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Contents

Editorial: Bioethics and Environmental Responsibility

The first three issues of *EJAIB* for 2012 include papers from the Fifth UNESCO-Kumamoto University Bioethics Roundtable, held 3-5 December 2011 in Japan. The May issue focuses on bioethics and environmental responsibility. There are also some papers exploring the definitions of bioethics.

This issue is prepared on 11 March 2012, which is one year after the tsunami that led to many lives being lost and the Fukushima meltdowns. Akiko Ishihara explores some of the options for rebuilding the community affected by these disasters. The broader issues of our collective survival are reviewed by Morgan Pollard, with the viewpoint of ableism added by Gregor and his colleagues.

The papers reveal the broad scope of bioethics, something which Lukas explores with the scope of global bioethics. Bioethics is clearly more than merely medical questions, or even the questions of human future, such as the questions raised by Oana. All species need to be protected and preserved as Lai argues.

- Darryl Macer

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Please renew your Asian Bioethics Association subscriptions for 2012! New articles are welcome, and the July issue will include a further paper on Fukushima, as well as other general topics of bioethics.

Collective Survival & Wellbeing

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The 'Big Question' at a Hypothetical Conference

"If you are free to pursue any research topic that interests you, that freedom may be frustrating – so many choices, so little time. …Researchers do more than just dig up information and report it. They use that information to answer a question…" (Booth *et al.* 1995 *'The Craft of Research'* p.35)

What might be humanity's biggest and most important question? How about *"What should be our largest scale and highest priority fundamental collective goals, and how might they be achieved"*?

This unconventional starting point – by its very definition – demands more serious global collaborative attention and methodical analysis. For the highest of stakes, the momentum of both elite and aggregated behaviour on this planet must evolve smartly towards correspondence with such priorities and goals. Fortunately, such a question is quite amenable to investigation at a general level – by systematically taking into consideration elements of scale and priority, and by

working outwards from commonly-agreed ethical and scientific fundamentals.

Most philosophical questions are subjective, with no absolutely right or wrong answers. Imagine some future global conference, convened to scale and prioritise collective goals. As a suggestion, one individual might raise their head and voice 'progress and rights'. Another might rather bow their head before responding 'stability and responsibilities'. Someone may put up a hand and say 'freedom of capital for the supply of wants'. Someone else might then put up a fist and exclaim 'restrictions on capital for the provision of needs'. Peace conference or not, the four points of the compass might before long break out fighting, as seems quite plausible this century if leaders remain unresolved and big problems remain unsolved.

Thinking ahead, what preventive lessons might be applied to further rounds of such deliberations? What are our most inclusive points of solid agreement? What are the contours of the common middle ground? How well do such landscapes of ethics complement the science of global systems and processes? How do we get down to the roots of a problem? How can degrees of objectivity be applied to important subjective debates? Are there ways to step back and examine things at more basic or fundamental levels?

Imagine for a moment our commonest social and ecological goals, and commonest ethical principles, the collective priorities of our species, combined and mapped into logical hierarchies along relevant dimensions, according to best-practice scientific measures of scale and importance.

Among the most relevant strata of such a map would be broad dimensions such as the largest practical spatial scale (the planetary biosphere); the longest visibly manageable temporal scale (a century or more into the future); the highest applicable system and process levels (inclusive, ordered by ascending system scale, of economy, society and ecology); and the broadest fundamental basis (necessary prerequisite conditions at the general end of the spectrum). Required would be integrated assessments of indicators for such things as commonality, magnitude, importance, urgency, benefits, risks, and other problem-solving models and means to optimisation and decision-making at this scale and level. Upon what goals can we all agree, as shared common denominators, across the broad range of our varied hopes and dreams?

Collective Survival and Collective Conscience

"Unless you can make an assumption about what world society is trying to achieve (I assume it to be quality survival) there is no basis for evaluating and comparing suggested guidelines for managing world-scale threats and opportunities…" (Doug Cocks 2003 *'Deep Futures'* p.293)

Presumably, most would agree that our biggest (largest-scale) and most important (highest priority) fundamental collective goal is *'Survival'*. Survival is defined as continued existence, or persistence and endurance over a long passage of time despite adversity. Collective human survival is the continuation into the far future of our species *Homo sapiens* and its descendents. Inversely stated, our largest and most important long-term problem is the prevention of global-scale catastrophic consequences up to and including the evolutionary cul-de-sac of extinction.

It is almost impossible to rationally deny the importance of collective human survival as a fundamental human goal, especially if it is inclusive of any post-human descendents of our species, and since one of its requirements is harmonisation with ecological survival. All other hopes and dreams are dependent on the fundamental condition of continued human existence. Survival is prerequisite to other priorities – the foremost concern and instinctive drive of all living systems.

The near-inconceivable importance of collective survival cannot be overstated. It is prerequisite to every hope and every dream, every effort made towards caring for our children, every emotion and every inspiration. Life brings about unique modes and levels of diversity, complexity and resilience to the planet. Life brings synergy, intricacy, delicacy, poetry, delight, sorrow and love. Life is also much *more* significant than that.

Through the span of organic evolution, four noticeable shifts have occurred. The first is the onset of *Life*. The second is the evolution of *Consciousness*. Third is the development of *Self-Consciousness*. The fourth advance is *Conscience.* As a species, we cannot let residual animal instincts drive our systems. We should not shrug off the spark of ethics (like in the dystopian film *'Alphaville'*, in which 'conscience' is lost from the dictionary). It may even be possible that we are the ambassadors of self-consciousness or conscience for the cosmos; perhaps life is rarer in the galaxies than the starry night sky might imply; perhaps Earth contains the only intelligent life in the universe; perhaps 'intelligent' life tends to destroy itself; perhaps adaptive ethics has evolved on our world alone. We cannot disregard an even slight risk of resigning conscience back to an earlier denominator – rather, we can advance the progress to metamorphose *Collective Conscience*.

The global maturity required for Collective Conscience, by alleviating any likelihood of civilisation-wide chaos or conflict, is probably a prerequisite to any eventual future shift towards its complementary cousin, a free and benign version of Collective Consciousness, should we choose to pursue it; as well as to the technological advancement required to bring the living Earth – the homeostatic self-regulating system known by some as Gaia – herself to a stage of potential reproductive maturity.

Systematic Analysis of the Concept of Survival

"A desirable goal is that eventually no nations are destitute and that it is a compassionate world rather than one of violent antagonisms. Such a goal would need a truly massive effort. The Marshall Plan at the end of the Second World War cost the United States over 2% of its GDP and was remarkably effective. Today the country is providing less than 0.2% of its GDP to other nations. Just 0.7% of GDP from the First World could eliminate extreme poverty and put once destitute countries on a path to a decent life." (p.369) *"I suspect that it will happen later in the century, after humankind reacts with horror to grand scale famines and triage. Perhaps it will be part of*

the less turbulent waters on the far side of the canyon. With any right-thing-to-do scenario, we should explore the stages by which it could be made to happen without a catastrophe-first pattern." (James Martin, 2006 *'The Meaning of the 21st Century',* p.371)

Survival is a multifaceted concept, and is usefully subdivided, only for the purposes of analysis, into its various inseparable component notions. The first important subdivision is the distinction between *collective* survival (global scale) and *individual* survival (local scale). The second important subdivision is between *human* survival and *ecological* survival. The third is between the related concepts of *survival* and *wellbeing*.

These may seem somewhat artificial distinctions, especially for believers in monism ('*all is one and one is all*'; from the Dharmadhatu: '*shih shih wu ai*') rather than dualism (for example the differentiation of mind/body or human/ecological). Although individuals are an integrated part of the human collective, and human society is an integrated part of ecology (one species interdependent among many), and ecology is an integral part of us (providing the microbiology our bodies require and the ecosystem services our global community requires to survive), for practical purposes we usually distinguish between humans and nature to facilitate management of the problems.

These are really an inseparable continuum of groupings arranged by scale. For example, the concept of *human survival* incorporates, in increasing scale: component systems such as biochemistry and organ systems, to the level of the individual person (individual survival), to family groups, up through communities, cultural groups and civilisations, and on to the level of the human species as a whole (collective survival).

Individual survival is a function of a healthy and safe environment in which to live; for humans, this requires a bare minimum of oxygen, fresh water, nutritious food, shelter from the elements, and in some instances medical aid and protection from danger. Establishing conditions for individual survival thus involves relatively simple and short-term operations at the local scale. However, establishing conditions for *collective survival* implies much more than simple aggregation of such operations to cover the global population.

Collective human survival requires deeper analytical perception into integrated whole systems and processes – the more complex big-picture insight and long-term foresight required to successfully evade existential risk factors at the global scale. In the modern technologically, socio-economically and psychologically interdependent world, each subsystem is in mutual symbiosis with and interdependent on the stability of adjacent subsystems and that of the system-level above; and each is ultimately completely dependant on the success of the whole collective survival enterprise. We are all in coalition in the necessary pursuit of collective survival; in this context 'all is one', perhaps for metaphysical reasons, but also for sound socio-political, epistemological and scientific reasons based in systems and complexity theory.

A related goal at a similar level to human survival is the necessary precondition of *eco-survival* (ecological survival, or bio-survival). Collective ecological survival refers to the lifespan of the biosphere. Eco-survival requires homeostatic planetary self-regulation derived from essential ecosystem services, which function like organs of the global body to maintain stable planetary conditions for life – just as individual survival relies upon healthy organ systems and metabolism, and just as collective human survival relies upon healthy socio-political relationships and system dynamics.

Eco-survival is a necessary prerequisite for human survival, just as human survival is a basic precondition for the further goal of human wellbeing. Complete dependence for human survival upon eco-survival, and a good deal of dependence for human wellbeing upon ecological wellbeing, places them all within direct anthropocentric concern.

Human survival was here mentioned foremost, although it is technically a subset of eco-survival. Human survival has more resonance with the aspirations of humanity. We are typically and perhaps understandably anthropocentric, thus human survival is a goal more likely to garner support as the controlling central priority. Human survival, however, is *entirely dependent* on biodiversity and ecosystem processes. Removed as we may be from nature in our technologically-integrated daily lives, it's easy to forget that we are still bound by fundamental laws, limits and principles of ecology.

This global life-support is provided by essential supply and restoration processes called ecosystem services, known in environmental economics as 'critical natural capital'. Although usually taken for granted, these services are provided free by stable ecosystems, but if damaged or destroyed tend to extract a heavy cost in species, lives and dollars. Ecosystem services provide such fundamentals as fresh air (e.g. oxygen production from photosynthesis), fresh water (e.g. from purification cycles), food (e.g. from primary production), shelter (e.g. from trees and wood products), temperate weather (e.g. from hydrological cycles), reprocessing of waste (e.g. from decomposition), and disaster mitigation (e.g. flood control by vegetation), among other useful ecosystem services (e.g. genetic material for pharmaceuticals) and protections (e.g. the ozone layer etc). The current Sixth Mass Extinction draws our own species towards the same fate, as biodiversity and ecodiversity provide the resilience and flexibility required for the maintenance of such services.

The overall concept is further enlarged by the third useful subdivision; the distinction between *survival* and *wellbeing*. This augmentation again emphasises the existence of a continuum of related concepts. Survival is perhaps an indisputable goal only in the presence of sufficient wellbeing to make life worth living.

At the local scale, absolute prerequisites for *individual human wellbeing* include more than the aforementioned water, shelter and food necessary for survival, but also at least clothing, energy, human security, human rights and responsibilities, healthcare, education, employment, opportunity, family, friendship, love and dignity. Happiness is a function of internal factors (neurotransmitters and hormones such as endorphins, dopamine and serotonin) and external factors (cultural, social and economic opportunities, at least up to a point of diminishing returns). Wellbeing, or quality of life, transcends happiness, to also include health, economic

welfare, standard of living, life expectancy, life satisfaction, freedom from undue fear or want, freedom from preventable suffering, and a sense of meaning or purpose, among other things. Thus wellbeing comprises a breadth of categories, the optimised indicators of which define civil society.

All individuals strive towards at least sufficient quality of life for themselves, their families and their communities. This is a motivation which can be universalised, to the scale of the global family, as the goal of *collective human wellbeing*. Sustainable natural and human resources are sufficient that models of international organisation *could* adequately distribute all categories of rights, for example socioeconomic, solidarity and civil rights, to cover the collective population of the Earth, for the next few decades of the demographic transition now well underway. The rate of population growth has decreased dramatically, as a result of development and the emancipation of women, such that United Nations median projections approximate a peak global population of around 9 billion by around mid-century.

By extension, *ecological wellbeing* refers to the health of ecosystems and quality of life for their inhabitants. This requires interconnected habitats and vigorous communities with sufficient ecological niches and biological opportunities for organisms to live their various lifecycles and routines as naturally and easily as possible. Survival and wellbeing are important to all living organisms, species and ecosystems, in particular animals able to experience pain or with high degrees of sentience, keystone species functioning as essential nodes which prevent the ecosystem unravelling, and species which create ecological health as providers of ecosystem services.

An ecosystem is comprised of a community of interacting organisms of different species in a particular type of habitat, although in effect adjacent ecosystems often merge and overlap. Nevertheless, in this context the term 'individual' ecological survival and wellbeing is in reference to individual ecosystems, not individual organisms. Single organisms and their symbionts can perhaps be seen as analogous to the cells, and biodiversity at the species level perhaps analogous to organs of the ecosystem. As such, animal rights in its traditional sense, although one of many components which add up to individual ecological wellbeing, is of secondary importance to the primary focus at this system level, ecosystem rights. Biodiversity is an indicator of ecological wellbeing, and ecodiversity an indicator of ecological survival. Concentration of conservation effort at the appropriate scale of whole ecosystems will thus also preserve biodiversity at the species level, as well as up to the greatest relevant scale – the health of the biosphere as a whole (collective ecological wellbeing), and the greatest relevant importance – its survival (collective ecological survival, including the human species).

So there exist various differentiations and continuums between the individual and the collective, the human and the ecological, and between survival and wellbeing. All of these distinctions are important and interdependent goals, with their own nuances in terms of management and problem-solving. It will be helpful to combine and summarise them into a durable and memorable meme (competitive vehicle for cultural concepts).

Collective and Individual; Human and Ecological; Survival and Wellbeing

Universalism: *"…the general understanding of a knowledge, system or law that is assumed to be applicable to all human beings everywhere regardless of their race, gender, nationality, culture or religion."* (p.3) *"Perhaps it would be more effective to establish goals rather than ideals and rhetorical principles."* (p.32) (Jasdev Singh Rai *et al.* 2010, *'Universalism and Ethical Values for the Environment'*)

Together, this shortlist of distinctions within the concept of survival can be known as our *Collective Goals*. The three necessary subdivisions outlined above are Collective & Individual, Human & Ecological, and Survival & Wellbeing. These three pairs and their combinations can be usefully constructed into a neat and memorable phrase as follows:

"Collective and Individual; Human and Ecological; Survival and Wellbeing"

Collective and Individual; Human and Ecological; Survival and Wellbeing comprises a combinatorial set of eight related goals (collective human survival; collective ecological survival; collective human wellbeing; collective ecological wellbeing; individual human survival; individual ecological survival; individual human wellbeing; and individual ecological wellbeing). In any interpretation, surely all eight are among the fundamental concerns of humanity. All are centrally significant, and subject to a duty of care, according to group and system ethics.

These are an obvious and minimal set of requirements for decent life now and into the future. They are already the basic premise behind operations of the United Nations and other respected institutions working for the benefit of humanity and the environment. They provide an ethical context for global decision-making which is often simply assumed without explicit mention. International, national and sub-national institutions would be wise to formalise and embed such goals into the structure of their policy models at a fundamental level.

These central goals or aims share a largely common hierarchy of sub-goals or objectives at the general end of the spectrum. These objectives expand out indefinitely towards the more specific end of the spectrum, where many subsystem-centric goals and personal hopes and dreams may be found, and in some cases where conflicts of interest may arise. Cooperative effort may be best expended on *Common Objectives*; that subset of shared objectives most absent of contingent conflict with one another.

Inclusively defining our core priority set in this manner helps to identify a cushioned common middle path between irresponsible extremes of individualism (rights-based self-interest) or collectivism (responsibility-based self-sacrifice); between irresponsible extremes of pluralism (e.g. moral relativism) or universalism (e.g. authoritarianism); an effective balance between teleology (consequence-based ethics) and deontology (duty-based ethics); an effective balance between reductionism (competitive, mechanistic, rigid, masculine, yang) and

synthesis (cooperative, organic, flexible, feminine, yin); and an effective balance between excessive degrees of anthropocentrism or ecocentrism. It provides the proper cooperative context for evaluating competitive subsystem-centric policy assumptions (e.g. technocentric, economic or nationalistic interests), in terms of their effectiveness as means for the common good rather than as ends in themselves. Common Objectives to our Collective Goals are the inclusive foundations of any bridge between individualism and collectivism in the global balancing of human and ecological needs.

A Plurality of Universal and Common Ethics

"On the basis of personal experiences and the burdensome history of our planet we have learned

- *that a better global order cannot be created or enforced by laws, prescriptions, and conventions alone;*
- *that the realization of peace, justice, and the protection of the earth depends on the insight and readiness of men and women to act justly;*
- *that action in favour of rights and freedoms presumes a consciousness of responsibility and duty, and that therefore both the minds and hearts of women and men must be addressed;*
- *that rights without morality cannot long endure, and that there will be no better global order without a global ethic."* Parliament of the World's Religions (Hans Küng 1995 *'Yes to a Global Ethic'* p.14-15)

For the most part undeniable on ethical grounds, the Collective Goals embedded in Collective and Individual; Human and Ecological; Survival and Wellbeing are deserving of the Universal adjective, and should be formally defined as *Universal Ethics* (upon which all are generally agreed it represents ethical behaviour). Ethical universals (similarly to scientific fundamentals) are good places to start any systematic clarification of the commonly held principles and directives which comprise *Common Ethics*.

There is some reflection in these Collective Goals of the least questionable and most commonly cited Universal Ethic; the Golden Rule *'do unto others as you would have them do unto you'*. Collective/Individual, Human/Ecological, Survival/Wellbeing has some similarities to a system-scale or group-level version of the Golden Rule which incorporates all life.

Common Objectives are similarly good potential candidates in the compiling of a non-exhaustive pluralistic catalogue of non-mutually-exclusive Universal and Common Ethics,[1] comprised of a combination of timeworn prophetic wisdom (for example *Prajna*) and secular wisdom (for example compassionate intelligence).

Clearly such a catalogue must be extremely pluralistic, despite being a list of universal and common ethics. The apparent paradox of 'unity in diversity', or 'pluralism in universalism' can be explained. It is not a question of universalism *versus* pluralism, but one of universalism *and* pluralism. Some minimal form of a guiding global ethic will provide positive mitigation against global existential risks, and one which allows for maximal diversity confers resilience to a system, whether ecological or social. Human rights which protect personal liberties, non-conformity and non-discrimination against minorities expand the interest, innovation and scope of cultural progress.

