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Editorial address, and all correspondence to:

Prof. Darryl Macer, Ph.D., Hon.D.

Provost, American University of Sovereign Nations (AUSN), Arizona, USA

Email: darryl@eubios.info

http://www.eubios.info

Registered address of EJAIB: P.O. Box 16 329, Hornby, Christchurch 8441, New Zealand

Editorial: Innovation & Dialogue

One of the critical issues for societies that seek to become ethical is the provision of the innovations of science and technology to citizens. This may be through accessibility to advanced medicines. Miyako Takagi, the President of the Asian Bioethics Association, explores this in the first paper of the November 2016 issue of *EJAIB* with two examples – gene editing and Nivolumab. There is a need for fair drug pricing that will not over-extend a health budget as an expensive drug becomes indicated for diseases that affect a growing proportion of the population. Takao Takahashi examines whether such innovations will make people happy – and what is the meaning of happiness? Aristotle had said *eudemonia*, or happiness, was the ultimate goal of ethics. Is this true?

The functioning of an IRB is often measured by the time that it takes to review, and ask for revisions, in protocols. A study by Chandanie Wanigatunge and colleagues explores the practice of an IRB in Sri Lanka, and the reasons why IRB proposals take time.

The following four papers explore concepts of religion and bioethics. There is an analysis of Hajime Tanabe's concept of world religion by Makoto Ozaki, a paper that was presented at the Tenth Kumamoto International Bioethics Roundtable held this month. Another paper from the conference is a comparison of Japanese and Iranian values by Nader Ghotbi. Osama Rajkhan presents a discourse based on a dialogue that relates to a joint panel held at the 27th Annual Meeting of the Japan Association of Bioethics with the Asian Bioethics Association, on this theme. There is of course a principle of dialogue expressed in Islam that provides a place for philosophical stimulation and insights that can be useful for dialogue inside all religions. In the age of extremism, and nationalism, we must remind ourselves of the critical approach of dialogue for the future of humankind. The last paper explores the question of being looked after by a robot in old age. This is the use of technology that is being increasingly applied in some technology able countries such as Japan. As AI systems become more interactive, these will increasingly be used.

- Darryl Macer

Ethical issues in medical and health care innovation

- Miyako Takagi, PhD
University Research Center, Nihon University
4-8-24 Kudan Minami, Chiyoda-ku, Tokyo, 102-8275, Japan
Email: takagi.miyako@nihon-u.ac.jp

Introduction

The expectation of innovation has increased within the field of medicine and health care. With technical developments in this field, it is necessary to consider various ethical problems.

First, gene editing can be considered a form of medical innovation. Tools used to precisely edit the genes inside living cells, including the affordable and easy-to-use CRISPR-Cas9, are transforming the field of biology. By using such tools, the targeted genes can be altered, which can result in germ-line changes intended to be bequeathed to the next generation; thus, disease-causing genes can be completely eradicated. Some ethicists warn that such experiments are a step toward "designer babies," created by their parents to be smarter, stronger, or better-looking.

Some critics also caution that genetic tinkering could have unfortunate consequences for future generations. In the U.S., gene editing of embryos is not banned; however, the use of federal funds for such research is not permitted. On the other hand, a group of British scientists have been given the license to conduct gene editing experiments on human embryos. In April 2016, a life ethics panel of the Japanese government broadly compiled a report tolerating the genomic editing of human fertilized eggs for basic research purposes only. The report stated that a study on the functions of genes in fertilized eggs could help obtain information that may contribute to the treatment of genetic disorders and infertility. Therefore, basic research on gene editing could be tolerated under some conditions.

Another important ethical issue in medical care innovation is the development of novel drugs that can increase the chances of helping patients overcome hard-to-cure illnesses, such as cancer. This unique form of treatment has transformed immunotherapy in Japan by novel drugs i.e., immune checkpoint inhibitors that can activate the patients' immune response for individual-based therapy.

Although pharmacological breakthroughs are welcome, new drugs tend to be extremely expensive, and their wide use can place a substantial strain on the nation's medical expenses. When approving the use of such drugs, the government needs to take utmost care to ensure that it does not bankrupt the nation's public health insurance system.

The immune checkpoint inhibitor, Nivolumab (trade name Opdivo), was approved in September 2014 for skin cancer (melanoma) in Japan. Subsequently, it was also approved for treating lung cancer in December 2015. In Japan, drugs are covered by medical insurance after confirmation of their effectiveness and safety. The cost of Opdivo per lung cancer patient is USD350,000 per year.

It is well known that chemotherapy is associated with adverse effects, such as hair loss, nausea, and vomiting. "Financial toxicity" is now considered to be another adverse effect associated with such treatment. Under the Japanese health system, a patient pays between USD350 ~ USD2,500/month according to their income and the remaining cost is covered by National Health Insurance. Therefore, the majority of the cost is paid by tax funds. Should an average, healthy person bear the burden of such medical expenses while lives can be saved using cutting-edge medicine?

