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Integrate Bioethics in the New Epoch

Abstract

The new epoch of the 21th century develops new globally interrelated and interacting high-tech and cyberspace based civilizations and rapid transitions and other interactions between old and new models of life, orientation and behavior. Bio-logy and socio-logy describe bios *as interrelated interactions of living beings and biotopes, natural, cultural, technical. The concept of bio-ethics in the New Epoch has to be inclusive in integrating natures, technologies, and cultures. The potential for catastrophe or cultivation depends on strengthening and integrating the six basic bioethical human properties, attitudes, and virtues – communication and cooperation, competence and compassion, competition and cultivation. These 6 C-principles have empirically and historically been successful in cultivating harmonious* bios*, i.e. living-together in interrelation environmentally, economically, politically and culturally. The six biological C-properties are natural human capacities and can be found in all religions and cultures. They also have to serve as essential preconditions and components for the successful and comfortable survival of individuals, communities, cultural and natural environments and biotopes in the New Epoch. We could demonstrate and evidence their importance by situational analyses on conflict resolution, poverty, community culture, business success, politics, health care, medical intervention, and challenges such as the understandings of sexuality, aging, harmony, and happiness.*

Keywords

bioethics, the New Epoch, principles, biological properties, *bios*, survival

Symbiosis of *bios*

The Greek word 'bios' means 'life'. When used in singular, it means whole life; when used in plural, we speak about individual lives, the lives of friends, pets, biotopes, corporate forms of life. All forms of life are interconnected and we call it 'symbiosis'. No individual form of life ever can live without interconnection and interaction with other lives; we all have a mother and a father; we all live in natural-social and cultivated environments, for which interrelatedness is essential.[1] Individual life is terminal, but life goes on. Different sciences study life: biology as microbiology, biochemistry, biophysics, botany, zoology and environmentology; sociology as the study of human interactions in private and professional life, in business, politics, religion, and culture. Corals build coral reefs; beavers build dams; birds build nests; ants and bees build states; humans very deliberately build houses, gardens, roads, cities, factories, internets and many other networks of different kind. Different to ants and bees, the humans have formed different forms of communities: family clans,

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A recent issue of *Medicine, Healthcare and Philosophy* (Vol. 17 /2014/, No. 2, pp. 169ff.) discusses the long forgotten issue of 'interrelatedness' in the clinical field.

tribes, kingdoms, dictatorships, democracies, anarchies. We have done so by using these six basic and species-specific human properties: *communication* and *cooperation*, *competence* and *compassion*, *competition* and *cultivation*. Social and political sciences, microeconomics and macroeconomics still have to fully recognize the *bios* of individuals, communities, teams and corporations interrelated to each other and with each other, with neighbors, partners and employees and with their environments.[2] We find these *6 C-properties* in all successful human endeavors and in traditional religions and communities.[3] Socrates once argued against Euthyphro that the Gods did not create the virtue of piety; rather they appreciate it because it is good in itself. A look at the multitude of religions and societies proves the concrete and real existence of these C-properties for successful, long, and cultivated life.

Bioethics is the theory and practice of analyzing, conceptualizing, implementing and applying value-and-virtue based human attitudes, i.e. learned and routine behavior ('ethos' in Greek), towards one or more forms of life or to *bios*/ life in general. For methodological, as well as conceptual reasons, I follow Ante Čović[4] in using a most inclusive and comprehensive term of bioethics, i.e. 'integrative bioethics' as integrated life, which integrates diverse forms of life and living-togetherness. Methodologically, such an inclusive term will prove to be very useful to compare and to integrate analytical tools from various disciplines in biology and sociology for the benefit of those areas of science, technology and production where these methods have not yet been used. Conceptually, we will learn more about our human–human, human–technology, and human–nature interactions and their integration when we work with similar frameworks of reference and worldview, because there is not one single form of life which is not symbiotic and interrelated life. Such a broad and inclusive definition of *bios* becomes very helpful when we look at real and potential threats to life, the good life of *bios* in general and civilized human life in particular. Life is not without risk and the manipulation of life can be used for beneficial as well as for deadly purposes. Abel killed his brother Cain with an axe, but the axe is a useful instrument developed for cultivating woodlands and building houses. Einstein's revolutionary unifying theory and its applications gave rise to nuclear energy as well as medical technology that saves lives, but also caused nuclear bombs to be built for the purpose of mass killings and mass pollution of environment. Today scientist routinely cut, spice and re-arrange natural DNA to alter bacteria, plants and animals. In 2010 Craig Venter created the first artificial form of life by assembling strings of DNA sequences from a computer to build a nucleotide containing one million coded bits. He then assembled a virus 'phi X174' as organic life, capable of moving, eating, breathing and replicating.[5] Recently synthetic biology has been successful in constructing an unnatural DNA and inserted it into Escherichia coli bacteria which recognized it as "natural", replicated it and built this unnatural base pair into its own DNA,[6] a potential for great strategic designs of new medicines, plants and animals, but also a potential devilish technology to kill or to eradicate.