The important thing is to be very inclusive and welcoming, for otherwise the attempt to unify can become divisive. Sometimes the closest of brothers can descend into conflict over the slightest perceived political or metaphysical differences. Concentrate on the commonalities, and respect the differences. To be largely absent of contingent conflict, or to have non-mutually-

[1] Some examples include achievement, adaptation, agreement, *ahimsa*, altruism, amnesty, ancestry, animal rights, art, autonomy, awareness, balance, beauty, belief, beneficence, benevolence, big picture, biodiversity, bioethics, biophilia, bliss, bravery, calm, capacity, care, celebration, ceremony, charity, *chi*, *chien ai*, chivalry, choice, civility, clarity, coalition, cognition, collaboration, collectivity, commonality, common sense, communication, community, companionship, compassion, complexity, concentration, conscience, consciousness, consent, conservation, consilience, contemplation, continuity, cool, cooperation, corroboree, courage, creativity, cultural diversity, culture, custom, decency, democracy, development, *dharma*, dignity, discretion, dissent, diversity, dreaming, duty, ecodiversity, ecological economics, ecological rights, ecology, economy, ecstasy, education, effectiveness, efficiency, emancipation, emotion, emotional intelligence, emergence, empathy, energy, enlightenment, environment, equality, equanimity, equilibrium, equity, ethics, euphoria, excitement, face, fairness, faith, family, fantasy, feedback, festivity, fidelity, flexibility, foresight, forgiveness, fortitude, fraternity, freedom, friendship, fun, future, generosity, genius, global village, good, habitat, happiness, harmlessness, harm minimisation, harmony, health, help, heroism, honesty, honour, hope, humanitarianism, human nature, human responsibilities, human rights, human security, humility, humour, idealism, identity, imagination, impartiality, inclusiveness, individuality, industry, innovation, insight, inspiration, integration, integrity, intelligence, interconnectedness, intuition, *jen*, joy, jubilee, justice, *karma*, knowledge, laughter, law, leadership, leisure, liberty, life, literature, logic, long-term, love, loyalty, luck, *madhyamika*, magnanimity, maturity, meaning, mediation, meditation, mercy, metamorphosis, mindfulness, minority rights, moderation, mojo, monism, morality, music, mutualism, mystery, mysticism, nature, *nirvana*, nobility, non-attachment, non-discrimination, non-maleficence, non-materialism, nonsense, non-violence, objectivity, open-mindedness, opportunity, optimisation, optimism, options, order, originality, parsimony, participation, passion, peace, perception, personality, persuasion, philanthropy, philosophy, pleasure, pluralism, positivity, possibility, potential, potlatch, *prajna*, *prana*, prayer, precaution, prescience, prevention, priority, privacy, productivity, progress, proportionality, protest, prudence, purpose, realism, reason, reciprocity, reconciliation, redemption, relaxation, reliability, religion, resilience, resonance, respect, rhythm, right conduct, right livelihood, right speech, right thought, ritual, romance, safety, *samadhi*, *satori*, *satyagraha*, science, self-discipline, self-esteem, sensation, sensitivity, sensuality, sharing, *sila*, simplicity, skill, soft power, society, solidarity, solitude, sorrow, spirituality, spontaneity, stability, stewardship, subjectivity, sufficiency, surprise, survival, sustainability, sympathy, symphony, synchrony, synergy, synthesis, *tao*, temperance, thought, tolerance, totem, trance, tranquillity, transformation, transparency, travel, trust, truth, understanding, unity, universalism, values, virtue, vision, vitality, welfare, wellbeing, willpower, wisdom, women's rights, wonder, worldliness, world peace, *zakat*, and *zen*, among innumerable others from every language and culture.

exclusive ethics, refers to behaviours which do not interfere with the freedoms of others, not to beliefs which happen not to conform. Philosophical differences are no reason not to be neighbourly. As for Common Ethics, the point is not that they are common practice, but that they can be commonly agreed to be socially acceptable across the range of those affected. For example, some practitioners of *Ahimsa* may sweep the ground ahead as they walk to avoid stepping on the smallest insect – this is hardly a common sight in the modern world, but it could universally be considered an acceptable ethic because it is literally harmless.

Compassionate and Intelligent Decisions

"Yes, we should try to attain Enlightenment, to awaken, to see the Truth; this is the wisdom aspect. But we should try to attain wisdom for the sake of all sentient beings; this is the compassion aspect." (Sangharakshita 1999 *'The Bodhisattva Ideal'* p.21)

It must be agreed that *Compassion* and *Intelligence* are necessary primary elements to making good decisions. Compassion (for example ethics) and intelligence (for example science) are those components of any given debate which provide the most effective basis for persuasion. Together, compassion and intelligence can be said to comprise *Wisdom*.

Ethics and science are persuasive because each covers its own slant on how to validate degrees of correctness, or right and wrong – for ethics in terms of justifying right or correct behaviour, and for science in terms of verifying right or correct knowledge. If we want ourselves and others to *"do the right thing"* (perhaps the most general universal ethic), we must be able to persuasively justify the gradients between right and wrong. Solutions with fair balance between and high degrees of both compassion and intelligence are more likely the right answers.

Both ethics and science need greater and more explicit emphasis in international decision-making. The recommendations of ethics and science are regularly forced to take a back-seat to economic and political considerations, even though almost all people believe in a broadly inclusive mix of the common and good principles of ethics, and despite scientific judgments based as much as humanly possible on reason, rational analysis, systematic evidence, objective measurement, logical consistency and critical review. The convergence of the heart and the mind, and conversion to a 'hearts and minds' policy, can lead to greater political power, because it inspires cooperative admiration rather than competitive resistance. The various different expressions of IQ ('intelligence quotient') can be expanded by the supplementation of EQ ('emotional quotient').

Ideally, justifications for why policy decisions are taken should lead to ultimate reasons based in ethical universals and scientific fundamentals, and not be allowed to top out at lesser levels of justification such as financial or political interests. Beneficial would be some form of systematic institutional remedy for instances in which the recommendations of ethics (compassion) and science (intelligence) are sidelined in decision-making to the operational power of the short-term interests of subsystems. Implementations of solutions proposed by group ethics and systems science have nowhere near sufficient strength, considering the scale and momentum of global problems. Ethics and science need each other and complement one another, to cover the spectrum from the philosophical to the material world. Teamwork between ethics and science will help determine right action for policy, respectively combining compassionate moral authority with the powers of intelligent evidence-based persuasion.

Optimism (Latin: *optimus* 'best') is defined as a positive disposition towards the future, a tendency to look on the bright side of life, to see the cup half full rather than half empty, and a belief that goodness pervades reality. Along with spirituality, many of the wisest multidisciplinary solutions will likely come from the professional domains of ethics, bioethics, conflict resolution, systems and complexity theories, environmental science, sustainable development and ecological economics. In particular, *Bioethics* is clearly concerned with the two relevant subjects – life (bio-), and good (ethics); and also mapping out the collective good life is *Sustainable Development*, which uses the best available global objectivity (science) to evaluate progress (survival and wellbeing). Whether by design or by natural chance, the imperative we have before us is an existential test – a truly grand challenge and fascinating puzzle – elements of which require synchronisation. Some of these elements include: political incentives with bioethical outcomes; economic incentives with sustainable outcomes; feasibility with desirability; optimisation with optimism; all with conscience.

"Faced with such a differentiated and problematic intellectual situation, thoughtful individuals engage the task of evolving a flexible set of premises and perspectives that would not reduce or suppress the complexity and multiplicity of human realities, yet could also serve to mediate, integrate and clarify. The dialectical challenge felt by many is to evolve a cultural vision possessed of a certain intrinsic profundity or universality that, while not imposing any a priori limits on the possible range of legitimate interpretations, would yet somehow bring an authentic and fruitful coherence out of the present fragmentation, and also provide a sustaining fertile ground for the generation of unanticipated new perspectives and possibilities for the future." (Richard Tarnas 1991 *'The Passion of the Western Mind'* p.409)

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Global Bioethics Quo Vadis? Escaping the Alternatives between Moral Imperialism and Moral Relativism

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Abstract

The debate about the direction, coherence and possible imperialism of universal norms in global bioethics has been going on for years. Proponents of universal norms have fiercely stated their cases focusing on human rights, autonomy and/or further principles in bioethics. Equally forceful has been the opposition to such universal principles arguing mainly on grounds of cultural diversity. The alternative is commonly presented as one between moral relativism and moral imperialism; solutions that are equally unattractive. This paper suggests a way forward for global bioethics by focusing on techniques of moral deliberation as well as on the specific social context from which moral dilemma arises. Such focus will show that the alternative between moral relativism and imperialism only arises when an unreflected notion of medical ethics is applied. The way forward for global bioethics is to acknowledge the way medical ethics is connected to a specific medical practice and to examine its cultural and conceptual foundation rather than insisting on context independent principles.

If it is already doubtful whether bioethics exists, it is even more dubious for global bioethics. For almost two decades, discussion over such issue has been going on with hardly any progress. Some uphold the famous four principles as the universal standard; others would like to modify them while still hoping for universality; still others challenge the very notion of universality in the field of medical ethics. The discussion is trapped in a variety of antagonisms: between universalism and particularism, between liberalism and communitarism, between principalism and case-based-bioethics. This paper suggests a way forward beyond these antagonisms by asking about the very nature of medical ethics. First, however, we need to take a closer look on the issue at stake: the quest for a global bioethics and the debate over the identity of medical ethics.

1. The Quest for a Global Bioethics

In a recent paper, Turner (2009) asked the question whether bioethics exists at all given a "multitude of bioethics". Bioethicists come from a variety of religious traditions or backgrounds of political philosophy and this leads them to end up with different conclusions. It is not surprising though to see differences on issues, approaches, normative analysis, and methodology. If we recall the diversity in the history of ethics, where hardly unity in terms of normative analysis and methodology existed, such diversity is not surprising. If this were true for ethics in general, much less can bioethics as a meeting ground for a variety of disciplines around a vaguely conceptualized field of medicine and biotechnology foster a shared unity. The truth is that there exists a vast diversity of normative frameworks in bioethics. But it is also true that this amounts to the richness of this "meeting ground" as long as conditions for a dialogue are fulfilled. What binds the different spheres of bioethics together is a certain field of scientific practice (medicine, life science, biotechnology) and the aspiration to make normative claims about these practices. The methodological diversity of this meeting ground produces misunderstandings in terms of the scope and scientific orientation of the field. The function of bioethics remains unclear.

If we ponder about the core of bioethics, it might help to look at its inception. The rapid scientific and social transformation gave rise to the academic field of

bioethics. The beginning and end of human life got into the reach of human manipulation and ceased to be self-evident. Writing from a continental European perspective, there certainly is an on-going rise in the demand of ethics in the field of medicine in order to deal with the incertitude brought about by differentiation, pluralisation and technologization processes in the field of medicine in recent decades. Medical ethics works as integration process to bring the various specialists and their respective perspectives together to discuss the contended issues.

As technological progress and scientific differentiation cannot be contained by national or regional borders and the pluralisation of forms of life is not geographically limited either, the questions of bioethics easily spread across the globe. The ethical question related to new technologies became an issue for scientific and public debate worldwide. Many hospitals started to set up ethics committees, governments were advised by ethics councils, and some companies hired bioethics consultants. Bioethics acquired an ever increasing importance in the education of the medical profession. The terms "ethics industry" or the "business of ethics" became a byword.

One might ask why should we care at all about a global bioethics? Do we actually need one? After all, bioethics deals with specific issues in a particular social and technological setting. However, the technology transfer brings about similar ethical questions. The export of technology is also an export of ethical questions – that wants to be answered. Alas the answer is also dependent on the different cultural settings and configurations, as are the arguments themselves.

In this context, the question arose about the universality of medical ethics. Connecting to older discussions about the compatibility of human rights with Asian values, the issue brought to the fore the problem as to whether principles of medical ethics can be applied generally beyond the borders of particular cultures. The question at stake is simple; it is a version of the ethical debate about universalism versus relativism. However, it cannot be simply reduced to this ethical discussion because of the very nature of bioethics as a normative endeavour reflecting on concrete practices in the field of medicine, life sciences and biotechnology. It is because of this rootedness in a concrete practice that the on-going debate on global bioethics plays out differently than the universalism vs. relativism debate in general ethics.

2. The West vs. the East: Principles Everywhere

Although the word "bioethics" [*Bioethik*] has been coined in 1927 by Fritz Jahr with a focus on humans' relation to animal and plants (Sass 2007), its universal triumphal procession began in the early 1970s (Reich 1994). Certainly, the so-called "Georgetown mantra" of Beauchamp and Childress taught across the globe fostered the discussion on the universality of bioethics. Although first conceived as principles for research, they have quickly been adopted for medical practice. While non-maleficience and beneficience have been part of the ethos of the medical profession for millennia, the notion of respect for autonomy as well as an egalitarian notion of (distributive) justice has genuinely modern roots. Immanuel Kant conceived of autonomy in the late 18th century in terms of individual self-legislation. At the same time, equality became one of the main calls of the French revolution. Given their distinct modern roots, not surprisingly, these principles have not remained unchallenged.

The hegemony of the principles of the "Georgetown Mantra" has already been questioned from a European perspective. Rentdorff (2002) suggested using autonomy, dignity, integrity and vulnerability as basic principles within a normative European framework instead. In his opinion, these principles are best equipped to protect individual human beings vis-à-vis the apparatus of medical technology. Neither dignity nor integrity can be reduced to autonomous choice; rather they characterize in a general and specific way the necessary respect for the uniqueness of the individual. Vulnerability especially pertains to the human condition being confronted with the medical technology in its complexity and differentiation. Although vulnerability has been understood as something to be reduced as far as possible, this cannot negate the existential dimension of human vulnerability especially in the medical context.

However, it was from Asian bioethicists that these principles were most forcefully challenged (Macer and Fujiki, 1998). Asian bioethicists pointed out the diversity rather than the unity of different cultural and religious traditions in Asia. However, the multiplicity of approaches in bioethics shared an increased importance of family and the community (Qiu 2004). Family autonomy is identified as a guiding principle rather than individual autonomy. Based on shared conviction about the good life and a deeply family-oriented convictions rooted in Confucianism, Fan argues for a very distinct understanding of autonomy resting on the family. Questions of life and death are just too important for the individual to decide on his own (Fan 1997). Ultimately, the disagreement about the proper focus and the proper principles of medical ethics rests on the quest for one's own cultural identity which is perceived to be threatened. Thus, integrity and authenticity are put at the forefront in order to preserve a genuine Asian identity (De Castro 1999).

The list of disagreements with the "standard" principled approach to questions in medical ethics could be extended further. Solidarity and justice, rather than autonomy, stand, for example, at the forefront of Latin American bioethics (Drane 1997). Autonomy – or respect for autonomy – is perceived as the primordial principle in Western bioethics (Gillon 2003). It is mainly the notion of autonomy with its derivatives of individual informed consent, confidentiality and privacy that has been challenged.

What remains largely unchallenged in the intercultural dimension of the discussion on the principles of bioethics is the very fact that we are dealing with principles or sometimes (essential) values. At times, the discussion shifts from principles to virtues, mostly the physician's virtues such as compassion, tolerance and fairness. However, the main focus of the ethical debate still remains on the relativity or universality of bioethical principles. A principled approach in medical ethics has to deal with the challenge of plurality of medical practice in

different cultures. The risk is either to fall into a form of cultural essentialism and fail to conceive of medical ethics with the proper distance to the medical practice or to impose universal norms insensitive to specific cultures. The task would be to find a middle ground between moral relativism and moral "imperialism"; – if such a middle ground exists. Throughout the literature, proponents of a culture-sensitive bioethics struggle to refute what has often been labelled as moral imperialism. At the same time, they try to fence off any form of moral relativism which would lead to postmodern laissez-faire.

Rather than providing an answer to that question, the task is to show that it is the wrong question. The choice between moral imperialism and moral relativism is phony, especially when addressed on the level of universal or culturally relative principles of bioethics. The refutation of this mistaken alternative requires a closer look at the very concept of medical ethics and its contextualization in specific social and cultural settings.

3. The Concept of Medical Ethics

Before engaging in an endless and fruitless discussion about the applicability of distinct principles in distinct countries or regions, one should take a step back and reflect on the philosophical underpinning of bioethics. Prior to normative judgement is the hermeneutical understanding of any given empirical situation. Whatever set of principles, values or virtues we use to evaluate an ethical dilemma, the detailed description of a specific situation is crucial for its ethical evaluation. Only a comprehensive account of the different actors and the institutional setting will allow a sound ethical judgment which needs to be as generalizable as sensitive to the respective context. The fact that, as bioethicists, we relate to a narrated story rather than to reality directly, has often been ignored (Chambers 1999). It is worthwhile pointing out that a description of a certain case is hardly value-free; words not only refer in a certain way to reality, they always bear normative overtones. Case studies and detailed descriptions are not merely external to medical ethics; they play an important role in the articulation and specification of its principles as a review of literature shows.

This indicates that medical ethics, as a special field of applied ethics, is relying and reflecting, to a large extent, on a certain empirical practice in the field of medicine and biotechnology. Already the notion of medical ethics as "applied" can be challenged. As a meeting ground rather than a discipline, medical ethics' ties with the history of moral theory have been severely cut. The discourse of medical ethics cannot be understood as an extension or application of some general moral theory. The application of a general moral theory to bioethics will be far from clear-cut and provide only very vague hints on any specific moral dilemma in medicine. Moreover, it is not how bioethics is done. Bioethicists of different moral framework come up with the identical policy for health care (like Beauchamp and Childress) and those who start from the same ethical theory end up with fundamentally contradicting normative health care ideas (like Singer and Friedman). Moral theory alone therefore is hardly sufficient to account for a single distinct position in medical ethics. What is needed rather is a comprehensive moral perspective which comprises moral theory as well as the specific moral deliberation (Fan 1999, 184). The crucial question in relation to such a moral perspective is which factors shape the moral deliberation.

Medical ethics thus cannot be understood simply as "applied" ethics; rather it is a form of moral deliberation reflecting on a given medical and biotechnological practice. To completely disentangle ethical principles from the area in which they have been developed would mean to misunderstand the way in which medical ethics has been working throughout its history. Medical ethics is a deliberative practice indissoluble linked with a concrete socially and culturally embedded medical practice.

At the very start of bioethics as a field of ethics, its link to particular issues is already evident. Rapid advancement in medicine made ethical reflection about the beginning and end of life necessary. Medical research was booming and required more and more ethical guidelines. Within this historical setting, the need for an ethical reflection on medicine and biotechnology arose. Later on, issues of human stem cell research, cloning or pre-implantation genetic diagnosis came to the fore. In short, rather than a universal ethical theory being applied to entire medical field, bioethics has developed along the issues it reflected upon. These issues result from the advance of technology predominant in the Western world and the medical practice in a postmodern setting where the common notion of the good life has disappeared and the autonomy of the individual takes centre stage.

4. Social and Cultural Contextualization

The main questions discussed in bioethics arose in the Western world. However, the questions quickly spread across the globe; – with good reason. As technological advance was one of the dominant reasons for the rise of bioethics, the ethical issues arose where new technologies were used. Technology is the great equalizer; the techniques used for kidney transplantation are the same whether done in Pakistan or the United States. Care for the premature infant is the same in the Philippines and Germany. What is different is the universality or particularity of access to these technologies and the way it is evaluated. Access to medical treatments is the major ethical issue in most developing countries. The challenge is to provide access to a larger segment of the population. But what does social contextualization really mean in that social circumstance?

Generally, there are two positions considered in the discussion. The "universalists" aim to prove that a set of principles can be applied universally; others, focussing on culture, insist that, in their culture, it is completely different. Whether bioethicists argue for one or the other, depends, to a surprisingly large extent, on which level the discussion takes place. On the very abstract level, we can all agree on human rights, certain aspects of self-determination and the commandment that we should do no harm. However, the more concrete the debate gets, the more different the views become. Given this general picture of the discussion, it is worthwhile to take into

account the other aspects responsible for the rise of bioethics.

Besides technological progress, pluralisation of the idea of the good life and an increasing focus on the individual was also responsible for the emergence of bioethics. To make an example, throughout the last couple of decades, the family played an increasingly smaller role in the hospital care of the patient in large parts of the Western world. In this context, the individual's informed consent became the morally accepted and ethically aspired standard in medical practice. In other social and cultural settings, like in large parts of Asia, the family is still the primary care giver even in the hospital setting. The family will stay with the patient at the hospital around the clock; it will provide food; inquire about the patient's condition with the hospital staff, all in the best interest of the patient. Given this cultural setting, where a shared idea of the good life is presupposed, it makes not much sense to insist on individual confidentiality or to enforce informed consent against the cultural pattern.

In the same way, the command of confidentiality is negligible in the setting of a rural community hospital. If the community is used to knowing all information about its individual members (if not to have a say on his well-being), it makes little sense to uphold patient confidentiality. In this context, not only cultural patterns but infrastructural setting plays an important role. Maintaining confidentiality requires a good deal of concrete facilities to separate the patient from the family or community. Not only would this be regarded as alien and certainly not in the best interest of the patient (it takes him away from his familiar surroundings), it would be quite often not feasible as well.