Gene Editing

What is gene editing and CRISPR-Cas9?

In the process of genome editing, the targeted DNA in a cell is cut out at a specific location to inactivate a problematic gene or to insert a replacement DNA sequence to produce a desired result. While DNA is a substance that contains genes, a genome refers to the entire hereditary information contained in the genes and chromosomes of cells. In humans, a copy of the entire genome entailing more than 3 billion DNA base pairs is contained in all nucleated cells. At present, since the accuracy of genome editing is not adequate and inaccurate editing can occur, genome editing is not considered an established technique.

The current mainstream method in genome editing is CRISPR-Cas9, a rapid, affordable, and simple tool for biologists to use. CRISPR-Cas9 is a technology that allows medical scientists to alter DNA with greater precision than has previously been possible. In 2012, molecular biologists Jennifer Doudna at the University of California, Berkeley and Emmanuelle Charpentier of the Max Planck Institute in Berlin created a novel gene-editing technology termed CRISPR-Cas9. CRISPR-Cas9 enables scientists to remove or add genetic material at will. CRISPR is a collection of DNA sequences that directs Cas9 where to cut and paste in the genome. Moreover, CRISPR-Cas9 was chosen as the 2015 breakthrough of the year by the US scientific journal *Science.*

Chinese scientists edited the DNA of human embryos

In April 2015, Chinese scientists edited the DNA of human embryos for the first time. The team had no intention of creating a baby, but the experiment set off shockwaves nonetheless.

A team of researchers at Sun Yat-sen University in Guangzhou injected 86 nonviable embryos with CRISPR-Cas9 to modify the gene responsible for beta thalassemia, a fatal blood disorder. Of the treated embryos, 71 survived and 54 were genetically tested. It was found that only 28 embryos were successfully spliced, of which only 4 contained the replacement genetic material. The researchers also detected a number of "off-target" mutations apparently caused by the injection of the CRISPR-Cas9 complex.

While this research paper triggered a major uproar regarding the safety of the procedure, the UK Human Fertilization and Embryology Authority approved an application from Kathy Niakan of the Francis Crick Institute to renew her laboratory's research license to include gene editing of embryos in February 2016.

International Summit on Human Gene Editing by the U.S., Britain, and China

Questions regarding the safety and efficacy of altering human embryos gained urgency after Chinese researchers first attempted such gene editing. The scientific academies of the U.S, Britain, and China were urged to create an international forum to help "establish norms concerning acceptable uses of human germ-line editing."

In December 2015, the International Summit on Human Gene Editing was held. After meeting for three days, the committee concluded that it would be irresponsible to proceed with any clinical use of germ-line editing until: 1) the relevant safety and efficacy issues have been resolved, based on appropriate understanding and balancing of the risks, potential benefits, and alternatives; and 2) there is a broad societal consensus regarding the appropriateness of the proposed application. However, a tool used to edit human genes is not currently ready for use in embryos, and altering early embryos as part of careful laboratory research should be permitted as scientists and society continue to contend with the ethical questions surrounding this revolutionary technology. As scientific knowledge advances and societal views continue to evolve, the clinical use of germ-line editing should be revisited on a regular basis.

A Japanese government study group initiated discussions

Apparently prompted by the procedures performed by the Chinese team, the Japanese Cabinet Office's life ethics study group, composed of 15 experts on life sciences, law and ethics, issued an interim report in April 2016 stating that basic research is acceptable for such purposes as identifing the roles of certain genes during the early stages of embryonic development with the help of genome editing to develop methods to treat congenital hard-to-cure diseases and improve assisted reproductive technologies. The report also stated that returning an embryo with a problematic gene that has been modified through genome editing to a womb is not permitted.

The group denied the clinical use of human genome editing during this stage, citing the risks of inaccurate or incomplete editing (e.g., off-target mutations and mosaicism) interminglement of modified and unmodified genes, as well as the difficulty of predicting what effects genetic alteration will have on other genes. Moreover, there is a need to examine the risks that future generations may face as a result of genetic alterations in embryos that will be passed generationally.

Since the group's report has no binding power, the possibility cannot be ruled out that ethics committees of research institutes could permit human genome editing research beyond the scope stated in the report. The government and academic societies should begin working to develop binding guidelines or legal regulations that control human genome editing research by fully considering both the ethical and social problems this technique can cause.

