm. In relation to our current crisis, it can be seen in part as the general biological and/or social dialect between aggression/competition and cooperation. After several hundred years of experiencing the aggression side, not only practically and theoretically, but also philosophically, we may now need, and hopefully are looking to see if we can find the other side of this particular dialectic. However, conflict and the dialectic are not necessarily the same thing. Conflict may or may not result in a new synthesis, as Hegel envisaged. It may result in the extermination of one side of the conflict, or even the mutual destruction of both sides. Species often disappear from nature when they are no longer ‘fit’ for their environment, and they may even themselves create such a problem, by over populating their environment or ‘overgrazing’ their source of food, for example. Malthus saw this as almost inevitable for the human species, though he was ridiculed because he did not foresee the huge increases in productivity that science and technology would ultimately provide. Now corporate scientists and engineers appear to be equally unable or unwilling to appreciate the unintended detrimental effects of this new technology on the environment, with possible Malthusian effects on the population to be experienced in the future. At the same time, this dialectic goes on, as many scientists and engineers are now working to forestall such a disaster, something quite difficult in the current socioeconomic setting within which technology is implemented. But this is precisely the problem within a reductionist scientific paradigm and the resulting social paradigm that separates itself into two separate worlds, that of the (scientific) mind on the one side and the social and material environment on the other.

The knowledge of such dilemmas is much older than even science, however. An illustration of a non-dialectic outcome of a conflict situation can be seen in the ancient fable of the “Scorpion and a Frog”. A scorpion asks the frog to carry it across a stream. The frog refuses, saying that the scorpion will sting it and it will die. The scorpion assures the frog that he would do no such thing, since he also would perish in the process. The frog is convinced and agrees to carry the scorpion, but midway through the journey the scorpion does indeed sting the frog and they are both destined to die. When the frog asks why the scorpion would do such a stupid thing, the scorpion simply replies that it is “in his nature” and he cannot change it! Of course, as with all fables many interpretations can be given. I would choose to see it as an example of a conflict situation in which the parasite destroys its host, not being able to appreciate the consequences of its own actions. In such a conflict the dialectic does not evolve; there is no new synthesis that allows both sides of the conflict to survive, albeit in an altered form.

An especially interesting example of such a dialectic outcome can be found in William McNeil's (1976) discussion of the history of infectious diseases, or more abstractly, the conflict between a parasite and its host. McNeil found that in the early phases of an infectious disease the parasites were extremely virulent. Imperialist European explorers had inadvertently brought back parasites from all over the world, and the European populations paid the price with millions of deaths caused by these diseases. However, unlike the scorpion that couldn't change its nature, this conflict in time evolved to the point where both the parasites and the hosts changed. In a new synthesis the parasites gradually evolved into less virulent forms, transposing into troublesome, but not so fatal childhood diseases, while the adult human hosts developed antibodies to control the parasites. When European conquerors, as carriers of infectious diseases (but also of immunity to them) invaded the new world, they had this 'secret' weapon at their disposal. Thus, they decimated whole indigenous populations who had had no previous contact with these diseases, as much, if not more, with this weapon as with their military armaments. This was especially true where these populations were more concentrated, such as the Incas, Mayans and Aztecs. But then the Europeans, as social 'parasites' who could not change their nature, also in the process decimated their indigenous labor force. As a result, they were 'forced to' import slaves from Africa to fill this gap, leading to another parasitic relationship that ultimately led to a civil war in the U.S.A. Every parasitic relationship either evolves into a new synthesis or devolves into the disappearance of one or both parties in the conflict. This is as true at the social level as it is at the national level. Evolving a conflict into a dialectic usually requires 'changing one's nature' in order to allow a new synthesis to be formed, and at the social level changing one's nature entails changing one's often subconscious beliefs and ideas about the world.

2. Need for a Paradigm Change

Thomas Kuhn (1970) has called such a set of beliefs in science, a 'paradigm', and the act of changing one's beliefs, as a paradigm revolution. A scientific paradigm, Kuhn has argued, is a set of largely unexamined, because taken for granted, presuppositions about the world incorporated within the paradigm. They are not, however, subject to the usual experimental testing of theories that is part of the critical approach of science. They are pre or meta-theoretical beliefs about the nature of the universe and about the necessary ways of knowing that universe. They are, in other words, ontological and epistemological assumptions. The only time they come under examination is when anomalies arise, that is, when predictions based upon theory and previous experimentation do not come true in the real world. After enough of these anomalies accumulate, a crisis ensues and new assumptions are sought, usually among a variety of often-conflicting schools of thought. Only when one of the schools appears more fruitful than the others will a new paradigm be constructed and adherents sought and indoctrinated into the new system of beliefs. These phases, according to Kuhn, are erased from the official history of science so that it may appear to be the incremental, progressive history that it is believed to be. I don't think it was Kuhn's purpose to underestimate the obvious substantial contribution of science to humanity based upon the scientific method. Rather, it was to counter the Cartesian belief that mind and matter are separate domains and to establish the idea that scientists are human beings in a dialectical relationship with their subject matter and with each other in communities of scholars seeking to learn about our world. It may have been an effort to help scientists manage the uncertainties raised by quantum theory and to di-

minish somewhat the air of pretentiousness that has sometimes marked the history of science in recent years. However, the idea of a constantly changing dialectical world does not seem to be attractive to most scientists in Kuhn's version of their history, and the general disinterest among scientists themselves in his work would seem to give evidence to this assessment.

Indeed, Kuhn's work has been of much greater interest among humanists and humanistic social scientists, many of whom have found common ground with their own understandings of human affairs. As a result, they have generally assumed that scientists are also human beings working within a social setting, in spite of their apparent certainty to have found the one true method to knowledge of the universe. Quantum physics has, of course, shaken this certainty somewhat, producing a philosophical enigma that is slowly being confronted, apparently leading to another paradigm shift now in the making.

3. Society is a (Collective) Human Construct

Kuhn's work refers to a specific sub group of society, natural scientists and those, such as economists and other positivist social scientists, who see no fundamental difference between nature and society, and thus the need to examine their ontological and epistemological presuppositions regarding the latter. This is particularly bizarre for economics which is so embedded in ideology and politics, or social conflict, that any two economists can be saying exactly opposite things about social reality, something unknown in natural science, whatever paradigm conflict might exist. Thus, the idea of paradigm not only illustrates the social basis of natural science but can also be extended to help understand broader human and social existence as well, as, indeed, it had been within a different terminology in the work of anthropologists, phenomenologists and humanists before Kuhn studied the community of natural scientists. What Kuhn hints at as the emotional and moral underpinnings of scientific paradigms has been more explicitly analyzed for entire social groups by those authors. For example, Berger and Luckmann (1966) explain, theoretically, in some detail how and why a social paradigm and its accompanying social world would be *socially* constructed, and what this would entail from a human standpoint. The process begins with *habitualization* – successful accomplishment of tasks over time leads to the habitualization of these behaviors, such that they become almost automatic in the (sub)consciousness of the individual: downshifting a car into second gear (in the pre automatic transmission world) while turning a corner is a formidable task for those first learning to drive, but becomes a part of the subconscious after years of practice. Once any given behaviors have become habitualized they become *typified* and can be used to characterize the persons engaging in them. The postman carries a mailbag and delivers mail, a doctor wears a white coat and carries an air of self-confidence, grandparents act in different ways from parents, etc. At some point these typical behaviors become *reciprocally typified*; we learn how to behave in any given context because we know what to expect typically from other persons involved in that context, e.g., we know how to act in a movie theater, in a store, in dentist's office, at home, etc., and can change our behavior accordingly to accommodate the change in scene. These behaviors are now social; different people engage in specific types of behavior within specific contexts: they are assigned roles and are expected to follow the rules of that context. At this point behavior has become *institutionalized*, in the anthropological sense of the word, and has become embedded in the subconscious of the members of the institution. The rules and the roles can also be recorded in writing so that

they will remain constant even if and when the persons occupying those roles may change. Thus, occupying a position in society by learning a profession or a trade, for example, requires learning the expected behavior that accompanies that social role.

There are no natural laws determining how any particular social group will institutionalize its behavior and create a social paradigm; the only requirement is that they be able to survive individually and socially with the typical behaviors that characterize them. But there is such an immense variety of institutionalized forms of behavior to be found throughout the world that one must believe that there is a great deal of flexibility concerning this social process of constructing reality. It's not a very Newtonian (deterministic) world that humans create.

"The illusion of determinism is fostered by the fact that none of us is conscious of the process of socially constructing reality."

The *illusion* of determinism, however, is fostered by the fact that none of us is conscious of this process of socially constructing reality. The world we are born into is already socially constructed; it has been, in a process that has been going on for thousands of years. Not that it hasn't changed over that time span, but the process is usually so slow that we aren't aware of it. This is especially true for children and (even graduate) students who are socialized into their world through a process of learning, combined with a dependence relationship that makes it all but invisible to their young eyes. The existing social world appears largely as a deterministic world, depending upon how authoritarian the socializers are (parents, teachers, mass media, etc.), or how inflexible is the social and/or natural world they are born into. *Ultimately, and most importantly, we are socialized not only intellectually, but also emotionally (as our dependent status would require) and morally (as the social reality must be seen as legitimate, as good and as necessary in order to maintain social cohesion).*

4. Existential Problems Arising Because the Social Order is Not Deterministic

If thoughts and intentions create the social order and not some natural law, then how do we know if our particular social order is the 'right' one? Well, of course, we don't, in any scientific sense. So, then, we must establish some criteria on the basis of which to judge the adequacy of our social collectivity. This has been one of the tasks of philosophy, and religion, of course, since the beginning of the time when human beings concerned themselves with such questions in a formal way. What results, with or without a formal philosophy, is a set of *moral* rules that guides the thoughts and actions of the members of a given society or community. These rules are designed to ensure physical and social survival. While the enforcers of these rules may claim metaphysical and/or scientific authority for these rules, they are still human inventions. But since in a dialectical universe they confront a material reality that, as Heraclitus said, is constantly changing, there is ever the need for a certain skeptical attitude towards them, not something encouraged by a deterministic approach or dogmatic attitude.

What our thoughts and intentions confront is a material reality that has been created in part by processes of nature as well as by the thoughts and intentions of others, both past and present. This establishes the basic form of the dialectic through which the philosophical approach must proceed. In other words, there is both a subjective, or rather a shared or *inter-*

subjective reality composed of the thoughts and intentions of one's society or social group, as well as an *objective reality* composed of the natural and social environment created by natural processes plus the thoughts and actions of others, within or without the group (See diagram). Persons who work within a Newtonian framework: engineers, economists, etc., tend to neglect the subjective side of the dialectic, while people who work within the humanistic or phenomenological framework, e.g., artists, idealists, etc., tend to neglect the objective or material side of the dialectic. Reification, i.e., forgetting the human origin of all ideas and social events, can plague either side of the dialectic, since even natural science is ideological, especially when its presuppositions are applied to society.

The existential problem, then, revolves around the constant danger that society will disintegrate, that the subjective moral rules that hold it together, however dogmatically they may be held on to, will not be adequate to the changing material reality they refer to, as it evolves over time. This is a philosophical problem not only for those who allow themselves to confront such a problem, i.e., existentialists, nihilists, anarchists, etc., but also even more so for conservatives and "scorpions". The only solution to this dilemma is the willingness to endure a permanent sense of ambiguity and uncertainty. Kazantzakis (1993 [1946]) believed that the ancient Greeks understood this insofar as they had discovered the need to stay close to the narrow path separating the abyss of chaos on the left from the abyss of slavery on the right. As he said (p.78), "Humans have lived, even as wild savages, sometimes in chains and sometimes unbridled". With this understanding of the social order we are now in a position to examine the current economic tragedy.

5. Facing the Crisis in the Active Voice

A colleague of mine in the university, a professor of English, once remarked to me many years ago that all scientists, including, surprisingly, most social scientists, *write* in the passive voice. As someone influenced by phenomenology and hermeneutics, I returned to some of the articles I had written, and was shocked to discover that I had been doing the same thing. There is, in other words, a culture of science that implies that one must write in the passive voice. Thus, learning to be a scientist requires this, even if it partially obscures the actual social situation being analyzed. In the passive voice there are events and patterns in the world of objective reality but somehow no one is responsible for them. In a deterministic or even a probabilistic Newtonian physical universe this would not be seen as a problem. After all, it is a giant clockwork whose laws the scientist is uncovering. But, how about the social world? Are there no protagonists in this grand social drama? Of course, it is the carry over of positive natural science into social science that has brought this culture of the passive voice. But social science would be severely handicapped if there could be no humans allowed into its discourse. How far can we go with statistical analyses? Mustn't we at some point of time introduce human ideas and motives into our analysis? Isn't there a difference between the material and the ideal, between subjective and objective reality? Indeed, isn't it the dialectic between these two that constitutes the totality of social reality? With this in mind we may examine the severe economic, if not the broader social crisis we are currently living through in the western world from a different perspective, one filled with human protagonists and their habitualized, that is, institutionalized, motives and behavior.

6. Some Questions about the Protagonists in the Economic Crisis

“Nothing in human history, according to Protagoras, occurs by chance, even unintended consequences occur as a result of human thought and intention.”

6.1. Is the crisis a chance historical event?

Nothing in human history, according to Protagoras occurs by chance, even unintended consequences occur as a result of human thought and intention.

6.2. Then, who is involved in the creation of the crisis?

The crisis is the result of the thoughts and intentions of many people. The most important of these are:

First, the executives of the large, multinational (but not only) corporations, who seek to lower the costs of production (in order to increase their profits, which is how their purpose in life has been institutionalized in economic theory) by lowering wages and salaries through unemployment and the fear of unemployment that is generated in the minds of the employees. Also, within the same profit incentive, they, along with the bankers and stockbrokers, seek through a process of privatization, to purchase the physical and social infrastructure of every country (public services such as education, healthcare, etc., roads, harbors, beaches, mineral resources, etc.) for ‘pennies on the dollar’, as a profit-making outlet for their excess capital.

Second, the large bankers and stockbrokers, who seek to gamble and profit with the continuous compounding of interest on national loans, often ‘imposed’ with the cooperation of economists and the influence of other ‘persuasive means’, as described by John Perkins (2004) in his book, *The Confessions of an Economic Hit Man*. In fact, they will gamble on any factor that can vary in the marketplace, including those that result from the economic crisis itself (e.g., the price of goods, the rate of increase in the mortality rate of a given population, etc.). Within the psychology of the stock market, the brokers and bankers, themselves, can and do cause the value of goods and even enterprises to rise and fall, and to gamble on those variations, often with inside information, ignoring the impacts on the companies and populations that might suffer from these variations.

Third, political leaders, for whom power acts like a narcotic and for whom money is the chief means of achieving power. When these leaders are offered the chance to borrow and manage large amounts of money, it is difficult for them to refuse, especially when the offer is accompanied by the choice to accept the money or to withdraw from political life, either willingly or with assistance from ‘fate’. Most of them accept the loans, either with the knowledge of possible entrapment and its long-term implications or not, as the case may be. If they do accept the money, they know that they will be handsomely rewarded, that is, they will be able to ‘buy’ social and political support, which at the same time feeds their ‘addiction’ to power. Also, it is these same political leaders who, on a global scale, create the taxing

systems that allow wealth to be accumulated in a few hands. Those who benefit, that is, the super rich are, as a result, ever searching for opportunities to invest their by now enormously accumulated wealth in stocks, bonds, loans, etc., while also participating in the well-known decadence associated with bribes, kickbacks and the general wastefulness that sullies political leadership in such cases.

Fourth, certain **highly rewarded economists**, who, like John Perkins, act as ‘economic hit men’ and, in cooperation with corporate executives and bankers, ‘bend’ their science in order to persuade themselves and political leaders (as well as consumers and home buyers on a smaller scale) to accept both the costly loans, as well as the laws of the ‘free market’ system that accompany them. In other words, they construct mathematical models that ‘prove’ that the projects that will be constructed with the loans are indispensable for the development of those countries, without, at the same time being much interested in how the money is actually used after the loan has been accepted or even whether the borrower has the wherewithal to repay the loan in the first place. These economists, of course, are well compensated for their participation in these dealings, with the added reward that they feel they are participating in the exercise of power, if only at a distance.

It is important to remember that all these ‘protagonists’, especially the economists, are not necessarily intending evil, because they have been socialized, *intellectually, emotionally and morally*, into a certain framework of thought and intention. They act within a philosophical paradigm that has been derived from a somewhat truncated understanding of 18th and 19th century Anglo-Saxon presumptions about the nature of social reality. Specifically, they believe that human beings are *by nature* predatory, egoistic, and individualistic, and that we are therefore living in a social ‘jungle’. *Of course, if enough people believe this to be true, it becomes true* (Lipton 2008), *and appears as the objective reality of the society constructed by these thoughts and intentions*. Many also refer to Darwin in support of these presumptions in a version of ‘Social Darwinism’ that ignores the fact that, in the phrase that was attributed to him, ‘survival of the fittest’, Darwin would not, necessarily, have implied anything about strength or cunning, but would, in fact, have referred to the ability of an organism to fit into, or be accommodated to its environment.