Seeing the cultural background of our ethical principles can thus enlighten and explain differences in medical practice. This does not amount to moral relativism. It neither agrees with all cultural practices if they are in contradiction with the basic values of a given culture. It does not imply that we can override informed consent or confidentiality in a cultural context based on the individual. It equally shows that, in a cultural context dominated by the family in the care of the patient, informed consent or confidentiality plays another role. These different cultural patterns not only mirror social and economic differences, they also pertain to different notions of health, disease and the role of the patient.

5. Conclusion

The notion of bioethics is vague; much more so the notion of global bioethics. It can be understood as a meeting ground of different disciplines which deal with problems arising from medical practice and biotechnological research. The discourse of global bioethics often falls into the trap of the phony alternatives between moral relativism and moral imperialism. In this short paper, I have argued that this alternative can be overcome by first focussing on the very concept of medical ethics. Rather than seeing it as a form of applied ethics, it should be understood as a normative endeavour reflecting on specific practices in the field of medicine and biotechnology. Secondly, the culturally and socially embedded understanding of health and disease as well as the social and economic framework play an important role in the way an ethical position is developed. This does not amount to moral relativism as the norms are reflective of the cultural pattern and are far from arbitrary.

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Choreographing Biodiversity with Peace in Environmental Governance Regime? Making Sense of Bioethics from the Convention on Biological Diversity [CBD] (COP10, 2010)

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Abstract

Soft-targeting biodiversity development without strong sanctioning –cum- incentive mechanism is the key policy achievement for CBD (COP10) in Nagoya October 2010 so far….Let us see how CBD can possibly work in 21st Century of informational urban system….

How far the instrumentality of the soft-targeting for environmental governance can functionally proceed in the coming decade requires much beefing-up not just in

terms of mass-media and non-governmental organizations (NGOs)-driven activism, but also a set of well-coherent framework of reasoning and discourses, exploitable by the action agencies for biodiversity, to shape more positive and pro-active actions undertaken by nation states – here, this paper attempts to making sense the CBD from bioethical perspectives, aiming to develop an explicit and elaborated- shared ethical-normative framework to inform policy making.

The paper examines the arguably contradictions between economic developmentalism and biodiversity which define and shape the policy choices-driven dilemma for all stakeholders across different, inter-generational cohorts of ages; they also present a challenge for inter- nation state not to pursue biodiversity friendly policy initiatives for sustainable development – the learned inertia for engaging processes for biodiversity development. Furthermore, it also raises critical remarks on the project for biodiversity and eternal peace.

1. The Contradictions embedded-Convention on Biodiversity

In the informational 21st century, crisis-ridden capitalism develops with a whole array of contradictions; not just the excessive consumption-driven wastages and high-carbon emissions in our limited-to-growth Earth, but also social calamities driven by the commodification of human life chance and socio-economic reciprocities, resulting in a socio-economically and culturally divided and polarized world with conflicts (no peace)! All these drive humanity towards many crises, let alone global and regional financial crises in the last two decades, under the shadow of global climate change!

1.1 Contradictions of the Evolutionary Convention on Biodiversity

Following the global convention on biodiversity in 1992 United Nations' Earth Summit, the *Convention on Biodiversity* (CBD, 2010) provides an important transnational policy framework for global governance on biodiversity, aiming for sustainable development. This "soft-targeting" framework for biodiversity development without strong sanctioning –cum- incentive mechanism is arguably the key policy achievement for CBD (COP10) in Nagoya October 2010. The key points and the related policy initiatives consist of the followings:

- To protect 10% (2010: 1%) of the World's Oceans & 17% (2010:13%) of all Land Masses by 2020, as Natural Reserves.
- Access & Benefit Sharing (ABS): to regulate how developed nations support and benefit from biodiversity, which is mostly located in the developed world and the Third World – Poorer nations would in return receive aids via technology transfers, and cooperation in domains ranging from cosmetics to pharmaceuticals.
- Nagoya Protocol: a framework on how to avoid bio-piracy in the developing world starting in 2020, when it goes into effect.
- A 20-point strategic plan - framework for the protection of fish stocks, and combat ongoing loss and degradation of natural habitats.
- Japan contributes US$2 billion to Global Fund for Conservations. + Satoyama Initiatives (United Nations University – Institute for Advanced Studies with the Ministry of the Environment of Japan).

But the "soft-targeting" approach of CBD indeed reflects various contradictions embedded in global governance structure for sustainable development, mirror-imaging the inertia against the initiatives for global climate change. The questions around the CBD -- or, the inertia against it, are still unresolved:

- Whether it is another benign (lip-service for) policy initiative for better survival chance for everyone, even for the endangered species?
- Is CBD more of a transnational (apolitical) policy steering or diplomacy convenience: soft-targeting biodiversity development without strong sanctioning?
- How far CBD can be influential or shaping for national policy making, as CBD (COP10) agreement is not legally-binding and the proposed measures remains voluntary on the part of signing nations; not the least, USA is not a part of the agreement, and did not attend the conference?

Economic liberalization gives rise to dual/divided cities, great disparity between the rich and the poor; and wider gaps between urban and rural life (the case of hyper-growth economies like China). So far, global economic liberalization and globalization have not improved the daily life of people and their local welfare, with the local labour market declining due to the off-shoring strategies of firms. What has instead developed as a common trend is social dualism: widespread poverty within affluent societies/localities, with the set of deregulatory policy initiatives favouring the private sector and resulting in the commodification and privatization of not just social services, but also of the Nature.

1.2 Back to the Nature's Calling for Biodiversity?

Human and animals rights are disposable under hyper-capitalism of globalization! Individual rights, e.g., labour standards, social protection and welfare entitlements, are downgraded by the call for deregulation and flexible labour market initiatives under the reform banner of economic liberalization towards globalization. Although the provision or extension of all kinds of welfare services (social security in particular) is supposedly assured to a citizen (a status conferred by the nation state), the concept of social citizenship itself is eroding under the strong currents and waves of economic globalization and pro-market initiatives – Biodiversity is also at the minimalist consideration vis-à-vis hyper-economic development. Unbridled capitalism is also exploiting natural resources, hence taking away biodiversity for the sake of economic pro-growth developmentalism: ecological disasters are normalized as daily costing for hyper-economic development.

The state of the globalization project is anti-biodiversity! Economic liberalizing processes hence have put state-society and people-nature in a very peculiar position, as both are exposed to the challenges of 'external' forces. Capital, goods and labour (jobs) are more mobile than the previous international economic order. Nature and biodiversity are subject to economic logics for exploitation and having no intrinsic value of their own. Socio-ecological impacts are eminent! In response, anti-globalization campaigns at various international

economic institutions' (WTO, G7/G8 and G20) meetings have become more frequent, with the battle cries based on the demands for global social justice and a sustainable future (Lai 2011).

More specific at the regional level, the Asian Economic Miracle (1970s to 1990s) and the rise of China (1990s-) seemingly is a new form of hyper-economic Darwinism: questing for the survival of the fittest? Ecological diversity is in demise, and malignant forces of globalizing capitalism are withering away biodiversity at local and regional levels…. Yet, the unbridled capitalism has been reinforcing socio-ecological degradation, exploiting the weak and demising ecological diversity, resulting with developmental dualism, between the poor and the rich, the haves and the have-nots.

Notwithstanding that all of these are the consequences of the globalization project! Not without exception, all developing economies aided by transnational corporations (TNCs) networking have been integrated hierarchically into the global system of capitalism, and the globalizing process of integration widens the gaps and causes socio-economic divisions and divides between communities, countries, and regions. Even the neo-liberal economic ideologies - oriented international bodies, like the Organisation for Economic Co-operation and Development (OECD) recently questioned the globalization-driven global problems, aiming to re-examine the global mitigation for poverty and development problems and the shortfall of bilateral and multi-lateral aid for developing economies in the midst of global change (http://www.aideffectiveness.org/). In this regard, the belated, if not procrastinated, global initiatives of the Rio Earth Summit (1992) and the Nagoya CBD (2010) are welcome.

As shown by recent local and regional conflicts which are documented by the *World Development Report* (World Bank 2011): without a sustainability worldview, it is almost impossible to develop any peace initiatives. In other words, conflicts between/among the developing nations (and tribal groups) are somewhat biodiversity-deficit driven, resulting in worsening of eco-social conditions for development.

The profit-driven growth of economic globalization has been instrumental in shaping the course of unsustainable development, with the demising biodiversity – a process of normalizing the "endangered" species in the hyper-modernizing localities. This process is further aggravating within a global framework of deregulation –cum-liberalization driven global capitalism, from which the exploitation (or privatization) of nature is possible without regrets…

Deriving from the CBD, the new institutional framework indeed could provide a reminder for re-activating the processes for saving biodiversity! But how far the instrumentality of the soft-targeting (under the UN Framework) for environmental governance can functionally proceed in the coming decade is still questionable.

2. Activism for Global-Local Developmentalism: Whose Biodiversity?

The struggle for sustainable biodiversity is undoubtedly politicking for the under-dog, as the issues have been out-of-agenda for the globalization project. This has the lineage with the 1989 Seattle anti-WTO protest, global peace movements (15.Feb. 2003), the annual 1st of May anti-capitalism campaign and the more recent (2011) one of *Occupy Wall Street*. Here, the 'Anti-Globalization' information and ideas in/beyond cyberspace, bypassing the mass media, have been turning into global real time social actions – the most important one is the message for change for better sustainable, just world for all!

2.1 New Media-driven Advocacies for the Endangered Survival?

For biodiversity sake, the endangered (species) calling has been for the minorities of bio-animal worlds but more recently, it is as if a normalization process for every living one – the majority is at risk as well. Hence, the survival rights of everyone are within the biodiversity paradigm! The intertwining of oneself and others is imminent and structurally link to system sustainability of all (sub-) systems. More specific, the CBD articulates for survival rights of everyone, and extends the territorial-cosmological relevance of biodiversity rights at all domains and arena of bio-ecological worlds. The CBD also enables the "endangered", and seemingly non-referential(?), ones, to have influence in co-determining the locally and regionally specific, territorially defined, biodiversity (survival) rights.

The offerings from CBD (2010) might be soft (-targeting) for nation states' policy initiatives for biodiversity, but they can provide a solid foundation for different advocacies in transnational spaces. This is particularly the case if coupled with the advanced application of new media and information and communication technologies (ICT). The new praxis of transnational advocacies networks (TAN) should be noted (Keck and Sikkink 1998, 1999; Lai 2008, 2011). TAN are firmly established and embedded in the new communicative flows of new media and the identity politics of social activists within and outside the cyberspaces. Cyber-politics challenges traditional political establishment as well as the behavioural repertoire of political agencies.

New media not only has a strong impact on global politics, but also has become the weaponry of individuals and groups who have been excluded from traditional mass media making (Thompson 2005),*"In this new world of mediated visibility, the making visible of actions and events is not just the outcome of leakage in systems of communication and information flow that are increasingly difficult to control: it is also an explicit strategy of individuals who know very well that mediated visibility can be a weapon in the struggles they wage in their day-to-day lives. Once again, the war in Iraq provided us with countless reminders of this fundamental truth: the macabre beheadings carried out by (among others) Abu Musab al-Zarqawi's Tawhid and Jihad group, videoed and shown live on the Internet and then recycled with varying degrees of explicitness through the mass media of television and the press, are only the most dramatic illustration of a new political theatre that is played out in the world of the media, where spatial distance is irrelevant, communication instantaneous (or virtually so) and – especially with the rise of the Internet and other*

networked media – the capacity to outmanoeuvre one's opponents is always present" (Thompson 2005: 31–32).

Similarly, James N. Rosenau in his seminal work (Rosenau 1997, 1998), *Globalized Space,* stresses that the new media and their networking capacities are one of the functional equivalents of democratic governance where transnational issues are beyond the control of the nation state as well as a state-sponsored institutionalized regime, such as the UN, *"The widespread growth of the Internet, the World Wide Web and the other electronic technologies that are shrinking the world offers considerable potential as a source of democracy... by facilitating the continued proliferation of networks that know no boundaries, these technologies have introduced a horizontal dimension to the politics of Globalized Space. They enable like-minded people in distant places to converge, share perspectives, protest abuses, provide information and mobilize resources – dynamics that seem bound to constrain vertical structures that sustain governments, corporation and any other hierarchical organizations*" (Rosenau 1998: 46).

2.2 The Universal Cosmopolitan Biodiversity towards Ecological Modernity?

David Held's (1998, 1999) theory of *Cosmopolitan Democracy*' argues that in a world of overlapping communities of fate, *Cosmopolitan Democracy* is the creation of new political institutions and a diversity of NGOs in global civil society, with the democratic principle and praxis of broad access to avenues of civic participation on national, regional, and international levels. More specifically for our discussion here, TAN is the new wave for the democratization process aided by new electronic communication technology through various forms of electronic-mobilization – and the rich content of CBD should provide NGOs' renewable and rejuvenated articulation and advocacies for sustainable development.

The emergence of global civil society is obvious: with NGOs' activism – articulating human, bio-eco ethical demands through non-institutional politics of protest movements for biodiversity and global sustainability. Differential activism for biodiversity, reflecting a shift towards bio-eco ethics for sustainability, is a norm for global ecological movements since 1990s, as exemplified by NGOs like Greenpeace International, World Wildlife Fund, Friends of the Earth, International Union for Conservation of Nature (IUCN), as well as local groups and community-based networks. Their weapon for activism is high-tech new media like the Youtube, Facebook and Twitter, with user-created content to reveal the (alternative) reality!

Here, the ideas (ideal?) and questions of biodiversity focus on a rejuvenated harmonious relationship between *homo sapiens* and their natural habitat, with progressiveness and democracy's extension beyond the nation state – the articulation of international (universal cosmopolitan humanity and biodiversity) norms and justice calls for a more open and participatory regime of global governance. These echoes the ideas of global civil societies, cosmopolitanism and social movements for global and local justices: these movements are multi-dimensional, ranging from local human rights to global environmentalism.

The CBD (COP 10) calling for biodiversity is (locked-in) multilateralism of international governmental organizations (IGOs), with soft-targeting and weak sanctioning force, but it has strong normative-developmental appeal for bio-animal rights! Furthermore, socio-cultural diversity has been articulated by NGOs and the transferability from social to biodiversity is synergized with activists who are witnessing the demising biodiversity at local level, in the name of bioethics of development.

New opportunity in the information age is not just new media but the contents of CBD: both the high-tech media and the contents in/beyond new media are crucial leverage to empower the (presumably) powerless minorities or the underprivileged: bio-ecological activists have learned quick, adopting wire and wireless communication set up to champion their project, in cyber and mass media, towards global ecological movements for biodiversity and universal cosmopolitanism….

3. Anti-Development Advocacies in Uncertain Biodiversity – Eco-Rights for All?

Glo(bal-lo)cal communicative actions – using of all wired and wireless media of communications in both cyber / real communications – enable people's participation in socio-ethical debates and communication for biodiversity sake. More specific, biodiversity and eco-rights become the currencies for agenda setting for global and local development; influencing (both IGOs and NGOs sponsored) developmental projects at large.

3.1 NGOs' Activism for Biodiversity: Empowerment derived from CBD?

For several decades, NGOs' critical engagements with governmental and business organizations to articulate local bio-ecological concerns are more than obvious. Advocacies for biodiversity take various forms of struggles and appeals, not least with the well choreographed and visualized case studies to re-making bio-ecological reality, highlighting the crisis-driven economic pro-growth development, with new bioethics and norms for bio-ecological rights:

- binary code(s) for the profit-oriented winner and losers of the biodiversity
- dramatized clearly the role and identity of the victims and their predators
- bioethical and morality appeal to support for the victims and biodiversity at large
- back to humanity and bio-ecological (fundamentalist) appeals
- appeal for personal / individual actions to save biodiversity

Taking the CBD as a framework of bench-marking and norms setting, transnational advocacies of NGOs can be instrumental in shaping global and local politics for sustainable development in general, the promotion of biodiversity in particular. More specific, NGOs' advocacies are the voices (sometimes noises) for bio-communities at large and serve the following functions:

- Focal point, platform and network for information gathering and research required to challenge, as well as

creating new policy, for biodiversity, like Greenpeace International, World Wildlife Fund.

- Foundation for articulating particular biodiversity (abuse) issue: like the Sea Shepherd, for anti-whaling at the Antarctic.
- Mobilizing agencies for articulating various forms and modes of confrontational protests and demonstrations, targeting to IGOs and against TNCs.
- Facilitating agency for transnational advocacies and communication networks in pushing local, regional and international government bodies to react to biodiversity loss or abuse.
- With good local supports, international NGO activities can reshape the contours (for the benefits of biodiversity or bio-animal rights) for national policy or constitutional domain, which are more likely to promote a shift in the worldview towards global-local environmental governance.

Reinforcing by the Internet (cable, wireless and satellite) multi-modal communications (one to one, one to many and many-to-one and many-to-many) and more recently, the cloud computing, representing both micro as well as mass media functioning, initiatives for biodiversity, within and beyond the CBD framework, will likely open up participation at global / regional / local scale for questioning the existential biodiversity rights, like the access and benefit sharing (ABS) for all, as well as the ethical trading issues.

In other words, despite its limitations in terms of lacking in legal-binding and sanctioning power, the CBD does serve a very important advocacy function, as a bench-marking framework for progressive roadmap for protecting and enhancing biodiversity!

3.2 The Bio-Eco-Ethics driven Development: Bhutan's Exceptionalism?

Far from the hegemonic neoliberal economic approach for developmentalism, as an agenda set by IGOs like WTO and the World Bank, nor the Asia Miracle and ASEAN-4, the Bhutan's (alternative) development approach has been instrumental for managing bioethical green development with eternal peace: to mediate human wishes for (moral-religious pursuit of) happiness, spiritual eternity and the preservation of natural environment. In spite of its under-development in terms of the traditional, pro-economic growth criteria (contrasting the export-let economic miracle in the region), it has been endowed with much not just natural resources of hydropower and forest-based assets, but also the specific gifts of cultural-ethics of Buddhism, in pursuing the "Middle Path" development strategy (the so-called Gross National Happiness, GNH), and so far resulting in progress for the alternative developmental regime towards the betterment of (well being of) the people, poverty alleviation and sustainable development (Uddin et al. 2007; Zurick 2006).

To examine the Bhutan case in ecological ethics and peace terms, three major eco-human development ethics stand out as alternative paradigm(s) for sustainability (self-sufficiency within the bio-regionalism):

(1) Geo-territorial specificity for self-sufficiency (that is fundamental for bio-regionalism, in a geo-territorial closed system, following the metaphoric life-cycle-analysis): Bhutan is a landlocked country, geo-politically enclosed by regional nuclear giants of China and India. Its bio-diversity is much protected, if not isolated, by its unique geo-historic-political position.

(2) The practice of spiritual teachings of folklore and/or religion(s), in the Bhutan case, it is the specific 'framing' of Buddhism unto daily (socio-cultural-driven) praxis. Bhutanese unique integration of folklore, quasi-religious-informed, daily practices with specific geo-cultural objects, like river and forest-wood assets, synergizes survival needs (towards happiness) to ecological-sound energy use.

(3) The interfacing between social praxis and modern form of policy governance: people's specific socio-cultural attachments to the nature and its assets, in exploiting natural resource, in daily praxis on the one hand; the (derivatives of) policy learning, like the Clean Development Mechanism (CDM) from IGOs and donors in shaping national policy for natural resources exploitation and preservation.

3.3 Transnational Advocacies for Biodiversity – the Timeliness of Activism!

Advocating biodiversity requires the change not just in terms of policy initiatives of nation states, but also the reasoning for bioethics and global norms towards biodiversity. For the latter one, the moral imperative to stop exploitation against the endangered species has to be demonstrated. Yet, the attempt so far is far from successful. But new strategic calls for biodiversity are instrumental in making the advocacies legitimate and hence, there is legitimacy for NGOs to re-making the international agenda for pro- ecology development, vis-à-vis economic globalization per se (cf. Lai 2011).