Therapy using gene editing

The first step involved in testing an initial gene editing therapy using older tools has begun in humans. Sangamo Biosciences is currently developing an HIV treatment by isolating immune cells from patient blood, editing a gene that boosts resistance to the virus, and returning the cells. To date, 80 HIV patients have received the therapy in first-stage testing, with favorable results. This technique could also help cure other genetic diseases, including sickle cell anemia and muscular dystrophy, by correcting the sequence of DNA responsible for such diseases.

If treatment-related gene editing eventually succeeds, it is unknown how developing countries will afford it. Even if gene editing becomes a useful strategy for the cure of HIV, the cost may make access to such treatment impossible for people living in low-resource countries.

Discussion

Interest is rising regarding genome editing as the next generation of technology begins to make a serious impact. However, the latest techniques are far more accurate, efficient, and affordable than the previous technology. Human genome editing could have serious consequences depending on its reliability and the way in which it is used. Gene therapy is easier to some extent because the human genome is not permanently altered; however, gene editing can irreversibly alter heredity on an individual level. Critics say that human inheritance could have consequences unforeseeable for several generations and would pass such genetic alterations to future generations without their consent. Thus, a single error could have devastating consequences. There is also concern regarding babies designed by their parents to achieve superior intellect, athleticism, or appearance rather than to prevent disease.

Since the potential benefits and risks of this technology are both of great consequence, there is a strong need for the public, including ordinary citizens, lawmakers, bureaucrats, scientists, as well as legal and ethics experts, to perform informed and detailed discussions to ensure that human genome editing can truly contribute to enhancing the well-being of people throughout the world.

Immune Checkpoint Inhibitor: Nivolumab
Effect of Nivolumab

Prof. T. Honjo, a Japanese scientist at Kyoto University discovered Programmed cell death protein-1 (PD-1) in 1992. PD-1 is a cell surface receptor expressed on T cells which specifically target cancerous cells. However, cancer cells express the

PD-1 ligand, PD-L1. When PD-L1 binds to PD-1, a suppressive signal is sent to the T cell, thereby preventing the killing of the cancer cells.

Nivolumab binds to the PD-1 on the surface of T cells, preventing the interaction between PD-L1 and PD-1, and allow these T cells to kill the cancer cell targets. Nivolumab was jointly developed by Japan's Ono Pharmaceutical Co. and the U.S. biopharmaceutical firm Medarex Inc. which was purchased in 2009 by Bristol-Myers Squibb Company. It is renowned worldwide as the first immune checkpoint inhibitor that has overcome the problems of immunotherapy. Moreover, it is used in the treatment of advanced cancer that is inoperable by injecting it into the patient through intravenous drips once every two or three weeks, depending on the patient's conditions.

Therefore, Nivolumab offers hope to cancer patients with no other treatment options. Despite the wide range of available anticancer drugs, many lung cancer patients often find themselves out of options, as cancer cells often become resistant to treatment after a short period.

Many doctors are increasingly supportive of using Nivolumab due to its effect on drug-resistant cancer cells. In many clinical trials around the world, the effectiveness is so great that comparative studies between Nivolumab and existing anti-cancer drugs have been abandoned. The drug is now the recommended choice in certain places.

Time	Public matter
Jul. 2014	Japan approves Nivolumab for treating advanced melanoma, making it the first PD-1 inhibitor to receive regulatory approval
Dec. 2014	Nivolumab is approved in the US for melanoma after it was shown to shrink tumors in one-third of patients
Mar. 2015	Nivolumab is approved by the FDA to treat advanced non-small cell lung cancer, after trials showing that 42% of people survived for at least a year, twice the survival rate of those taking the standard treatment drug, Docetaxel
Jun. 2015	European Commission approves Nivolumab for lung cancer
Oct. 2015	Nivolumab approved by the FDA for kidney cancer after a trial showed that on average, people on the drug survived for more than five months to two years longer than those on the rival treatment, Everolimus

The reason the price of Nivolumab is so expensive

Nivolumab was originally approved based on the premise that it would be used only for a small number of patients with malignant melanoma, a form of skin cancer. In advance of other countries, the Japanese government approved the product in 2014; it was estimated that some 470 patients with advanced melanoma would use it. Therefore, a price of about $7,100 per 100 mg was set for this product. Typically, when a new drug is introduced in Japan, the government sets the price based on the average price for the same or similar drugs in the U.S., the U.K., Germany, and France, to keep the domestic price within a reasonable range. However, Nivolumab cannot be priced using this method.

When the government approved the drug for treatment of non-small cell lung cancer in December 2015, the potential number of users jumped to the tens of thousands. Lung cancer is the leading cause of cancer-related deaths worldwide, with 36% of patients in Japan surviving for at least five years after the diagnosis, a statistic that has shown little improvement over the past 40 years. However, Nivolumab is demonstrating great promise in some lung cancer patients and offers new hope. Despite this fact, if a lung cancer patient weighing 60 kg used the drug for a year, it would cost $350,000.