Fitting into an environment takes on a whole new meaning for us human beings who, with our attribute of (self) consciousness, are significantly different from all other living creatures. *We*, as discussed above, create our own social environment. But at the same time, with the products of our consciousness, particularly with our science and technology, we are now in a position to alter radically both our social but also our physical environment as well. We are now even in the paradoxical position of being able to create a physical environment that we, ourselves, will not ‘fit into’, one that we cannot accommodate ourselves to, one in which we will not survive, in the Darwinian sense of the word, but one which we have created based in part on a distorted idea of what Darwin, himself meant. How ironic!

As a result of this, it would, therefore, seem to be a good time for us to reconstruct our economic theories, and, indeed our entire social paradigm, especially as we come to realize that post Darwinian research is now demonstrating clearly that the evolution of the species is based more upon cooperation than on predatory individualism (Lipton and Bhaerman 2011, Boehm 2012).

6.3. What is going to happen in the future?

If the people, themselves, – the ‘frogs’ – do not begin to realize the potential of the dialectic, the current economic crisis will turn out as those who have created it – the ‘scorpions’ – wish it to: in continuous and repeated loans with never ending (compounded) interest payments, with the continuous lowering of wages, salaries and social benefits ever closer to the lowest global level, with ever fewer and more expensive public services and goods, with the increase of poverty, crime and social unrest, etc., and the increase in totalitarianism that inevitably accompanies such chaotic situations, as the potential of the dialectic is lost in mutual destruction.

6.4. What can be done?

There is no formula for resolving such recurring crises. The protagonists of each historical period have had to find their own solution. The responsibility shared by philosophy and science – these were inseparable in their birthplace in ancient Greece – is to try to discover why those in positions of power and those who follow and assist them believe what they do, thus accounting for the actions that have led to the crisis. With these paradigm insights we can keep the dialectic moving by sharing the information with all the people, causing them to change their beliefs and behavior and try to influence those in power to do the same. Such was the effect of the Club of Rome’s publication, *The Limits to Growth*, (Meadows, et al 1972, [2004]) some forty years ago.

“If we are to survive as a species we must replace, or at least balance, predatory individualism with love and empathy that lead to cooperation.”

Since that time there have been many other contributions to a changing understanding of the world. Quantum physics (Capra 1982, McTaggart 2008) is changing the way that scientists see themselves and understand the world they are studying. Even if they only deal with its mathematics, there is still a residue of spiritual uncertainty among scientists that the quantum enigma has created (Rosenblum and Kuttner 2011). Other scientists are studying and mimicking nature in a less domineering manner, seeking to understand and apply its billions of years of accumulated wisdom (Benyus 1997). The 1960s countercultural movement also raised many troublesome questions about how people should view their social world. One thing seems clear: if we are to survive as a species we must replace, or at least balance predatory individualism with the love and empathy that leads to cooperation. As a start we can try to appreciate how the human body with its 50 trillion cells manages to survive as a system of cooperative behavior, *without individual cells needing to compete with others in a struggle for survival!*

6.5. Is the Current Economic Crisis Really Something More?

Almost everyone who has read John Perkins’ book will have a pretty good idea about what has caused the current economic crisis: too much money chasing too few investment opportunities. ‘Too much money’ reminds me of the well-known quotation heard from people as varied as Francis Bacon and Thornton Wilder: “Money is like manure; if it is spread

around it will help young things grow and contribute to the well being of everyone, but if it accumulates in one place it starts to smell and becomes a source of disease” (Would cocaine addiction, greed, and the obsessive need for power qualify as diseases?)

Most critical economists will place the beginning of the recent crisis sometime from the middle of the 1970s to the start of the 1980s, and most will also associate it with the rise (or resurrection) of (neo) liberalism, the ideology that only profitable (and, by necessity, private sector) activities are of importance in the world of economics (and, unfortunately, for most mainstream economists, there is no other world). In the USA neoliberalism brought into power the “Wrecking Crew” (Frank 2008), whose goal in life was to turn government into a channel to move public money into private hands, into the ‘free’ market, as it were. This money has gradually accumulated in the financial sector, where it has carried out a thirty-year romp through everything from the countries of the Third World to the housing market in the US. It is currently being featured in the southern European countries, as well as Ireland, a group that has been labeled PIGS (Portugal, Italy, Greece and Spain) by the ‘well-to-do’ in northern Europe.

The pattern is the same everywhere: unsuspecting (?) borrowers are enticed into borrowing monies way beyond their means. Once entrapped, they are in permanent debt bondage to the bankers, and their assets rapidly devalued to the point where they must be sold off for ‘pennies on the dollar’. The free floating ‘manure’ can then move in to pile up in new ‘barns’. In the case of countries, public assets can then be turned into private investments, but supplying only those who can afford the higher costs of the public goods that were previously available to everyone. Here, of course, we are talking about such vital goods as water, electricity, harbors, airports, health care, education, retirement benefits, and so forth. The same is true for private assets, such as housing, stores, factories, etc., all of which are devalued and then bought up by those with the extra manure accumulated for such purposes. How and when this economic crisis will play itself out depends in part upon whether the ‘scorpion’ is willing to change its ‘nature’, and/or the frog is able to find a way to escape its fate, both reexamining their paradigm assumptions along the way. In Hegel’s terms, this will occur when the parasite and host synthesize a less fatal relationship, both thus surviving (until the next crisis!).

6.6. Is This Really a Deeper Cultural Crisis?

Meanwhile, one is led to ask, [There, I am in the passive voice again!] how could this crisis have arisen, especially since it is not the first time this has happened? Indeed, measures were imposed after the last great crisis in the 1930s, measures that were to insure that no such crisis could ever occur again. Unfortunately, these measures were swept away by the power of money, as financially backed government officials retracted them one by one until the system returned to its former vulnerable position. But, where were the scientists, the economists, during this retraction period? Apparently, as mentioned above, they were caught up in a new (old) paradigm, neoliberalism, which simply washed away all experience of the past. But shouldn’t experience count for something in science, especially social science? Well, apparently not, not if your sole purpose in life is to discover universal laws and apply them to the control and domination of nature (and by extension, society, of course, since there is no essential difference within this Newtonian framework). And, indeed, since the time of Newton, this is what science has been all about – at least until now when the meaning of quantum

physics is beginning to sink in. As Heisenberg (1958, pp. 15-16, as quoted in Easlea 1973, p. 280) has said, "... we [scientists] must become conscious of the fact that we are not merely observers but also actors on the stage of life".

"We may be facing not just an economic crisis, but also something deeper, a crisis of basic beliefs about nature, about knowledge, about the mystery of the universe, about our role as human beings in that universe, about our relationships with each other in society, etc."

What I am suggesting is that we may be facing not just an economic crisis, but also something deeper, a crisis of basic beliefs about nature, about knowledge, about the mystery of the universe, about our role as human beings in that universe, about our relationships with each other in society, etc. This would be a 'cultural crisis', culture being defined as exactly the set of basic paradigmatic beliefs we have about all such things. Nor is this the first time human-kind has faced such a cultural crisis: the dismantling of the ancient Greek civilization, the rise of Christianity and the fall of Rome, the Renaissance and the rise of Newtonian science, the industrial and urban revolutions, and more recently, the digital revolution, to name several from the history of the West.

If we are indeed now at a new turning point, as Capra (1982) suggested, we might want to review the analysis offered by Theodor Roszak (1969) in his book, *The Making of a Counterculture: Reflections on the Technocratic Society and Its Youthful Opposition* and by Brian Easlea (1973), in his book, *Liberation and the Aims of Science*. Perhaps we should start by trying to understand the series of uprisings that occurred within in a few short months in 1968, in places as distant as Beijing, Prague, Paris and Chicago. These places were not only distant geographically but also culturally and socioeconomically (though connected in a quantum world). They represented two different versions of what at the time was labeled communism, and two different versions of capitalism. So the uprisings could not be about the dominant political economic conflicts across the world at the time. They must have been about something else. Perhaps we can find a clue in the Bible in the book of Genesis, specifically Chapter I, Verse 28:

"And God blessed them, and God said unto them: be fruitful and multiply, and replenish the earth, and subdue it; and have dominion over the fish of the sea, and over the fowl of the air, and over every living creature that moveth upon the earth."

It would appear that this pretty much summarizes the role of science and technology over the past several hundred years, to say nothing of the Romans, the crusading Christians, the imperial Europeans, etc., before and after Newton, in their "... perpetual and restless [Hobbesian] striving of power after power, that ceaseth only in death" (Easlea 1973, p. 285). This is very likely the underlying provocation for the uprisings of the young during the period of the 1960s, or, at least this is what Roszak and Easlea, and many other philosophers and social scientists believed at the time, including especially Jacques Ellul (1964), Eric Fromm (1941), Max Horkheimer (1947, 1972), Herbert Marcuse (1964), and others from the Frank-

furt School. These authors were analyzing the free market societies at the time, but Lebowitz' (2012) analysis of the former Soviet system supports the claim that, even in a state controlled system, it was technology and the spirit of domination inspired by the ideology of science that was the true source of the student uprisings around the world during the 1960s.

Here we can see the importance of Plato's statement that, 'Any science without justice and the other virtues is not wisdom but mere cunning'. One might suppose that one of the greatest complaints today's young people might have, has to do with this absence of a concern about justice within the paradigms of science and technology, an absence that fits nicely with the lack of true justice in society, itself. Since science and technology are in search of universal laws, it is easy to see why they would not feel any concern about justice or any other emotional or moral issues. What meaning could such things possibly have within such an ideological framework? If the countercultural movement that started in the 1960s had valid insights about this, then we must consider this serious problem if we are to extract ourselves from the crisis we are in.

At a more practical level, what does a countercultural movement confront in society as a whole? As we saw above, technology is being used by corporate and financial leaders to 'subdue' and to have 'dominion over every living thing that moveth upon the earth'. There are some scientists, engineers and politicians who are perfectly happy to participate in creating this 'dominion'. Their minds have been socialized into a philosophy that exonerates them from any concern about the broader social consequences of their actions. As in the reductionist science of economics, all such inconvenient factors are treated as 'exogenous'. Meanwhile, there are also many scientists, engineers, businessmen, professionals, etc., who are busy just doing their jobs within a system of thought that allows them to believe that the best social outcome will derive from everybody pursuing his or her own individual interests, a belief system with a well known pedigree from the 18th and 19th century philosophers of 'possessive individualism' (MacPherson 1962). This system of belief works well for them until they are suddenly dropped out of their privileged class position in a process of downsizing caused by mergers, takeovers, bankruptcies, etc. which some economists, following Schumpeter, like to refer to as 'creative destruction'. But without a new belief system to replace the old one, they are destined to simply hope that they are not really 'frogs', and that the crisis will soon be over and everything will return to 'normal'.

At the bottom of, or rather outside, the class system in the West we find those who have lost all faith in the current culture. Two thousand years ago, they would have been the Essenes, living in a form of exile by the Dead Sea and closely associated with Jesus Christ, called by them the 'teacher of justice' (Koutoulas 1997). Today they are the 'cultural creatives' (Ray and Anderson 2000). As a group the latter constitute over one hundred million adults in North America and Europe. Many of them are from among the counterculture radicals of the 1960s. Most have abandoned the privileged positions they might have enjoyed in the larger society and are seeking to live a simpler life without the unnecessary frills of the advanced consumer culture they have left behind. They are mostly educated and would likely be sympathetic to the new insights of quantum physics, to Schumacher's ideas about the beauty of smallness, as well as to Eastern medical and spiritual philosophies, especially on the West coast of the U.S. They are also much concerned about justice, which they carefully protect in their smaller scale communities.

What does characterize them, as well as all those who see themselves as a part of the counterculture, (including the Essenes 2000 years ago), is their belief that one side of the aggression/ cooperation dialectic has long been neglected in western society. Indeed, we seem to have reached the extreme edge of this dialectic on the aggression side and are in dire need of finding the middle ground or 'golden mean' if we are to avoid the fate of the frog (along with the scorpion, of course). Any new paradigm must be built upon the rebalancing of this dialectic.

At the same time we must realize how slow and demanding the process is whereby paradigms are constructed and/or changed, *with all of the moral and emotional loadings that are incorporated in this process.* The *Limits to Growth* provided a powerful stimulus at the time it was published, but the struggle for environmental awareness is far from over. Newtonian science is ill equipped to undertake this responsibility, simply because it ignores these aspects of human existence, even with respect to its own endeavors. It is also hindered by its paradigmatic belief that *all* technology is good for human existence and that every application is evidence of progress. This might be true if technology were not embedded in social relations, now so heavily skewed in the direction of aggression (Leiss 1974, Easlea 1973). In fact, the very success of technology has brought increasing conflict over the resources needed for its implementation, while the distribution of its benefits has been left to the (somewhat less than) free market. The thoughts of progress embodied in the early ideas of science and technology have been distorted by the unthinking applications of their methodologies to human relations; the spirit of predatory individualism is hardly a basis for establishing a holistic social order, and yet it is precisely this, which constitutes the basis of economic theory today. I don't know if there is a mathematics of cooperation that can be as successfully applied to human behavior, as has the mathematics of conflict been done in game theory, but our survival now seems to depend upon it. Maybe this is where we should start our search for a new paradigm.

"The spirit of predatory individualism is hardly a basis for establishing a social order, and yet it is precisely this, which constitutes the basis of economic theory today."

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Bibliography

1. Benyus, Janine M. (1997), *Biomimicry; Innovation Inspired by Nature*. New York: HarperCollins
2. Boehm, Christopher (2012), *Moral Origins; The Evolution of Virtue, Altruism, and Science*. NY: Basic Books
3. Berger, Peter and Thomas Luckmann (1966), *The Social Construction of Reality*. Garden City, N.Y.: Doubleday & Co.
4. Capra, Fritjoff (1982), *The Turning Point: Science, Society and the Rising Culture*. New York: Simon and Schuster
5. Easlea, Brian (1973), *Liberation and the Aims of Science: An Essay on the Obstacles to the Building of a Beautiful World*. Totowa, N.J.: Rowman and Littlefield
6. Ellul, Jacques (1964), *The Technological Society*. New York: Vintage Books
7. Frank, Thomas (2008), *The Wrecking Crew: How Conservatives Ruined Government, Enriched Themselves, and Beggared the Nation*. New York: Henry Holt and Co.
8. Fromm, Eric (1941), *Escape From Freedom*. New York: Rinehart

9. Gazzaniga, Michael S. (2008), *Human; The Sciences Behind What Makes Us Unique*. N.Y.: HarperCollins
10. Heisenberg, Werner (1958), *The Physicist's Conception of Nature*. London: Hutchinson
11. Horkheimer, Max (1947), *Eclipse of Reason*. New York: Oxford
12. _____ (1972), *Critical Theory*. New York: The Seabury Press
13. Kazantzakis, Nikos (1993 [1946]), "The Cry of Greece", in *Twenty-One [1821]: The Ark of NeoHellenism*, 2nd Edition. Athens: Eythini, (in Greek)
14. Koutoulas, Diamantis (1997), *Jesus and Paul: Jesus and the Essenes; Paul and the Roman Oligarchy*. Thessaloniki: Dion Publications (in Greek)
15. Kuhn, Thomas (1970), *The Structure of Scientific Revolutions*, 2nd Edition. Chicago: University of Chicago Press
16. Lebowitz, Michael A. (2012), *The Contradictions of "Real Socialism": The Conductor and the Conducted*. New York: Monthly Review Press
17. Leiss, William (1974), *The Domination of Nature*. Boston: Beacon Press
18. Lipton, Bruce H., PhD (2008), *The Biology of Belief: Unleashing the Power of Consciousness, Matter & Miracles*. Carlsbad, CA: Hat House, Inc.
19. _____ and Steve Bhaerman (2011), *Spontaneous Evolution; Our Positive Future, (and a way to get there from here)*. London: Hay House UK, Ltd
20. MacPherson, C.B. (1962), *The Political Theory of Possessive Individualism: Hobbes to Locke*. London: Oxford University Press
21. Marcuse, Herbert (1964), *One Dimensional Man: Studies in the Ideology of Advanced Industrial Societies*. Boston: Beacon Press
22. McNeil, William H. (1976), *Plagues and Peoples*. Garden City, N.Y.: Anchor Press
23. Meadows, Donella, et al (1972), *The Limits to Growth; A Report to the Club of Rome's Project on the Predicament of Mankind*. NY: Universe Books
24. _____ (2004), *The Limits to Growth: The 30-Year Update*. White River Jct., Vermont: Chelsea Green Publishing Co.
25. Nadeau, Robert and Menas Kafatos (1999), *The Non-Local Universe; The New Physics and Matters of the Mind*. Oxford University Press
26. Perkins, John ((2004), *Confessions of an Economic Hit Man*. San Francisco, CA.: Berrett-Koehler Publishers, Inc.
27. Ray, Paul H. and Sherry Ruth Anderson (2000), *The Cultural Creatives: How Fifty Million People Are Changing the World*. NY: Three Rivers Press
28. Roszak, Theodor (1968), *The Making of a Counterculture: Reflections on the Technocratic Society and Its Youthful Opposition*. Garden City, N.Y.: Doubleday & Co.