By 'parallelization' of international events organized by international organizations (IGOs; like APEC, G7/8, G20, IMF, World Bank and WTO), NGOs can put forward their alternative advocacies for sustainable development. By challenging as well as embarrassing the status quo and the legitimacy of the pro-economic liberalization bodies, NGOs contribute a service towards the promotion of biodiversity rights with real life stories, including visualization, of the victimization of individuals and biological groups.

For instance, Amnesty International (AI) has attacked a consortium involving two American oil giants, Exxon Mobil and Chevron, and Petronas of Malaysia, which are extracting the African oil in Chad and pumping it to the Cameroon coast via a 665-mile (1,070-km) pipeline. This is a USD4.3 billion project in Africa, the biggest foreign investment in Africa. NGOs have been fearful of the impact of the project on one of the poorest and most ill-governed parts of the world, has exposed the one-sided and anti-people and anti-nature of the project (*The Economist*, 8.September 2005).

Against the context that oil firms have often been damned by association with human-rights abuses in similar places, not least Royal Dutch/Shell in Nigeria and Unocal in Myanmar, AI was not just accusing the consortium of any specific human-rights abuses in the Chad-Cameroon project (though protesters against it have been abused in government crackdowns). Instead, the AI's preventive and precautionary report focuses on

the potential harm that may be done, as a result of the contracts governing the deal. At the heart of these contracts is a "stabilisation of law" clause, under which the consortium will be compensated for any economic harm caused to it by changes in the legal regimes governing the project – a protective clause for the oil firms against the risk of the unscrupulous governmental ripping off foreign investments. But, AI argued that one effect of the clause may be to impose a financial penalty on any government that tries to improve human rights by, for example, requiring higher minimum safety standards or quicker redress for lost land and natural biodiversity.

NGOs are now assuming the role of "morality (ethics) checker", providing guidance on bioethics and animal/ecological rights, usually using tactics of blacklisting and embarrassment publicity for the offenders of international norms on biodiversity such as governmental agencies and TNCs. This is the reason why some TNCs, stung by anti-animal rights labels, now respond with their so-called corporate social responsibility (CSR) initiatives (cf. Batruch 2011, Dermirag 2005). Hence, the morality checker role extends to preventive and precautionary one, with suggestive problem-solving options for TNCs and governments to consider in enhancing human rights and biodiversity.

To recapitulate, the nexus between business and human and biodiversity rights is that there are many (financial, ethical, regulatory) reasons why alternative rights have become a business issue. As a key player in the globalization process, many TNCs have been, taking their technological and capital advantages, destroying local customs and cultures, exploiting workers, bankrupting local poor and widening the gap between the rich and often politically repressive elite and the rest of society; as well as the demising biodiversity. What is more critical now as argued by new global norms is that, apart from legal obligations set down by the host country, moral responsibilities and ethical leaning towards local and international norms, TNCs can – through their foreign direct investment and business practice – make important contribution to the promotion of economic and social welfare, the improvement of living standards, the creation of employment opportunities and the realization and enjoyment of basic human rights and the biodiversity at large (Batruch 2011).

4. Bio-Eco Ethics for Development after the Nagoya COP10-CBD

Juxtaposing the CBD initiatives, the Climate Change (post-Kyoto) protocol is still in negotiation. Up to late 2011, global initiatives for climate change have not been successful, especially in nurturing global green house gases emission limits after the Kyoto Protocol…. The United Nations' climate change summit in Copenhagen (COP15; 7-18.December 2009) disappointed not just environmentalists and political leaders, but global society at large, by failing to produce a legally binding treaty on reducing greenhouse gas, carbon dioxide (CO_2). Seemingly, it is also a double-failure of the United Nations' initiatives on Climate Change for both the Bali Conference on Climate Change (3-14.December 2007) and the COP15.[2] More specific, the post-Copenhagen preparative meetings for United Nations Framework Convention on Climate Change (UNFCCC) have been repeatedly toning down for a "flexible" and "comprising" approach for achieving something just for non-legally biding agreement for Cancun (Mexico) Climate Change Summit (COP16), 29.November to 10.December 2010 – while the next hope will be another series of talks after the partially successful 2011 Climate Change Summit in South Africa …. Perhaps more and more global summits (until the end of human civilization?) are needed prior to the consensus building and formation of the global will for (the dying?) human and biological species and for ecological urban-modernization – But we are running out of time!

4.1 The CBD New Regime Against the Demising Biodiversity?

For protecting global biodiversity, time is not on our side therefore a new regime for global governance is urgently called for: bio-eco-ethics as the main consideration for development projects at large. For ecological modernization in 21st Century, three major inter-related issues need to be addressed for. First, the CBD claims that the advancement of broadly defined biodiversity is not possible without eco-friendly (conservation) development…. Second, development is the key endeavor of IGOs and NGOs; but large amounts of resources continue to flow to agencies which are systematically creating (rather than protecting) "endangered" species …and they have shown little commitment to protecting the natural resources, biodiversity at larger scale, on which human beings depend. Last but not least are know-how and financial supports to translate bio-eco-ethics for positive pro-active conservation, as well as stronger sanctioning power.

After 2010 Nagoya COP10-CBD, there will be follow-ups for the UN Earth Summit 2012: Rio+20 (UN Conference on Sustainable Development) and the UN Decade on Biodiversity 2011-2020, with progressive experimental projects, like the Satoyama Initiatives….All these initiatives will shape biodiversity activism in 21st Century, with new institutions, funding and processes (for novices as well as veteran activists) to promote learning-by-doing, action-oriented praxis initiatives at both local, regional and international levels of critical engagement. For global civil society, the CBD will enhance new biodiversity activism of NGOs' praxis with broad access avenues of civic participation at national, regional, international levels. And new platforms and gateways are evolving for exchanges of information, action-strategies and recruitment of volunteers for mobilization of bio-ecological issues – constituting global citizenship and guardianship for humanity and biodiversity: articulating biodiversity for all in Blogs, SMS, MMS, SNS onto e-platform of the Facebook, MySpace, Twitter and YouTube alike.

Obviously, the new paradigm for biodiversity-centered development is embedded with two contesting forces, the

[2] See http://unfccc.int/2860.php and http://unfccc.int/meetings/cop_15/items/5257.php, for the COP15 and COP16.

one oriented towards universal cosmopolitanism versus the individual's existence and survival. Creation of new policy institutions nurtures bioethics and ecological norms with burgeoning NGOs in global civil society: global environmental governance for others' survival, or the otherness over the individualism? New global discourse (critical engaging) is for principles, praxis and soft-targeting with civic participation, for eco-biodiversity, at national, regional and international levels.

In 21st Century, people question the vitality of globalization, the prolonged food and energy crises in this decade, and all these have been recently reframed by 2008 global financial crisis and its aftermaths like the Euro crisis…. Which version of (anti-)globalization is much articulated in the Occupy Wall Street movement (OWS; Calhoun 2011)? Obviously, OWS movement is challenging the status quo of the globalization project; and more importantly, questing for a civilized modernization with global emerging progressive forces to promote global socio-eco just and equitable sustainable development. Juxtaposing these, the non-market approach for socio-ecological exchanges between human agencies is emerging too: local exchange trading system, local capacity building, self-and-mutual help cooperatives, corporate social responsibility, social enterprises, and benevolent regime for know-how transfers alike. For the emerging alternative development approaches, we can witness a shift from the unjust globalization with biodiversity deficits towards the one with sustainability concern for the future – in between; there is also new, or rejuvenated, bio-eco ethics and global norms for eternal peace.

4.2 The Anti-Globalization Project-driven Reflexive Eco-Modernity?

Sharing strong affinities with Doreen Massey's (2004, 2005, 2007) calling for geographies of responsibility, the social agency in geo-politics thesis of Iris M. Young (2003, 2004, 2007) proposed a 'social connection' model in which political responsibility is derived from the ways in which different actors are shaping, as well as being shaped, in structural social processes. The new (green, biodiversity) political responsibility represents a collective practice, articulating social justice with the evaluation of individual conduct and social interaction in a non-reductive way. This alternative is a new model of "shared responsibility" between individuals and the communal one in which responsibility is distributed across complex networks of causality and agency (Barnett 2011: 252). Here, the normative challenge for the *World City*, the globalization project at large, is echoing the critiques on the inequalities derived from new labour and ecological processes in capitalism.

The mistaken functional specific land use in cities throughout the 20th Century is doomed to failure! For future, a socio-cultural compatible, small scaling and mixing-up of urban land/space use is the key for sociable, liveable cities: people need spaces for socio-economic reciprocities, aiming and achieving socially sustainability. To achieve this, we need both normative appeals and positive logical reasoning, taking into account of multiplicity of (greening) urbanity in a globalizing world; say the least is the respect for social, economic and cultural human rights and biodiversity at large.

Without a significant change of the pro-growth development model as championed by the market-friendly international governmental organizations, like IMF, World Bank and WTO, human civilization will be destined to be suicidal. Perhaps, Karl Marx and Friedrich Engels' characterization on the inherent contradictions of the crisis-ridden capitalism is partially right, as in the context of 21st century, the pro-growth development model is grave-digging: strong population growth in urban centres, along with multiple mobilities, excessive global consumption and rising carbon emissions… all are destroying human life and ecological worlds (Urry 2010: 192) – global climate change is an irreversible destiny: frequent flooding and drought, and (un-)seasonal disasters and catastrophes, plus extreme weather conditions become the norm, with no exception. And the only way for human survival is more or less to mitigate such global crisis in the coming decades, pursuing ecological modernization for biodiversity.

Obviously, the problems of (and solutions for) climate change and biodiversity are more than politics and technologies per se; the contradictions and mitigating strategies are socio-political therefore need "re-politicking". But we should be reminded that too much of the concept of 'climate politics' castrates climate politics; or the global policy framework (-driven inertia?) for biodiversity are paralyzing the local wisdom and self recovery processes for bio-ecological sustainability? It ignores the fact that climate –cum- biodiversity politics is precisely not about climate nor bio-ecology per se but about transforming the basics of bioethics, socio-ecological norms, which are embedded into/onto socio-economic institutions of the modernity. Here, the calling is for a transformation of our life world (Beck 2010: 256). Hence, the new worldview for sustainable development should be a fundamental shift of developmental course for the greening of economy and society -- reflexive ecological modernization for global-cum-local sustainability (Lai 2008, 2011).

At this historical conjuncture, in the midst of the informational risk society, the normative call for social justice and bioethics, vis-à-vis, the globalization project, is more than obvious timely. Rather than thinking in philosophical terms of social justice as idealized models, there is an identifiable shift for global actions of transnational advocacies for economic, social and cultural rights in the realm of human rights and biodiversity of living worlds other than human beings as well – with the down-to-earth experience and feelings for intuitive understandings of injustice and social calamities resulting from the free flows of capital. All species living in the limited Earth can only survive if the rejuvenated bioethics and normative judgments for peace, socio-economic developmental justice, and sustainable development, can turn people for greater responsibility for knowledge creation and global actions – envisioning new green utopia with progressive cosmopolitan *realpolitik* for peace!

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Ecologism and Confucian Pro-life-ism

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1. Clues to solve the problems and limitations of Ecol ogism from the philosophical perspective

As an introduction to a Confucian approach to the solution for environmental problems, for example environmental destruction, we have to examine some basic ideas. Firstly, we have to wonder if the Confucian solution belongs to the same category as the ecological paradigm. An academic group in Korea has said the Confucian solution is a kind of ecologism, which rooted in the ecology as a biological paradigm. But author of this paper would distinguish Confucianism from the ecologism or ecology. It means that the Confucian way of how to see the problems is neither the same to ecologism, and therefore Confucian what to see is not the same as the ecological what to see.

How to see depends on the order of concepts. The order of concepts has deep roots in the cultural context. Every cultural context has developed its own understanding the world and the human being or its own solution for sustainability. Confucianism has developed a way how to sustain the corelationship with Nature as our environment. And now we can count on the Confucian way as a very similar way to an ecological solution or ecologism. However, it is not the same with ecologism, because of a different way to see. Therefore Confucian way should not be denominated as a kind of ecologism but pro-life-ism.

Comparison between Confucian pro-life-ism and ecologism is actually a comparison between an old Asian ethics and a modern ethics. In this comparison an argument will be the relationship between human being and the nature. Namely, which viewpoint to this relationship can get general approval, anti-anthropocentrism of ecologism or anthropocosmism of Confucianism? Another argument will be focused on the ethics of knowing-what or of knowing-how.

Ecologism is rooted in ecology and designed to protect natural ecosystem and normalize the human ecosystem.

Confucianism as Pro-life-ism is a contrivance for criticism of ecologism from the viewpoint of Confucianism. Confucianism as Pro-life-ism comes from the context of Korean context of Neo-Confucianism (14-20th century)

1. Starting point of ecological paradigm

As a criticism of modern philosophy of enlightenment, or the rationalism that stems from this philosophy of enlightenment, ecologism took the form of antipathy towards anthropocentric and rational-centered thought and in consequence has a tendency heavily toward irrationalism and esotericism.

What most ecologism insists is as follows:

1) In order to actualize the ecological lifestyle, the measures supplied by ecologism have mainly revolved around the stance that it is necessary to bring about fundamental change in the social, economic, and political order.

2) However, with regard to the issue of where the fundamental change in the social, economic, and political order should originate from, the majority of the advocates of ecologism have focused on the need to bring about a change in how people view the world.

3) In this regard, the manner in which ecologists have gone about trying to change people's world view try to strengthening ecological imagination.

4) The ecologists established the hypothesis that the destruction of the ecosystem would eventually result in the extinction of mankind.

5) Even scientists cannot provide clear answer as to whether such hypothesis will come to pass or not.

We can ask some questions.

1) What is the main actor of change of this situation?

2) Doesn't the success of an ecological strategy ultimately rest on the ability to change the thinking method of the main actors and to change their attitudes and lifestyle?

3) What measures can be implemented to ensure that such changes in attitudes and lifestyles become permanent?

However, advocates of ecology and ecologism appear to have given little attention to these questions.

This can be construed as the main reason why this study introduces a logical extension, in the form of a Confucian vantage point, namely pro-life-ism, as a viable alternative.

2. Confucianism as Pro-life-ism (CPL)

Confucianism as Pro-life-ism has the main ideas as follows:

1) All the beings in the universe are linked together under one system.

2) The extinction of individual life forms should not affect the permanent existence of the species.

3) As such, human life reached its highest value when it contributed to the perpetuity of the human species.

4) Humans, and in particular saints, plays an essential role in maintaining the perpetuity of life.

5) In accordance with this idea, Confucianism structured the perpetuity of life forms based on the notion of three elements: Heaven, Earth, and Humans (三才: 天地人)

6) Humans, and in particular saints, played a pivotal role in the pursuit of nurturing and harmony of all living

3. What are the CPL's distinctions?

1) CPL aims at not simply perception of the ecosystem, but the perpetual maintaining of the life of all beings.

2) Human beings are the centre of the eco-process in the universe.

3) Not by simply changing people's view, but by changing the very existence of life forms through self-cultivation, PL sought to bring about this goal.

4. How to converge CPL and ecologism?

1) The one direction is using the Confucian world view and more comprehensive metaphor to strengthen the ecological imagination.

2) The other direction is to graft the **hands-on methods** employed in Confucianism onto ecologism.

3) The strengthening of imaginative force is meaningful only when it is connected to the strengthening of the power of execution.

5. Two Hands-on Methods of CPL

1) Self-cultivation that creates new beings by cultivating individuals' minds and bodies.

2) The establishment of rites and ceremonies and etiquette which can be used to coordinate and unify the everyday behavioral patterns of the members of a group with the Confucian world view.

3) Not by simply changing people's view, but by changing the very existence of life forms through self-cultivation, PL sought to bring about this goal.

6. Confucian Pro-life-ism's feature

1) To achieve clearer and more precise cognition of whole life system or the ultimate principle(理) one must develop experiential perceptions through practice.

2) This is regarded as true understanding (眞知), which is distinguished from knowledge based on hearing and seeing (聞見知).

3) Self-cultivation (修身) is not limited to self-introspection at the epistemological level but related to the exercise of rites and rituals in daily life.

4) The Confucian theory of self-cultivation is closely related to the methodology of the study of mind (心學) that prevailed during the era of Neo-Confucianism.

5) While one of the criteria for introspection is principle, which in turn is secured from the internal mind, ritual and ceremonial regulations also constitute important criteria.

6) As it is in keeping with the objective norms known as rites (禮), the notion of principle (理) should be perceived not only from the standpoint of the internal mind of a person, but should also be actualized in one's life within the external world.

7) Thus, based on a concerted structure that involved both principle and rites Confucianism viewed thinking and practice, or motivation and result, as being in accord with one another.

8) Confucianism also viewed the process of changing from a lower to a higher state of correspondence between principle and rites as being made possible by self-cultivation.

9) In other words, self-cultivation is regarded as a methodology to organize the internal mind and external world into a system where the mind and body is harmonized with *principle and rites.*

7. The Reason Why Rites are very important

At the current point in time in which interest has been focused on the problems within the ecosystem, rites (禮) become an especially important tool through which to establish the norms needed to coordinate and optimize the relationship between nature and humans and to achieve social integration.

If by ecological problems we mean the imbalance and lack of functionality between all the species under the organic cycle system that combines nature and human society as Hans Magnus Enzensberge has pointed out, then it becomes very important to establish a ritual device, for example, Confucian rites (禮), which can be used to reform individual and group life, including everyday life, towards a nature-friendly environment, or which can reorganize the patterns of individual and group behavior.

The circulatory system linking together nature, humans, and society should move beyond its current characteristics of environmental destruction and conflict-laden relations and towards the actualization of the virtues of reconciliation and coexistence based on the establishment of ritual devices and ritual practices.[3]

1) Rites can be regarded as a device that respects the law of nature and produces an individuality that pursues the state of mean (中庸) and anthropocentral harmony(中和).
2) Rites can clearly be perceived as a normative principle through which to simultaneously appropriately control and satisfy human desire.
3) Moreover, this normative principle can be used to properly cultivate humankind, and to establish an awareness of frugality as a more virtuous deed than extravagance.
4) Finally, rites represent the essence of the heavenly principle (天理) and the ceremony and rules of human affairs (儀則).

8. CPL's anthropocosmism and ethical know-how

CPL can provide a new viewpoint to the ecological thinking, that is the anthropocosmism. Ecologism has denied the anthropocentrism of the modern philosophy and established so-called biocentrism. However this biocentrism cannot deny the main role of human beings in practice. Therefore if it can recognize not only the importance of the Nature or whole life of it but also the role of human being's for harmonious relations with the Nature, it should be a more useful viewpoint or pragmatic truth. CPL's anthropocosmism can be the alternative to the ecological viewpoint.

Confucianism stressed the importance of habituating oneself to rituals or etiquettes and thus the course of self-cultivation should be the course of habituating the rituals or etiquettes in daily life. As the result of a long time of habituating one will be able to act in every moment as a master without any mistake or hesitation. Francisco J. Varela, a neuroscientist, insisted that know-how is given a greater deal of weight on the ethical actions than know-what. Depending on him, the habituating of the rituals or etiquettes in Confucianism is actually a demand to extend or master one's know-how necessary for one's improvement of ethical life.

Therefore CPL's emphasis to habituating the rituals or etiquettes is an authentic request for settlement of the harmonious life style with the Nature.

[3] Refer to Hitoshi Imamura and Shinsuke Imamura, 儀禮のオントロギ-人間社會を再生産するもの [Rites and ceremonies used to reproduce the ontology of human society] (Tokyo: Kodansha, 2007).