In August 2016, the government authorized the use of Nivolumab against renal cell carcinoma, a type of kidney cancer, adding an estimated 4,500 patients to potential users of the drug.

Medical expenses and the Japanese health insurance system

In Japan, there is a "high cost illness insurance system" that sets limits on patients' out-of-pocket medical costs according to their income. Therefore, for Nivolumab, a patient below the age of 70 is required to pay $350 to $2,500 per month according to their income, with the remainder covered by public health insurance and taxpayer money.

If Nivolumab's popularity continues to grow, the nation's health care costs will increase infinitely. For example, if the drug were prescribed to 50,000 of the 77,000 patients in Japan who succumb every year to non-small cell lung cancer and accounts for 80% of lung cancer cases in the nation, the annual cost of Nivolumab alone would total $17 billion.

Medical expenses paid to hospitals and clinics across the nation are estimated to have reached a record $ 415 billion in 2015, a 3.8% increase from the previous year. Of the total, prescription drugs costs accounted for $79 billion, a 9.4% increase from the previous year. Thus, two other drugs similar to Nivolumab, would be enough to force the Japanese health insurance system to the brink of total collapse.

The government is required to solve its drug price planning

There were more than 1.8 million newly diagnosed cases of lung cancer in 2012 globally, accounting for 13% of the total number of cancer cases. Over half of the individuals with this cancer are diagnosed over the age of 65. As the population of older individuals is projected to increase, the prevalence of lung cancer is also anticipated to rise.

Some medical experts have suggested that an age limit should be set to prohibit patients 75 years old or more from using Nivolumab to protect the Japanese

health insurance system. While Japan must introduce a cost-benefit analysis in medical care, it should be performed prudently, so as not to deny care to a specific segment of the population.

The current system of reviewing the prices of drugs once every two years (with the next review scheduled in 2018) is too rigid to flexibly lower drug prices. Therefore, the government should introduce a system under which it can lower drug prices halfway through the regular review period if the number of users of a particular drug sharply increases following approval of its use in a broader range of illnesses, and placing a financial strain on the health insurance system. The government should also fully utilize the system introduced in April 2016 to lower the price of a drug by as much as 25% if its annual sales are between $1 billion to $1.5 billion, and by up to 50% if its sales are higher. The government should also consider the cost-effectiveness of drugs when deciding on their prices, as well as ensure that the process of setting drug prices is more transparent.

Medical problems associated with Nivolumab

There are medical problems associated with Nivolumab. Nivolumab is only effective for certain types of cancer remains unclear. To date, approximately 30% of patients on the drug have shown remarkable progress. An efficacy of only 30% for Nivolumab pales in comparison with Sovaldi and Harvoni, hepatitis C drugs sold by Gilead Sciences in the U.S. These drugs cost between $600 - $800 per pill and are effective in over 90% of patients. Therefore, approximately 70% of patients do not respond to Nivolumab, and it will be important to identify markers of both responders and non-responders.

Side effects are also a significant problem. As an immunotherapy drug, Nivolumab has relatively few known side effects compared with existing anti-cancer treatments; however, they do exist, albeit at an unknown frequency. Researchers are only recently beginning to understand that some of such side effects can be life-threatening. Cases of side effects that were previously unimaginable in conventional cancer treatment are emerging, such as fulminant diabetes and myasthenia gravis.

Another existing question is why the drugs do not appear to be as effective for some of the major cancer types, including prostate, colon, and breast cancers. One possibility is that an increased number of mutations in cancer cells is favorable, because it provides the immune system with more abnormal molecular targets. This could explain why melanoma, lung, and kidney cancers are associated with the most compelling results.

Discussion

In Japan, the prices of newly approved cancer drugs have been increasing rapidly since the 2000s, due to the development and introduction of "molecular targeted drugs" that are designed to attack specific cancer cells. A team at the Memorial Sloan-Kettering Cancer Center in New York City compared the prices of newly approved cancer drugs every five years since 1975. The team found that the monthly prices of such drugs stood at approximately $130 per person between 1975-1979, but subsequently rose to $1,770 between 1995-1999 when 30 new drugs became available. The prices of such drugs continued to increase thereafter to $4,716 per person from 2000 to 2004. The prices of such drugs then rose rapidly to $9,905 per person from 2010 to 2014.

Physicians currently have no method of knowing which types of lung cancer Nivolumab works best for, and are thus motivated to use the drug. To restrict the use of drugs in the category of immune checkpoint inhibitors to patients for whom they will work, the government should establish a system to accurately determine which drugs are effective for specific patients, and when to discontinue their use.