The Dignitarian University

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Abstract

A “dignitarian” society does not aim to abolish or equalize rank, but rather holds that, regardless of rank, we are all equal when it comes to dignity. The word dignitarian is introduced to distinguish this model from egalitarian and libertarian models. The establishment of equal dignity, first in social institutions, including those of higher learning, and then in society broadly, is a springboard to more fair, just, and tolerant societies envisaged by political thinkers like John Rawls, Michael Walzer, and Avishai Margalit. The organizing principle of dignitarianism is the abolition of rank-based abuse or rankism. A dignitarian society is one that disallows rankism, as multicultural societies disallow racism.

This paper presents the outline of a university schema that conforms to the goal of equal dignity regardless of rank – the “dignitarian university” of the title. Societies that root rankism out of their schools and universities will lead the world in the twenty-first century, much as those that curtailed the abuse of rank in government led in the twentieth.

A “dignitarian” society does not aim to abolish or equalize rank, but rather holds that, regardless of rank, we are all equal when it comes to dignity. The word “dignitarian” is introduced to distinguish this model from a utopian egalitarian one. Its dignitarian approach sees the establishment of equal dignity as a springboard to more fair, just, and tolerant societies that political thinkers like John Rawls, Michael Walzer, and Avishai Margalit have envisaged (Rawls 1999, Walzer 1983, Margalit 1996).

As dignitarian ideals take hold and spread through the institutions of developed democracies, it is only natural that they be applied to education. The purpose of this paper is to sketch the broad outlines of a university schema that can conform to the goal of equal dignity regardless of rank – the “dignitarian university” of the title.

The organizing principle of dignitarianism is the abolition of rank-based abuse or “rankism.” A dignitarian society is one that disallows rankism in the same sense that a multicultural society disallows racism.

1. Rank and Rankism

As many others who lived through the social movements in the sixties, my attention was drawn to personal traits such as color, gender, disability, or age, each associated with its own particular prejudice. As a college president in the early seventies, I found myself coping with the women, black, and student movements. My position gave me a vantage point from which I began to sense that something more than trait-sanctioned discrimination was going

on, something deeper and more encompassing. I was struck by the realization that despite changes in the cast of characters and differences in rhetoric, each of these movements could be seen as a group of weak and vulnerable nobodies petitioning for an end to oppression and indignity at the hands of entrenched, more powerful somebodies.

From this point of view, it was obvious that color, gender, and age characteristics were excuses for discrimination *but never its cause*. Indeed, such features signify weakness only when a social consensus hobbles those who bear particular traits. Anti-Semitism, Jim Crow segregation, patriarchy, and homophobia are all intricate social agreements that function to make whole categories of people susceptible to abuse and exploitation.

"All the various, seemingly disparate forms of discrimination actually have one common root – the presumption and assertion of rank to the detriment of others."

Personal traits are pretexts about which social stratifications are erected and preserved. At their deepest level, these arrangements foster and uphold injustice based on something less conspicuous but no less profound in its consequences than religion, color, gender, or sexual orientation – i.e. rank in the social hierarchy. All the various, seemingly disparate forms of discrimination actually have one common root – the presumption and assertion of rank to the detriment of others.

Providing further evidence for my shift in perspective was the recognition that just as whites may bully whites, so too do blacks exploit blacks and women demean women. Clearly, such intra-racial and intra-gender abuses couldn't easily be accounted for within the standard trait-centered analyses. One approach has been to explain black on black prejudice, sometimes called "colorism," in terms of the "internalization of white oppression." But this merely seeks to explain one malady (black racism) in terms of another (white racism) and brings us no closer to a remedy for either. If the goal is to end racism of every stripe, wouldn't it be more fruitful to view inter- and intra-racial discrimination as based on differences in power? On who holds the higher position in a particular setting and therefore commands an advantage that forces victims to submit to their authority?

Viewing discrimination in terms of power instead of traits is not intended to divorce the dynamics of racial or other forms of prejudice from the justifications that particular groups of somebodies use to reinforce their claim of supremacy. But it does direct our attention to the genuine source of ongoing domination – a power advantage – and suggests that we can abolish social subordination only when we invalidate abuse based on nothing more than having a high enough rank to get away with it.

As the implications of all this sank in, I began to understand that, like the more familiar liberation causes, abuse of the power associated with rank could not be effectively addressed if it had no name. Without one, nobodies were in a position much like women when Betty Friedan characterized their plight as "the problem that has no name." By 1968, the problem had acquired a name: "sexism." That simple word intensified consciousness-raising and debate and provided a rallying cry for a movement to oppose power abuse linked to gender. A similar dynamic has played out with other identity groups seeking redress of their grievances. Those discriminated against on the basis of their race unified against "racism." The elderly

targeted “ageism.” By analogy, I adopted the term “rankism” to describe abuses of power associated with rank.

Rank can refer to either position in society generally (social rank) or position in a more narrowly defined context (e.g., an institution or family). Rankism occurs not just between and within familiar social identity groups, but in schools, businesses, healthcare organizations, religious institutions, the military, and government bureaucracies. Indeed, since most organizations are hierarchical and hierarchies are, by definition, built on gradations of power, it can be no surprise that they are breeding grounds for rank-based abuse.

Examples from everyday life include a boss harassing an employee, a doctor demeaning a nurse, a professor exploiting a graduate student, and children bullying each other. On a larger, societal scale, there are headline-making stories of political and corporate corruption, sexual abuse by members of the clergy, and the maltreatment of elders in nursing homes.

Photos of the humiliation of Iraqi prisoners by their guards gave the entire world a look at rankism’s arrogant face. Hurricane Katrina made visible its most common victims. The wealthy and connected got out of New Orleans ahead of time. The poor, the sick, prisoners, the elderly, and those lacking a means of transportation were trapped by nature’s fury and then left to cope on their own during days of inaction by government officials and agencies.

In addition to its universality, rankism differs from the more widely acknowledged trait-based abuses because rank is not fixed. Rather, it changes depending on context. Someone holds high rank at home but is lowest on the totem pole at work. Likewise, we may feel powerful at one time and powerless at another, as when we move from childhood to adulthood, or from our “prime” into old age, or when we experience the loss of a job, a partner, or our health. As a result, most of us have been both victims and perpetrators of discrimination based on rank.

In summary, rankism occurs when those with authority use the power of their position to secure unwarranted advantages or benefits for themselves at the expense of others. It is the illegitimate use of rank and, equally, the use of rank illegitimately acquired or held. The familiar isms are all examples of this latter form. They are based on the construction and maintenance of differences in social rank that violate constitutional guarantees of equal protection under the law.

The relationship between rankism and the specific isms targeted by identity politics can be compared to cancer and its subspecies. For centuries the group of diseases that are now all seen as varieties of cancer were regarded as distinct illnesses. No one realized that lung, breast, and other organ-specific cancers all had their origins in a similar kind of cellular malfunction.

In this metaphor, racism, sexism, homophobia, ableism, and other varieties of focused prejudice are analogous to organ-specific cancers, while rankism is the blanket malady analogous to cancer itself. The familiar isms are subspecies. Just as medicine explores strategies applicable to all cancers, it is time to broaden the scope of our vision and attack rankism itself rather than targeting its individual components.

Diminishing returns and an obvious backlash are presently threatening the hard-won gains of the civil rights, women’s, and other movements. Could it be that to complete the

eradication of the familiar isms we have to include everyone – somebodies and nobodies alike – and redirect our attack toward rankism, the malady that afflicts us all?

2. Rank Itself Is Not Necessarily the Culprit

Rarely do I make it through a discussion of rankism without being asked, “Are you proposing we do away with rank?” It is crucial to understand that, in and of itself, rank is not the problem. Unless rank is intrinsically illegitimate – as are, for example, the social rankings that have made second-class citizens of various trait-specific groups – the trouble is not with rank *per se*, but rather the abuse of the power that is a prerequisite of rank. This distinction goes to the heart of the most vexing issues in our personal lives, society, and national politics.

Confusion arises because rank is so often misused that many wrongly assume the only remedy is to abolish it. This makes as much sense as endeavoring to solve racial problems by doing away with all races but one, or eliminating one gender to address gender issues.

History suggests that political and social models that try to do away with rank altogether are naïvely utopian. Societies that adopt this slash and burn policy court catastrophe. “Levellers” in seventeenth-century Britain, Socialists in nineteenth-century Europe, and Communists of the twentieth century all disappointed their supporters. And when egalitarian ideologies did prevail, those leaderships typically imposed worse tyrannies than the ones they replaced. Abolishing distinctions of rank that facilitate cooperation can weaken a society to the point that it is vulnerable to existing enemies or invites new ones. Nineteenth-century French statesman Chateaubriand noted, “Equality and despotism have secret connections.”

When legitimately earned and appropriately used, rank has indispensable roles to play throughout society, especially in education. The chemistry professor gives the chemistry course and the freshman takes it, not vice versa. The more fundamental a role rank plays in the mission of an organization, as in the military and the academy, the more important it becomes to distinguish rank from rankism. It is essential that we respect the former while eliminating the latter.

3. Rankism Affects Students (or Why Billie Won’t Learn)

“With no attempt there can be no failure; with no failure, no humiliation.”

– William James

There’s a reason why educational reforms, progressive or conservative, inevitably leave many young people withholding their hearts and minds. What saps their will to learn is the unacknowledged rankism that pervades educational institutions from kindergarten through graduate school. In a learning environment rife with rankism, the need to protect our dignity siphons away the attentiveness needed to acquire knowledge and skills.

For many children, chronic indignity resulting from persistent rankism undermines self-confidence by the age of six and takes an irreversible toll by twelve. Students in rankist

“The trouble is not with rank per se, but rather the abuse of the power that is a prerequisite of rank.”

schools are like ethnic minorities in racist schools: they sacrifice learning in defense of their pride. For blacks this can mean resisting what they see as the “white way.” For students in general it often means refusing to do things the “right way,” as held up to them by teachers and parents.

Tragically, avoiding personal humiliation trumps personal growth. The lifelong consequences of rejecting the system seem preferable to one more day of submitting to ignominy in the classroom. By minimizing the incidence of rankism, we can spare children this impossible choice.

Ridding schools of rankism will pose challenges. Aptitude tests, for example, can be a useful tool for guiding the young toward a vocation suited to their interests and abilities. But that tool can be misused if, instead of serving a constructive, diagnostic purpose, the tests are employed to stigmatize those who do poorly and to exalt those who do well. Guidance counselors must be very careful not to use educational rankings as they have in the past—to effect and maintain a division between “winners” and “losers,” and to reconcile the latter to their station via humiliation and invalidation. As Michael B. Katz shows in *Class, Bureaucracy, and Schools: The Illusion of Educational Change in America*, when that happens, test scores become self-fulfilling prophecies and eventually an unbridgeable gap is created between students pre-destined for success and those marked for failure. If young people are not actively discouraged, and instead allowed to pursue their interests as far as they’re internally impelled to, they will often be able to realize their goals in one form or another. The world has a way of giving more accurate and useable feedback than professionals guided by scores on one-time tests given under what are often artificial and adverse conditions.

Physical education classes are notorious for engendering lifelong reminders of embarrassment and humiliation. The executive director of the National Association for Sport and Physical Education, Charlene Burgeson, maintains that painful memories of gym class discourage many adults from incorporating exercise into their lives. Although she believes that “...for the most part we have eliminated the humiliation factors [from physical education classes],” she warns, “we cannot practice in a way that leads to embarrassment for students. It’s counterproductive”(Bosman 2005).

What is true in gym class is equally true in reading, writing, and arithmetic. There is a very good reason Billie won’t learn. Children are greatly disinclined, just as are adults, to put their bodies and minds to the test when it is not safe to do so. Dignity of self will win every competition that pits shame and invalidation against learning.

4. Rankism Affects Teachers (or Why not offer “dignity security,” instead of “job security?”)

“Why must institutions make a judgment that has lifetime consequences after a mere six or seven years? ... Why not a system of contracts of varying length, including lifetime for the most valuable colleagues, that acknowledges the realities of academic life in the twenty-first century? ... Today, almost every negative tenure decision is appealed. ... Few if any of these appeals have as their basis a denial of academic freedom.”

– John M. McCardell Jr., President Emeritus of Middlebury College, Vermont

Models for a dignitarian society imply that it is time to find a more intelligent and even-handed solution for sustaining and expanding academic freedom and opportunity. Although shielding teachers from administrative rankism was and remains a worthy goal, achieving those positive ends by granting faculty lifetime job security generates another problem, one whose financial cost has become unsustainable and whose moral cost is no longer defensible.

Rank, to be legitimate, must be earned in a fair contest with all qualified comers. In practice, this means periodic re-qualification because, over time, new aspirants (who overwhelmingly outnumber the tenured in the academic world) may prove more qualified. In the face of this reality, academic tenure gives professors a job for life regardless of subsequent performance. And this kind of non-accountability is the ideal breeding ground for rankism.

Certainly academic and political freedom must be guaranteed, but as McCardell's epigram illustrates, there are now more effective ways to do this than by bestowing fail-safe job security. Until an alternative is implemented, however, colleges and universities will resort to the appointment of so-called "adjunct faculty" to avoid long-term hiring commitments. Adjunct professors, with a fraction of the pay, lacking benefits, devoid of job security or a role in governance, and often denied even parking privileges, are the Wal-Mart clerks of Academia.

Recipients of tenure may well have earned renewal of their contracts, but lifetime appointments effectively bar hard-working adjuncts from competing for those positions. Tenure now functions as the equivalent of a perpetual "Sorry, No Vacancy" sign to thousands of bright applicants, legitimate contenders for tenure-track positions.

To have two categories of teachers working side by side – one privileged and secure, one exploited and expendable – with the underpaid group effectively subsidizing the prerogatives of the other, is redolent of segregation and apartheid. Adjuncts and graduate student teaching assistants are hamstrung in fighting this injustice by their own reluctance to take on the real culprit, the tenure system itself. The forlorn hope of sharing in the spoils of rankism – in this case, the security and privileges of tenure – inevitably functions to keep marginalized individuals from uniting to oppose the institutionalized rankism that keeps them down as a group.

Another hidden cost of tenure is to students and taxpayers. Since pay goes up with seniority, tenure results in an unjustifiably expensive faculty. The result is to price higher education out of reach of the middle class. Without tenure, there would be more young faculty with junior level salaries, and fewer older professors with senior level compensation. Savings resulting from a younger faculty could be used to improve the affordability of, and consequently access to, higher education. Although senior teachers are important as repositories of experience, wisdom, and institutional memory, lifetime tenure for a majority of the faculty results in imbalanced and unnecessarily costly institutions.

The burden of keeping a university solvent and affordable to tuition-payers should not fall disproportionately on its adjunct faculty and teaching assistants. Their low-paid labor is an involuntary gift to tenured faculty and long-term administrators in the same way that the rank and file working poor subsidize entire societies. Forced benefaction is indentured servitude by another name.

Ridding academia of rankism will involve presenting every teacher with the same challenges: earn your job; re-earn it periodically in fair, open competition with other aspirants; remain accountable to your peers and students.

What deserves and needs protection is not teachers' jobs but their dignity. Since losing a job can leave one vulnerable and subject to loss of respect (an archetypal instance of rankism), attention needs to be given to anyone experiencing such a transition. In fact, as technology-driven productivity improvements – outsourcing, down-sizing, off-shoring, automation and infomation – makes millions of jobs redundant over the coming decade, society as a whole will need to develop orderly processes for “recycling” our human resources into new roles and careers. As support of this kind is institutionalized, conduits will be established from the academic to the corporate world and vice versa, and from one specialization to another. Retraining programs will be created within recipient institutions, and in-house faculty placement offices will spring up alongside those that help students locate jobs.

To predict the future of higher education, especially in the face of our growing need for higher RE-education, one has only to look at the soaring costs of a traditional college degree and the burgeoning enrollments in Internet-based schooling. Universities will have to design alternatives to tenure and institute placement programs that will protect the dignity of their present faculty and staff in order for a dignitarian post-industrial university to be fait accompli.

5. Governing a Dignitarian University

Although it is possible to delineate the broad features of a dignitarian university, no one can foretell unerringly what shape it will take because the process of transformation must be one in which everyone has a voice and everyone's views are accorded appropriate political weight.