Peace building through Restorative Dialogue and Consensus Building after the TEPCO Fukushima 1st Nuclear Reactor Disaster

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1. Introduction

The Eastern Japan Great Earthquake on 11 March 2011 claimed approximately 16,000 lives. 3,000 people are still missing, more than 120,000 homes and buildings were completely destroyed, and more than 250,000 were partially destroyed.[4] Following the earthquake, a serious human-made/technological nuclear disaster occurred - the explosion of the Fukushima 1st Nuclear Plant. This was a level 7 nuclear incident, which led to melt downs and the release of radioactive materials and particles all over Japan, as well as other countries. Still the attempts and efforts put forth towards carrying out the cooling down operation have not been completed. As a further matter, the operation will continue for an unforeseeable period. In the affected areas, people are living under the fear of future health hazard risks threatened by radiation. The main industries of these affected areas, agriculture and fishing in particular, have been damaged gravely resulting in a stagnant economy crippling the livelihood of the people. Since the affected areas are so vast, an adequate compensation from the government is unlikely to be successfully granted.

The specialization of the authors is conflict transformation and peace building. Why do we, conflict transformation/peace building specialists need to contribute to the consideration of the post-disaster situation of the Fukushima 1st Nuclear Plant? What kind of contribution can we offer? There are two significant reasons why conflict transformation/peace building specialists should work on the problem.

Firstly, in the areas affected by the Earthquake and on 11 March 2011 and the following nuclear disaster, numerous conflicts and the destruction of many human relationships have taken place. Any large-scale natural disaster be it earthquake, tsunami, flood, volcanic eruption, tornado, drought, etc., harms people physically, mentally, and socially, leaving the survivors traumatized. Particularly, an environmental disaster coupled with some level of human caused factors –

[4] Japanese National Police Agency. 2011

humanmade/technological disaster, makes the human relationships in the affected society to be prone severe damage regardless of the amount of compensation and accepted responsibilities. The destruction of human relationships aggravates and obstructs the process of recovery that is all too often left unsolved and passed on to the next generation.

Secondly, peace is not only defined as the absence of direct violence (war/conflict, etc), but also defined as the absence of indirect and structural violence. Galtung (1969) defined this as a positive peace. In other words, peaceful society is one where the needs of all people in the society are filled and people can fully enjoy their potentiality. Following such a large-scale disaster, a society is inevitably confronted with grave decisions concerning the re-building and re-construction of a new society. Thus facilitating consensus building amongst diverse opinions in policy making in order to ensure a more "peaceful" future learning from the experience of disaster and even from conflict is a pivotal objective of conflict transformation and peace building. Although decision-making after a large-scale disaster is very important, the consensus building process usually becomes difficult because people are likely to have more conflicts (which will be elaborated in detail in the following section) due to the harm and trauma they experience as a result of the disaster. Therefore, in a traumatized society, a different consensus building approach than the one employed in a normal society is needed.

2. Conflicts and Destruction of Human Relationships in the Affected Areas by the Fukushima Nuclear Disaster

Many conflicts and the destruction of relationships have taken place within the family, as well as in the community in the areas affected by since the nuclear disaster. These conflicts include divorce, bullying in schools, emotional conflict between those who evacuated out of the affected areas and those who remained behind, as well as those who got compensation and those who did not, etc. Ishihara conducted interviews with the citizens of the affected areas for one year; most of the interviews were done via telephone and email (other than the visiting interview and participatory observation in July 2011 in Koriyama and Fukushima city in Fukushima prefecture). Here are some typical examples of the conflict cases among people in the affected areas. All individual names are anonymous and the cases are modified by combining several cases.

Case 1: Conflict between family members over the decision-making in response to the nuclear disaster and divorce in the worst case (Interview: July 2011)

Mrs. Tanaka (anonymous) is a woman living in Fukushima prefecture with her husband, two children (three years old and five years old) and parents-in-law. She really worries about the health hazard risk as a result of the radiation that might affect her children and wants to consult with her husband and parents-in-law about her concerns and fear, as well as discuss how to respond to the disaster together-- whether they need to evacuate or buy a "Dosimeter" which costs 100,000 JPY (1,000USDS). However, when she tried to consult with her husband and parents-in-law about the radiation, her husband got irritated and angry saying, "I don't want to talk about the radiation! Never talk about it!" Her parents-in-law responded in the same way as her husband saying, "you are too nervous…the government says Fukushima is safe". Mrs. Tanaka became depressed because she could not express and share her feelings and concerns with her family. In the end, she decided to buy the expensive "Dosimeter" without letting her husband's or her parents-in-law know, and has been thinking of getting a divorce in order to protect her children.

Case 2: Bullies in schools

Mr. and Mrs. Suzuki have a 9 year old son. They decided to have their son evacuated alone to the Western part of Japan, which was less affected by the nuclear disaster. However, their son, Ken, was bullied at the new school and was being verbally discriminated against. "You are contaminated! We don't want to touch you." Having acknowledged the discrimination, Mr. & Mrs. Suzuki decided to let Ken return back to his original school in Fukushima in September 2011. Yet, Ken has once again become a victim of bullying and has been verbally discriminated against in Fukushima as well, "You ran away! You are weak and you are a betrayer".

Case 3: Emotional conflict over the decision making regarding evacuation

Ms. Sato lives in a town 50 km away from the Fukushima 1st nuclear plant, which does not fall into the category of the area of mandatory evacuation by the government, although this area was also contaminated with radiation. Some people decided to evacuate voluntary and others did not. Ms. Sato was shocked by people's reactions and attitudes towards those who decided to evacuate. People who did not evacuate got really mad and accused those who evacuated, claiming that they are betrayers. Ms. Sato and her family have been thinking of evacuating but have not yet been able to decide because of fear of being accused by neighbors/friends and labeled as betrayers.

Case 4: Emotional conflict over compensation

Mr. Goto feels that he was not given fair compensation. His neighbor received compensation from TEPCO whereas his family did not. We live next to each other so what is the difference? It is unfair and unjust.

Additionally, the above-mentioned conflicts within the family and community are occurring at a micro level. Those occurring at a macro level are political conflicts. There are policy debates concerning the existence of the future of nuclear energy in Japan. These macro level conflicts have quite an impact on conflicts at the micro level.

These micro level conflicts are taking place under the specific post-disaster government and within the Japanese and Fukushima cultural context. For example, in case 1 – which is the conflict amongst family members, information about the release of radiation material and particles as well as the risk varies from media to media. The elderly people tend to believe the official information

from the Fukushima prefectural government which estimates the radiation risk to be low while the young mothers tend to believe information from friends outside of Fukushima or internet media which estimates the risk to be high. The other factor is the cultural norm for the eldest son in Fukushima to inherit the house from his ancestors. If a husband is the eldest son, which is a typical family in Fukushima, he cannot contemplate the idea of leaving his house in Fukushima, while his wife can easily think of moving out since her hometown is likely to be somewhere else. Also, husbands tend to think it impossible to find a new job somewhere other than Fukushima so evacuation seems unthinkable.

These concrete analyses of the Fukushima regional conflict in the context of the specific government policies, media coverage, and cultural influence, will be explored in in-depth in a separate paper. In the forthcoming paragraph, the authors will discuss in the underlying general reasons as to why human relationships are easily damaged after the occurrence of as environmental disasters.

3. Why do there so many conflicts occur after the Mass Environmental Disaster?

3-1. Stress, Trauma, and Conflict

Firstly, any large-scale disaster imposes a grave impact on the lives of many people. The unimaginable consequences of such disasters leave a huge number of people stressed or traumatized which in turn often destroy human relationships. Stressful/traumatic life events can cause various psychological problems and difficulties in human relationships. Fig1 – which is known as the Victim-Cycle, illustrates the psychological state of a victim experiencing a traumatic life event (Yoder, 2005). When a victim chooses to act-in, towards oneself, following the traumatic life event, his/her behavior and conduct are connected to a mental problems such as depression and PTSD “Post-Traumatic Stress Disorder”, and self-destructive or self-harming behavior. Alternatively, in a case of acting-out, a victim’s behavior towards others tends to be aggressive. Through aggressive conduct, a victim is causing the other person a new trauma and stress, which ultimately leads to a chain of traumatic energy. In a large-scale disaster, people, industries, government – society as a whole, becomes the victim within the Victim-Cycle, and as a result, wide-scale conflict and the destruction of human relationships occurs.

Particularly, in a society where every single person experiences trauma – commonly known as a – “traumatized society” such as the situation after the Eastern Japan Great Earthquake and the nuclear disaster, in addition to the chain of conflict, the following phenomena are likely to occur (Hart, 2009ab, 2012):

- Psychological change (shock, denial, fear, anger, sadness)
- Difficulties of truth-telling / Hiding Information
- Regression from democracy
- Disruption of relationships
- Narrative of Good and Evil
- Social exclusion/Bullies
- Cult like Religion/Heroism
- Enhancement of Identity (we are different from you)

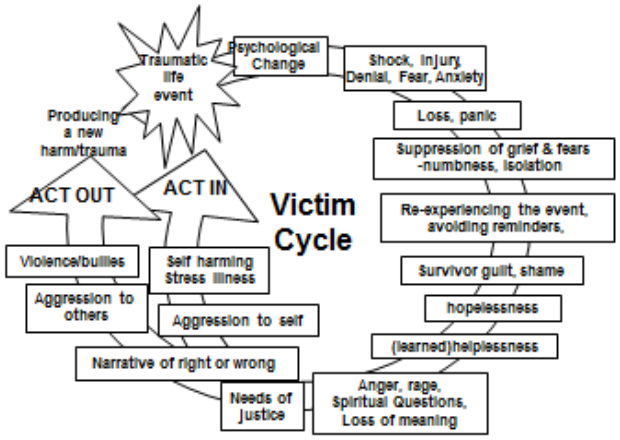

Figure 1: Victim Cycle--The Eastern Mennonite University STAR model of the Victim Cycle (Modified by Ishihara)

3-2. Problems Caused by the Current Legal System

In the case of an environmental disaster including a nuclear disaster, questions of responsibility and compensation are at stake, and as a result human relationships are all too often damaged. For instance, as the problem of compensation by the TEPCO and/or the government continues to persist, social tensions between the TEPCO and/or the government and the victims increase. Also, the emotional conflicts between those who have received compensation and those have not also occurs.

These conflicts are partially caused by characteristics of the current legal system. Since the current legal system of Japan is fundamentally an adversarial process of negotiation, under which the compensation is determined, a conflict between TEPCO/government and victims/citizens can easily occur. These conflicts and social tension between TEPCO/government and victims/citizens even affect the relationship between victims; the emotional conflicts between victims who have received compensation and those have not also occurs.

Adopting a collaborative, restorative negotiation process may be highly effective for peace building. The current legal system is basically created to solve a conflict through the usage of money; while a collaborative or restorative process provides the possibility of solving a conflict in a more creative way based on the needs of both the concerning parties.

The concerning parties and victims do not always desire money., For instance, they might want an investigation of the incident, they might want to be reassured that such incident will not occur again through improvement of policies, or they might want an establishment of a whole body counter, which measures not only the external radiation exposure but also the internal radiation exposure. Through collaborative/restorative process, conflict can be looked at and approached from various perspectives, which can lead to a wide range of resolutions.

3-3. Conflict of World View and Values

In the process of rebuilding and revival after any large-scale natural disaster, the decision-making process is

seen as crucial in facilitating a sudden social change. In the process of decision-making, we not only encounter superficial differences of opinions about each issue, but also underlying (hidden) values and worldviews that shape patterns of thought, and behavior that ultimately influence one's decision-making process (Docherty, 2004). Thus, making conflict resolution and consensus building a difficult goal.

There are scores of problems brought about by the nuclear disaster; evacuation, compensation, waste disposal, decontamination, information disclosure, nuclear power plant inspection, pollution and health survey, and many more. People treat each of the above-mentioned problems as separate from one another. However, at their very core, these problems pose universal questions such as: What is a human being? How should we, as human beings/society as a whole, relate to nature/environment? What makes us happy? What are the roles of the government? What is democracy? What is the ideal relationship between government/power and citizen? How should we think of the relationships between economy and nature/environment? What kind of survival strategies should we develop? We not only encounter differences of opinions about each issue, but also differences of all those underlying (hidden) values and worldviews that shape individual patterns of thoughts, behavior, and conduct, which ultimately influence one's decision-making process.

For example, at discussion of the future of the nuclear power plant in Fukushima involves industrial policies and military strategies of Japan and the international society; therefore, conflict resolution becomes more complex and difficult to obtain.

3-4. Social Disparities and Structural Violence

According to the paradigm of social structural imbalance, the people of the lowest social class are ascertained to be gravely affected by a large-scale disaster and are also exposed to structural violence. As previously mentioned, when a victim is in a Psychological-Cycle (victim cycle) and acts out, he or she tends to direct his aggression towards those who are in a weaker position than himself/herself. Consequently, such acting-out leads to an accumulation of harm through continuous chain the chain of traumatic energy at the bottom of the social strata. Also, generally, past research shows that the harm of environmental disaster tends to go affect the lower social-economic status people and the benefit tends to go to the higher social-economic status people (Shunaiberg and Gould, 1994). In a Japanese context, a mass disaster such as this nuclear disaster reveals the social disparities and structural violence within Japan which Japanese people had not recognized clearly in the past.

3-5. Natural Environment and Basic Human Needs

Lastly, the authors would like to discuss about the impact of natural destruction on human beings.

A conflict theory says that conflict occurs over the resources to fulfill one's own needs; it shows how to fulfill the needs is the key factor for peace. Maslow presented the famous model of the hierarchy of needs. In accordance to Maslow's model, water, food, air, health and physical security, are the most basic needs of human beings. Nature/environment plays a crucial role in providing human beings with such basic needs. Thus, the destruction and contamination of the natural environment threaten the human basic needs crucially. So, a large-scale natural destruction such as this nuclear disaster ultimately could lead to an occurrence of numerous conflicts and adds more complications to conflict resolution.

4. Dialogue for peace building after the mass disaster and the nuclear disaster

4-1. Restorative Approach for Dialogue

Consensus building for policy making is essential for the reconstruction of the society following a large-scale disaster such as this nuclear disaster. However, engaging in dialogues and consensus building can turn out to be extremely difficult in such a circumstance because people have already encountered scores of conflicts and been affected by the destruction of human relationships. Therefore, it is essentially important to attempt to identify an appropriate dialogue and consensus building process that can be applied in a post-disaster setting.

In the study of public policy, deliberative decision making and a consensus building approach for policy making (policy making based on an cooperative/collective rationality) has attracted a great deal of attention, while top-down decision policy making (policy making based on institutional rationality) has been a mainstream (Innes and Booher, 2010). This can be explained in two main point, Firstly, a cooperative/collective rationality-based consensus building approach can shine light onto the hidden/concealed issue/challenges and wisdom that only each stakeholder and society member knows. The top-down- or institutional rationality-based approach fails to do this. Secondly, such an approach encourages collective participation of the residents/citizens and all relevant stakeholders in the planning process, which in turn helps strengthening shared responsibility and promote social solidarity. Especially, participation and involvement of all stakeholders: citizens, industries, governmental as well as non-governmental organizations are extremely crucial to the success of a recovery and reconstruction process. Thus a bottom-up-based policy making process/consensus building approach is effective.

The benefit and essence of the bottom-up-based policy making process/consensus building approach is that it attempts to utilize information from different perspectives and take advantage of different values for the betterment of policy making. However, to engage in an effective dialogue among the different perspectives and come to a consensus after such a nuclear disaster can be quite exhausting and difficult since everyone in the society including top-decision makers – governments, corporations, and citizens, is traumatized and in fear. Thus, in a traumatized society, we need a different approach for dialogue from the normal process of

consensus building for policy making, which is restorative approach for dialogue[5].

As previously mentioned in section 3, everyone in the society is traumatized and falls into the "victim-cycle". An individual in a "victim-cycle" has a high tendency to exhibit an aggression towards oneself (act in) or towards others (act out)– which leads to a continuous chain of "victim-cycle". One can break free from the cycle if the proper process and circumstances are created. Figure 2 shows the model of breaking free from the "victim-cycle," healing and recovering from trauma, and re-starting a life.

In the process of recovery from trauma, it is natural and essential that a victim feels anger and demands justice. If the victim is caught in a good-bad narrative and accuses oneself or the others, he/she will become sick or resort to self-destructive behavior (act in), or an aggressive behavior towards the others (act out). Thus, it is important to support and help the victim to face and embrace his/her feelings-- such as anger-- in a safe space without harming oneself or others and to fulfill the needs of justice. Restorative process for dialogue attempts to offer such a process for victims.

Here, restorative/restoration is defined as a restoration of one's heart, life, and identity and also a restoration of relationship between people. We try to promote justice and reconstruct a society not through adversarial process but rather through a restorative process. Here, in this paper, we define justice as a process to promote peaceful society where there is less violence including direct and indirect, as well as creating a better future and better society by learning from the problems brought about by the disaster. These include problems of science and technology, democracy, social disparities, economic and environmental sustainability, etc.

In restorative process, we try to do 1) individual healing, 2) relational healing, and 3) consensus building for policy making for the future on a continuous basis, because we believe that these three aspects are interconnected. Individual trauma tends to lead to conflict and a destruction of human relationships, which imposes a substantial obstruction to consensus building for policy making. The other side of the coin is that real healing of an individual can be obtained when his/her traumatic experiences are harnessed in the policy and planning process. This enable the individual to see clearly his/her own roles and responsibilities in the reconstruction of a new society. Real healing is possible when he/she can incorporate and integrate his/her trauma into a new identity in the new vision for the future society.

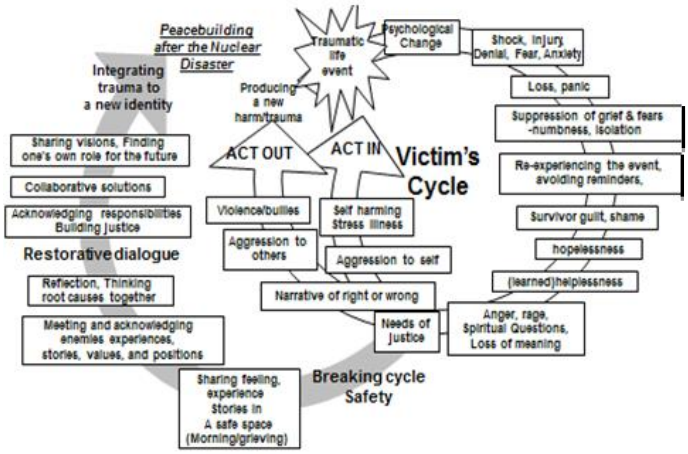

Figure 2: Restorative Approach for Dialogue After The Nuclear Disaster—from Eastern Mennonite University STAR model (Applied and Modified by Ishihara)

What kind of process/approach is needed to make "restorative process" possible?

1) First and foremost, a safe space where people can express/share their honest feelings, experiences, and stories is essential. To have one's experiences/stories heard and to acknowledge and embrace one's own feelings especially mourning and grieving are the important first steps for healing. Without the healing process, one cannot tolerate the differences of opinions and/or physically face one's enemies.

2) The second step is for people to acknowledge different experiences, stories, values, and positions. This may involve meting a person who has a conflict with you or someone who you perceive as your enemy. People do not need to agree, but rather recognize and acknowledge differences of perspectives

3) The third step is reflection and contemplation on the root causes, together with people who have different perspectives. This will shine a light on numerous aspects of the event, and allow people to explore the root causes deeply and from multi-perspectives.

4) The fourth step is to find one's own responsibility in terms of the root cause, and to make an attempt to find out what needs to be done to build justice and a better society that will fulfill the needs of the society/community members, especially victims.

5) The fifth step is to try to collaboratively find creative resolutions and build for a better future.

6) The sixth step is to encourage people to share/express their vision for the future of the society. Each society member should find his/her roles and responsibilities in creating a better future.

Through these steps, people can incorporate their traumatic past/experience into a new identity in the context of a new future vision of their society/community. This will serve as a building block for the revitalization and reconstruction of the society.