Such a direct manipulation of the simplest structural blocs of life hold great promise for developing vaccines, helpful microbes, but also for constructing "killer life forms" and harming existing symbiotic life on a small or a large scale. We can count about eight million species today, microbial life not included. Our globe is full of life, and has its own life, changing seasons, days and night, local or global catastrophes and disasters, partial decay and revival. Our globe is part of the universe: its creation and formation, its lifestyle and lifespan, its days and nights, its seasons depend on its position within the

universe. Life on the Earth is interacting and developing in relation with each other; humans, animals, plants and microbes form biotopes and depend and grow with and on each other. Our bodies have about 30 trillion cells, living in symbiosis with about 100 trillion microbes.[7] Without these microbes in our bodies we would not live, digest, multiply and survive. Neither are these microbes our parasites, nor are we the parasites of these microbes; we live in symbiosis with them and they live in symbiosis with us. For millennia, also, humans interacted with angels, devils, good and bad spirits; today we have added to it very real and realistic personal, business and professional interactions and communities in digitally based cyberspace clouds.

We as individuals live in human communities, such as families, neighborhoods, working teams, spiritual congregations, economic, social and political institutions and corporations. Of course, as individuals and communities we cannot live but in symbiosis with natural, social, and cultural biotopes, most of them shaped, ruined, exploited or cultivated by us. No human person can live by herself or himself alone, would not have been created without the formation of one new single cell out of two gametocyte cells. When we talk more specifically about interactions among humans, we do not use the term 'bio-logy', rather the term 'socio-logy', because the social interactions in communication, cooperation and the modification of these in families, clans, teams, communities and corporations of various types are what we want to study. We similarly could replace the term 'bio-logy' by 'socio-logy' at least when speaking about state-forming ants and bees and all other forms of less integrated interactive behavior and living-together, such as my life being interdependent with those of the microbes in and on my body. Co-life and co-dependence differ from individual to individual, from species to species, and from environment to environment. To promote the richness and diversity of symbiotic life is a good in itself, as the Muslim Hadith tradition says:

"If a Muslim plants a tree or sows a field, and men and beasts and birds eat from it, all of it is charity for him."

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Cf. Hans Kelsen, *General Theory of Law and State*, The Law Book Exchange, Clark, NJ 2009; Hans-Martin Sass, "Professional Organizations and Professional Ethics: A European View", in: Edmund D. Pellegrino, Robert M. Veatch, John P. Langan (eds.), *Ethics, Trust, and the Professions*, Georgetown University Press, Washington, DC 1991, pp. 263–284.

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For an earlier "5-C model" cf. Hans-Martin Sass, "The '5-C Model' for Guiding Science and Technology: A Précis of Reasonable Moral Practice Amidst a Diversity of Worldviews", *Synesis*, 2012, pp. G52–G59; Hans-Martin Sass, "Interactive Health Care Principles in the Clinical Setting: Competence, Compassion, Communication, Cooperation, Cultivation", *Formosan Journal of Medical Humanities*, Vol. 10, No. 1–2, pp. 17–42.

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Ante Čović, "Der Aufbau eines Referenzzentrums für Bioethik in Südosteuropa: Ein Schritt zur Institutionalisierung des bioethischen Pluriperspektivismus", in: Ante Čović, Thomas Sören Hoffmann (eds.), *Integrative Bioethik / Integrative Bioethics*, Academia Verlag, Sankt Augustin 2007, pp. 261–274.

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Laurie Garrett, "Biology's Brave New World: The Promise and Perils of the Synbio Revolution", *Foreign Affairs*, November/December 2013, pp. 28ff.; cf. Ronald K. Noble, "Keeping Science in the Right Hands: Policing the New Biological Frontier", *Foreign Affairs*, November/December 2013, pp. 47ff.

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Reported in *Nature*, May 7, 2014.

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Cf. Nicholas P. Money, *The Amoeba in the Room: Lives of the Microbes*, Oxford University Press, New York, NY 2014; Martin J. Blaser, *Missing Microbes: How the Overuse of Antibiotics Is Fueling Our Modern Plagues*, Henry Holt and Co., New York 2014.

Today we could add: when a person interacts in social or economic networks in cyberspace, she or he may do much good to fellowmen, to beasts and birds, to everything and to all.