In a dignitarian organization, the role of institutional architect is intrinsically collaborative. Providing a blueprint from outside the design process is contrary to the dignitarian spirit. This is not to suggest that the role of the educational specialist is inconsequential. Quite the contrary. But for the resulting institutions to embody equal dignity, specialists must work directly with those the schools are being shaped to serve. A paternalistic process is incompatible with a dignitarian outcome because such a process, no matter how benevolent, is rankist.

To illustrate how an institution can be re-modeled along dignitarian lines, let me share the response that Oberlin College made in the early 1970s to the demands of the burgeoning women's movement.

Not unlike any number of academic institutions, Oberlin formed ad hoc committees on the status of women. Typically, these committees were composed of women administrators, faculty, students, alumni and staff, but included a small number of men. They began their work by holding open hearings on campus during which anyone could call attention to policies or practices that were felt to demean women or put them at a disadvantage. The committees compiled a lists of specific instances of unfairness or abuse along with potential remedies, and presented them to the administrator, group, or governing body that had the power to redress the grievances at issue. Their final task was to persuade that official or body to adopt the recommended changes.

This process, widely adopted to make institutions less sexist, can serve as a template for making institutions less rankist. Open hearings allow participants to identify why people feel disrespected. Complaints may be contested and ultimately judged to be ill-founded. Some complaints will be relatively easy to address. Other problems may take years or even decades to rectify.

A few words of caution regarding committees – especially those charged with transforming an institution. First, the likelihood of success is greatly enhanced by the participation of a figure of very high rank in the organization who makes it unambiguous that it is safe for others to seriously challenge the status quo. It need not be the president but, if not, it must be someone who everyone understands speaks for the president. Second, the committee must have a fixed deadline against which it works. As the postwar British Prime Minister Clement Attlee noted, “Democracy means government by discussion, but it is only effective if you can stop people talking.”

Dignitarian governance does not necessarily mean giving everyone a vote on every issue, but it does mean giving everyone a voice. To ensure those voices are heard generally requires having at least some voting representatives from each of the organization’s constituencies serving at every level of its governance. This is sometimes referred to as multi-stakeholder or collaborative problem-solving. In an academic institution this means adding students and alumni to committees on student life, educational policy, appointments and promotions, the governing faculty body itself and the board of trustees. Typically, such representatives hold 5–15 percent of the seats, but the percentage can go higher. The aim is to ensure that every group has an opportunity to make its interests known. This goal is given teeth by providing each group with enough votes to determine the outcome in situations where the group as a whole is closely divided.

Vote ratios between constituencies mirror their relative degree of responsibility for accomplishing each specific goal. Thus, students are provided a decisive majority of votes on a student life committee, faculty a decisive majority on educational policy. And students, faculty, and administrators all play minority roles in fiduciary decisions that are traditionally decided by the board of trustees. Including voting representatives from all constituencies creates an environment in which authorities do not merely deign to listen to those of lower rank. Rather, it behooves them to treat everyone with dignity because at the end of the day everyone will exercise some degree of voting power over the outcome.

“As power evolves, new opportunities for abuse present themselves. No institution can remain dignitarian for long if it is not committed to coevolving with power.”

In addition to shared governance, a dignitarian institution is likely to possess a number of distinctive characteristics. Evaluation processes would be broadened so that people from different constituencies are involved in hiring decisions and job performance reviews. An ombudsperson would have extensive responsibility for resolving disputes involving rank. After giving a talk on rankism at Princeton University in 2004, Princeton’s ombudsman, Camilo

Azcarate, told me that his job can be summed up as discerning the difference between rank and rankism in a multiplicity of circumstances.

Organization-wide constitutional reviews would be scheduled every five to ten years in order to update the system of governance in view of changing circumstances, thereby ensuring that an institution remains dignitarian. As power evolves, new opportunities for abuse present themselves. No institution can remain dignitarian for long if it is not committed to coevolving with power.

Societies that uproot rankism in their schools and universities will lead the world in the twenty-first century, just as those that curtailed the abuse of rank in government led in the twentieth.

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Bibliography

1. Bosman, Julie, *The New York Times*, "Putting the Gym Back In Gym Class," Oct. 13, 2005.
2. Katz, Michael B., *Class, Bureaucracy, and Schools: The Illusion of Educational Change in America* (New York: Praeger, 1975).
3. McCardle, John M., Jr. *The New York Times*, Sept. 13, 2004.
4. Margalit, Avishai, *The Decent Society* (Cambridge, MA: Harvard University Press, 1996).
5. Rawls, John, *A Theory of Justice* (Cambridge, MA: Belknap Press, 1999).
6. Walzer, Michael, *Spheres of Justice* (New York: Basic Books, 1983).

Corruption of the Scientific Method

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Abstract

The scientific method is accepted worldwide as a major group decision-making process. Countries and international organizations rely upon the scientific method in constructing laws, regulations and treaty agreements. We describe how the scientific method has been corrupted by thoughtlessly following a historical prescription that is reinforced by stakeholders with large financial interests. Finally, we conclude with some options for stemming the corruption.

1. Introduction

We begin by reviewing the scientific method, as it is widely espoused but narrowly defined in the Western world. This method is accepted worldwide as a major group decision-making process. Countries and international organizations rely upon the scientific method in constructing laws, regulations and treaty agreements. We describe how the scientific method has been corrupted by thoughtlessly following a historical prescription that is reinforced by stakeholders with large financial interests. We conclude with some options for stemming the corruption.

2. The *P*-Value

From a scientific experiment comes the *p*-value, which is a number summarizing the research effort. Indeed the research effort may produce many *p*-values, but considering only one simplifies our expose and only one *p*-value is needed to make our point. In the simplest experiment, the *p*-value is used to choose between two options:

- The Null Hypothesis and
- The Alternative

The *p*-value is a number between zero and one; it is an estimate of the chances of observing the data that were in fact observed if the null hypothesis were true. The validity of this estimate depends on the quality of the experiment's design, procedures, modeling assumptions and sample size. A small *p*-value indicates that it was very unlikely that the observed data were produced under operation of the null hypothesis. Thus a small *p*-value leads to selecting the alternative hypothesis.

Commonly, the alternative is selected if $p \leq 0.05$. Why 0.05? Before computers, Karl Pearson published tables for just a few decision-making criteria, including $p \leq 0.05$ which was

widely adopted.¹ In spite of now having computers that permit scientists to easily make decision-making criteria reflect context-specific risks, the “ $p \leq 0.05$ ” criterion has virtually become a universal law and it is hard to get experimental results published unless this outcome is obtained.

3. The Method as Intended

When there are only two possible choices after an experiment (i.e., accept the null or the alternative hypothesis), there are two possible ways in which to be wrong. See Table 1.

Table 1: Possible Choices after an Experiment

The Truth is	Decide to go with The Null Hypothesis	Decide to go with the Alternative
The Null Hypothesis	Correct	Error Type 1
The Alternative	Error Type 2	Correct

It is intended that null hypothesis represents the current situation, the status quo, and that it should be hard to reject the null hypothesis in favor of something different or new.

An analogy common in elementary statistics texts is judicial systems in which the defendant is assumed to be innocent until proven guilty. The burden of proof is placed on the prosecution under the belief that the two possible errors are not equal, specifically, that it is worse to convict someone who is innocent than to acquit someone who is guilty. Such decision-making systems reflect the dominant underlying value system.

The two possible errors are assumed to differ in significance in applications of the scientific method. The widely used decision-making strategy considers an error of Type 1 to be much worse than an error of Type 2. It is expected that the terms “null” and “alternative” will be matched with experimental outcomes in such a way that the worse mistake is to wrongly reject the null hypothesis and thus wrongly accept the alternative as truth.

Before the experiment, the scientist establishes a limit on the chances of making a Type 1 error (now almost always 5/100); then after the experiment, the scientist estimates the chances of a Type 1 error assuming the null hypothesis to be true and accepts the alternative only if this estimate is very low (almost always $p \leq 0.05$).

The Type 2 error is given little attention. When a Type 2 error occurs, the alternative is true but is not chosen. For example, a successful alternative therapy is disreputed. Given the rule is to select the alternative if $p \leq 0.05$, a larger sample size reduces the chances of making a Type 2 error. Recognizing the harm that results from making Type 2 errors, many statisticians invest considerable effort trying to convince their scientific colleagues that their planned sample sizes are too small to provide reasonable protection from such erroneous conclusions. But only the p -value matters to most scientific journal reviewers and editors, and so it is hard for scientists to value the impact of making a Type 2 error.

While the systematic acceptance of high Type 2 error rates should be a matter of great concern among those responsible for allocating public resources to the scientific community,

this is not the topic of this paper. It is related; but the focus of this treatise is on errors of intent and not errors of omission.

4. How to Cope with the Scientific Method

The scientific method is easily corrupted by making the hypothesis you want to win acceptance of the null hypothesis!

This assertion is easily demonstrated by two examples in which the null and alternative hypotheses are matched with two possible realities with dramatically different implications for societal health and well-being. These two examples reflect the dominant decision-making strategies of different regulating agencies in the United States.

First consider new drug development, which is regulated by the U.S. National Institutes of Health. The operating null hypothesis is that drugs do no good, or are harmful. The burden of proof is on the drug developer to provide data that strongly support the contention that drugs are beneficial or that they are at least as good as available alternatives.

The second example concerns chemical and physical alterations of natural foods and the environment. These include pesticides, additives to food and food containers, and additives to cosmetics. Also included are genetic, chemical and physical manipulations to plants, animals and the environment. In the development of regulations under the jurisdictions of the U.S. Food and Drug Administration, the Consumer Protection Agency and the Department of Agriculture and in the name of the free market enterprise, the operating null hypothesis is that the substances in question are safe.

Recently, for example, without general discussion, education or debate, the public in the United States has witnessed the widespread introduction of nanoparticles of titanium dioxide into toothpaste, creams and lotions and of high fructose corn syrup into drinks and canned goods. Titanium dioxide is regarded as an inert, non-toxic substance by many regulatory bodies such as the U.S. MSDS (Material Safety Data Sheets). Yet a quick Google search reveals that safety questions are not resolved. On the University of Rochester, New York, website alone one can find scientists advocating for and against the use of nanoparticle formulations of titanium dioxide in sunscreen.^{2, 3, 4}

What is wrong with changing the glucose from corn into fructose, and loading it into processed foods? Companies must have a reason for investing energy, and hence money, into changing a simple sugar into a more complex one. Our digestion of fructose bypasses the switch in the liver that signals us that we are full and should stop eating.^{5, 6} So, while high fructose syrup may not be harmful per se, it encourages over-eating and hence obesity.

Are titanium dioxide and high fructose corn syrup public health problems? As the scientific method is currently applied, acceptance of this assertion requires that experimental data be generated that strongly supports it. A major reason that it is hard to establish that chemical and physical alternations to food and the environment are harmful with the “scientific rigor” that would command stronger regulation is because it is labeled the alternative hypothesis.

Who determines what is and what is not the null hypothesis has tremendous advantage in winning acceptance of their position.

This is not lost on stakeholders with large financial interests, as is apparent from their frequent cries that their products and additives have not been proven harmful. Focus here on who they are saying should be doing the proving.

When companies do not have to prove their products are safe, who will pay to prove otherwise? The American Cancer Society has a list of priorities for further research, but the burden is on them, their donors and the public.⁷ A commercial company's structural advantage in the decision-making process forces the initiative for and cost of proving the alternative away from them, often it seems like into the air.

Because there is no well-funded public, systematic, institutionalized process for studying the effects of chemical and physical alterations to our food and environment, individuals who believe the alternative hypothesis (e.g., endocrine-disrupting chemicals are harmful at low doses) are largely disempowered and silenced in their efforts to substantiate their claims.^{8, 9, 10}

"The public should be educated concerning the scientific method as it is commonly employed, and the implications this construct has for their well-being."

5. What can be Done?

- The public should be educated concerning the scientific method as it is commonly employed, and the implications this construct has for their well-being.
- In designing scientific studies and in reporting scientific results, the question 'what is the null hypothesis?' should be critically debated. Which type of error is worse? Before debating important study results, and well before accepting them, the public should debate whether the labeling of possible realities as null and alternative hypotheses actually match society's values, recognizing the significance of these labels.
- Attention should be paid to the chances of Type 2 error in designing studies and in reporting results. If journal editors, government regulators and the media demanded an estimate of the chance of a Type 2 error, assuming the alternative hypothesis is true, along with every p-value reported, it would shed considerable light on scientific evidence for and against the two hypotheses.

6. Conclusion

We have shown how outcomes from the scientific method depend strongly on how the questions are formulated, in particular, what is and is not the null hypothesis. Because the errors associated with different decisions are not treated equally, it is relatively hard to accept the alternative and relatively easy to accept the null hypothesis. Thus, which is which matters and should be of great interest when discussing any research of public interest.

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Notes

1. Karl Pearson, *Tables for Statisticians and Biometricians* (Oxford: Biometric Laboratory, University College, 1931)
2. Zahra Naghdi Gheshlaghi, Ghoiam Hossein Riazi, Shahin Ahmadian, Mahmoud Ghafari, Roya, Mahinpour, "Toxicity and interaction of titanium dioxide nanoparticles with microtubule protein," *Acta Biochimica et Biophysica Sinica* 40, no. 9 (2008): 777-82
3. XiaoBo Li, ShunQing Xu, ZhiRen Zhang, Hermann J Schluessner, "Apoptosis induced by titanium dioxide nanoparticles in cultured murine microglia N9 cells," *Chinese Science Bulletin* 54, no. 20 (2009): 3830-3836
4. Ivo Iavicoli et al., "Toxicological effects of titanium dioxide nanoparticles: a review of in vitro mammalian studies," *European review for medical and pharmacological sciences* 15, no. 5 (2011): 481-508
5. Steven R. Gundry, *Dr. Gundry's Diet Evolution: Turn Off the Genes That Are Killing You and Your Waistline* (New York: Three Rivers Press, 2008)
6. Luc Tappy and Kim-Anne Lê, "Metabolic effects of fructose and the worldwide increase in obesity," *Physiological reviews* 90, no. 1 (2010): 23-46
7. Elizabeth M. Ward, Paul A Schulte, Kurt Straif, Nancy B Hopf, Jane C Caldwell, "Research Recommendations for Selected IARC-Classified Agents" *Environmental Health Perspective* 118, no. 10 (2010): 1355-62 <http://dx.doi.org/10.1289/ehp.0901828>
8. Wade V. Welshons and Frederick Susan vom Saal, "Large effects from small exposures: II. The importance of positive controls in low-dose research on bisphenol A," *Environmental Research* 100, no. 1(2006): 50-76
9. Frederick S. vom Saal, "Bisphenol A eliminates brain and behavior sex dimorphisms in mice: how low can you go?" *Endocrinology* 147, no. 8 (2006): 3679-3680
10. Wade V. Welshons, Susan C. Nagel and Frederick S. vom Saal, "Large effects from small exposures: III. Mechanisms mediating responses to the low doses of the plastic monomer bisphenol A," *Endocrinology* 147, no. 6 (2006): S56-S69

The Evolution of Sovereignty

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Abstract

Law is a civilizing force that emerges and evolves as one expression of the process of societal development, transforming the power of physical violence into legal authority. This process has three interrelated dimensions – social, power and legal. Society progresses by increasing levels of social awareness that generate rising aspirations, which in turn release the dynamic energies of society for productive purposes. The development of social institutions organizes these dynamic energies which are converted into effective forms of power – political, economic, social, technological and cultural. This power process is institutionalized by a constitutive process into principles of authority, governance and law. These processes have evolved to a considerable extent at the national level resulting in modern societies with an unprecedented capacity for effective action and self-regulation. The evolution of the international community is far less advanced. A common global awareness and aspiration are only just acquiring shape. The dynamic energies of global society are only partially released. The institutions needed to organize global social energies into effective power are yet to acquire adequate strength and authority. And as a result, the constitutive process needed to generate a comprehensive framework for global rule of law is still in its infancy. Ideas evolve with the evolution of society and in turn drive that evolution. The principal obstacle to development of global society is adherence to an outmoded historical conception of sovereignty that accords inordinate legitimacy to the nation-state and only secondary rights to individual human beings and the global human community. This article traces the evolution of the concept of sovereignty to reflect the rights of individuals and the human collective, which is a critical necessity for the evolution of global society.

This article is a contribution to the Global Rule of Law project of the World Academy of Art & Science which has been a central theme at recent international conferences and seminars organized by the Academy in collaboration with The European Leadership Network, NATO, Pugwash, The Club of Rome and other organizations. The objective of the project is to frame a comprehensive, inclusive, integrated global perspective of the role of law in social development that is fully integrated with its political, economic, social, psychological and cultural dimensions. It encompasses the full range of social processes from the local to global level as a dynamic field of activity undergoing a continuous process of development and evolution in concert with the evolution of other dimensions and of society as a whole.