These steps are a continuous process, however, it is not a requirement to go through all of the steps within one dialogue or to through each step in sequential order (1-6). The time needed to be restored and transformed will vary among people, communities, and cases; so it is important not to control the process and times but to

[5] In this paper we develop the idea of restorative dialogue applying the essence and values of restorative justice such as harm, needs, obligation into the community/society rebuilding process after the nuclear disaster or mass disaster context. The original ideas of restorative justice is described in Zehr 1990 and 2002 and now the philosophy is applied to broader context such as transitional justice cases and violence prevention in schools.

follow the process of the dialogue members, especially the victims. Some case may take two hours while other case may take several years or more.

In organizing a dialogue, creating a dialogue space for healing is recommended as the first step. Probably, this would be a dialogue for people who share similar background in order to create a comfortable and safe atmosphere for them to share/express their common experiences and feelings (this is crucial to an individual healing). Then, a space for a dialogue among people who have different experience, perspectives, and values could come, since it is generally difficult for people to meet different recognize and acknowledge the different perspective without individual healing. In the next section, we would suggest a specific model of creating dialogue spaces for peace building and policy making after the nuclear disaster.

4-2. Strategic Design of the restorative dialogue process after the nuclear disaster

There are 3 significant attributes for an effective post-disaster dialogue:

1) Empowerment and personal care for an individual's heart (step1)

2) Restoring an antagonistic relationships and social solidarity (step1-2, or 1-4)

3) Discussion toward a concrete decision-making and policy making (step 2-6)

As previously mentioned, it is a continuous process; each step does not have to be carried out in sequential manner. In developing strategies for consensus building and dialogue for the post-disaster policy-making/formation, I would like to employ the Four-Phases disaster [6] management model.

Figure 3.1 illustrates the Four-Phase Disaster Management, the response stage, in general is the most critical stage/time right after the disaster (lasting approximately for several days) – This stage necessitates/requires a top-down decision-making process. While in the period of recovery and mitigation, a bottom-up policy decision-making process is desirable. However, the response period (crisis management period) in a nuclear disaster, in comparison to that of typical disaster supposed in the four phases models such as tsunami or hurricanes, is longer (it can take several month or even a year), and it is essentially important to engage in a recovery process while at the same undertaking a responsive crisis management (Figure 3.2). When a top-down-based decision-making process is undertaken on a long-term basis, it will likely lead to increase of divergence between policy and the citizen's real situation which in turn leads to dissatisfactions and complaints from the citizens regarding not being heard by the government.

Here, we would like to propose that starting a dialogue process as early as in the response stage for the Fukushima nuclear disaster. It may be difficult to have a consensus building dialogue for policy by inviting various stakeholders who have different interests and values during the time the response is still going on. However people (not only citizens but also government decision makers and industry decision makers) need dialogue for healing and support and dialogue for a consensus building among the people who have similar interests. This process also contributes to enhancing the quality of decisions even if it is top-down one. This process will also serve as a preparation for the consensus building process among the different stakeholders in the later parts of disaster management stages such as recovery and mitigation.

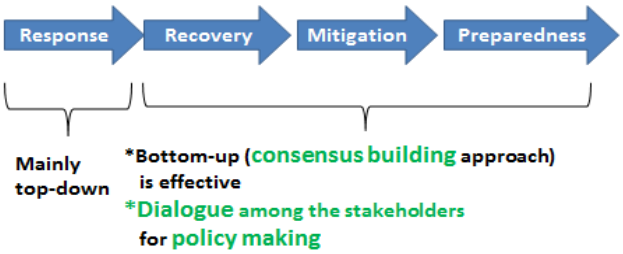

Figure 3.1 Disaster Management and Dialogue for Policy Making

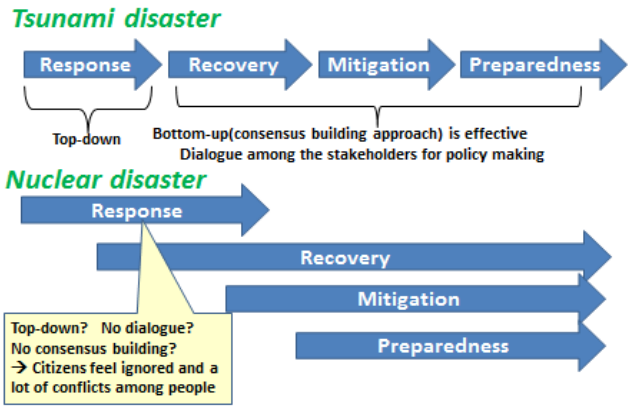

Figure 3-2 Disaster Management(Tsunami and Nuclear Disaster)

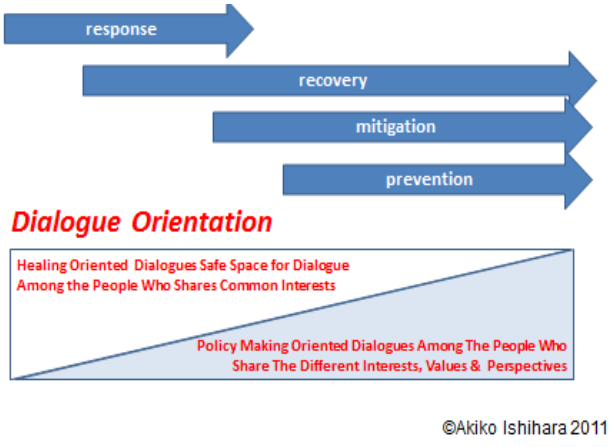

Figure 3.3 Two-Phases Model For Dialogue Promotion After The Nuclear Disasters

Continuous dialogue will help healing of individuals, resolve conflicts and enhance the solidarity of the people, as well as increase the quality of decision making. In the early stage of the nuclear disaster management, it would be appropriate to emphasize the healing aspects of the

[6] FEMA. Four Phases of Emergency Management. http://emilms.fema.gov/IS10/FEMA_IS/IS10/ADA0304001.htm retrieved Dec.10 2011

dialogue, and gradually the emphasis would move into the consensus building process among the different stakeholders who have different opinions, values, and perspectives (Fig 3.3). In order to acknowledge the different perspectives and values, people need to have a room to accept them, so the healing and empowerment process in the early stage will be critically important for successful dialogues for consensus building for policy making.

5. Conclusion

In the areas affected by the TEPCO Fukushima 1st Nuclear Reactor Disaster, people are suffering not only from risk of physical harm by the radiation but also from the destruction of human relationships and conflicts. We tend to focus only on physical damage or risks as a result of the disaster, but it is very common that the destruction of human relationships happen after the mass environmental disaster as we discussed in the section 3. Human relationship destruction not only affects individual mental health but also leads to unsuccessful recovery and reconstruction of the society after a disaster. This is because mal-mental health of individuals and conflicts among the people probably disrupts--good decision --making in crafting post-disaster policies. Also the society cannot mobilize the people's power for the recovery/reconstructing process.

In order to promote individual healing, restoration of human relationships, enhancing solidarity, and making consensus building possible among the different stakeholders in order to create a better future after the disaster, a restorative approach for dialogue is needed. This can include:

1) Providing safe spaces where people can share their feelings and experiences.

2) Meeting and acknowledging different experiences, stories, and perspectives.

3) Thinking of the root causes together.

4) Acknowledging one's own responsibilities in terms of the root causes and thinking what are need to be done to make things right.

5) Finding resolution collaboratively.

6) Sharing future visions and finding personal roles in the re-building plan of the better society.

A Victim's individual healing cannot be actualized without integrating his or his traumatic experience into a new identity in the new society. Rebuilding a better society cannot be possible without the wisdoms of victims and participations of individuals and communities within. Sustainable peace can be actualized through these comprehensive and restorative efforts. The nuclear disaster is a tragedy. However we could and should make this tragedy a starting point for a better and peaceful society--one without direct or indirect violence. This new society will be one that learns from experiences, especially those of victims since they are the best teachers for the future.

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The sentiment of waste and the measure of footprints evaluated through an ableism lens

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Abstract

Perception of what is waste and wasteful, as well as what kind of waste one can and is willing to produce or not produce has changed over time and continues to change and, the author submits, is linked to cost benefit analysis undertaken by the entities that judge something as waste or wasteful. This paper introduces footprint/ableism as a cost benefit framework. Footprints (e.g. water, carbon, energy, ecological) are measures linking the creation and consumption of manufacturing products and the use of services to certain costs. Ableism is the sentiment that certain abilities are seen as essential. The author submits that ability desires and preferences are a main dynamic that influences whether costs are seen as acceptable and leads to the classification of certain products and actions as waste and wasteful and others not.

Keywords: waste, ableism, footprint, value, discourse, water.

1. Introduction

The concept of waste is everywhere. There is radioactive waste [1;2], carbon waste [3] and electronic waste [4]. There is the notion of wasted lives [5;6], bodies [7] [8] and the phrase 'wasted effort' is everywhere. Waste is covered in fiction [9;10], has a

cultural component [11-13] is gendered [14] and indicators exist [15]. The meaning of waste [16-20] as well as what one can label and what is labeled as waste has changed over time and continues to change.

However, why do we label some things and actions as waste or wasteful as beneficial or costly and others not? Cost benefit is a measure used in many areas such as environmental policy decisions.[21-23]. Its theoretical origin dates back to issues in infrastructure appraisal in France in the 19th century.[24]. Footprint (e.g. water, carbon, energy, ecological) calculations are recently employed for many products and services as a means to highlight certain costs. Water footprint measures, for example, the amount of water needed to generate a given consumer product or service [25]. Water footprint calculations exist for among others coffee, crops and energy and can be generated for regions and countries [25]. Energy [26] and ecological [27] footprints embodied in trade are calculated. Carbon footprints are calculated for many purposes such as household activities in the UK [28]. Footprints are one measure to inform cost/benefit evaluations among others in the sustainability [22;29;30] and waste discourse [31]. However cost by itself does not define what is perceived as waste or wasteful. The benefit calculation is an important part in labeling something as waste or wasteful. This paper deploys ableism as an analytical framework to shed light on the dynamic of labeling some things and actions as waste and others not. Every person cherishes certain abilities and finds others non-essential. Favoring certain abilities often morphs into ableism where one not only cherishes certain abilities but where one perceives certain abilities in oneself or others as essential. Ableism reflects an ability-based and ability-justified understanding of oneself, one's body and one's relationship with others of one's species, other species and one's environment [32]. The author submits that abilities one favors and ableisms one exhibits are key influences in what one perceives as waste, the extent and nature of waste generation one finds acceptable, and which waste one wants to minimize or avoid. It influences which footprint costs one judges as more important to deal with than others and what solutions one envisions for a given ecological problem. The paper contends that analyzing a discourse through the ability-desires-of-the-players lens adds to the tool arsenal allowing one to set waste strategies, to predict certain outcomes in given waste discourses with given players involved and to predict when something will be seen as waste or not.

2 What is Ableism?

The term ableism evolved from the civil rights movements in the United States and Britain during the 1960s and 1970s [33] to question and highlight the expectations towards certain body abilities and the prejudice and discrimination persons experienced whose body structure and ability functioning was labeled as 'impaired', as lacking essential body function abilities [34;34-41]. However, the favoritism for abilities and ableism is a much broader phenomenon. The list of abilities one can cherish is endless with abilities added to the list all the time. The cherishing of abilities happens on the level of individuals as well as on the level of households, communities, groups, sectors, regions, countries and cultures [32]. Favoring certain abilities often morphs into ableism where one not only cherishes certain abilities but where one sees certain abilities in oneself or others as essential. Ableism leads to an ability-based and ability-justified understanding of oneself, one's body and one's relationship with others of one's species, other species and one's environment [32]. Ableism as used here as such is not negative - it merely highlights that one favors certain abilities and perceives them as essential. There are desires for certain abilities which are judged as desirable by some and problematic by others such as the ability to consume products and services, the ability to outcompete others and be productive and efficient. Other ableisms have historically been used and still are used by various social groups in a negative way to justify their elevated level of rights and status in relation to other social groups, other species and the environment they live in [32;42;43] and to disable the 'other' [44]. So how can an ableism lens highlight what one might see as waste and wasteful, costly or beneficial?

2.1 Water Waste: Water footprint versus Ableism

According to [25] "water footprint of an individual, community or business is defined as the total volume of freshwater that is used to produce the goods and services consumed by the individual or community or produced by the business." Water Footprint is an important tool linking desired abilities to water use. The question then becomes; which use of water for which abilities does one consider necessary or justified and which does one consider wasteful? To give a few examples; the generation of 1 kg of grain needs 1,000-2,000 kg of water; 1 kg of cheese needs 5,000-5,500 kg of water; 1 kg of beef needs 16,000 kg of water (Chapagain and Hoekstra in [45]). Will everyone have the same sentiment as to whether the water use is justified for all these products or will their views differ? The author suggests that they will differ depending on one's ability and ableism sentiment. People that feel it is essential to have the ability to eat meat very likely will not consider the use of water to generate meat as wasteful. A vegetarian might perceive the use of water to generate meat for consumption as wasteful. Another example; various forms of energy productions need water. The global average water footprint (m3/GJ) of natural gas is 0.11; Coal is 0.16; Crude oil is 1.06; Uranium is 0.09; Wind energy is 0.00; Solar thermal energy is 0.27; Hydropower is 22 and Biomass energy is between 10-250 [46-52]. Depending where one sits in the energy debate (proponent of alternative or traditional energy production) one might find the use of water to generate crude oil [53] or biofuel [47] acceptable or not. Those who consider the ability to utilize alternative energies important may consider the use of water for this purpose not as wasteful but would question the use of water for the extraction of hydrocarbon energy such as oil from tarsand/oilsand. People who believe in the ability to generate hydrocarbon energy might be more willing to accept the consumption of needed water for the extraction of hydrocarbon energy as acceptable.

However, so far water use is not a defining factor in the energy production and consumption discourse. The difference in water use is not a defining factor when to push for one alternative energy production mode over another. That might be because developed and powerful countries feel more energy insecure and increasingly climate insecure than water insecure whereby they see energy and climate security as essential for maintaining the abilities they are used to such as the ability to produce and to consume goods and services. At the same time it might reflect that the majority of water insecure countries are developing countries with less influence. Ability sentiments influencing various waste and footprint discourses in turn influence the water footprint and security discourse.

2.2 Beyond Water Footprint and Water Waste

One can employ the dynamic outlined for water footprint and ableism for other footprints such as ecological and carbon footprints. A variety of groups and individuals are moving the concept of Carbon Trading toward the realm of the individual [3;54-56]. One would become responsible for ones carbon usage. To quote the Guardian:

"The environment minister, David Miliband, today unveiled a radical plan to cut greenhouse gas emissions by charging individuals for the amount of carbon they use. Under the proposals, consumers would carry bankcards that record their personal carbon usage. Those who use more energy - with big cars and foreign holidays - would have to buy more carbon points, while those who consume less - those without cars, or people with solar power - would be able to sell their carbon points."[55]

As with water footprint, acting on different abilities comes with different carbon footprints. What abilities will people be willing to give up to decrease their carbon footprint, which ones will they continue to adhere to even if they have to pay? How much will people be willing to pay to be allowed to generate carbon seen as waste? Within a given society, which abilities will one see as so essential that the generation of carbon waste is acceptable?

Ability priorities are one aspect that drives the dealing with footprints. There are for example two main ability desires that shape the oil discourse in particular and the energy discourse in general in many places. One main argument in the energy discourse is around the ability to be independent from foreign energy. The other argument is around the desire to be able to decrease the impact of energy production on climate. If the focus is simply on independence from foreign energy sources solutions can include any type of energy produced domestically. However if the focus of a small carbon and climate footprints is added to the demand for energy independence from foreign sources the discourse around acceptable energy generation becomes quite a different one with a logical push for an increase in domestic alternative energy solutions over increase of domestic oil production. If one adds water footprint to the mix the discourse around the used of different energy production methods will be judged on their water footprint.

A visibility hierarchy of footprints

The above highlighted various types of footprint. Question is which one takes priority? What will be the trade-off between different footprints and the abilities they might impede? Depending on the abilities one favors the authors submit one will find it more important to deal with one footprint over another. And visibility of a given footprint might be a direct indicator as to political and activism importance of a given footprint.

If one searches various sources one finds a hierarchy of visibility (table 1-3). We search Google to cover public discourse and Google scholar to cover academic discourses. We also covered the New York Times a U.S. leading newspaper (accessed through NYT.com searching from 1981), China Daily from 2000-today (accessed from http://www.chinadaily.com.cn), Malaysia The Star online (accessed from http://thestar.com.my/) and the following Canadian newspapers: The Globe and Mail, National Post, Calgary Herald (Alberta), Edmonton Journal (Alberta), Vancouver Sun (British Columbia), Star – Phoenix (Saskatchewan), Winnipeg Free Press (Manitoba), Cape Breton Post (Nova Scotia), The Gazette (Quebec) Toronto Star (Ontario), Ottawa Citizen (Ontario), The Daily Gleaner (New Brunswick) Whitehorse Star (Yukon) (accessed through the University of Calgary library provided Proquest search engine of Canadian newspapers). The limitation of our searches are that we only searched newspapers written in English.

Tables 1-4 show a hierarchy of visibility of different footprint concepts throughout different sources. Of a given footprint carbon footprint gains the highest visibility with water footprint or energy footprint much less visible to not visible at all. This hierarchy of visibility between carbon, water and energy footprint is evident in all newspapers we searched from China, USA, Canada and Malaysia.

As to footprint hierarchy's countries set their ability priorities different and perceive threats to their ability priorities different which influences how they act on the international stage. One could observe this struggle for importance between different footprints in the discourse leading up to the Copenhagen Climate Summit in 2009. The main focus with regards to footprints was on carbon decrease and decrease of anthropogenic actions on climate with countries having different views on how to act based on their ability priorities. Furthermore carbon footprint took centre stage whereas other topics although also linked to climate where ignored; for example the issue of water shortage and other water angles as they relate to climate weren't prioritized [57] despite the push by many to include them [58] [59]. This action seem to make sense assuming that most developed countries and many emerging economies feel that their ability desires are threatened more by potential carbon driven climate change than by water related issues. In the moment carbon footprint is seen as the more important area to act on rather than water footprint by many.

However, recently various legislative developments took place that might increase the importance of water as a defining factor in other discourses such as energy and climate. Ecuador in its newest constitution gives a right to nature (article 71, 72,395 and 399) and maybe could be

Table 1: Hit numbers obtained for different footprints in the New York Times, Globe and Mail, Google, and Google Scholar

	NYT (since 1981) from nytimes.com	Globe and Mail	Google	Google Scholar	China Daily	The Star online (Malaysia)
Footprint	2 868	446	76 200 000	380 000	1511	584
Ecological Footprint	23	19	1 270 000	25 500	56	17
Water Footprint	9	1	403 000	2 640	1	3
Carbon Footprint	624	67	29 300 000	22 300	399	218
Eco Footprint	5	2	432 000	883	13	1
Plastic Footprint	4	0	35 700	9	0	0
Environmental Footprint	57	11	1 270 000	7 810	51	17
Energy Footprint	6	0	137 000	1 550	8	4

Table 2: Data source from table 1 but Google hits were set =100%

Google	NYT %	Globe and Mail (Canada) %	Google Scholar%	China Daily (China) %	The Star online (Malaysia) %
Footprint	0.004	0.0006	0.499	0.0019	0.007
Ecological Footprint	0.002	0.001	2.00	0.004	0.0013
Water Footprint	0.002	0.0002	0.655	0.0002	0.00074
Carbon Footprint	0.002	0.0002	0.076	0.001	0.00073
Eco Footprint	0.001	0.0005	0.204	0.003	0.0002
Plastic Footprint	0.011	0	0.025	0	0
Environmental Footprint	0.004	0.0009	0.615	0.004	0.0013
Energy Footprint	0.004	0	1.13	0.0058	0.0029

Table 3: Data source from table 1 but Carbon footprint was set =100%

	Google	NYT	Globe and Mail	Google Scholar	China Daily	The Star online (Malaysia)
Carbon Footprint	100%	100%	100%	100%	100%	218
Water Footprint	1.4	1.4	1.5	11.8	0.2	1.37
Ecological Footprint	4.3	3.7	28.4	114.3	14.0	7.79
Eco Footprint	1.5	0.8	3.0	4.0	3.2	0.45
Plastic Footprint	0.1	0.6	0	0.004	0	0
Environmental Footprint	4.3	9.1	16.4	35.0	12.0	7.79
Energy Footprint	0.96	0	0.17	0.4	2.0	1.83

Table 4: Visibility of different footprints using Canadian Newspapers as source

	Calgary Herald (Alberta)	Edmonton Journal (Alberta)	Vancouver Sun (British Columbia)	Star – Phoenix (Saskatchewan)	Winnipeg Free Press (Manitoba)	Cape Breton Post (Nova Scotia)	The Gazette (Quebec)	Toronto Star (Ontario)	Ottawa Citizen (Ontario)	The Daily Gleaner (New Brunswick)	Whitehorse Star (Yukon)	National Post (Canada)
Footprint	614	631	675	230	1335	42	410	674	494	170	98	566
Ecological Footprint	42	15	51	20	38	4	18	22	13	10	2	17
Water Footprint	0	0	1	2	2	0	0	1	0	0	0	0
Carbon Footprint	104	108	127	45	229	0	61	134	58	52	18	94
Eco Footprint	13	2	7	0	1	0	2	4	3	0	0	1
Plastic Footprint	0	0	0	0	0	0	0	0	0	0	0	0
Environmental Footprint	53	40	39	13	88	1	24	19	20	10	6	26
Energy Footprint	0	0	1	0	3	0	0	1	1	0	0	1

described as the first nation-state biocracy in modern history. Ecuador newest constitution also highlights the importance of water.