Human life includes not only interaction and symbiosis with nature-based life such as seasonal changes, earthquakes, infectious diseases and harsh environments, but also human-based life such as spiritual life of communication and cooperation with angels and devils of various kind, with machines and tools, with internet-based virtual worlds of real social networking in real – not virtual – cyberspace on dating sites, in the new worlds of *Facebook* and *Twitter*, and in real business transactions on sites such as *Amazon.com*. We find these digital based communities everywhere in our personal and professional lives and in all worlds of pleasure, interactive entertainment, at the workplace, in the military and security, and in politics and social life. Urban centers form their own 'mega-lives'. Louis Mumford once called it 'mega-machines', but I would rather call these urban centers – 'mega-life' of the New Epoch.

The six biological C-properties of humans for a successful bioethics

It can be proven empirically that the six biological properties of humans have played an essential role in the development and survival of the human race for millennia and that they have been present in all successful religions and worldviews, as well as in all successful individual, professional, political and communal activities. Individuals, communities and the human species in general have been and are quite flexible in using these biological properties. The six 'C-properties' (communication and cooperation, competence and compassion, competition and cultivation) work together and interact with each other; they adjust situationally to specific forms of behavior; they form character treats and prescribe potentially successful options for specific scenarios. This can be demonstrated by discussing successful communities from different continents and times, cultivating their naturally given environments, building houses and communities, successful division of labor and services, educating the young and working hard that successful and cultivated forms of living-together and protecting the levels of civilized culture already achieved. There had been different models of interrelatedness in long living civilizations such as the Chinese or the Roman empires in their times. We also can find these six properties embodied in successful institutions such as a good hospital recognized as a corporate neighbor with various organs such different wards for services in pediatrics, gynecology, cancer treatment, surgery, dementia treatment, etc., but also as a living being with circulatory powers of human and financial resources, having a specific corporate profile for leadership internally and for recognition to the neighborhood and potential clients and partners externally. We can discuss the specific relevance of these six principles for each and every individual, communal or corporate person, and thus delineate the different roles of these different properties for specific persons or in specific situations. While in lifesaving surgery professional competency is the most important property, on the Alzheimer's ward or in the hospice setting compassion will need to guide communication and professional expertise. Other scenarios such as building a successful and highly valued corporation, fighting a war, reviewing new technologies or building or interrelating communities in cyberspace will have to use very specific sets of interrelated human properties in order to be successful.

Communication in the health care setting is the most important principle for both, patient and health care expert, also among health care experts and with

corporate health care persons. Only communication can evaluate the health status and health care needs of a patient, integrating the value-and-wish status with the medical status into a complete health care and health care need status and associated diagnosis, prognosis and therapy. Communication among different groups of health care experts and individuals needs to be learned and trained in the development of a common language and the development of trust into arguments independently whether they come from a nurse or a chief doctor. Communicating with patients and their families is even more complicated: the health care expert has an obligation to initiate and to lead the communication, to choose in individual cases the most appropriate method of communication from narratives to the inclusion of family or friends. Communication is time consuming, therefore costly, but indispensable for good professional and compassionate health care. Training courses in particular for those who are members of clinical ethics committees are essential, but institution leaders and leading physicians and nurses also need to have excellent communication training and competence. Of course, yet to develop cyberspace-based health communication and cooperation programs in cyberspace finally will allow lay citizens to become health literate and acquire health responsibilities and rights.

Cooperation is a two-way street, and there are often crossroads where three or more partners meet and exchange expertise and responsibility. Any social or governmental institution or business corporation has a "corpus", a body, more or less suitable for the goal of living, successful interacting, and surviving or changing. There are two forms of cooperating: on the normal and lower level we partner up with others (persons, microbes and other living beings, environmental assets, social corporations or teams), but on another level we compete with others. Competition is the other side of fighting for and being successful in life, challenged by others; competition can be understood as another form of cooperative life for the benefit of society, culture, and progress, not necessarily for the ones who loose in competition. The calculation to improve seems to come from an inborn mental capacity of "internal self-monitoring",[8] which humans among other species seem to do best.

Cooperation among health care providers quite often is deficient; patients sometimes do not comply. Cooperation in the clinic is important, but even more so in the every-day life setting when lay persons have to stay in close contact with experts in prevention and prediction, to protect and to improve their health. Modern medicine allows lay persons to become health literate and health responsible. Our modern understanding of human dignity and civil right, i.e. the 'respect for person' requires more than informed consent. It requires 'informed contracts' between experts as advisers and lay persons as advice seekers. Much needs to be done to develop truly cooperative frameworks, such as in the care for health. Not at least are government and educational institutions responsible for developing such a comprehensive system of health care cooperation far beyond the clinical setting.

Competence has been a requirement in most classical schools of physicians and well protected against quackery, charlatans and professionally inferior people. Competence is the backbone of professional modern health care. It is

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Michael Tomasello, *A Natural History of Human Thinking*, Harvard University Press, Boston 2014; cf. David P. Barash, *The Survival Game: How Game Theory Explains the Biology of Cooperation and Competition*, Henry Holt and Co., New York 2003.

required to practice medicine and to be kept up-to-date in continuing education. Basic forms of health care competence for lay people as well have been part of most cultures.