Conclusions regarding medical and health care innovation

In medical and health care innovation, ethical dilemmas are both immediate to the patient and of deep concern to society. Altering the genes of a fertilized egg results in changing the genetic code for both the individual resulting from that embryo, as well as their descendants, all of which occurs without consent. Thus, it may be possible that we will alter the human genome sometime in the future.

Practical research into genetic editing for crops and farm animals is ongoing but from a safety perspective, is there any difference between the plants and animals altered with new techniques versus those already in use? Genetic editing is, in a sense, the ultimate form of gene modification. Japanese consumers are often averse to genetically modified food out of concern for safety. The creation of regulations is necessary to dispel such concerns.

To promote breakthrough products like Nivolumab, the Health, Labor, and Welfare Ministry Council sets the prices of drugs to achieve a higher profit. A key factor behind the high price of Nivolumab is its associated expensive total manufacturing cost, including the development expenses that the council took into account. The price of a drug also tends to be set higher when the number of estimated users is small; however the largest problem is that the cost of a drug's development has not been made public. Disclosure of more details related to the grounds for setting drug prices will be of vital importance given the anticipated development of more innovative and costly drugs in the future.

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Happiness in Bioethics

- Takao Takahashi, PhD.
Professor Emeritus, Kumamoto University, Kumamoto, Japan
Email: ttaka@kumamoto-u.ac.jp

Abstract

Both in clinical settings and in bioethical arguments, "happiness" is not a commonly cited concept. The reason seems to be, first, its meaning is too wide and ambiguous, and the second is that the concept of happiness in medicine or bioethics can be substituted by QOL which was introduced into medical practices as an objective and measurable concept and is very useful for medical staff to judge how to treat a patient. There are two kinds of health-related QOL: comprehensive QOL and disease-specific QOL. However, recently, researchers have tried to devise a scale of happiness in several ways. Roughly speaking, the subjective happiness scale can be built into comprehensive health-related QOL, but it is difficult to find the counterpart of disease-specific QOL in the field of happiness. Virtue based happiness is quite difficult to be translated or built into QOL. Virtue based happiness is long-term happiness and realized by a man of virtue. Modern medical care, following individualistic liberalism, has the principle of respect for autonomy of a patient, the basis of which is the right to the pursuit of happiness which is dependent on patient's feelings. Regarding subjective happiness, most of its role is now covered by QOL. Then what, if any, is the role peculiar to the concept of happiness in medicine or bioethics? There seems to be at least two places where the concept of happiness can play an important role. The first is regarding the "enhancement problem", and the other is happiness of the medical staff instead of the patient.

1. Happiness is not a common word in bioethics.

Both in clinical settings and in bioethical arguments, "happiness" is not a commonly cited concept. For example, there is no separate article of "happiness" in *Encyclopedia of Bioethics* 3rd ed (1). According to its index, the term appears on page 185 only, though we may find it on other pages. Moreover, there is no separate article of "well-being", and its term appears on pages 758, 2047, 2380-2381, and 2484. On the other hand, there is a separate and comparatively long space for the concept of QOL (Quality of Life), i.e., pp,1388-1402, and we can see or hear about it very often in clinical settings and bioethics.

The reason for the less emphasis on the concept of happiness seems to be, first, its meaning is too wide to

be applied to medical practices and bioethical arguments. The second is that the concept of happiness in medicine or bioethics can be substituted by QOL which was introduced into medical practices as an objective and measurable concept and is very useful for medical staff to judge how to treat a patient.

Historically speaking, QOL is said to have first appeared in 'Great Society Speech' (2) by President Lyndon Johnson in 1964 as "quality of our American citizen" i.e. as quality of the nation. But in this speech also appears the sentence "it is a place where men are more concerned with the quality of their goals than the quantity of their goods", where QOL of each people is referred to. As this speech shows, roughly speaking, QOL has two mutually related usages, i.e., QOL of a nation or a society and QOL of an individual.

In clinical settings and in bioethics arguments, QOL of an individual patient, i.e., health-related QOL, is dominant. There are two kinds of health-related QOL: comprehensive QOL and disease-specific QOL.

An example of a comprehensive QOL scale is SF36 (Medical Outcomes Study 36-item Short Form Health Survey) which assesses the following general health concepts: physical functioning, role limitations due to physical health problems, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional problems and mental health (3). This scale was made in the U.S. and translated and used in about one hundred and twenty countries. Another example is EQ-5D (Euro QOL), which is simpler than SF36 and assesses mobility, self-care, usual activities, pain/discomfort and anxiety/depression (4).

In addition to a comprehensive scale, there are a lot of disease-specific QOL scales such as QOL scale of cancer, Alzheimer's disease and neurologic diseases.