Art. 12 - The human right to water is fundamental and indispensable. Water is a strategic national asset for public use, inalienable, indefeasible, unattachable and essential for life. [60]

It furthermore sets a hierarchy between different needs whereby the ability for food and water security is given higher priorities than energy security:

"Art. 15 - The State shall promote, in the public and private sector, the use of environmentally clean technologies and clean alternative energy. Energy sovereignty will not be achieved at the expense of food sovereignty, or affect the right to water." [60]

Bolivia also just enshrined natural world's rights with equal status for Mother Earth [61] in its law and this law also covers water and Bolivia is also behind the effort of an UN resolution that plans to give "Mother Earth" same rights as humans [62]. In these cases one has to see whether like Ecuador there will be a hierarchy of securities and where water stands.

Discussion

In a recent online non-probability and exploratory survey generated through the survey monkey platform which was aimed to better understand how groups and people with various backgrounds in Canada and globally think about various aspects of energy generation, water security and climate change, data was among others generated in regards to water footprint. The survey received ethics approval by University of Calgary Health Research Ethics board. The link to the survey was given to instructors of various courses to announce the survey to their students and to students familiar with the topic who then sent the link through their networks. The survey was further distributed to listserves such as Eanth-l, a mailing list dedicated to the scholarly discussion of anything pertaining to the field of ecological/environmental anthropology; to listserves that cover NGO's working on the topics of the survey and to key people in industry and elsewhere who are seen as experts and who distributed the survey further through their networks. The survey had two questions related to water footprints. One question asked whether people have known the concept of water footprint:" (question 34 in the full survey). The second question was, "Do you think water footprint should be added as info to consumer products?" (question 35 in the full survey). As to knowledge of the term water footprint only 59.3% (n=83) indicated that they know the term whereby 41.6% (58) indicated that they did not know the term. This indicates that still a lot of work has to be done in regards to the visibility of water footprints as an indicator. After the term was described the second question yielded a yes from 89.4% (n=127) and a No from only 10.6% (n=15). The results indicate that the respondents felt that water footprint is important information a consumer should have when they buy services or products. Some of the comments given were "The information being available to educate the consumer will have a positive impact on the consumption rate of consumers at large." "People may not know how much water they are using by these "services". One could assume that once people have the information on the water footprint they can make a decision whether this is too much water spent or not, whether one's ability wish still outperforms one's concern for water use.

Favoring certain abilities and the exhibition of different forms of ableism are at the centre of desires, actions and policies. Many feel increasingly water, energy and climate insecure. Sustainable development is a growing area of action [63-68]. However, the question is what abilities one wants to preserve under sustainability agenda.

Using an ableism lens, it is possible to analyze the motivation for undertaking certain actions such as dealing with environmental issues. Boezeman D, P Leroy, R Maas, S Kruitwagen [69] highlighted the sales pitch of competitiveness, an ability, to generate acceptance and interest for environmental issues stating,

"During the Dutch EU chairmanship in 2004, the eco-efficiency discourse was successfully coupled with the Lisbon project of revitalizing the competitiveness of the European knowledge economy, in which environmental issues were pushed as economic opportunities."

One has to see whether this is a strategy sustainable on a global scale. Many would see competitiveness as contrary to sustainability [70].

An ableism lens highlights the subjective nature of discourses such as what is waste and wasteful and how to reduce it, as well as discourses around energy-, climate- and water security. It allows the framing of a discussion around ability desire changes needed in order to achieve a given goal such as waste reduction and water, energy and climate security.

The authors suggest that the fields of ability and ableism studies, ethics, foresight and governance [32] might be a useful addition in the toolbox to get a better handle on discourses such as footprints, waste and sustainability. The authors also submit that we need ethics and policy framework that can deal with the hierarchies of footprints and the difference in insecurities linked to certain footprints perceived by different countries and regions in the world and global policies that might favour some groups and their footprint related insecurity over others.

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Fritz Jahr and his Bio-Ethical Imperative[7]

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Abstract

The main goals of this paper are: 1. To deepen in the Fritz Jahr's Bioethical Imperative, by analyzing its most relevant features, and stressing its absolute validity and contribution to the current bioethics, and 2. To demonstrate that Fritz Jahr should be considered the real father of bioethics since**,** in his absolutely pioneering work**,** is not only present the word **–** or the "sound" **–** bioethics**,** but also, and very especially, the first big lines of a brand new discipline.

The concept "bioethics" was not born either in 1970 with the Van Rensselaer Potter's paper "Bioethics: The Science of Survival," or in 1971 with the establishment of the Kennedy Institute of Ethics at Georgetown University by Andre Hellegers, as many people think.[8] Fritz Jahr, a German protestant pastor, philosopher and educator published**,** in 1927**,** an editorial entitled "Bio-Ethik. Eine Umschau über die ethischen Beziehungen des Menschen zu Tier und Pflanze," ("Bio-Ethics. Reviewing the Ethical Relations of Humans towards Animals and Plants") in a leading German natural science journal called *Kosmos*, which prestige, as Hans-Martin Sass has said, is only comparable to current *Nature* and *Science.*[9] Thus, the origin of the concept bioethics must be placed 43 years before Potter published his famous work. In fact, we may consider the Potter's ideas about bioethics as a continuation of Jahr's seminal contribution even though Potter never quoted Jahr's writings either in his papers or books and Jahr's concept of bioethics is wider than Potter's since Jahr extends his concern towards all living beings.[10] It is not clear if Potter ever knew about Jahr or simply neglected him. The fact is that Potter has unfairly been considered as the pioneer of bioethics while the man who actually introduced the idea and also

[7] The importance of Fritz Jahr's Bioethical Imperative has been highlighted by Hans-Martin Sass in the Official Journal of the Asian Bioethics Association. See: "The Earth is a Living Being: We have to treat her as such!" *Eubios Journal of Asian and International Bioethics* (EJAIB), Vol. 21 (3), 2011.

[8] Potter, Van Rensselaer "Bioethics: The Science of Survival," Persp. Biol. Med. 1970, 14(1): 127-153. For learning similarities and differences between Potter, Hellegers and Jahr's concepts, see Sass, Hans-Martin, "Fritz Jahr's 1927 Concept of Bioethics," *Kennedy Institute of Ethics Journal*, 2007, 17(4): 282.

[9] *Kosmos. Handweiser für Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1927, 24(1): 2-4. Also see, Sass, Hans-Martin, "Poscriptum and References," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 24.

[10] When Potter published his paper he did not put a dash between "bio" and "ethics." Nevertheless, the meaning that underlies Potter's term is virtually the same as Jahr's.

coined the term *bioethics* into philosophical and scientific fields has been forgotten.[11]

Fritz Jahr's work cannot only be reduced to the short writing that I have mentioned already. He also published an overwhelming array of papers on bioethics and other related topics between 1927 and 1938 which had no massive repercussion**s** due to the German political circumstances of those days and the advent of World War II.[12] It is important to clarify here that the concept of bioethics that Jahr conceived was yet far from how we currently understand it, especially from a procedural point of view. Nevertheless, since his relevant approaches to humans-animals-nature relationships, social and sexual ethics, basic moral problems of social life, freedom of thought, education, moral law, the duty of self-preservation, and very especially because of his Bio-Ethical Imperative (*bio-ethische Imperativ*), Jahr deserves to be considered as the "Father of Bioethics," even though the name "bioethics" should still go through many paths in order to become the discipline we know today. I will try to pay the debt we owe Jahr by showing how valid his ideas still are and stressing his main contributions to the current bioethics.

In 1927 Jahr wrote, *"From Bio-Psychik it is only a step to Bio-Ethics, i.e. the assumption of moral obligations not only towards humans, but towards all forms of life. In reality, bio-ethics is not just a discovery of modern times. An especially attractive example from the past is the figure of St. Francis of Assisi (1182-1226) with his great love toward animals, his warm sympathy for all forms of life, centuries before Rousseau's romanticism for the entire nature."*[13]

This paragraph represents the first time Jahr referred formally to the concept of bioethics and, hence, it also means its origin. However, these phrases also deserve other important considerations.

Firstly, we can see that Jahr characterizes bioethics as a fundamental attitude; namely, as an *ethos***,** or a way of living. In this sense, bioethics has to be developed as a part of the human character, as the affective disposition on which Aristotle writes in his *Nicomachean Ethics* when he addresses the concept of *héxis* which would be translated as *habitude* by the scholastics centuries later. The importance of this is not minor because if, according to Jahr, the concept of bioethics means a moral principle as well as a virtue, it is clear that he is talking about a new discipline which needs to be supported empirically and practically.

Secondly, Jahr redefines traditional moral obligations by extending their scope towards all extra-human nature. Thus, human beings**'** responsibility for their actions reaches a renewed expression that leaves the classical anthropocentrism of all previous ethics. This implies a fundamental shift in the traditional ethical conception which results absolutely premonitory for relevant ideas that would be developed more than 50 years later such as, the imperative of responsibility of Jonas and the animal ethics of Singer and Regan, among others. In this regard, Jahr adds, *"The fact of a close interrelationship between animals protection and ethics finally is based on the reality that we not only have moral obligations towards fellow humans, but also towards animals, even against plants – in short: towards all forms of life -, so that we can speak about Bio-Ethics."*[14]

Thirdly, Jahr implicitly defines bioethics as a secular and pluralistic discipline. In other words, Jahr's bioethics is pointing towards two very important conditions of possibility for current bioethics. In fact, Jahr's bioethics requires a new type of moral deliberation in order to address the new moral problems that both the new science and the new technology have brought. In this sense, and already in 1927, Jahr conceived of bioethics as a new normative and practical epistemological field.[15]

Jahr also assumes bioethics as a new moral obligation. This will imply the idea of a global bioethics whose main target should be to generate the necessary and sufficient conditions for humans to meet the moral compromise of respecting the life as a whole. In order to perform this purpose, Jahr formulates his Bioethical Imperative which

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[11] It is interesting to observe how the name of Fritz Jahr has not only been neglected by Potter but also by the most of bioethicists.

[12] *Bio-Ethik. 1927 (Bio-Ethics); Der Tod und die Tiere. 1928; Tierschutz und Ethik. 1928 (Animal Protection and Ethics); Soziale und sexuelle Ethik in der Tageszeitung. 1928 (Social and Sexual Ethics in the Daily Press); Wege zum sexuellen Ethos. 1928; Zwei ethische Probleme in ihrem Gegensatz und in ihrer Vereinigung im sozialen Leben. 1928; Egoism and Altruism. 1929; Gesinnungsdiktatur oder Gedankenfreiheit? 1930 (Character Dictate or Freedom of Thought); Unsere Zweifel an Gott. 1933; Drei Studiem zum 5. Gebot. 1934 (Three Studies on the Fifht Commandment); Jenseitsglaube und Ethik im Christentum. 1934; Die sittlich-soziale Bedeutung des Sonntags. 1934; Zweifel an Jesus? 1934; Ethische Betrachtungen zu innerkirchlichen Glaubenskämpfen. 1935; Glauben und Werkein ihrem Gegensatz und in ihrer Vereinigung. 1935; Drei Abschnitte des Lebens nach 2. Korinther. 1938*. I thank Dr. Hans-Martin Sass for having access to this comprehensive list of Jahr's writings as well as for sharing with me his precise and excellent analysis on Jahr's thought and his precise translations into English. (See, Sass, Hans-Martin, The Earth is a Living Being: We Have to Treat it her as Such!, EJAIB, 21 (3), 2011;Aufsäzte zur Bioethik 1927-1938 Fritz Jahr," Nachwort und Nachweise von Hans-Martin Sass, *Zentrum für Medizinische Ethik*, Bochum, Dezember, 2010; "Selected Essays in Bioethics 1927-1934 Fritz Jahr," *Zentrum für Medizinische Ethik*, Bochum, November 2010, Issue 186. Postcript and References by Hans-Martin Sass); and also, "Fritz Jahr's 1927 Concept of Bioethics," *Kennedy Institute of Ethics Journal*, 2007, 17(4): 279-295.

[13] Jahr, Fritz, "Bio-Ethics. Reviewing the Ethical Relations of Humans towards Animals and Plants," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum fur Medizinische Ethik, Bochum, November 2010, Issue 186, p. 1. Translation, Postcript and References by Hans-Martin Sass. "Bio-Ethik. Eine Umschau über die ethischen Beziehungen des Menschen zu Tier und Pflanze," in *Kosmos. Handweiser für Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1927, 24(1): p. 2.

[14] Jahr, Fritz, "The Relationship of Animal Protection and Ethics, 1928," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 1. Translation, Postcript and References by Hans-Martin Sass.

[15] In this regard, see: Sass, Hans-Martin, "Poscriptum and References," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 25.

says: "Respect every living being in principle as an end in itself and treat it, if possible, as such!"[16]

This formulation implies an epistemological and practical extension of Kantian Categorical Imperative. This does not only consider rational beings as subjects or rights but also animals and plants. Thus, the condition of possibility to be respected and considered as an end in oneself is not to be rational anymore but to be a living being.

Jahr finds the foundations for his new imperative in the Fifth Commandment "You shall not kill." He interprets this to mean not harming any kind of life**,** not only human life. So, there is a new moral obligation expressed in the Fifth Commandment which orders to preserve all living beings, *"When talking about moral duties, normally we mean duties towards other people in the first place. Routinely we do not consider that each person has moral duties towards oneself as well, and that those duties are of immense importance. Christian religion expressively mentions those moral duties of everyone towards oneself. That basically applies to the 5th commandment as well: 'You shall not kill.' In this sense – 'You shall not harm or hurt anyone's body or life, rather help and support him/her in all distresses of body and life, wherever you can' – in the first place means the life of our 'neighbor.'"*[17]

Also, Jahr adds another argument to his imperative: human beings not only have the right to live but also they have the duty of Self-Preservation. Thus, we must care for ourselves by being responsible for our actions not only towards others but also to ourselves, "*How should these moral duties, as expressed in the 5th commandment towards one's own life, be applied in real life's practice? By not taking one's own life, by not shortening it, by not harm or endangering it, by not weakening one's own health by unchastity, excesses in eating and drinking, heavy anger, frivolous foolhardiness and daredevilry, etc.*"[18]

This paragraph deserves special attention since it stresses the importance of not hurting or harming others over the action of seeking the good. Therefore, the main idea that underlies this paragraph is nonmaleficence: first and foremost, not doing harm. Jahr's tacit principle is also based in the concept of the sanctity of all living being**s** because as Kantian moral law is inviolable, any kind of life is inviolable as well. In this sense, Jahr conceives of bioethics as a new ethics of virtues by redefining and extending the scope of the Golden Rule.[19]

In one of his thorough writings, Hans-Martin Sass has defined ten features of Jahr's bioethical imperative by considering it: (1) a new discipline (the bioethical imperative "needs to develop, to educate and to steward personal and collective cultural and moral attitudes and calls for new respect and responsibilities towards all forms of life"); (2) a new basic virtue ethics ("the Bioethical Imperative is based on historical and other evidence that 'compassion is an empirical established phenomenon of the human soul'"); (3) a new Golden Rule principle (as the bioethical imperative implies and stresses moral obligations among human beings and is based on compassion and love, it "cannot allow itself the Kantian luxury of just being formal"); (4) a new personal health care rule and ethics ("the bioethical imperative includes obligations towards one's own body and soul as a living being"); (5) a new public health care rule and ethics ("…fulfilling obligations towards oneself is also a duty towards others and towards public health"); (6) a new global stewardship rule and ethics ("Jahr broadens the 5th commandment into a universal rule and ethics of positively and proactively caring for the health and life of this globe as a part of a living cosmos"); (7) a new management rule and corporate ethics (the Jahr's "bioethical model of interacting forms of life in a living environment […] would include social institutions such as those for health care"); (8) a new terminology rule and terminological ethics ("a clear and precise terminology […] is a priority and a precondition for clear conceptual and practical work, for communication and for cooperation and for further development"); (9) a new rule and ethics of differentiation (there must be 'different terms available for different subjects, fields, and issues" since "unclear terminology leads to unclear reasoning and acting; it is an expression of unclear thinking itself"); (10) a new interaction and integration rule and ethics ("according to Jahr, "animal ethics and social ethics are different fields, but they interact and integrate, bringing different shapes and shades of the Bioethical Imperative"). Finally, and as part of feature (10), Sass affirms that "a new field of geo-ethics is already visible" in Jarhr's bioethical imperative, since his ethics implies not only a personal commitment but also a global responsibility in order to enable "a universal, prudent and reasonable application of the Bioethical Imperative."[20]

In this sense, according to Sass, *"The Bioethical Imperative in its most universal and integrative form is a good instrument to not only respect and cultivate natural and social environments, microbes, plants and animals, but also the earth in its individuality, its seasons and ages, as a home and support of all forms of live, in its unpredictability and danger."*[21]

I think it is practically impossible to refute the features of Jahr's bioethical imperative that Sass clearly shows

[16] Jahr, Fritz, "Three Studies on the Fifth Commandment, 1934," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 23. Translation, Postcript and References by Hans-Martin Sass. "Drei Studien zum 5. Gebot'" in *Kosmos. Handweiser für Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1934, 10(1): p. 187.

[17] Ibid., pp. 19-20; 10(1): p. 184.

[18] Ibid., p. 20; 10(1): p. 184.

[19] In this regard, see: Sass, Hans-Martin, "Poscriptum and References," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 29.

[20] Sass, Hans-Martin, "The Earth is a Living Being: We have to treat her as such!" *Eubios Journal of Asian and International Bioethics* (EJAIB), Vol. 21 (3), 2011, p. 77.

[21] Sass defines these features as "the many faces and colors of the Bioethical Imperative." See: Sass, Hans-Martin, "Poscriptum and References," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, pp. 28-32. Another precise analysis of Jahr's bioethical imperative can be found in Sass, Hans-Martin, "Fritz Jahr's 1927 Concept of Bioethics," *Kennedy Institute of Ethics Journal* 17.4 (2007) pp. 279-295.

us. The scope of Jahr's ideas is undoubtedly immense and represents the starting point of a new applied ethics concerned with life, health and environment based in the fact that both scientific and technological development require a new ethics, new moral deliberation, new rules and procedures, and new and clear terminology in order to define and differentiate diverse fields in the realm of humanities.