Modern medicine and lifestyle research knows much more about the influence of genetic heritage, workplace and private social environments, diet and physical exercise habits than previous generations; this richness of knowledge has not yet been made available broadly enough to citizens in general or specialized education to promote health literacy, health care competence and health responsibility. Only lay health care competence and literacy will allow citizens to be self-determined and 'autonomous' decision-makers, as well as good partners to their doctors.[9] Competence is also required by institutions of health care as corporate persons, presenting to the public and to their employees and customers a professional attitude of reliability, responsibility, and trustworthiness, which integrates organizational, financial and leadership competence with competence that there needs to be free space for competent and compassionate communication and cooperation between experts and their patients, also the competence to recognize that institutions of caring for health have to be solid in organization and financing, but the patient and the mission has to come first.

Compassion has been an integral part of health care professional's ethos, reputation, recognition, and authority. Today it is not widely taught in biomedical and clinical teaching, not even in specialized training courses in clinical ethics consultation. Compassion goes beyond the scientific capabilities of modern medicine and the technical training of doctors, nurses, and other health care professionals. It is the "golden rule" for respecting life and caring for life in a humane, i.e. compassionate way. The compassion principle must inform regulations and guidelines for each and every treatment situation. It is an indispensable tool for educating clinical ethics committee members and for guiding their consulting and decision. Compassion as a virtue of corporate persons in the health care field includes the understanding that strict treatment schemes and financial success need to be measured along the overreaching goal of serving in the care for health. Fritz Jahr, the "father of bioethics", once defined compassion as "universal moral law" (*universales Sittengesetz*) and extended it conceptually from the exclusive realm of humans to the inclusive realm of all living beings.

But there is another side of cooperation, seen from a higher point of symbiotic and interactive activity: competition. When competing with each other in the marketplace of valuables and values, the consumer has more choice and the market is richer. When different supermarkets compete with each other and offer competing products at competing prices, there are more valuables around. Gotthold Ephraim Lessing, a German philosopher and enlightened poet of the 18th century, once called the competition between the three monotheistic religions – Judaism, Christianity, Islam – a hidden plan of God in order to encourage them to demonstrate their truthfulness in outdoing each other in charity and "love of your neighbor" rather than demonstrating their superiority in theological sophistry, dogmatic quarrels or in torturing or killing each other. Cooperation and competition are two sides of the same endeavor, such as getting convinced and changing one's position and understanding the other one better but holding on to and affirming one's position are the two possible outcomes in communication.

Cultivation is a principle of highest goals and aspiration in many cultures, in particular in Asian cultures, primarily for the self-development and the higher

autonomy of the individual, but secondly as well for building cultivated communities of persons of culture, compassion and competence in life matters and health matters. Cultivation is primarily self-cultivation with indirect influence on the cultivation of neighbors and others as a role model and in encouraging reciprocal ethics, thus creating harmonious and cultivated communities and societies. However, cultivation also occurs under healthy competition and in competing markets. For experts and lay persons in health care facilities and for those facilities themselves, cultivation as a self-cultivation needs to be an overreaching goal in pursuing and implementing competence with compassion, compassionate and competent communication and cooperation. When leaders and their associates of clinics and other health care institutions just look at the basics of medical science, financial survival, and organizational flows, then the goal of cultivation together with better and sustained competence, compassion, communication and cooperation will not succeed. Thus, cultivation, even though a goal primarily for cultivating individual persons, nevertheless becomes a goal in corporate development and life – an impulse for continuously improving and cultivating institutional structures and developments. Clinical ethics committees can and need to play an essential role in the overall cultivation of their facility.[10] Cultivation as a personal, professional and corporate goal cannot be achieved without competence in professional and personal life, not without compassion, and definitely not without communication and cooperation among compassionate and competent partners. History shows that cultivation rarely is achieved without competition. Thus, cultivation is the final goal in all civilized forms of working together, personally, professionally, institutionally, and socially; it is the way of cultivation, rarely ever a final end and complete achievement.

New epoch risk to bios and the quest for bioethics

We have come a long way from the earliest information on civilized human and social life a couple of ten thousand years ago. As far as risk to life and enjoyment and cultivation of life is concerned, human-based and human-created forms of life makes life safer and more comfortable by building, heating and cooling houses, providing safe and enough foodstuffs by agro-technology, wiring the globe with electricity and radiation waves of various length for energy, light, communication, cooperation and further cultivation of our lives. For millennia we were quite familiar with traditional nature-based risk to bios and to human individual and social life in particular. However, these new human-made forms of life have provided new risks such as powers struggles, wars, exploitations, and technical disasters. Some of these new human-caused risks could lead into most severe catastrophes such as the dependency of urban mega-life on electricity and digital communication and cooperation which could be destroyed by terrorists, by state-based terror, or simple by naturally occurring rare and extremely severe electromagnetic pulses (EMP) from the sun. System failure in medieval villages build from wood was fire and loss of harvest; system failure

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Cf. Peter Schröder, "Patientenaufklärung und Gesundheitskommunikation im Internet", in: Hans-Martin Sass, Peter Schröder (eds.), *Patientenaufklärung bei genetischem Risiko*, LIT, Münster et al. 2003, pp. 57–78.