1. Sovereignty and Human Rights

Although no one realized it at that time, dramatic events unfolding in North America in 1861 were to have momentous consequences for the entire world throughout the 20th century. They remain a crucial determinate of global development even today. The United States of America as it was then constituted was on the verge of dissolution. A year earlier seven southern states seceded from the Union and declared themselves as a new sovereign entity, The Confederate States of America. Their number eventually grew to eleven states, with the addition of two states and two territories to the seven secessionist states. A year later it appeared to many Americans and Europeans that the once vast nation spanning the continent of North America would be permanently divided. Indeed, it seemed likely that the breakaway of these states would be the forerunner of similar moves by California and other states and territories, creating a fragmented patchwork of sovereign states similar to the pattern on the other side of the Atlantic. The southern states seceded in order to defend themselves against the repeated efforts by Northern abolitionists to halt the expansion of slavery and eventually outlaw it throughout the nation, as it had already been outlawed in England, France, Spain, Portugal, Canada, Mexico and in most of the other European and Latin American states. But the war itself was fought to preserve the union. At issue were the sovereignty of the nation and the human rights of its citizens. In the final analysis physical force rather than principles of justice determined the outcome. The North applied its superior demographic, economic and industrial power to suppress the revolt. Conscious that the southern states would again be able to defeat abolition in Congress, President Lincoln applied a combination of public support and political power to push through the constitutional amendment to abolish slavery while still at war, when the southern slave states were not represented in Congress to oppose it.

Today, the same issues of sovereignty and human rights are playing out around the world, nationally and internationally. Take, for example, Civil war rages in Syria, Afghanistan and Iraq. National governments vie with the aspirations and demands of their own citizens on the streets of Cairo, Istanbul, Brasilia and elsewhere. Growing legions of the unemployed vie with entrenched financial powers over economic policies and priorities. Claims of national sovereignty and constitutional legitimacy clash with counterclaims of democratic freedom and fundamental human rights. At the international level, the threat posed by nuclear weapons and climate change pits the claims of sovereignty against the humanitarian rights of individual human beings and humanity as a whole. Politicians apply political leverage to negotiate limits on carbon emissions with a view to their national advantage, rather than the rights of all human beings. States assert their sovereign prerogative to produce and possibly even use nuclear weapons, although the consequences could be devastating to their own people, to the innocent civilians of other countries, and possibly through untold environmental catastrophe to humanity at large.

2. Integrated Perspective of the Social, Power and Legal Processes

Everywhere, we find a complex interplay between the rising aspirations of society, the play of political and economic power, and the claims of constitutionality and legality. Society, political and economic power, and law are inextricably intertwined. Social process, power process and legal process are three levels or stages of a single movement. Society evolves

through an ever expanding awareness of possibilities which release and direct its energies and channel them through increasingly complex forms of social organization to fulfill its rising aspirations. Social energy channeled through social structure is converted into political, economic, technological and other forms of effective power for accomplishment. The social and power processes culminate in the conscious formulation and operation of law through a constitutive process that evolves in concert with the growing awareness, rising aspirations and ever changing balance of power in society.

This perspective is founded on an understanding of society as a conscious, interconnected network of relationships between people, organizations and activities integrated around core values, principles, beliefs and institutions. It recognizes the complex interdependence and interrelationship between individuals and the collective, perceiving both the individual's active role as pioneer and catalyst of social change as well as his passive role as recipient of inherited and distributed characteristics and benefits from the collective. Further, it is predicated on the ubiquitous role of choice and decision as prime determinates of all aspects of these processes. It also recognizes the value-based, goal-driven directionality of social processes moving ever outward from the local to global level guided by and endeavoring to realize a range of universal values.

The characteristics of the process described above apply to all levels and expressions of social change. However, at the local and national level these processes are so long established, deeply entrenched and inextricably interwoven that it is difficult to identify the live ends of the threads by which they are evolving. Whereas global society is still at an early stage of development, akin to pre-Civil War USA and the early days of nation-building for former European colonies after the Second World War, when the fabric of society was only loosely woven and its underlying structure more apparent than it is today. Therefore, it is in the international sphere that we can most clearly observe the interaction between the social, power and constitutive processes that govern the development of all societies at all stages. The on-going unfolding of this evolutionary process at the international level as in Europe today and at the global level have the greatest possible relevance to the future of humanity as a whole.

3. Foundations of Law

Law is a civilizing force. It is a central and essential instrument for the establishment, survival, growth, development and evolution of society. Law translates effective power into guiding mental principles. Law applies principles of authority and coercion to uncompromisingly preserve and advance the core social values and objectives of society. Law gives these principles operational effect through the exercise of authoritative and controlling decision-making undertaken by those in positions of leadership and responsibility.

Law manifests power. As the American Revolution, Civil War and countless other instances demonstrate, at its deepest roots law is a sublimated expression of the capacity for the violent exercise of power required to found, define and hold society together and to ensure the necessary level of conformity among its members to fulfill social objectives, such as those associated with self-defense, law and order, production, tax collection, etc. Physical power and authority to found and preserve a social entity evolve gradually into political power made manifest by the creation of a constitution and legal process. Constitutions embody

the prevailing principles for the exercise of power and the values on which these principles are based. Thus, authority comes to be defined and rooted in the expectations created by the constitutionalization of power. The very notion of a constitution is a critical symbol of authority in the processes of both national and global governance. Constitutions seek to define and legitimize the authority of the state both with reference to its own citizens and with reference to other states. The central role of power in the formation and existence of society raises the critical question of the relationship between authority and freedom in legal theory, which is especially relevant today for an appreciation of the evolution of international law.

"The deepest foundations of constitutional power and law reside in the consciousness of the people. Law represents a codification of the public conscience."

At a still deeper level the power of a society, whether democratic, monarchical or totalitarian, ultimately rests on the consent of its members, whether it be active and willing or passive and submissive. The Civil War suppressed a temporary violent attempt at secession, but the integrity and power of the USA today are founded on the willing consent and active participation of its constituent states and citizenry. It is self-evident in retrospect that massive colonial empires in India and elsewhere could neither have been established nor sustained for decades without the active consent or passive willingness of those who were thus colonized to accept foreign domination without resorting to incessant violence. Indeed, once people in India and other former colonies decided that they were unwilling to remain in subjection, no power on earth was capable of sustaining imperial rule, as illustrated by the ultimate effectiveness of the national civil disobedience movement in India. Thus, the deepest foundations of constitutional power and law reside in the consciousness of the people. Law represents a codification of the public conscience. The concept of sovereignty is central at this deeper level of social causality as well, for it defines the relationship of the organized state with its own members as well as with its external environment.

4. Sovereignty and the Global Dimension of Rule of Law

The evolution of democracy at the national level in recent centuries radically altered the basis for national sovereignty, shifting it from the rights of the monarch and responsibilities of the people to the rights of the people and responsibilities of those that govern. This process is at a much earlier stage of development at the international level, where the notion of sovereignty remains confined to the national level and the rights of humanity, the human collective, are yet to be fully recognized.

Sovereignty itself is commonly understood as a claimed monopoly over matters of national security. Such claims are tempered by the fact that national security remains insecure without some version of cooperative sovereignty between nations. But nation states are not the only legitimate claimants for security. The very rights asserted by nation states under the purview of sovereignty to protect their own security can and do represent real threats to other nation states and to the very survival of humanity. This is most clearly evidenced by the threat of use or actual use of nuclear weapons. So long as the existence of nuclear weapons makes possible their accidental or intentional detonation, there is no way to ensure that their possession does not threaten or undermine the security of other people and nations, and of humanity as a whole. Indeed, the catastrophic environmental effects of multiple detonations

could pose dangers to unborn future generations as well. Similarly, the sovereign right of any nation to develop and utilize nuclear energy could and does pose existential risks to the people of neighboring states, yet present international law offers no recourse to limit the free exercise of that right by each nation.

Thus, the issue of sovereignty raises the more fundamental question of whether global society should be solely considered as an aggregation of territorially independent sovereign states or whether it encompasses a range of participators that ultimately includes every human being on the planet. If the latter is true, then it is important for us to recognize that the ultimate authority of global decision-making on issues that may threaten or affect the destiny of all humanity cannot be confined to a few territorial sovereigns. Both the social foundations of law and principles of justice would dictate that humanity as a whole must be recognized as the ultimate sovereign authority of the global constitutional process and Rule of Law. In fact, recent developments in the field of international humanitarian law support this view and show that it is already in the process of becoming a reality, in spite of stiff resistance by nation states, most especially those possessing nuclear weapons.

5. Sovereignty in Global Public Order

Sovereignty maintains a critical position in the context of global social, power and juridical matters. Under current global conditions, theorists have insisted that no account of global law and global governance can be complete if its description is confined only to territorial sovereigns. Indeed, a current description of the global social process would recognize the emergence of a wide range of non-state, non-sovereign actors including the importance of the individual as a critical stakeholder in all of these processes. This evolution of a multitude of actors besides the state seems at least implicitly to limit in some measure the centrality of national sovereignty in the global scheme of governance. The emergence of the non-state sector of global society has been significantly facilitated by the global communications revolution as well as the dramatic expansion of international trade and international business following the end of the Cold War. Among the important outcomes of this process has been the emergence of new fora outside the boundaries of the nation state, described collectively as emergent global civil society. These developments are collectively referred to under the label of globalization.

However, notwithstanding globalization, the claim of national sovereignty still exercises important, inordinate influence over global responses to the challenges confronting humanity today. One recent example is the application by China and Russia of their super sovereign status as permanent members of the Security Council to block action by the UN regarding the ongoing civil war in Syria. Among the justifications they give for blocking intervention is that the Assad Regime that runs Syria is an official sovereign and whatever happens inside the territory of the sovereign is a matter that is insulated from international concern. Claims to national sovereignty clash with international efforts to strengthen the principle of international obligation.

6. Early Theorists on the Development and Evolution of Sovereignty

Tracing the development of the concept of sovereignty in an evolutionary context can help us account for the circumstances and pressures that have defined and modified it in

the past and are clashing today over its further evolution. Three of the earliest theorists to develop the modern idea of sovereignty were the French statesman, Jean Bodin; the English Philosopher, Thomas Hobbes; and the Dutch jurist, Grotius (Hugo de Groot). Bodin provided the foundations of the modern concept of territorial sovereignty. The primary forces that influenced his scholarship and practice were the disintegration of the Holy Roman Empire and the emergence of territorially-controlled political entities under localized elites. Bodin understood the importance of centralizing power over people and territory as a method of generating minimum order in the state. His work was in effect a justified order under the “Majestas” of the sovereign to prevent crimes against the people and the state. The only limit on sovereign absolutism was whether the sovereign was willing to subordinate his power to natural or divine law. Bodin believed in the natural law tradition as a limitation on sovereign absolutism, but this tradition was weakened by the sovereign’s monopoly over effective power. Clearly, Bodin did not endorse sovereign absolutism, but his limits were ones that the sovereign could easily ignore. His view of sovereignty, therefore, relies primarily on the capacity for coercion and to only a lesser extent on principles of authority.

Another version of the need for centralized coercion was advanced by Thomas Hobbes. Hobbes took the view that there was an implicit contract between the ruler and the ruled. The obligation of the sovereign was to protect his subjects, which was in turn the basis for the consent of his subjects to obedience toward the sovereign. Like Bodin’s, Hobbes’ view does suggest some modest limits to sovereign absolutism, but these limitations are very modest. The practical consequence was that the self-serving elite saw Hobbes as justifying a version of sovereign absolutism. Both of these theorists dealt with sovereignty and governance of a territorial community, in contrast to the approach of Grotius.

Grotius is regarded today as the father of modern international law. His approach to the problem of sovereignty concerned the role of the sovereign functioning in the context of a multitude of other sovereigns. Grotius was in part inspired by the early Roman law which had developed a system of law for the governance of Rome’s relationship with other nations. The foundations of this system of law were known as the *Ius Gentium* (the Law of Nations). This law was supplemented by the later developments in natural law theory. From these roots, Grotius wrote his most famous work, *The Law of War and Peace* (1625), in which he identified the problem of sovereignty at the international level. He suggested that although there was an identifiable common law among nations, which functioned in the context of war and peace, nevertheless, there was a complete lack of restraint by sovereigns in rushing to arms and causing atrocity and mayhem. Drawing upon the tradition of *Ius Gentium* and the natural law tradition of right reason, Grotius developed principles implicating common sense moral ideas as the basis for international obligation to which all sovereigns were bound. In short, Grotius insisted that reason and reasonableness must be the foundations of the law between sovereign states. This approach of Grotius has endured as an alternative paradigm to that of Bodin and Hobbes. These three views establish the importance of ideas, even conflicting ideas, that impinge on the objective world of reality when they are grounded in political and legal practice.

In 1648, the European sovereigns met in Westphalia and consummated a peace treaty among those attending. This agreement was essentially designed to end the wars of religious conflict within and among sovereign states in Europe. It institutionalized and gave a juridical

face to the sovereign territorial system of Europe. These sovereigns still adhered to a version of absolutism, even though they had agreed to the terms of the peace treaty, thereby subordinating their sovereignty based on a legal agreement. The Treaty of Westphalia initiated a paradigm of law and international relations that was rooted in the near-exclusivity of the territorial sovereign legal personality.

Westphalia started out as a Eurocentric paradigm of the centrality of the state in governance, but since then its evolution has been universalized so that the concept of sovereignty it defined is intricately woven into the fabric of global governance and global constitutionalism. Indeed, the prevailing paradigm of global governance is the globalization of a statist paradigm. The question for modern scholarship is whether there is an emergent and insipient paradigm that presents a compelling alternative to the entrenched statist paradigm.

7. Positivism or a Paradigm Shift

Theorists of the 18th Century grappled with the problem of sovereignty and the importance of higher values that might constrain or guide sovereignty in action. Their discourses were concerned with the authority aspect of sovereignty which could be diminished by sovereign absolutism. The 18th Century also saw the emergence of a stronger form of sovereign absolutism, which based its claim to legitimacy on the positivist viewpoint that emerged with the rise of modern science. Briefly stated, “In any legal system, whether a given norm is legally valid and, hence, whether it forms part of the law of that system, depends on its sources, not its merits.”¹ Legality was to be judged objectively rather than subjectively and the criterion was the presence of certain identifiable structures of government, not the extent to which law satisfies principles of justice or democratic values.² Positivists regarded law as a human construct identified with a specific social institution. Early theorists applied this view to suggest that only a very compelling justification could be used to undermine the idea of strong or thick sovereignty and such justifications, if rooted in morality, would be unscientific and invalid. This approach was applied to support a narrow version of law at the international level. International law could only be established by explicit sovereign agreement or by the practice of sovereigns as understood in terms of customary international law.

These views were still awaiting a developed theory to become institutionalized as conventional wisdom. The next great development was the emergence of a general scientific theory of law rooted in the sovereign itself. This is an important lesson in the power of ideas. An Englishman, John Austin, developed this rigorously scientific approach to law in his book *The Province of Jurisprudence Determined* (1832). Austin provided an elegant and simplified model that could explain all law in terms of the sovereign. In this model, law properly so-called is the command of the sovereign imposed by a sanction applied to a community in the habit of obedience. This model seemed intuitively correct according to common sense and eventually became the prevailing conventional view of law. Even today, it remains a powerful vehicle for the assertion of the most comprehensive powers that a state may seek to monopolize.

The power of Austin’s model lay in its simplicity, which meant that it provided a strong justification for the exercise of governing power in a scientific sense, uncontaminated by moral or value limitations. The model was logically rigorous. The sovereign could not be a sovereign if it were subject to a higher form of obligation. Thus, a sovereign could not be

bound by a constitution, because in doing so it would lose its sovereignty. Therefore, constitutions were not proper law; they were positive morality. International law could not impose obligations on the sovereign without the sovereign losing its sovereign status and, correspondingly, the location of a global sovereign capable of imposing obligations on a so-called sovereign could not be factually sustained. Since there was no international sovereign, there could be no international law. International law therefore was simply a species of positive morality.

Austin's theory fused the idea of law, state, and sovereignty and provided a powerful objective view of law. In his view, the sovereign was essentially the state and the state represented law. The logical implications of his view that constitutional law and international law were not law, were never fully embraced by the legal profession or, indeed, as legal theory. However, his view did diminish the centrality of constitutional law and international law. It weakened their impact on the concept of global governance and reduced the restraints on national sovereignty required in the practical scheme of human relations.

8. Evolution of Sovereignty: Positivism vs. Natural Law

The evolution of sovereignty in the late nineteenth century appeared to confirm its strength and importance in understanding the internal governance of the state and the role of the sovereign in international affairs. From the point of view of international law, the stress on restraints on the exercise of sovereign power focused on agreements that sovereigns could voluntarily enter into. The Austinian view has often been referred to as the conventional view of law. This may be because, whatever the flaws in the theory, it had certain objective characteristics that could be easily comprehended and, therefore, given operational effect in practice. The Austinian model is a reminder that an elegant and relatively simple idea expressed in a coherent and consistent manner can have traction and important effects in the real world in which it is invoked, irrespective of its inherent validity.