Beyond the excellent analysis of Sass, I think Jahr's bioethical imperative also implies:

1. The first modern formulation of a non-maleficence principle. Jahr's imperative implies a duty of self-preservation and, in this sense, it also entails the obligation of not harming or hurting anyone under any circumstance, *"Are the duties towards one's own life not in conflict with duties towards the neighbor? – That is not necessarily the case. On the contrary: Who fulfills one's duties towards oneself, avoids many forms of harm to other people."*[22]

Jahr starts from an analysis of the Fifth Commandment by dealing with philosophical and religious tradition and, as Sass has already said, elaborating a hermeneutic "of classical old texts of various traditions and cultures" in order to base his ideas.[23] He runs a long road since the old golden rule and gospels of the New Testament until Luther, Kant and Schopenhauer's philosophies, by stressing the importance of the sanctity of life and life's manifestations and clarifying the human duty of respecting, protecting and promoting life as a whole.

2. A prudential ethics characterized by a *phronesis* as an intellectual virtue that has to be learned with education and cultural and moral attitudes by developing the character, attitudes and dispositions of the person.[24] This point shows how Jahr's proposal is stressing a diverse and original concept of practical rationality unlike formal or intellectual ones. In this sense, Jahr thinks that his bioethics can be able to address the challenge of thinking about foundations and procedures to face the new moral issues that have emerged by virtue of new science and technology. Jahr realized the Enlightenment's failure in creating a scientific ethics. Neither Kant**,** with his Categorical Imperative**,** nor Spinoza**,** with his geometric ethics**,** were able to consolidate an ethics like physics or mathematics. However, Jahr knew that to sacrifice rationality is a luxury that ethics cannot afford. But not any rationality. According to Jahr**,** ethics needs a practical rationality which considers the possible consequences of human actions; namely, a practical wisdom that has to be learned by education. This emphasizes the disciplinary character of Jahr's bioethics; namely, the first feature that Sass has already highlighted.

3. A new ethics that considers both ends and duties as criteria of moral deliberation. We have a duty to perform: to respect all living beings as an end in itself and treat it as such, but we also have to consider further elements in order to perform that duty, *"As far as the potential realization of such moral duties towards all living beings is concerned, it might seem like utopian. But we may not ignore that moral obligations towards a living being relate to its 'needs' (Herder), respectively to its 'destiny' (Krause)."*[25]

Therefore, we can deduce that Jarh's bioethics represents a complementation between teleology and deontology because it enshrines a duty to perform but also implies the evaluation of consequences. Thereby, neither a tyranny of immovable principles nor an abuse of casuistry is present in Jahr's bioethical model. As Sass has said, *"The Bioethical Imperative is content-rich and balances values and life goals of living entities in their struggle for life and their need for food and space and development."*[26]

4. To consider seriously the concept of responsibility as a condition of possibility of any ethics. According to Jahr, bioethics is a moral attitude which implies respect and responsibilities towards all living entities. In this sense, Jahr thinks that it is no longer possible to understand the path that existence is following if people ignore the possible and also unpredictable consequences of human action which has been modified by new science and technology. Thus, Jahr is introducing the concept of responsibility in the ethical discussion long before Hans Jonas and also, with an absolutely premonitory view, he is advertising about the progress of science, especially in experimental physiology and psychology, and the necessity of ethically regulating its power in order to avoid a tyranny of humans over other living entities, *"It will always be the merit of modern natural sciences to finally have made possible an unbiased study of the world. We would not be truth-seekers today, if we would have given up the results of animal experimentation,*

[22] Jahr, Fritz, "Three Studies on the Fifth Commandment, 1934," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 20. Translation, Postcript and References by Hans-Martin Sass. ("Drei Studien zum 5. Gebot'" in *Kosmos. Handweiser für Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1934, 10(1): p. 185).

[23] See, Sass, Hans-Martin, "Poscriptum and References," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 28.

[24] According to Aristotle, *phronesis* means a practical wisdom; namely, the knowledge that guides the human actions with criteria of morality, excellence and perfection. In this way, not all humans have *phronesis* since this has to be acquired through education because it belongs to the group of *diano-ethical* or intellectual virtues and not to the group of ethical ones which are developed by practice. See, Aristotle, *Ethica Nicomachea (Nichomachean Ethics)*, in Mc Keon, Richard (Ed.) *The Basic Works of Aristotle*, New York, Random House, 1941, pp. 1026-1027; 1140a 24 – 1140b 30.

[25] Jahr, Fritz, "Three Studies on the Fifth Commandment, 1934," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 22. Translation, Postcript and References by Hans-Martin Sass. ("Drei Studien zum 5. Gebot'" in *Kosmos. Handweiser fur Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1934, 10(1): p. 187).

[26] Sass, Hans-Martin, "Poscriptum and References," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 26.

blood research etc. On the other hand, we cannot deny that precisely these scientific triumphs of the human spirit have taken away the dominant position of the human being in the world in general."[27]

5. A sympathetic model of ethics which entails a moral and social obligation not only towards other humans but also animals and plants. Humans have the duty of extending their moral considerations to the realm of extra-human creatures, because all living beings are in constant and reciprocal interaction by establishing an interdependent relationship among each other. Also, human responsibility for animals and plants demonstrate**s** the greatness of the human heart and it is a proof of a real moral sense that implies the presence of some of the main moral virtues such as, respect for life, benevolence, justice and compassion, among others, *"This is the issue: If we have a compassionate heart towards animals, then we will not withhold our compassion and help towards suffering humans. If someone's love is great enough to go beyond the borders of human-only and sees the sanctity even in the most miserable creature, he or she will find this sanctity as well in the most poor and lowest fellow human, will hold it high and will not reduce it to class of society, interest group, one party or what else may be considered. On the other hand, senseless cruelty towards animals is an indication of an unrefined character becoming dangerous towards the human environment as well."*[28]

This point certainty reinforces Jahr's figure as a pioneer not only of bioethics but also of animal and environmental ethics. His imperative also entails an extension of Kantian moral duty by transcending the anthropocentric frontiers of traditional ethics since every living entity on the earth is worthy of respect and moral consideration.

6. To recognize all living beings as worthy of respect:

The fact of close interrelationship between animal protection and ethics finally is based on the reality that we not only have moral obligations towards fellow humans, but also towards animals, even against plants – in short: towards all forms of life – , so that we can speak about 'Bio-Ethics.'[29]

Even though Jahr never mentioned it explicitly, he is tacitly talking about extending the human right to be respected to animals and plants, "[…] They all, plants and animals, also humans, have similar rights, but not Equal Right, depending on the requirements for reaching their specific destiny.[30]

However, I have to emphasize that this extension is not complete. Jahr is not proposing to treat animals and plants as humans. He thinks that we should respect any kind of life by distinguishing their ontological nature: "We owe justice to humans; mildness and mercy towards all living beings, capable of having a benefit from that."[31] This can be considered as a first argument to sustain the concept of *sentience* which Peter Singer addresses in his famous book *Animal Liberation* in 1975.

7. A public ethics because Jahr not only emphasizes the binding character of not doing harm but also its larger scope, *"Who, however, protects one's own life in this respect, fulfills one's duty also towards the community. […] And thus does not only harm oneself, but one's family as well, one's offsprings, one's country, one's race. And again: if one protects oneself in this regard against harm, one does, at the same time, good to one's neighbor, actually to one's entire country."*[32]

According to this paragraph, the global meaning of Jahr's bioethics as well as its civic and public character is clear. We are in front of a dialogical ethics where moral truth is not the privilege of an individual consciousness but an argumentative community whose decisions might affect the whole of society. This systemic feature of Jahr's bioethics was absolutely visionary for the current discipline and it would be very helpful and useful for its further development and better understanding if bioethicist**s** would seriously consider Jahr's work which was absolutely original and has undoubtedly inaugurated the discipline that we know today as bioethics.

The historical neglect of Jahr's figure has been as unfair as it has been baffling. It is practically impossible to find references to Jahr in bioethical literature, even in books authored by bioethicists of recognized prestige and reputation**,** and it is also really disappointing to read books on the history and origins of bioethics that do not consider its real founder at all. In this sense, the work of

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[27] Jahr, Fritz, "Bio-Ethics. Reviewing the Ethical Relations of Humans towards Animals and Plants," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 1. Translation, Postcript and References by Hans-Martin Sass. ("Bio-Ethik. Eine Umschau über die ethischen Beziehungen des Menschen zu Tier und Pflanze," in *Kosmos. Handweiser für Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1927, 24(1): p. 2).

[28] Jahr, Fritz, "The Relationship of Animal Protection and Ethics, 1928," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 5. Translation, Postcript and References by Hans-Martin Sass. ("Tierschuzt and Ethik," in *Aufsatze zur Bioethik 1927-1928 Fritz Jahr*. Nachwort und Nachweise von Hans-Martin Sass, Zentrum für Medizinische Ethik, Bochum, Dezember 2010, Issue 187, p. 9).

[29] Ibid., p. 6.

[30] Jahr, Fritz, "Bio-Ethics. Reviewing the Ethical Relations of Humans towards Animals and Plants," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum fur Medizinische Ethik, Bochum, November 2010, Issue 186, p. 2. Translation, Postcript and References by Hans-Martin Sass. "Bio-Ethik. Eine Umschau über die ethischen Beziehungen des Menschen zu Tier und Pflanze," in *Kosmos. Handweiser für Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1927, 24(1): p. 3.

[31] Jahr, Fritz, "Three Studies on the Fifth Commandment, 1934," in *Selected Essays in Bioethics 1927-1934 Fritz Jahr*, Zentrum für Medizinische Ethik, Bochum, November 2010, Issue 186, p. 21. Translation, Postcript and References by Hans-Martin Sass. "Drei Studien zum 5. Gebot'" in *Kosmos. Handweiser für Naturfreunde und Zentralblatt für das naturwissen-schaftliche Bildungs und Sammelwesen,* Stuttgart, 1934, 10(1): p. 186.

[32] Ibid., p. 20; 10(1): p. 185.

Hans-Martin Sass for recuperating Jahr's ideas constitutes an extremely valuable enterprise. [33]

Obviously, Jahr's bioethics is not the same as that which we know today. My goal has just been to demonstrate that his ideas represent the first guidelines of bioethics and bioethical principlism. Indeed, Jahr tacitly includes in his concept of bioethics some important principles such as autonomy, social justice and, at that time, a completely new idea of nonmaleficence. In this sense, Jahr, beyond being the creator of the term and concept "bioethics," has designed the first foundations and keys of this discipline, by substantially collaborating with its theoretical configuration. For all these reasons**,** and due to his brilliant, advanced and precursory thoughts**,** Jahr deserves a prominent place in the history of bioethics.

Will humans never be cloned because of God, biology or language?

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Abstract

Every bioethicist is familiar with the so-called cloning debate, dragging its tentacles over society while unceasingly feeding with philosophy and theology and to a lesser extent with science. The paper aims to resume this debate into a few essentials. From a religious perspective, considering the precedent of IVF and animal cloning, one cannot exclude human cloning as opposing God's will. From a scientific perspective, human cloning is particularly difficult because of elements pertaining to the biology of our species but again success cannot be excluded. The most intriguing and elusive aspect turns out to be the accuracy of language and precision of terms related to cloning as it might not be as simple as it might seem to answer to apparently simple questions such as "Should humans be considered cloned if therapeutic cloning is achieved?"

Keywords: human therapeutic cloning, human reproductive cloning, progress in cloning, accuracy of scientific language.

Every bioethicist is familiar with the so-called cloning debate, dragging its tentacles over society while unceasingly feeding with philosophy and theology and to a lesser extent with science, otherwise a perfectly normal situation since ethical/moral landmarks are not to be found in science but in the other domains named above.

For some people, cloning humans equates with an usurpation of God's attributes. This perspective is nevertheless self-contradictory. After all, God is…God. If He is the only one who masters life and death then the life of a clone would be as much His gift and an expression of His will as the life of any other being. Man may try to force perpetuation of life but if life perpetuates or not continues to be God's decision. And sometimes He decides in favor in spite of the fact that human action originating the occasion for life perpetuation happen in the frame of a bigger event that is bad (e.g. intercourse is not morally wrong *per se* but sometimes occurs under bad circumstances such as adultery or rape; yet, children can be begotten).

From a Christian perspective, for instance, there are other more solid theological grounds for opposition to human cloning. The main reason for opposition to cloning in Orthodox Christianity (also shared by Catholicism) that preserved unaltered the original Christian perspective upon human life from its beginning to its end is that cloning (similar to IVF) attempts waste embryos, whilst embryos are as human as any of us, the born people, reason for which destruction of the embryo was and continues to be strongly condemned by the Church. The common instance of embryo destruction is abortion.

The oldest Christian document of authority that condemns abortion is the "Didache" or "The Teaching of the Twelve Apostles", a document of the primitive Church dating back to at least the late First Century. Other similar condemnations of the practice are found in Canon 63 of the Council of Elvira (306AD); Cannon 21 of the Council of Ankara (314AD); but it is in Cannon 91 of the Quinsext Ecumenical Council (Trullo, 692AD) that the Church's teaching on abortion took its final expression and was formally codified in the document The Photian Collection in 883AD, which remains unaltered to this day. As clearly delineated in the canons, the Orthodox Church considers abortion as premeditated murder, and considers the abortionist, the one who procures the abortion, and the woman who terminates her pregnancy as a murderers (*The Orthodox Christians for Life ProLife Handbook: The Basics*, 2002).

Still, opposition to cloning as morally wrong because of the morally wrong sub-actions it encompasses is one thing and the potential result of cloning as shaped by God's will (as well as in the case of rape, adultery) is another thing. God's decision for or against perpetuating human life through cloning is out of our reach. Will humans never be cloned because God does not approve of human cloning? We cannot answer to that.

Let us move to the relation between human biology and cloning. What can the science of cloning bring to this discussion? Can it contribute anything concrete? At this point some might think about the illegitimate human cloning claims from recent years involving the Raelians, dr. Antinori, dr. Zavos and maybe the most spectacular case of all, that of Prof. Hwang. All these may be interesting, but in essence irrelevant for the state of the art in the science of human cloning. There are other (reliable) references in the field. And they are showing that cloning might be particularly difficult in humans (Heindryckx et al., 2007). The rate of success of cloning by SNCT in animals is very low and "embryos" obtained by SCNT show large abnormalities due to failure in reprogramming of the genome in the false zygote they develop from as well as to defects following manipulation of the biological material during the cloning procedure

[33] At this point, the initiative of AJEIB by allowing readers to know Fritz Jahr's work and figure constitutes an extremely interesting contribution to bioethical literature.

(Wrenzycki et al., 2001; Humphreys et al., 2002; Solter, 2002; Jouneau et al., 2006; Alexopoulos et al., 2008).

In our species all possible biological difficulties encountered by cloning attempts seem to be even more severe than in other beings. A series of factors hampering SNCT in humans have already been identified. Normal development of human non-clonal zygotes and blastocysts was shown to be dependent of certain patterns of modification (methylation and demethylation) of the paternal vs maternal hereditary material that are particular to our species and very complex (Fulka et al., 2004). There is a necessity of proper embryonic genome activation and transition from maternal control of development (exerted by factors brought by the oocyte) to embryonic control of development (the early stage embryo should manifest its ability to produce a precise set of proteins needed for triggering and controlling subsequent developmental events). Complex networks of genes and proteins are involved (Sudheer and Adjaye, 2007). It is a big question if developmental signals pertaining to these processes can be somehow 'faked' in cloned embryos so that they would develop normally. As for the products of reported SNCT attempts in humans one may even wonder if they are embryos at all and not just a particular type of cell culture. When compared to real embryos the SNCT products look nothing alike. Their cells are not organized into proper blastocysts[34]. The idea that SNCT products should be regarded as a particular category has already been expressed. Paul Mc Hugh, a member of the President's Council of Bioethics coiled the term "clonote" in conjunction with his idea that "SCNT resembles tissue culture, whereas in vitro fertilization represents instrumental support for human reproduction" SNCT being a technique that "can extend and expand a donor's cellular mass into extracorporeal space, as any form of tissue culture does." (McHugh, 2004).

It seems the biology of our species strongly opposes cloning. Will human never be cloned because of his extremely 'squeamish' biology? We cannot answer to that.

Getting back to illegitimate cloning claims, the Raelians', Antinori's and Zavos' belong to one category of operations in the cloning war while Hwang's enterprise stands for an entirely different class of actions. If the Raelians & co. resembles an unfitted, poorly equipped army trying to break through the gates of the castle of Science in its futile attempt to rip some glory from somewhere, Hwang's history reminds of the discovery of traitors hidden into the very heart of the fortress. But, let us presume Hwang's claims were justified. Let us presume that derivation of human embryonic stem cells from a cloned blastocyst was for real. And here a big question pops up: once Hwang et al. announced their discovery (Hwang et al., 2004) *was man to be considered cloned or not*? Were statements such as "Hwang has already proved that human cloning is no longer science fiction, but a fact of life." (http://www.time.com/time/asia/2004/personoftheyear/people/hwang_woo_suk.html) to be hold as correct or incorrect? In other words, if someone announces again that he/she achieved therapeutic cloning (this time for good) in humans, would that mean humans had been cloned? Well, we cannot answer to that.

Actually, apart from the illegitimate claims, some reports on human pseudo-zygotes obtained by SNCT that started to divide (even though poorly, with many abnormalities) do exist (e.g. Stojkovic et al., 2005; Hall et al., 2007; Heindryckx et al., 2007). One may say that the first step in therapeutic cloning has already been made and all we need is more practice for refining of the conditions for SNCT. Are humans about to be cloned?

Therapeutic cloning involves removing the mother's genetic information from an egg and replacing it with the DNA from a body cell from another adult. The egg is then activated to develop to the stage where embryonic stem cell lines can be developed but not allowed to develop into a fetus. These stem cells will be genetically identical to the adult. (Mayor, 2001).

Reproductive cloning entails the removal of the genetic material from an egg and replacing it with the nucleus from another adult's cell. The egg would then be activated and allowed to develop right through to the embryo stage and on to a new individual. The resulting animal or person would have exactly the same nuclear DNA as the adult who donated the nucleus. This has been achieved in animals —for example, Dolly the sheep —but not in humans. (Mayor, 2001)

In the case of mammals such as Dolly the sheep, or the anonymous clones of mice, cats, and monkeys obtained so far the species they belonged to was considered cloned successfully when one or more cloned specimens were born. Taking into account the above definitions and the fact that a species is considered cloned only when cloned individuals belonging to that species get to be born (which would be the equivalent of human *reproductive cloning*) then by therapeutic cloning humans *are not* cloned. But, if *human therapeutic cloning* is a sub-category of *human cloning* that equates interrupted *reproductive cloning* then by therapeutic cloning humans *are* cloned but the clones are not allowed to develop. Technically speaking, "to clone" means to obtain genetically identical organisms. By therapeutic cloning are to be obtained stem cells derived from arrested embryos (an embryo being the organism in the early stages of differentiation) genetically identical to the person in need for the cells (i.e. the *cloned* person). Therefore, if therapeutic cloning is achieved, then humans *are* (technically) cloned. Or are we not?

It seems that operating with current scientific notions about cloning (definition of cloning- therapeutic and reproductive) and current standards in the field (i.e. a species is considered cloned only when clones are born) we cannot provide a straight through answer to some simple questions. Yes/no questions may reveal the

[34] See for comparison pictures of human cloned blastocysts in French et al. 2008 vs. pictures of IVF normal, high grade blastocysts available at http://www.advancedfertility.com/embryos.htm. When shown to my master students without any information on the origin of the structures in the images everybody agreed those structures were not similarly organized (some might see here the prove for God's lack of agreement with cloning as He might not have allowed those cell masses to get what was needed in order to develop as human embryos- but, all this can as well be discarded as pure speculation).

inconsistency of some notions we were taught and/or accustomed to consider clear, reliable to operate with in Bioethics. Will man never be cloned because of God? We cannot tell. Will man never be cloned because of biology? We cannot tell. Will man never be cloned because of language? We can and cannot tell.

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