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Cf. Hans-Martin Sass, "The Clinic as a good Corporate Neighbor", *Croatian Medical Journal*, Vol. 54 (2013), No. 1, pp. 78–82.

in modern mega-cities and in global commerce and trade will be based on infrastructure failure of electricity and digital technology. The Greek term 'katastrophe' means downturn, fiasco, overturn. The catastrophe can be unexpected, expected or expectable. In the Greek tragedy we can differentiate between three stages of a fiasco: *protasis* as the introduction of the variables in the scene and the persons, *catharsis* as the high point of development and potential catastrophe, and finally *epitasis* as the result and follow-up.

For the 21th century we can name eight different causes of potential catastrophes, from A to H: A-tomic catastrophes from nuclear disasters or warfare; B-iological catastrophes from viruses or other microbes developed naturally or manufactured and sponsored by states or criminals; C-hemical catastrophes; D-igital data network catastrophes destroying vast or all parts of basic networks for our modern life; E-lectromagnetic Pulse caused either naturally or by criminals or states attacking essential platforms of the symbiosis of modern life globally or selectively; F-inancial catastrophes intentionally or by negligence causing the meltdown of financial assets resulting in a standstill of highly integrated forms of interrelated social and technical life and food supply; G-eologically based catastrophes such as unexpected, predictable or not predictable earth-based hurricanes, tsunamis, global heating or cooling; H-uman based catastrophes from negligence, mischief, error, criminal intent, social conflict, discontent with modern forms of life. Geologically based risks cannot be avoided by the humans; we are too much powerless to influence the seasons, the sun and the moon, earthquakes and tsunamis, but we have experience of how to protect ourselves from those events by just not living the most harsh environments, by providing enough food supply for winter seasons, by wearing clothing appropriate to the season, by building safe and stable houses. Human based risk such as war, discontent in society, greed, error and terror can be mitigated and eventually avoided by prudent bioethics developed over the millennia, the instruments of which will have to be discussed.

In order to describe the wide modern risk environment of these eight different potential catastrophic scenarios I pick three in order to demonstrate the new risk associated with modern life: biological, digital, and financial catastrophes.

(1) Biological risk such as deadly epidemics of plague, HIV or flu viruses have been with humankind for millennia. For some of these threats we have developed medicines and more importantly rules of hygiene and prevention. Now the risk becomes higher when the world get smaller and global travel is possible. Take this case: Half a dozen people attending a family reunion in Hong Kong unfortunately become infected with a new strain of an H1 virus. They leave the festivities and fly to various destinations in Europe, Asia and America where they unknowingly infect more people who then themselves infect others causing a global pandemic. This scenario can be used as well by half a dozen suicidal criminals who infect themselves with a naturally occurring or specifically manufactured microbe and fly to one or more countries and infect during the time of incubation and before their own death strategically as many people as possible by visits to sport events, riding the subway, going to movies.[11]

(2) A digital global meltdown, making microchip based information, communication, processing and controlling obsolete, can be caused by severe, however rare, electromagnetic pulses from the sun, but also can be initiated by states or criminal groups using strong magnetic radiation. A device similar to a hydrogen bomb exploded over the East Coast of the USA in the air or on a harmless fishing trailer might be able to render

the digital infrastructure of Boston, New York, Philadelphia, Baltimore and Washington, DC useless. This would affect all phones, cars, supermarkets, elevators, all forms of digital communication and cooperation, including those of the police, military and rescue forces. People will die in their high-rise buildings, might kill each other over the food and water; cars would stop driving, planes would fall out of the sky… People, basically, would be clueless as to what has caused the breakdown of civilization. A highly complex and most comfortable culture reveals that it is standing on "feet of clay" and literally is "built on sand".

(3) Global trade and commerce get more and integrated and thus is prey to unintentional or deliberate attacks on the infrastructure in trade and finance. We had such an unintentional meltdown of financial markets in 2008 and only concerted efforts to rescue those who had caused this meltdown avoided an international catastrophe in economics and life. Nowadays individual computer hackers or state supported criminals can cause similar catastrophes and states holding financial instruments such as US Treasury Bills can put high two-figure billions on the market within a second and thus create total havoc in the fully integrated commercial life of the planet. Inept or corrupt hazardous legislation still allows banks and other speculators to buy and manipulate commodities of all sorts: governments which print paper money uncontrolled; fragile business architectures of yet unknown fragile proportions.[12] I am not aware of tough and convincing proactive measures by states and businesses to avoid such a global catastrophe rendering digital-based or paper-based assets worthless.