The durability or should we say the survivability of both constitutional law and international law drew strength from fundamental ideas set forth by Grotius. In contrast to the Positivists, Grotius underlined the importance of natural law ideas, whereby law was founded on rationally discernible principles of natural right and justice. These rationality principles imposed certain limits on sovereignty and on the relationship between sovereigns. The evolution of the concept of sovereignty reflected a continuing debate between mutations of Austin's positivism and the role of reason, fundamental morality, and values as reflected in the Grotian tradition. The logic of Austin was that values and morality had nothing to do with law or sovereignty. Grotius repudiated this view.

In the practice of states, the concept of sovereign absolutism continued to exert a powerful influence on state craft during the 19th century. Since there were few restraints on sovereigns other than morality or values, at the close of the century the global community sought to more aggressively pursue sovereign agreements between states. Early in the twentieth century efforts were made to strengthen the use of arbitration by sovereign contestants. Additionally, a bold move was made to subject one essential attribute of sovereignty (the making and means for war) to rules mandated by international law. These were reflected in the agreements that emerged as the Hague Conventions dealing with the rules of war. However, by 1914, notwithstanding increased levels of codification of sovereign agreement, sovereigns

still held the power of war with limited restraint. The assassination of Arch Duke Ferdinand of the Austrian-Hungarian Empire by a Serbian terrorist in Sarajevo in 1914 soon developed into a world war, and sovereigns fell like lemmings into the cauldron. It became evident that whatever limits there were on the power of sovereigns to make war on each other, none of these limits could trump their implicit claim to sovereign absolutism.

9. Modest Retreat from International Sovereign Absolutism

During WWI, two statesmen emerged with ideas about how sovereign absolutism could be limited and thereby prevent a repetition of global war: President Woodrow Wilson and Field Marshall Smuts of South Africa. Wilson remained in Europe for a considerable time after the war negotiating the formation of an organization of global import charged with maintaining peace and security, which eventually led to the founding of the League of Nations. In the fine print of the League Covenant, we see the resilience of Austin's ideas of sovereign absolutism, international law and the state. The Covenant codified a rule upon which all decisions were to be made unanimously. No binding decision could be made if a single sovereign objected. This meant that if a member of the League engaged in acts of aggression, it could effectively veto any action by the League. During this period, Europe witnessed the emergence of totalitarian style states in Stalin's Russia, Hitler's Germany and Mussolini's Italy, as well as a form of totalitarian rule in the Empire of Japan. These states made aggressive claims to freedom of action in the international sphere, implicitly asserting their sovereign right to aggression for the purpose of world conquest. One expression of this form of absolutism was the notion that war could be an exercise in total destruction.

During WWII, serious thought was given to the development of an international law that would provide a stronger institutional framework for limiting sovereign absolutism. This led to the drafting of the Atlantic Charter in 1941 as a policy statement, which formed the basis for the UN Charter ratified in 1945. Parallel to these developments, international tribunals were created to try leaders of the aggressor states for international war crimes. These tribunals (Nuremburg and Tokyo) provided a significant legal restraint on sovereignty. The tribunals maintained that the notion of sovereignty was merely an abstraction from reality. Those making decisions leading to international aggression could be held responsible for war crimes and crimes against humanity.

The United Nations Charter was the first serious global compact reflective in documentary form of the emergent expectations of a global constitutional process. In this sense, the Charter represents an important symbol of the idea of Global Rule of Law. The text of the Charter is, however, an instrument of some ambiguity. It affirmed natural principles of justice as its foundation. But it also allocated effective power according to traditional notions of sovereignty. The Preamble of the Charter states that it represents "we the people" of the global community. Article I largely affirms individual human rights in some form or other. However, membership in the UN is limited to sovereign states. Additionally, the United Nations created a special institution, the Security Council, with an important responsibility for global security. Within the Security Council each of the five permanent sovereign members has the right to veto and can block UN action in areas of peace and security which they deem incompatible with their national interests. Thus, the five permanent members are endowed with the status of super sovereigns over and above other nations and unaccountable to humanity as a whole.

The current structure reflects a modified view of the League's unanimity principle with all its dysfunctions, only a smaller number of states are now empowered to exercise the veto power. Thus, the UN affirms in the practice exercise of near-absolute sovereignty, but restricts it to a small group of states, while subordinating the sovereignty of other states to the will of the Security Council, even in circumstances where the action of the Council may violate even a much weaker interpretation of sovereignty.

Furthermore, while in theory the Charter appears to recognize the existence and rights of humanity as a whole – we the people – in practice, the authority foundations of decision-making in the UN do not accord any status or provide any direct mechanism by which humanity as a whole can express or exercise its sovereign rights, other than through the intermediation of national governments whose values and objectives may differ widely from those of their own citizens. The notion of sovereignty as conventionally understood still enjoys inordinate influence over decision-making under the UN Charter. The lingering underpinnings of sovereign absolutism are in stark contrast to the authority foundations of global governance rooted in people's expectations in accordance with fundamental principles of democratic representation and human rights.

Our position is that the concept of sovereignty must inevitably be extended to encompass the rights of humanity as a whole and that the Charter's own stipulation of "we the people" should be recognized as an essential foundation of the authority of the UN and its institutions. The critical question is how this principle can evolve into an essential practice of political and legal accountability, responsibility and transparency on issues affecting the rights, aspirations and survival of humanity as a whole. The further transmutation of the role of sovereignty in the global constitutional process must, like the evolution of constitutional process at the national level, depend on essential prior developments at the levels of social process and power process.

10. Global Sovereignty and Global Constitutionalism during WWII

In an earlier essay, we borrowed from Harold Lasswell ideas that provide clarity for the context of the global rule of law and its constitutional underpinnings.³ As at the national level, international legal and constitutive processes depend on and are determined by underlying social and power processes. The evolution of global rule of law and the development of global constitutional law are a function of global social development, evolution and precipitous change at all levels from local to global. One important outcome of these social processes is the conversion of social dynamism into effective power and decision-making, which in turn has a determinative influence on the constitution and application of law.

This can be clearly seen by the course of events in 1945. World War II was a global scenario where global differences were to be resolved by armed conflict. The victory of the allied powers reflected an important shift in the world power process. The war essentially pitted the democracies against the totalitarian states. By implication, the war against the democracies was a war waged against "we, the people" and it was vigorously defended and eventually defeated under the democratic Allied banner of 'by the people', so dramatically illustrated by the patriotic appeals of Winston Churchill to the English during the darkest period of the war. Additionally, in occupied nations, peoples' resistance emerged, adding to the sense that the war was a peoples' war. The eventual entry of the USA into the war was

based on tacit agreement that its European allies would dissolve their empires after peace was restored.

After the war, the peoples' perspectives, interests and values, as well as their "authority" found expression in a new world order under the U.N. Charter. By the end of the war there was already intense pressure and a strong expectation that colonialism would soon end and all former colonies attain their freedom. However, the drafters of the Charter could not ignore other components of the global power process. Sovereigns had not exactly abdicated. States, including the democracies that had fought and won the war, were unprepared to relinquish the power they had acquired through war or to accord equal status among the community of nations to all other countries. Thus, the global constitution embodied in the Charter came to reflect the realities of global power as it pertained at the time. The UN Charter, the global constitution, did not resolve the problem of sovereignty or satisfactorily address the problems of global power contestation.

11. Social Origins of Constitutional Change at the National Level

The social and power underpinnings of the constitutive processes may be more easily observed and traced at the local level where the process of social awakening, the release of social energy and its expression in specific actions and events are more transparent, as recorded in the Boston Tea Party, the Salt March in India, Rosa Parks' civil disobedience marking the beginning of the American Civil Rights Movement, and the protests in Cairo during the Arab Spring. Initially the movement is sporadic and unorganized. Later the social energy released becomes directed and expressed in a more organized manner through well-coordinated actions guided by the strategic decisions of social leaders contesting for power. The rise to prominence of social organizations such as the Continental Congress of 13 American colonies, the Indian National Congress, the African National Congress and the Muslim Brotherhood in Egypt became channels for directing and converting social energy into effective power. The power generated and managed is real, but it has not yet consolidated its authority foundations. Later as political events unfold, the perspectives generated by this activism become contenders for progressive constitutional expectations. In this manner the USA, India and South Africa acquired new constitutions and Egypt is in the midst of the highly contentious process of negotiating one. Eventually some of these entities become integrated with formal institutions of governance.

The various aspects of this process are dramatically illustrated by the challenges President Lincoln confronted in waging war against the Confederacy. A lawyer by self-education and profession, he had an instinctive grasp of the fundamental truth that sovereignty ultimately resides in the people. Lincoln was a man of humble origins, a man of the people who knew both their aspirations and limitations. In contrast to most of his military advisers, Lincoln understood that in a democracy war is waged by the whole society, not merely by the army. It is the people who must willingly supply the manpower, bear the tax burden, submit to rationing and endure threats of attack and personal losses. Therefore, he spent his first year in office and the first year of the war preoccupied with building bridges between interest groups, mending fences and offenses, securing allies at all levels, distributing patronage to his political opponents and sounding the will of the people. He consistently resisted the advice of his counselors whenever he felt that it was not supported by the consent of the people. At

the same time, he was very clear that successfully waging a war required a firm authoritative exercise of power. At a time when the President of the United States was provided with only one paid government staff member and the chief of the army did not feel compelled to either consult, inform or obey direct instructions of his Commander-in-Chief, Lincoln gradually gathered himself and exercised more power than any US president who came before him.

But Lincoln also understood that power alone was not sufficient to ensure or preserve legitimacy, unless it was enshrined in the constitution and institutionalized as legal process. He deferred from taking steps he deeply believed in because he knew they transgressed his power under the constitution. But where he deemed it necessary, he stretched that power to the limits. Starting with a Union army consisting of a mere 16,000 men headed by inexperienced leaders, he channelled those prodigious national energies into a massive industrial machine for production of the materials of war and assembled an army of 700,000 to wage war over an enormous territory. At a time when the South was finally ready to negotiate surrender and the North wanted peace at almost any cost, Lincoln forestalled peace negotiations until he could push through a constitutional amendment abolishing slavery throughout the USA. Had he not done so before signing the armistice, the southern states would have exercised their states' rights to perpetuate the institution of slavery for decades or even longer.

It is remarkable to look back now and see by what a slim margin and against what intense resistance the fragile coalition Lincoln assembled successfully passed legislation to abolish a practice we now consider so abominable that it is almost inconceivable to us that it was once tolerated and considered just. Lincoln did all this while defeating separatist forces under the banner of national sovereignty, reuniting a disparate people and healing a nation that had split asunder. Yet immediately following the end of the war, he counseled measures to avoid revenge against the defeated South and quickly restore its prosperity. In doing so he consciously steered the social, power and legal processes of the nation, releasing and directing the energies of the people according to his own vision and values.

12. Signals of the Global Social Process

In retrospect we can identify many elements of the social, political and constitutive processes in the transformation of America during the Civil War, India's Freedom Movement, the American Civil Rights Movement, the Anti-Apartheid Movement, the democratization of Eastern Europe and elsewhere. But still, the driving force compelling these transformative political and legal changes remains elusive. At the time these events were taking place, their inevitable outcomes were far from apparent. Before the Civil War, the nascent American nation was regarded with derision by most Europeans. Few had the insight to believe that the Civil War would not only re-unite the states and abolish slavery, but also establish the foundations for America's emergence as the most prosperous, powerful nation on earth. Even just a year or two before India gained independence in 1947, the vast majority of Indians and their leaders had difficulty imagining it as an independent republic, and many of those doubted its capacity to govern the multiplicity of linguistic, religious and ethnic groups of which it is composed. Today many seem bewildered by the second class status of women in Islamic countries, forgetting that women voters and women political leaders were unthinkable concepts in 19th century Europe, forgetting that women did not acquire equal voting rights with men until 1920 in USA, 1928 in UK, 1944 in France and 1971 in Switzerland. What now

appears logical or inevitable earlier appeared unrealistic or unattainable to all but a few.

So too, when we try to envision the future evolution of international polity and law, we find it difficult to imagine either the conditions or the forces that might compel the entrenched self-interests of the present system to relinquish their privileged status in support of a global constitutive process truly founded on the principles of representative democracy and human rights. Our rational minds tell us it must be the natural, inevitable outcome founded on principles of natural justice. Perhaps, many of those who signed America's Declaration of Independence, which included many slave owners, had difficulty in imagining by what power or process the self-evident truth that all men are created equal would ever be realized in law. So today we may wonder by what circumstances or process international law and governance can and will be transformed.

History not only tells us it is possible, but confirms it is inevitable. It also warns us against the error of mistaking the status quo for the permanent – for even the most powerful forces and institutions of the past – the Church in 15th century Europe, the British Empire in 1900, the Soviet Union and Communist Bloc in 1980 – which seemed impregnable at that time, declined rapidly and inexorably when conditions were compellingly ripe for a new dispensation.

One of the most remarkable of these transformations in recent centuries was the dissolution of aristocratic monarchy as the predominant form of government in Europe. At the time of the French Revolution, the aristocracy of Europe controlled most of the property and occupied virtually all positions of influence in government, the church, the universities and the military. In England just 500 families controlled nearly 50% of all arable land and barely 2 percent of its population was eligible to vote for one house of Parliament.^{4, 5} Yet in the following century, the tide of democracy swept aside hereditary rule in one nation after another, until democracy eventually emerged as the dominant form of government and social culture. In 1780 it was unthinkable to the aristocracy of France that their privileged birthright might so soon become a mark of Cain. It was unthinkable to many Englishmen in 1920 to imagine that within a mere thirty years the greatest empire ever established would no longer exist. It was unthinkable to almost everyone in 1985 or even 1988 that within a few years the Berlin Wall and Iron Curtain would fall, authoritarian communist regimes would be replaced by democratic, market economies throughout the Eastern Bloc, the USSR would cease to exist, Germany would be reunited, and the fledgling European Union would be expanding to eventually encompass 28 nations. These events did not happen by chance. Nor in retrospect is it difficult to perceive the conditions and forces that made them inevitable.

“Indeed the capacity to imagine what was hitherto unthinkable is the significant sign of what is coming.”

So too in looking to the future, we should not be blinded by the illusion of permanence and impregnability which makes even the conception of radical change seem unrealistic or inconceivable. Indeed the capacity to imagine what was hitherto unthinkable is the significant sign of what is coming. What then might be the conditions that serve as the driving force for momentous evolutionary changes in global governance?

The emergence of a truly global constitutive process founded on principles of democracy and human rights must necessarily arise from more fundamental changes in social and power processes. Therefore, we should search for an answer by first examining the factors that are altering the global social process today. There we observe a wide range of very powerful forces gaining momentum. Among them, demographic changes that are rapidly reducing the relative proportion of people living in the countries of Europe and North America which dominate global power structures today; the spread of the flame of democracy from 22 nations in 1950 to 117 and its continued contagion to other regions and to long suppressed minorities within countries; the rapid emergence of the BRICS countries as dominant economic powers; the revolution of rising expectations that has awakened the energies of Asia and is now stirring change in the Muslim world; a four-fold growth of the global Middle Class from 400 million in 2000 to 1.8 billion in 2010 and its further projected rise to 3.6 billion by 2030; two-thirds living in Asia; the emergence of the Internet as the first truly global social organization and empowering transformative force whose influence is yet in its infancy; the rapid rise in levels of education in developing countries – India expects college enrollment to more than double by 2020; the globalization of finance and commerce which undermines the power of national governments; the rise of global civil society represented by more than 40,000 non-governmental organizations; the changing status and role of women in global society, which could prove to be the most momentous of all these forces; and the increasing demand by individuals everywhere that both their inherent rights be fully respected and their creative capacities find free and full scope for expression.⁶

Some of these forces are already fully unleashed, yet the consequences of their continued action is as unforeseeable as the explosive growth of the Internet and cellular telephony was 20 years ago when both were still in their infancy. Others still appear as weak signals of future trends that veil immense hidden power and inevitable consequences. But however we may regard them individually, there can be no doubt that their combined impact will dwarf in magnitude the social forces that swept through Europe at the time of the Renaissance and Reformation; the American, French and Russian Revolutions; the First and Second Industrial Revolution; the New Deal and the End of the Cold War.

The momentous consequences of this tidal wave of social change are difficult to conceive, impossible to predict, but the magnitude of their power and capacity to bend or sweep away the seemingly immovable obstacles posed by entrenched interests and power should not be doubted. A revolutionary social process will undoubtedly effect revolutionary changes in the processes governing political, economic and social power at the national and international level. These will in turn inevitably alter in ways that seem hardly conceivable today the constitutional and legal processes for the governance of humanity.