As for happiness or well-being, now we have various scales. Researchers have tried to describe happiness in several ways, e.g., consisting of positive emotions and positive activities, or distinguishing three kinds of happiness: pleasure (positive sensory experience), engagement (involvement with one's family, work, romance and hobbies), and meaning (using personal strengths to serve some larger end). Also researchers have identified attributes correlating with happiness: relationships and social interaction, extraversion, marital status, employment, health, democratic freedom, optimism, endorphins released through physical exercise and eating chocolate, religious involvement, income and proxy to other happy people (5).

With regard to the methodology of measurement, including QOL, happiness and well-being, there are two basic kinds: subjective and objective. Subjective methodology focuses on self-reported levels of happiness, pleasure, fulfillment and the like. Objective measurements focus upon quantifiable indices of social, economic, and health indicators. Some try to combine the two basic measurements (6). We can say that the distinction between subjective and objective methodology approximately corresponds to the distinction between subjective and objective happiness, well-being and QOL.

In the field of subjective well-being (happiness), so called set-point theory has been dominant over the past several decades, the central proposition of which is that adult individuals have differing but stable levels of subjective well-being, i.e., adult set-point do not change except temporarily in the face of major life events. However, recently it has been criticized and researchers have begun to pay attention to the dynamics of happiness (7).

2. Happiness and Health-related QOL

The title of this paper is 'Happiness in Bioethics', therefore, when I refer to QOL, I will focus on health-related QOL. Now I will try to show the outline of the relationships between happiness and QOL. To begin with, it is useful to compare a subjective happiness scale with a comprehensive health-related QOL scale. To make the consideration simpler, I give two examples of a scale with four or five items: one is Subjective Happiness Scale (SHS) by S. Lyubomirsky (8) and the other is EQ-5D (Euro QOL) stated above.

SHS's 4 items were derived from original 13 self-report items through several tests (Lyubomirsky, S. *et. al.* p.140). SHS uses 7-point Likert scales. 4 items are as follows:

1. In general, I consider myself: from "not a very happy person" to " a very happy person".

2. Compared to most of my peers, I consider myself: from "less happy" to "more happy".

3. Some people are generally very happy. They enjoy life regardless of what is going on, getting the most out of everything. To what extent does this characterization describe you? From "not at all" to "a great deal".

4. Some people are generally not very happy. Although they are not depressed, they never seem as happy as they might be. To what extent does this characterization describe you? From "not at all" to "a great deal".

The EQ-5D health questionnaire requires you to place a tick in one box in each group.

・Mobility
I have no problems in walking about.
I have some problems in walking about.
I am confined to bed.
・Self-Care
I have no problems with self-care.
I have some problems washing or dressing myself.
I am unable to wash or dress myself.
・Usual Activities (e.g. work, study, housework, family or leisure activities)
I have no problems with performing my usual activities.
I have some problems with performing my usual activities.
I am unable to perform my usual activities.
・Pain/Discomfort
I have no pain or discomfort.
I have moderate pain or discomfort.
I have extreme pain or discomfort.
・Anxiety/Depression

I am not anxious or depressed.
I am moderately anxious or depressed.
I am extremely anxious or depressed.

Unlike SHS, EQ-5D contains objective factors, but, roughly speaking, subjective happiness can be translated or, more exactly, built into comprehensive health-related QOL.

In the terminal stage of life the concept of happiness becomes important, because here especially, the meaning of a patient's life is crucial. However, we can build the concept of happiness into QOL of end-of-life care, so, generally, subjective happiness can be built into QOL.

As for disease-specific QOL, in general, it focuses on not only objective but also specific health-related factors; therefore, it is difficult to find its counterpart in the field of happiness, i.e., disease-specific QOL is independent of happiness.

There is an important aspect of happiness that is quite difficult to be translated or built into QOL, i.e. virtue based happiness. Virtue based happiness is long-term happiness and realized by a man of virtue. Virtue can be trained and, in principle, objectively identifiable by other persons. It is difficult to grasp virtue based happiness by means of a subjective method, because even if a subject feels very happy, he/she may feel only short-term happiness or may feel happiness in the situation where a virtuous person never feel so.

Now we can show the rough relationships between happiness and QOL as shown in the Figure.

Relationships between Happiness and QOL
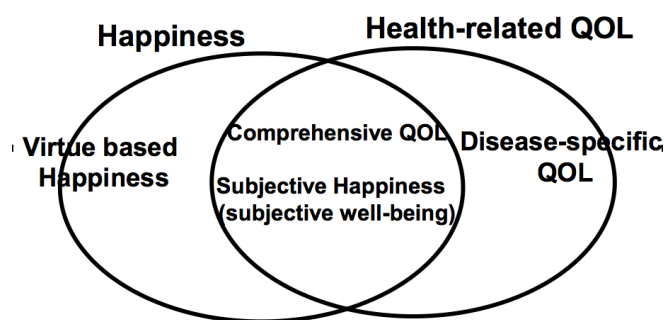
3. The role of happiness in bioethics

In clinical settings and bioethics arguments, the concept of happiness can be translated or built into the concept of QOL, though the difficulty of making a scale of QOL reflects the ambiguity and subjectivity of happiness.