These are just three different scenarios of potential catastrophic dimension to which we have not yet found a remedy. The colossal body of the "Behemoth" of modern integrated life stands on weak feet of clay and may collapse anytime. Actually, we have not yet discussed these issues in a multidisciplinary and public debate at all. If we would have done so, we would have recognized that our survival knowledge has disappeared incredibly since the early industrial times and even more so since the Stone Age epochs.[13] How to avoid either one of these catastrophes? How to anticipate and how to mitigate or manage risks? How to protect life in the New Epoch and how to actually improve and cultivate modern life? Here comes bioethics into play as a science and a guide for survival in a slightly different sense than Van Rensselaer Potter, one of the fathers of modern bioethics, has called for.[14]

Bioethical guide for survival in the New Epoch

The intellectual history of humankind is full of hints to avoid catastrophes and to manage risks prudently. Empirical evidence suggests that the *6 Cs*

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Hans-Martin Sass, *Ethische Risiken und Prioritäten bei Pandemien*, Zentrum für Medizinische Ethik, Bochum 2009.

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Cf. Geoffrey Ingham, *The Nature of Money*, Polity Press, Cambridge, UK – Malden, MA 2004; L. Randall Wray, *Modern Money Theory: A Primer on Macroeconomics for Sovereign Monetary Systems*, Palgrave Macmillan, New York 2012.

13
Cf. Lewis Dartnell, *The Knowledge: How to Rebuild Civilization in the Aftermath of a Cataclysm*, Penguin Press, New York, NY 2014.

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Van Rensselaer Potter, "Bioethics, the Science of Survival", *Perspectives in Biology and Medicine*, Vol. 14 (1970), No. 1, pp. 127–153; Van Rensselaer Potter, *Bioethics: Bridge to the Future*, Prentice-Hall, Englewood Cliffs, NJ 1971.

have played an essential role in stabilizing societies and in building cultivated and civilized communities. Different approaches in emphasizing one of these naturally given human capacities depend on the situation, but there is also a competitive aspect in having different approaches. If I am a baker or a doctor who has to compete with another one, than at leady my bread or my medical service should not be worse than the one provided by my competitor; however, I can even better compete in competitive pricing or by additional services such as a special pastry or a subspecialty in medicine.

Confucian scholars in studying Mencius have recognized a natural heritage of us humans for interactive dynamics, which is not created and brought about by various religions or philosophical teachings, rather onto which successful religions and good philosophies always have built upon themselves:

"What distinguishes human from animal nature is that human beings are disposed to enchant the ordinary, turning eating into cuisine; transforming warning cries and howls of pain into poetry and song; deepening and expanding uterine groupings into the growing of families, communities and nations; and transmuting procreative sex into romantic love and spiritual merger. Humans differ distinctively from other animals in respect of their capacities-for and apparent commitment-to qualitatively transforming every day. From a Confucian perspective, our distinctively human nature is to express remarkably strong propensities for appreciating – that is, progressively enriching and being enriched – our constitutive relational dynamics."[15]

Laozi once said:

"Cultivate the self and virtue will be true; cultivate the family and virtue will be complete; cultivate the village and virtue will grow; cultivate the country and virtue will be rich; cultivate the world and virtue will be wide."

We may add and include "cultivate the clinic and virtue will be healthy", or "cultivate your business and the village will be rich", "cultivate the internet and virtue will be wide". Competing in cultivation seems to be a final goal in all civilized forms of working together, personally, professionally, institutionally, and socially. Cultivation is an ongoing process and has to include prudent and proactive risk management and risk avoidance.

Many religions make cultivation and "love of your neighbor" a Divine mandate. The Prophet Micah summarizes the entire Jewish law in two commandments: "Love God and love your neighbor as you love yourself". Jesus followed Micah with the same message. In Islam we also find a simple and encompassing bioethics rule: "Allah will not give mercy to anyone, except those who give mercy to other creatures" (*Hadith*). The Muslim tradition specifies the help to one's brother even in extreme situations: "It is right to help him when he is oppressed, but how should we help him, when he is an oppressor?", and the answer by the Prophet is "by preventing him from oppressing others" (*Hadith*). Paul, in the *Epistle to the Romans* (1:20–22), stressed the fact that all people, and not only the Jews, could have known the eternal powerful rules of interrelational life when recognizing how the "creation reveals God's everlasting power and dignity; that they may be without excuse. Because knowing God, they did not glorify him as God, neither gave thanks, but became vain in their reasoning, and their senseless heart was darkened. Professing themselves wise, they became fools." On the marketplace of Athens, where Socrates has taught, the apostle Paul later stressed that the creator has created "out of one blood all nations" and should be worshipped accordingly (*Acts of the Apostles*, 17:26). A recent review of Buddhist bioethics holds:

"Modern biologists understand that human nature – our genome – is the accumulated result of organic experience gathered over hundreds of millions of years, during which some manifestations of life (bodies) were more successful than others in projecting themselves (their genes)

into the future. As this process continued, the eventual results were ourselves, along with all other beings. We and our living cousins are thus the result of innumerable prior beings and will in turn be the cause of others in the future."[16]

Such modern scientific insight into interrelatedness could as well quote the 2500 year old Vedic saying "tat tvam asi" – *this is also you*, i.e. *you are also this*.

We say: "life goes on"; "life never stands still". These and other idioms are true, because if life would stand still, it would not be alive; it would be dead. And life always changes, modifies, destroys and builds. As already said, corals build coral reefs, beavers build dams, humans build streets, houses and internets, each with different levels of, what we call, consciousness. The farm roads, the Silk Road, the highways, the airways, the internets have modified natural distance, bridged differences, contributed to even more plurality and communication, cooperation and competition. Medicines, technologies, internets have widened and diversified naturally given diversity; knowledge had been beneficial.

In the Muslim *Hadith* tradition Al-Tirmidhi (*Hadith* 422) reports that the prophet said:

"God, His angels and all those in Heavens and Earth, even ants in their hills and fish in the water, call down blessings on those who instruct others in beneficial knowledge."

If the prophet would live today, he might have added "also the 'googlers' in the internet and the bloggers in cyberspace should call down blessings on those who instruct others in beneficial knowledge". Knowledge, as we discussed, is a two-edged sword; poison can kill person, but in the right dosage it can heal; knowledge always comes with a risk, it can be destroying, as well as beneficial. The New Epoch hopefully uses knowledge in a beneficial manner to broaden diversity, competition and cooperation, when "life and lives go on". The arch-anarchist Peter Kropotkin defined the interrelatedness and symbiosis of all individual life already in the title of his book *Mutual Aid* (1902). Similarly, Fritz Jahr described the social interactions as the dialectical relationship between egoism and altruism (in the absence of better words, as he said), as interrelatedness, as symbiosis.

Such a bio-logical realism and bio-ethical guidance for the new epoch probably was best described by Moses Mendelssohn, an enlightened Rabbi:

"Brethren, if you want true peacefulness in God, let us not lie about consensus when plurality seems to have been the plan and goal of providence. No one among us reasons and feels precisely the same way the fellow-human does. Why do we hide from each other in masquerades in the most important issues of our lives, as God not without reason has given each of us his/her own image and face."[17]

The beneficial knowledge and the successful and prudent guide for the New Epoch therefore should be the "bioethical imperative" of Fritz Jahr from 1926:

15
Cf. Peter D. Hershock, *Valuing Diversity: Buddhist Reflection on Realizing a More Equitable Global Future*, SUNY Press, New York, NY 2012, p. 58.

16
David P. Barash, *Buddhist Biology: Ancient Eastern Wisdom Meets Modern Western Science*, Oxford University Press, New York, NY 2014, p. 95.

17
Moses Mendelssohn,*Jerusalem oder über religiöse Macht und Judentum*, Burian, Ofen 1819, p. 201.

"Respect every living being on principle as an end in itself and treat it, if possible, as such."[18]

In order to meet the challenges of the New Epoch we have to develop new integrated and comprehensive methodologies based on biological models for the theory and practice of economic, social, and political sciences and also as a guide for our individual and communal survival in the complex symbiotic worlds of today and in the new epochs to come.

Hans-Martin Sass

Integrirajmo bioetiku u Novoj epohi

Sažetak

Nova epoha 21. stoljeća razvija nove globalno povezane, interaktivne te na visokim tehnologijama i cyberspaceu utemeljene civilizacije, kao i nagle prijelaze i druge interakcije između starih i novih modela života, orijentacije i ponašanja. Bio-logija i socio-logija opisuju bios *kao međusobno povezane interakcije živih bića i biotopa, prirodnih, kulturnih, tehničkih. Koncept bio-etike u Novoj epohi treba biti inkluzivan u integriranju prirodâ, tehnologijâ i kulturâ. Mogućnost katastrofe ili kultivacije ovisi o jačanju i integriranju šest temeljnih bioetičkih ljudskih svojstava, stavova i vrlina – komunikacije i kooperacije, sposobnosti i suosjećanja, natjecanja i njegovanja. Ovi su principi, empirijski i povijesno, bili uspješni u njegovanju harmoničnog* biosa*, odnosno suživota u ekološkom, ekonomskom, političkom i kulturnom pogledu. Tih šest bioloških svojstava prirodne su ljudske sposobnosti i mogu se pronaći u svim religijama i kulturama. Oni bi također trebali služiti kao bitni preduvjeti i sastavnice uspješnog i ugodnog opstanka pojedinaca, zajednica, kulturnih i prirodnih okoliša te biotopa u Novoj epohi. Njihovu važnost možemo dokazati situacijskim analizama rješavanja sukoba, siromaštva, kulture zajednice, poslovnog uspjeha, politike, zdravstvene skrbi, medicinskih intervencija i izazova kao što su shvaćanja seksualnosti, starenja, harmonije i sreće.*