13. Bringing Law & Order to the Global Wild West

There are also other forces at work that are as great in magnitude and compelling in power as those already mentioned. One such is the rapid accumulation of surplus global financial assets, which have grown from \$12 trillion in 1980 to about \$225 trillion today, equivalent to almost four times global GDP. Rising levels of prosperity globally combined with rapid development of international financial systems has enabled global financial markets to acquire an enormous power that far exceeds the capacity of national governments and central banks to regulate. Although technically the control and regulation of finance is under the sovereign

authority of the nation state, the unbridled growth of the financial sector internationally lies beyond the capacity of individual nations to contain or control. Non-state actors managing greater financial resources than those controlled by all but a few central banks act freely in the sparsely regulated international arena, where a legal and regulatory vacuum leaves ample room for excessive concentration and blatant abuse of power. These developments point to the urgency of enhancing global regulatory accountability to ensure that the global economy is not again brought to the brink of collapse.

This Wild West frontier of international finance is the result of social and economic power processes that have outgrown the existing international political and legal framework. In response there have been piecemeal efforts to extend authority from the national to the international level by the G20, Bank of International Settlements, the Third Basel Accord imposing voluntary standards on international banking, and other regulatory mechanisms. But in the absence of a global centralized legal authority and constitutive process, these piecemeal measures are far from adequate to control the forces they seek to contain. Viewed from an evolutionary perspective, it is evident that the requisite power can only be fully harnessed and positively directed by emergence of a global constitutive financial authority. Current efforts to derive the necessary authority from the consent of national governments based on the values of the prevailing market economy – even when their actions threaten the stability of the entire global economy – are doomed to fail and repetition of crises is inevitable until the necessary power is ceded by sovereign states.

The current international situation is analogous to what prevailed in India in 1905 when Sri Aurobindo first proclaimed the goal of complete independence from British Rule. The Indian people accepted the authority of their colonial masters as legitimate and submitted to it, until leaders came forward to challenge its authority on the principle of freedom and self-determination. The Indian Freedom Movement awakened the Indian masses, released their energy and channeled it into a political organization with the power to drive out the British, leading to establishment of a new constitutive process. Today a similar movement of awakening and organization can bring about parallel progress at the international level. The idea of a global referendum may be one step in that process. The organization of an umbrella group of civil society institutions as envisioned in the WAAS Strategic Plan may be an effective instrument for that movement.

“Social revolution is a distinct possibility unless the pace of evolutionary change is radically accelerated.”

Like the Internet, the prevailing international political and economic system is still a work in progress and has obviously not reached its full potential. It has released enormous human energy and productivity, which have been organized into powerful political and economic structures. But these structures function largely based on narrow principles of nationalistic self-interest and international competition, rather than on cooperative equity and welfare for all.

14. The Emerging Global Constitutive Process

What might be the basis for the fundamental constitutive changes that will unfold at the global level in future? Must it be a gradual evolutionary development from past precedent

or could it come as a revolutionary assertion of a new and higher principle which acquires legitimacy by the will and organized power of those who assert it, backed by the aspirations of billions of human beings seeking higher levels of security, welfare and well-being? Social revolution is a distinct possibility unless the pace of evolutionary change is radically accelerated. There is a compelling social necessity for this to happen.

That was the case two centuries ago when the vast social potential of human initiative and productivity in Europe was severely circumscribed by social and political conditions that subordinated the aspirations and initiative of citizens to the will of a small ruling elite. Democracy came to destroy and replace the old monarchical organizational structure with political parties and an electoral process. The ultimate authority for that revolutionary transformation was not past precedent or the consent of the monarch, but the claim to power by the citizenry and assertion of a new and higher principle of authority - "we hold these truths to be self-evident...men are endowed with certain inalienable rights..."

Regardless of the form it takes, whether as in the sudden revolutions or the gradual evolutions of the past, there will be a marked shift from the prevailing values governing global society to a new set of values, as the hereditary rights of aristocracy were earlier displaced by democratic freedom for the people. The coming shift will bring a redistribution of power in society from military might and economic wealth to more equitable principles of human rights founded on greater recognition of the central value of the individual human being. Global society will inevitably make this shift not only because it appeals to our higher sense of universal justice, but also because it is the only way to sustain the onward progress of humanity. Society is moving inexorably from the domination of the individual by the collective to the full development of the capacities and creative potential of each of its individual members, so that the progress of the collective may be continuously revitalized and invigorated with fresh ideas, creativity, innovation and overflowing energy for renewal, growth and evolution. Already we see that regions with aging demographic profiles begin to anticipate a decline in the vitality of their social processes, which are the underpinnings of human security, welfare and well-being. Whether by opening their borders to more immigrants, reaching out to forge mutually beneficial exchanges with younger nations, re-educating their elderly or liberating the capacities of underprivileged minorities, especially of women, these societies will be compelled to alter their institutions and policies or risk declining rapidly into relative oblivion as so many highly accomplished societies have in the past.

Whether or not those that maintain a near monopoly on global political power today choose to willingly share it, the social forces identified above will not be prevented by any dependence on that willingness. Whether by sudden violent revolution or peaceful gradual evolution, global power and legal processes will be compelled to change as radically in the future as they have been altered within states in the past. At the heart of these changes will be changes in our concept of sovereignty as it applies to nation states and to individual human beings as a single global community.

15. The Global Power Process and the U.N.

The founding of the UN represented an effort to establish a higher level of authority beyond the nation state to ensure world peace and human development. The power of the victorious allied nations was used to give authority to the new structure which they dominated.

It is very significant that the UN charter affirmed universal values and principles that extend beyond the principles of sovereignty on which the nation states are founded. A partial affirmation of higher authority gave rise to a legal system still dominated by the authority of national power of the victors in WWII.

"A significant reform of the United Nations is overdue and inevitable."

Global power has evolved significantly since 1945 but it is still constrained by an outmoded constitutive process. Since then the world has changed. The emergence of Germany and Japan, China, India, Korea, Brazil, the rise of the developing world in general, the progressive integration and expansion of the European Union, and the relative decline of Russia have radically altered the distribution of economic, social and political power. Yet the international legal structure framed 70 years ago remains essentially intact. The challenge now is to evolve a constitutive process that more accurately reflects the prevailing distribution of power in the world. A significant reform of the United Nations is overdue and inevitable.

An analysis of global processes testifies to the need for revolutionary changes based on the authority of higher values and rights, including the sovereign rights of both the individual and humanity as a whole. Among the many steps that will need to be taken to facilitate the transition, the establishment of effective mechanisms for self-expression by the human community is one of the most essential and potentially powerful. Today the voice of humanity is poorly represented and often suppressed by the very national governments that are intended to represent them. In the best of cases, governments primarily represent the interests of a social or economic elite as well as their own entrenched interest in remaining in power. Nation states do not adequately represent the views or the will of the human community. Establishment of a direct mechanism for self-expression by the human community on issues central to our common future would be an important advancement. It could commence as a series of increasingly formal referendums conducted under the supervision of globally respected individuals and institutions.

16. Tools for Analyzing Complexity

The science of complexity first emerged from the study of physical phenomenon involving many variables and exhibiting non-linear patterns of behavior, but even the complexity of the global weather system appears relatively simple in comparison with the global social, political, economic, cultural and ecological system. Therefore, if our understanding is to go beyond broad generalizations or guesswork, we will require appropriate tools with which to approach this complexity. Contextual mapping of social and power processes is a useful tool for this purpose. A study of the causes and consequences of critical decisions contributing to evolutionary or revolutionary change is another. A third useful approach is to conceive of the evolving global society as an organism undergoing a fundamental change of paradigm, akin to the metamorphosis of a caterpillar into a butterfly. This involves a full recognition of both the existing forces and structures that strive tenaciously to maintain the status quo and the emerging forces that are gradually undermining the present foundations, altering power equations, and preparing for tectonic events of great magnitude. Here the perception of weak signals that can be expected to grow with time can provide valuable insights. History too

plays an important role, not as a source of data from which to project into the future, but as an insight into the radical nature of change processes that periodically overtakes incremental changes in existing structures or sweeps them aside in order to establish entirely new structures.

The World Academy's initiative to frame a new paradigm for global development is spurred by the recognition that a fragmented, sector-wise approach commonly adopted to address the multiple challenges confronting humanity today cannot succeed precisely because global society with all its peoples, nations, activities, and institutions represents a complex, living, indivisible, integrated social organism, not a disparate patchwork of independent or intersecting organizations and activities. Moreover, unlike physical systems which are subject to physical observation and measurement, social systems consist largely of subtle and subjective elements that are difficult to perceive and beyond the present capacities of social science to measure. A sudden change in public sentiment can unleash a domino effect rocking and uprooting seemingly invulnerable structures, as they did in the aftermath of the international financial crisis of 2008. Long suppressed social aspirations and frustrations can erupt suddenly and violently as in the Arab Spring. Social attitudes and values may remain dormant until a single event, such as Gandhi's Salt March or Rosa Parks' refusal to move to the back of the bus, unleashes latent energies of great magnitude. In seeking to conceive the possible outlines of an emerging new paradigm, we must not only take into account the apparent complexity of measurable events tracked by statistics relating to demography, economy, education and health. We must also attempt to identify and take into account these intangible social, cultural and psychological forces.

17. Human Capital & Individuality

But however great our measuring instruments and our intuitive perception of subtle forces, attempts to frame the future will still fail unless we recognize that the principal driving forces are not those propelling it from the past but the intangible attractors that are drawing it to the future. The most fundamental of these is the emerging value of the human being both as the ultimate source of all social accomplishment – the human capital that creates and imparts value to all other forms of capital – and as the ultimate recipient whose security, welfare and well-being – individually and collectively – are the only legitimate and lasting goal of the human endeavor. Some limited groups of beneficiaries may gain temporary advantage, as they always have in the past. But as in the past, none can stand in the way of an inexorable march toward greater freedom, equality, and harmonious development of the full capacities and potentials of the individual and the social groupings of which he is the living core.

At the most basic level, human rights and humanitarian rights represent the higher level principle of authority needed to regulate and redirect political and economic power to serve the interests of all. At a higher level, the capacity to fully mobilize social energy through effective organizations for human welfare depends on the development of each individual citizen. The quality of democracy depends on the quality of the electorate. The productivity of an economy depends on the creativity and dynamism of its workforce. Fundamental rights and education provide the basis, but the result will depend on the maturity of the citizenry. The more informed, rational and capable of independent judgment they are, the greater will be the authority and effectiveness of the social collective. This is the significance of the

Academy's focus on the psychological organization of Individuality and not merely on the political organization of individual rights.

The full establishment of individual rights and the full development of individual capacities cannot be fully realized unless there is a corresponding recognition of the rights of the community – local, national and global – for this social collective is the reservoir of knowledge, skills, values and cultural endowments with which human beings nurture their young so that future generations can inherit all the accumulated knowledge, experience and wisdom of their forefathers. Family and Education are the unique social institutions fashioned for this purpose. And they are complemented by a wide range of other social, political, economic and cultural institutions responsible for creating a secure, fertile ground for human development and creative self-expression. Any conceptual framework for the future – especially a framework concerned primarily with the evolution of international law – needs to be founded on a full appreciation of the fundamental symbiotic relationship between the individual and the collective, which is the catalyst and source for all human progress.

“Global conditions now mandate that we take the next steps in the promotion and defense of human-centered global governance.”

18. Conclusion

This paper examines the emerging global society from the perspective of evolving social, power and constitutive processes. We argue that it is myopic and unrealistic to confine the participators in these processes exclusively to sovereign territorial states. Global conditions now mandate that we take the next steps in the promotion and defense of human-centered global governance. Social forces with the power to bend steel-like resistance will ensure it happens. This is one of the most important conclusions generated by a new paradigm perspective on the global Rule of Law. As this process gathers momentum, a great many things will change – most of all the values, ideas and principles upon which we base the constitutive processes governing humankind.

We conclude this article with the list of questions formulated at the outset of the Global Rule of Law project in the hope that it will stimulate readers to further thought and insights.

1. What is the role of sovereignty in governance?
2. What precisely is the relevance of the Rule of Law in seeking to limit unlimited sovereign competence?
3. What is the role of authority in the exercise of sovereign competence or any form of governing competence at any level?
4. Is the concept of sovereignty evolving? If so, what are the implications of these changes for the future of global governance?
5. Does the UN Charter and practices under it empower the people of the earth/space community and restrain the monopolistic power of national sovereignty?

6. How does the problem of rational limits impact on the exercise of unlimited sovereignty by governing powers?
7. What needs to be done to strengthen the authority foundation of the global constitutive process and its practical efficacy in securing the basic values of a humane global public order?
8. What is the relationship of sovereignty to the processes of effective power at all levels of governance?
9. How does the emergence of non-state actors challenge the exercise of authority in global decision making?
10. How is the emergence of global civil society shifting authority rooted in the state to authority rooted and exercised in organizational activity that parallels the state?

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Notes

1. Gardner, John (2001) "Legal Positivism: 5 ½ Myths," 46 American Journal of Jurisprudence 199.
2. Greene, Leslie, "Legal Positivism" in the Stanford Encyclopedia of Jurisprudence <http://plato.stanford.edu/entries/legal-positivism>
3. Nagan, Winston and Garry Jacobs, "New Paradigm for Global Rule of Law", *Cadmus*, I-4, p.134.
4. Josef V. Polišenský, *Aristocrats and the Crowd in the Revolutionary Year 1848* (Albany : State University of New York Press, 1980)
5. Fareed Zakaria, "The rise of illiberal democracy" November 1, 1997 <http://fareedzakaria.com/1997/11/01/the-rise-of-illiberal-democracy/>
6. "India Matters: Winning in Growth Markets" Deloitte <http://www.deloitte.com/assets/Dcom-UnitedKingdom/Local%20Assets/Documents/Market%20insights/International%20Markets/uk-about-india-matters.pdf>

Book Reviews

Michael Marien

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Fellow, World Academy of Art and Science

Megachange: The World in 2050. The Economist. Edited by Daniel Franklin (Executive Editor and Business Affairs Editor, The Economist) with John Andrews.

London UK: The Economist and Profile Books, 2012, 304p, L15pb.

A broad-ranging survey by past or current *Economist* editors, seeking “to identify and explore the great trends that are transforming the world... (and) how these developments might shape the world in 2050.” According to Franklin and Andrews, who also edit the annual *The World In...* Special Issues (e.g., *The World in 2013*, Nov 2012, 162p), the authors “tend to paint a picture of progress, in contrast to much of the predictions industry, which likes to wallow in gloom... (however) they see enormous challenges ahead, from managing climate change and controlling conflicts over scarce resources such as water to feeding 9 billion people by 2050 and coping with the multitude of new security threats... Yet the pages that follow are, on the whole, optimistic. Or, at least confident that with the right policies progress is possible on most fronts.” (pp. xiii-xiv)

The 20 chapters are in four parts:

1. People and Relationships

1.1. World Population

Increasing faster than ever before in history, to over 9 billion by 2050, with “astounding” growth in some countries such as Nigeria and declines in others; “of the 2.3 billion increase in the world’s population between 2010 and 2050, about half will be in Africa” (p4); this older, larger population will be much more urbanized (nearly 70% by 2050).

1.2. Health

There will be stunning advances in healthcare in coming decades, and many new challenges; “Napoleonic micro-organisms seeking world domination will be helped by an ever more connected world” (p.26); “the question is not whether a new pandemic will emerge, but when and how the world will respond” (p.27); health systems in both rich and poor countries must be strengthened and insurance expanded—but even then tackling problems of aging and chronic and infectious diseases will be difficult.

1.3. Women

Prospects are hard to sum up in a simple formula: women in the rich world have achieved equality in principle and improvements will be at the margins; in the poor countries, nothing much will change until education for both girls and boys improves; in the more advanced

emerging markets, “Women will enjoy exceptional opportunities over the next few decades” (p.49).

1.4. Friendships

In the “social supercloud,” social media services reinforce links between people on and off the web; collective intelligence will seem commonplace by 2050, when “we will all be living in what amounts to a socialized state in which our online networks of friends are available to us wherever we are” (p.59); privacy issues will become even more fraught in coming decades, but there has already been a shift toward greater openness online.

1.5. Cultural Revolutions

Globalization and technology will have their cultural impact, but tastes will remain stubbornly local: “what has not happened is the death of cultural distance” (p.63); discusses the art market, cinema, the changing music industry, the news business (gatekeepers vs. media mayhem: “gatekeepers will remain”) and the dominance of the English language (expected to remain on top) as half of the world’s 7,000 languages are expected to die in the next 100 years.