Modern medical care, following individualistic liberalism, has the principle of respect for autonomy of a patient, the basis of which is the right to the pursuit of happiness. The happiness in this context is dependent on a patient's feeling. If a patient feels happy, he/she is happy, i.e. here subjective happiness is in question. Regarding subjective happiness, most of its role can be covered by QOL. Here we understand the reason why in medicine "happiness" is

not a key concept. Then what, if any, is the role peculiar to the concept of happiness in medicine or bioethics?

There seems to be at least two places where the concept of happiness can play a unique role.

The first is regarding the "enhancement problem". Here not only subjective but also long-term and, probably, virtue based happiness is in question. This is a passage from *Beyond Therapy: Biotechnology and the Pursuit of Happiness*: *"By directly inducing changes in our subjective experience, the new psychotropic drugs create the possibility of severing the link between feelings of happiness and our actions and experiences in the world. Who would need better children, superior performance, or more youthful bodies if medication could provide the pleasure and sense of well-being that is the goal of so many of our aspirations? Indeed, why would one need to discipline one's passions, refine one's sentiments, and cultivate one's virtues, in short, to organize one's soul for action in the world, when one's aspiration to happiness could be satisfied by drugs in a quick, consistent, and cost-effective manner?"* (9).

At the base of an enhancement problem, there is a serious question as to the concept of treatment or medicine, which is closely related to the concept of happiness, freedom and person. This question is deeply concerned with the problem of modern medical care in general which adopts individualistic liberalism. Thus individualistic liberalism in medicine is challenged by the concept of virtue based happiness the origin of which is ancient Greece.

The other place where virtue based happiness is especially effective can be found when we think about medical staff instead of the patient. Throughout history, patients are not required to be virtuous, but medical staff are required to be knowledgeable, sympathetic, patient, diligent, just and decisive. By means of those virtues, medical staff can achieve self-realization through their work and stay in a long-term happiness. However, excessive overtime duty will reduce the level of their QOL and hinder the self-realization. In this situation the problem of supererogation of medical staff has arisen and the concept of QOML (Quality of My Life/Medical Staff's Life) has appeared.

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Effects of Electrosmog on Birds: An Overview

- J. Thresa Jeniffer[1], J. Joannes Sam Mertens[2] and *A. Joseph Thatheyus[3]

[1]Department of Information Technology, St. Joseph's College of Engineering, Jeppiar nagar, OMR Road, Chennai-600 119, Tamil Nadu, India.

[2]Department of Electronics and Communication Engineering, SSN College of Engineering, Kalavakkam, OMR Road, Chennai-603 110, Tamil Nadu, India.

[3]PG & Research Department of Zoology, The American College, Madurai-625 002, Tamil Nadu, India.

*Corresponding author Email:jthatheyus@yahoo.co.in

Abstract
Microwave radiation from mobile phone towers popularly termed as 'Electrosmog' is considered to some evidence to cause damaging effects on humans, birds and other animals. In this work an overview has been done on the importance of birds, and the effects of electrosmog on birds.
Key words: Electrosmog, Microwaves, Birds, Mobile phone towers.

Introduction
The number of mobile phone users in India is ever increasing and to support this growth mobile phone towers are on the increase. Due to lack of specific policies on infrastructure development regarding the location of mobile phone towers, they are installed in both urban and rural areas in a haphazard manner. As these towers are based on electromagnetic waves they pose danger to humans and other animals on prolonged exposure. Though the adverse effects of electromagnetic radiations from mobile phones and communication towers on humans are well documented, their effects on other animals are yet to be established.

Electrosmog
It is reported that the population of sparrows declined due to electromagnetic radiation in London and certain European cities. [1,2] The electromagnetic fields causing 'electrosmog' cannot be perceived by human sense organs and are not easily detectable. Their effects appear to be chronic and result in long–term impacts. Several researchers reported negative consequences on immunity, health, reproduction, behaviour, communication, coordination and niche breadth of species.[3,4,5,6,7] Electromagnetic field induces aversive behavioural responses, developmental anomalies and mortality in many animals including birds. [8,9]

Among the various groups of animals, birds are exposed to a greater risk of direct irradiation due to their flight behaviour. Mainly non-ionizing radiations result in radiation–induced temperature increases. [10] They can also affect the bird's capacity to recover from physiological stresses, and physiological and behavioural repercussions. These radiations also increased calcium–ion efflux in chick forebrain tissue. The onset of radiation also affects the stabilizing period of the egg production in birds. The capacity of birds to detect magnetic fields is affected due to increased levels of electromagnetic waves which clash with the earth's electromagnetic field.[11] Chicken embryos exposed to sinusoidal bipolar oscillating magnetic field exhibited malformations.[2] Interference of microwaves from base stations with the reproduction of white stork, *Ciconia ciconia* was also reported. Telecommunication towers produce 900 MHz for analog and 1800 MHz for digital transmission pulsated waves which interfere with the nervous system of living organisms.