Ključne riječi

bioetika, Nova epoha, principi, biološka svojstva, bios, opstanak

Hans-Martin Sass

Integrieren wir die Bioethik in die Neue Epoche

Zusammenfassung

Die Neue Epoche des 21. Jahrhunderts entwickelt neuartige, global zusammenhängende und interagierende hightech- und cyberspacebasierte Zivilisationen, wie auch rasche Übergänge und andere Interaktionen zwischen alten und neuen Lebensmodellen, Orientierung und Verhalten. Bio-logie und Sozio-logie schildern den Bios *als zusammenhängende Wechselbeziehungen der Lebewesen und Biotope, natürlichen, kulturellen sowie technischen. Das Konzept der Bio-ethik in der Neuen Epoche soll die Integration von Naturen, Technologien und Kulturen einbeziehen. Das Potenzial für eine Katastrophe oder Kultivierung hängt von der Stärkung und Integration der sechs grundlegenden bioethischen menschlichen Eigenschaften, Haltungen und Tugenden ab – der Kommunikation und Kooperation, der Kompetenz und des Mitgefühls, des Wettbewerbs und der Kultivierung. Diese sechs Prinzipien waren empirisch und historisch erfolgreich in der Kultivierung des harmonischen* Bios*, bzw. des ökologischen, wirtschaftlichen, politischen und kulturellen Zusammenlebens innerhalb einer Wechselbeziehung. Die sechs biologischen Eigenschaften sind natürliche menschliche Fähigkeiten und können in allen Religionen und Kulturen detektiert werden. Sie sollten ebenfalls als wesentliche Voraussetzungen und Komponenten für einen erfolgreichen und komfortablen Fortbestand der Individuen, Gemeinschaften, Kultur- und Naturumgebungen und Biotope in der Neuen Epoche dienen. Wir könnten deren Gewichtigkeit zeigen und erweisen – durch Situationsanalysen der Konfliktlösung, Armut und Gemeinschaftskultur, des Geschäftserfolgs, der Politik, Gesundheitsfürsorge, der medizinischen Interventionen sowie durch Herausforderungen wie Vorstellungen von Sexualität, Altern, Harmonie und Glück.*

Schlüsselwörter

Bioethik, Neue Epoche, Prinzipien, biologische Eigenschaften, Bios, Fortbestand

Hans-Martin Sass

Intégrons la bioéthique à la Nouvelle époque

Résumé

La nouvelle époque du 21ème siècle fait émerger de nouvelles civilisations interconnectées, interactives et fondées sur la haute technologie et le cyberespace, tout comme des transitions rapides et autres interactions entre les anciens et les nouveaux modes de vie, l'orientation et le comportement. La bio-logie et la socio-logie décrivent bios *comme des interactions interconnectées des êtres vivants et des biotopes naturels, culturels, techniques. Le concept de bioéthique à la Nouvelle époque doit être inclusif en intégrant natures, technologies, cultures. La possibilité d'une catastrophe ou d'une cultivation dépend du renforcement et de l'intégration des six C-qualités, attitudes et vertus bioéthiques fondamentales : communication et coopération, compétence et compassion, compétition et cultivation. Ces six principes ont empiriquement et historiquement réussi à cultiver un* bios *harmonieux, c'est-à-dire un vivre-ensemble dans une interrelation environnementale, économique, politique et culturelle. Ces six qualités biologiques sont des capacités humaines et on peut les trouver dans toutes les religions et cultures. Elles doivent également servir de condition préalable et de composant essentiel à une survie réussie des individus, des communautés, des environnements culturels et naturels et des biotopes à la Nouvelle époque. Nous pourrions démontrer et apporter des preuves de leur importance par des analyses situationnelles de la résolution des conflits, de la pauvreté, de la culture communautaire, de la réussite commerciale, de la politique, des soins de santé, de l'intervention médicale, ainsi que des défis tels que la compréhension de la sexualité, du vieillissement, de l'harmonie et du bonheur.*

Mots-clés

bioéthique, Nouvelle époque, principes, qualités biologiques, bios, survie

18
Fritz Jahr, "Bioethics", in: Fritz Jahr, *Essays in Bioethics 1924–1948*, LIT, Münster et al. 2013, p. 28.