2. Heaven and Earth

2.1. Religion

Barring the return of a messiah, today’s patterns of religious beliefs will continue to be much as they are; Islam has grown from 12.3% of world population in 1900 to 21.1% a century later, due to a population explosion in Muslim countries, and is projected to increase by 28% by 2050, in contrast to 35% for Christianity (about the same level as in 1900); large numbers have abandoned belief in God, with a global total of at least 500 million unbelievers (making it the fourth-largest religious category); atheism and agnosticism are expected to decline, reflecting a rising toleration of religion in China, but, as societies prosper and feelings of vulnerability decline, secularism will flourish.

2.2. Climate Change

“If the drivers of change are largely unabated, the world of 2050 is very likely to be one faced with serious risks on a planetary scale” (p.93); as more developing countries improve their lot, “global emissions are unlikely to fall for decades to come—the best we can realistically hope for is a plateauing of emissions in the 2030s, followed perhaps by a modest decline” (p.98); discusses the foundering of the 2009 Copenhagen summit, coal vs. gas, wet places getting wetter and dry places drier, the growing number of destructive storms, the Arctic region warming twice as fast as the world as a whole, countervailing optimism (CO₂ fertilization, ability of farmers to adapt), the risk-management approach, curbing methane and black carbon soot, and possible technologies to remove CO₂ and reduce sunlight that Earth absorbs.

2.3. War and the Military

Problems of failing states and jihadist terrorism are likely to be with us for a very long time; tensions will continue to rise between Shia and Sunni Muslims; cyber-warfare bestows disproportionate power on weaker states and “many of the technical developments in progress lend themselves to asymmetric approaches to warfare” (p.119); the greatest danger in

the early 21st century continues to be use of nuclear weapons—the possibility of a regional nuclear war will grow exponentially unless proliferation can be slowed and then reversed.

2.4. Democracy and Governance

The story of democracy to 2050 will be a paradoxical mixture: “those who do not have it will gain more of it; those that do have it will see it shrink” (p.126); “democracy” is a misleading and vague term that easily becomes a fig leaf for misgovernment and manipulation; “in the decades to 2050, a crucial question is whether the rule of law spreads and deepens” (p.134), but the rule of law is not in itself a sufficient condition for democracy.

“By 2050, China’s GDP will be 80% more than America’s.”

2.5. Taming Leviathan

“One nightmarish vision of the state in 2050 is that of a Leviathan felled by its own weight as it struggles with the rising social burden of an older society” (p138); projections for some 30 advanced countries show age-related public spending rising by around 10% of GDP between 2010 and 2050, with health making up half of the increase; as aging pushes up the ratio of pensioners to workers, the state in 2050 will concentrate on ensuring minimum benefits while expecting the better-off to provide more for themselves.

3. Economy and Business

3.1. The Age of Emerging Markets

A new order has taken shape in the past 40 years, where developing countries have made their peace with capitalism, and now seek to attract foreign investment rather than expropriate it; by 2050, China’s GDP will be 80% more than America’s, and other members of the G7 will be surpassed by India, Brazil, Russia, Indonesia, and Mexico; over the next four decades, today’s upstart economies will prosper, age, and slow down: even a desperately poor economy like Bangladesh can look forward to an improved standard of living.

3.2. Globalization and the Asian Century

Globalization is the integration of markets across the world, and many of the forces that underpin it remain powerful; the global business landscape in the next few decades will be characterized by greater caution and tighter regulation; the book discusses three scenarios of “controlled globalization” (a significantly less open world than once seemed likely), “globalization in retreat” (protectionist sentiment thriving in a climate of insecurity) and “globalization sunk” (a turning away, with “disastrous” consequences for growth); the share of world’s real GDP accounted for by North America and Western Europe will fall from 40% in 2010 to 21% in 2050, while China’s share will increase from 13.6% in 2010 to 20% in 2050.

3.3. Inequality: The Great Levelling

The gap between rich and poor countries will be far narrower in 2050; “in countries where income gaps are already wide, such as America and China, they are likely to stabilize or even narrow over the coming decades” (p.182); “the narrowing of disparities between countries will be greater than any widening of disparities within countries” and, as a result, overall global income inequality “will fall, probably rather sharply” (p.183).

3.4. Disruptive Innovation

Schumpeter's notion of capitalism as a "perennial gale of creative destruction" is quite relevant to the 21st century; the Internet has turbo-charged the globalization process, and capital markets are adding to the turbulence, injecting ever more uncertainty; "this turbulence will become far more dramatic in coming years" as the Internet revolution goes into 'warp speed' (p.195); the coming decades will see the biggest revolution in manufacturing since mass production, due to 3-D printing, the "internet of things," and advances in robotics; the emerging world will become a "cauldron of innovation" and set the pace in "frugal innovation" that cuts the cost of products dramatically.

3.5. Market Momentum

On various cycles in bond markets, the price-earnings ratio, demography, the price-earnings ratio, and interest rates conclude that "it is implausible that commodity prices can keep rising for 40 years: at some point either new sources of supply will be found or demand will collapse" (p.214).

4. Knowledge and Progress

4.1. Science

Chemistry is exhausted and "the future belongs to biology" (p.219); biology will link up the fields of nanoscience and information science, and fill in the genetic stamp album similar to filling in the species on Earth; astronomy may make its greatest contribution to the field of biology: by 2050 it should be clear whether life is abundant in the universe.

4.2. Space Exploration

The future of space for the coming decade will closely resemble the present reality of information gathering and intelligence, but China has ambitions of an unmanned sampling mission to the moon in 2017 and a manned mission by 2025; the promises from the 1960s of untold commercial opportunities (e.g. zero-gravity manufacturing) have proved overblown.

4.3. The Internet as The Web of Knowledge

Society has been transformed by the Internet in a very short time, and faster change lies ahead as the technology improves at an accelerating pace, and emphasis shifts from the technology itself to the way it is used; the growth of information will accelerate, and we will struggle with a surfeit; according to IDC research, "the quantity of stored information in the world doubles about every two years" (p.243); "by 2020, the amount of information that needs to be actively managed is expected to grow 50-fold" (p.244); "hence it is understandable that information overload is a very real phenomenon of our times...we are being more and more swamped...(but) the tools to help us handle it are improving" (p.246).

4.4. Telecoms: The Death of Distance

Cheap talk is only the beginning, and video calls on Skype, Google, or Apple's iChat are not sufficiently reliable; Cisco and HP are developing "telepresence" technology which eventually will make its way into living room TV sets; "whereas ever cheaper voice calls and ever better video communication clearly bring people closer, it is mobile technology that truly knits them together" (p.257); mobile technology will bring the world's excluded closer to the global mainstream and make markets more efficient; in coming decades, more and more

services will create an ever denser web of communications; but “it may be that technology creates a new type of distance between people” and this activity is changing our brains for the worse (p.263).

4.5. Pessimists Dismissed

Conclusion by Matt Ridley, author of **The Rational Optimist: How Prosperity Evolves** (2010) and former US editor of *The Economist*, states that “by far the sharpest lesson to draw from past forecasts is that planetary pessimism is usually wrong; the field of futurology is littered with cataclysmic prognostications that failed” (p.265); the reason that predictions of doom were wrong and will be wrong again in 2050 are that bad things are always much more newsworthy than good things, and that all scare stories assume a static response; many goods and services will be cheaper in the next 40 years (probably including energy via natural gas and solar power; old-fashioned renewables like wind, wood, and water cannot compete on price and need too much land); moreover, the world in 2050 will be “a time of extensive ecological restoration” with many re-wilded areas.

In sum, editor Daniel Franklin sees a world that will certainly be more urban, considerably older, and more African (accounting for half of the world’s extra 2.3 billion people), although “much of this change will come with wrenching upheaval.” Still, *“there is every chance that the world in 2050 will be richer, healthier, more connected, more sustainable, more productive, more innovative, better educated, with less inequality between rich and poor and between men and women, and with more opportunity for billions of people.”* (p.xiv; italics added).

Comment

A sophisticated defense of capitalism, globalization, and free markets, driven by high technology. “Sustainability” is not mentioned, other than the passing reference on p.xiv, cited above. The overview of scores of trends is quite good, especially the chapters on culture, religion, warfare, and democracy. Unlike the relatively simplistic techno-enthusiasm of Silicon Valley’s over-the-top Singularity University (Diamandis and Kotler, **Abundance: The Future Is Better Than You Think**; GFB Book of the Month, Aug 2012), many problems are discussed, albeit too briefly in most instances, with the expectation that R&D and rising levels of education “will offset barriers to growth such as unemployment, corruption, environmental degradation, and social tensions arising from income inequalities.” (p.180) The Economist’s explanation of less inequality ahead is not convincing. Another instance of what might be called upscale naivete is identification of information overload as a serious problem, but then moving on to briefly say that “the tools to help us handle it are improving” (p.246), not considering that the infoglut problem may well be outdistancing any tools. There are some similarities here to the **Global Trends 2030** report of the National Intelligence Council (GFB Book of the Month, Feb 2013), which is less overtly “optimistic” but also downplays many serious issues and possibilities.

For an entirely different look at the decades ahead, see **2052: A Global Forecast for the Next Forty Years** (GFB Book of the Month, July 2012), a report to the Club of Rome by Jørgen Randers, one of the original *“The Limits to Growth”* authors in 1972, who views the necessary transition to sustainability as bringing “the end of uncontrolled capitalism” and “the end of economic growth.” Or consider Al Gore’s lengthy and well-researched book on

The Future: Six Drivers of Global Change (GFB Book of the Month, April 2013), which looks at the global economy and new technology, while also voicing the author's worries about environmental and resource threats. These profound differences should be debated at length and in public. Unfortunately, this is unlikely.

Yet another very different view of the global future is provided by two Australian futurists, reviewed below, with a sharply contrasting methodology.

Futurevision: Scenarios for the World in 2040. Richard Watson (founder, What's Next website; co-founder, Futures House Europe) and Oliver Freeman (co-founder and lead scenario planner, Neville Freeman Agency).

Melbourne, Australia: Scribe, Nov 2012, 330p, AU\$29.95pb.

Two experienced futurists note that the future is not what it used to be, and there is now a high degree of volatility in everything. "*Our aim is to prevent people from getting the future seriously wrong.*" (p.6) The authors seek to challenge fundamental assumptions and reframe viewpoints, by alerting individuals and organizations to a broad range of longer term questions, expectations, and decisions. It is misleading to analyze trends to predict the future, because trends must be lined up with discontinuities, counter-trends, anomalies, and wildcards. "The only rigorous way to deal with a future so uneven and disjointed is to create a set of alternative futures that cover a number of possibilities." (p.5) Four highly detailed Worldview Scenarios are presented, as regards what the world in 2040 might be like, based on the premise that "the world today offers more promise than ever before, but also more threats to our continued existence." (p.1)

1. Imagine: A World of Intelligence

A society where people are fully aware of threats to the future such as climate change, but have an unshakeable belief in the power of science, technology, and free market capitalism to make life better. Science and technology have restored order to the natural world by changing it, with nature under control by synthetic biology, geoengineering, and forests of CO₂-absorbing artificial trees. "It is a mind-blowing new world of technical challenges and radical inventiveness and re-engineering, where everything is connected to everything else." (p.37) Clean technology is booming, especially nano-solar; fusion power is coming online; food and water shortages have been addressed by smart technology. Automation accelerates the pace of everyday life, and industries are turned upside-down by digitalization, virtualization, miniaturization, and ubiquitous connectivity. The Internet is a central feature of life, as well as various robot-human relationships. Overall, life is good.

The Timeline of some 30 events includes widespread investment in shale gas (2016), 95% of payments are mobile or embedded (2023), most homes in Western nations have at least one 3-D printer (2029), computers are 1,000 times as powerful as in 2012 (2030), US fighter jets are completely replaced by unmanned aerial vehicles (2031), commercially farmed insects provide protein in some microwave-ready meals (2032), 85% of homes have three or more robots (2035), the world's fifth largest company is Syn-Bio, Inc. (2037), Google unveils the Space Mirror Project with an estimated cost of US\$8 trillion.

2. Please Please Me: A World of Greed

An era of economic growth, free markets, individualism, consumerism, selfishness, and self-indulgence, where people work harder and longer, and where greed and status are key drivers of much human activity. It is a world of money, luxury, displacement, and detachment—for those who can afford it. It celebrates newness, planned obsolescence, over-supply, and over-consumption; a narrowly focused, narcissistic future where everyone is for themselves. Most people see the threats of global warming as largely exaggerated. The transhumanist movement is burgeoning: life is good and we'd like much more of it, so let's slow down or end aging. Charitable donations show a yearly decline, while tax avoidance services rise 10%/year.

The Timeline of some 30 events includes Red Bull as the drink of choice at most company meetings (2022), legal action from disgruntled staff as the major cost for many businesses (2024), 80% of police and healthcare services in most countries are privatized (2028), 25% of people worldwide are obese (2030), the average person sleeps 5.5 hours per night (2032), 67% of US adults are single (2034).

3. Dear Prudence: A World of Temperance

People are alarmed about the health of the planet and the pervasive influence of materialism and individualism: they seek a future of sustainability and switching things off, buying fewer things, seeking to reconnect locally with simpler pleasures of life. It is a world where many things go backwards, where ethics and reputation really count again, and collaborative consumption has blossomed. As lives become more balanced and “less is more,” most people are happy. Big-box out-of-town retail sites are largely empty now, or dug up to grow food. Organic farming is back, and fair-trade values are prominent. Society as a whole has become more self-sufficient and resilient, picking up on ideas of Edward Bellamy's **Looking Backward** (1888) and Ivan Illich's **Tools for Conviviality** (1973). Left-ish and center-left political parties gain ground, as well as community and town-hall meetings. Slow is the new fast, and local production and consumption bring purpose to people's lives. Adding carbon pricing to items means that almost everything has become more expensive, but the upside is less waste. Congestion charges in cities are ubiquitous, with a boom in public transport systems. The overall lesson is that “society moves in giant circles.” (p.128)

The Timeline of some 30 possible events includes profit caps imposed on major banks and limits to corporate bonus payments (2012), Greece exits the Eurozone (2013), ratings.com allows users to assess the environmental impact of services (2018), the US government announces full transparency targets for all companies (2020), the US adopts a flat annual tax charge of 1% of total wealth (2022), the EU limits the working week to 22 hours (2023), sale of imported bottled water is banned globally (2028), all consumer products have ethical ratings and carbon and oil labels (2030), church attendance rises to record levels (2034), membership of cooperatives is up 900% over two decades (2039).

4. Helter Skelter: A World of Fear

A world where a series of unexpected events creates a general sense of fear and fragility, and people turn their backs on the notion of a single global economy. People worldwide rediscover an angry appetite for parochialism, protectionism, and regulation. It is a society

of anchorless institutions and rudderless young people; of mutual distrust and disillusionment; a world running on emptiness, where global politics drifts to the right, and nationalism and tribalism re-emerge. There is a rise in gated communities and home security products, anti-immigration rhetoric and narrow national self-interest, and a general decline in health due to increased smoking, drinking, and drug-taking. The vicious circle of physical and psychological damage explains how young and old alike tipped from being anxious into a state of full-blown anger, with a desire for physical destruction.

The Timeline of some 30 possible events includes a heat-wave across the US and Europe that kills some 600,000 people (2015), flooding destroys half of the world's wheat crops (2020), 25% of adults worldwide take anti-anxiety medication (2029), the global airline industry and thus the travel industry collapse (2031), pirates block the Strait of Hormuz which sends the price of oil to \$600 per barrel (2036), inflation hits 16% (2039).

After presenting the four scenarios, the second half of the book describes the role of foresight in "taming the crystal ball" and the four stages in the scenario-planning QUEST (developing framing questions, examining environmental influences, building scenario worlds, and creating transformational strategies). An Epilogue adds "*Ten Game-Changers for 2040*," including a Second American Civil War, oil rising to \$300 a barrel in 2035 and \$500 a barrel after the Strait of Hormuz is closed, a bird-flu pandemic killing 500 million people worldwide, the Moon becomes a colony of China in 2040, users of the Internet abandon it in droves due to serious problems of viruses and censorship, water is the new oil as half of the world's population lives in highly water-stressed regions (notably China and India), and energy becomes almost free due to breakthroughs in new technologies (synthetic biology, fusion technology, nanotechnology, etc.)

"The over-riding questions are what changes are likely, what changes deserve to be promoted or restricted, and what changes are desirable – and for whom."

5. Comment

These Worldview Scenarios are written in informal style, especially contrasted to the sober style of *The Economist*, which pretty much confines its vision to the first scenario of successful technology. Watson and Freeman provide numerous wild cards, possible game-changers, and imaginary events for a lively read that makes a sharp contrast to **Megachange**. Along with the **NIC's Global Trends 2030** report and Al Gore's six drivers of the future, there is shared agreement, however, of more and more change in coming decades.

The over-riding questions are what changes are likely, what changes deserve to be promoted or restricted, and what changes are desirable—and for whom. As these book selections make abundantly clear, we have yet to make much of any progress in attaining any consensus on any of these important questions. Is it worth trying to do so, somehow?

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