Birds

Arising in the Jurassic period of the Mesozoic era from Orinthschian dinosaurs, birds are bipedal, feather clad, warm-blooded, air-breathing, oviparous and flying craniates. They mainly live by moving in the air, which is the most difficult medium of all and the most rewarding for freedom of movement. It is estimated that the total number of bird species that have existed is 154,000 of which 9,600 are alive today.[12] Birds have bodies which are highly specialized for an aerial mode of life. Almost every part of their body has been modified for aerial life. For flight adaptations, they have specializations in their morphology, anatomy and physiology including wings, lightness, extra energy production, speed, and balancing and control. Feathers are special integumentary derivatives and cover the body. The smooth, closely placed and backwardly directed nature of feathers result in streamlined body which enable the bird to pass through the air with minimum friction. The feather covering makes the body light and insulates perfectly by avoiding loss of heat. Some birds undertake regular, periodic, to and fro movements between their summer and winter homes or from a breeding and nesting place to a feeding and resting place. Some of the migratory birds travel thousands of miles in their periodic seasonal journeys. During migration birds like cranes, carrions, crows and finches fly with the speed of 30 miles per hour. Birds like the Arctic tern migrate 11,000 miles during winter and return during summer travelling the same distance.[12] Table 1 shows some the benefit of birds and the damages caused by them.

The house sparrow, *Passer domesticus i*s always found associated with human habitats and it is the best indicator species of urban ecosystem quality. London has experienced a 75 percent fall in house sparrow population coinciding with the emergence of mobile phones. Electrosmog along with other factors may be responsible for the decline of sparrows in European cities.[1,2] Increase in the level of microwaves in Spain also resulted in a decline in the abundance and behaviour of house sparrows.[15] Effects of electrosmog on birds are listed in Table 2. Balamori (2005) reported problems in reproduction and coordination and aggressive behaviour in sparrows.[16] House sparrows are fast disappearing due to electromagnetic waves from cell phones and communication towers in Bhopal, Nagpur, Jabalpur, Ujjain, Gwalior, Chhindwara, Indore and Betul in India. [17] Eggs of house sparrows exposed to electromagnetic radiation in the laboratory also exhibited damage. Table 3 divulges the alterations in behaviour of birds due to microwave radiation.[18]

Table 1: Importance of Birds[13]

Benefits	Disadvantages
Food	Menace to agriculture
Medicine	Destroyer of game birds
Decorative value	Damage to fisheries
Commercial value	Carriers of diseases
Pollinator	Pests of honey bees
Fertilizer	
Biological control of pests	
Scavengers	
Predators	
Messengers	
Signals	
Entertainment value	

Birds have thin skulls and their feathers can act as dielectric receptors of microwave radiation. Audiofrequency pulse modulated high frequency fields can induce piezoelectric effects in the feathers.[19, 20] Since birds use magnetic navigation, they get disoriented due to high frequency magnetic fields.[21,22] Nonthermal changes in the amount of neural activity by the brain cells of the zebra finch, *Taenopgyia guttata* were noticed.[23] Some of the bird species affected by microwave radiation are listed in Table. 4.

Table 2. Reported effects of Electrosmog on birds[16]

Sl. No.	Effects
1	Egg mortality
2	Embryolethality
3	Teratogenicity
4	Modified growth patterns
5	Altered membrane permeability
6	Coordination problems
7	Navigation problems
8	Affected chryptochrome pigments
9	Aggressive behaviour
10	Collisions on telecommunication masts
11	Altered behaviour
12	Developmental anomalies
13	Oxidative stress
14	Reduced abundance
15	Impaired health
16	Piezoelectric effects on feathers
17	Lack of prey
18	Reduced stress recovery
19	Fall in population strength

Table. 3: Behaviour alterations found in birds due to microwave radiation[18]

Name	Altered Behaviour
Chicken	Standing suddenly, wing flapping and collapsing
Parakeet	Gasping, beak opening and rapid swallowing
Pigeon	Throat quivering, turning and body rocking
Quail	Neck extension, and throat quivering
Turkey	Feather erection and rapid swallowing

Table 4. Bird species affected by microwave radiation

	Zoological Name	Common Name
1	*Sturnus vulgaris`*	Starling
2	*Metacilla alba*	White wagtail
3	*Falco tinnunculus*	Kestrel
4	*Ciconia ciconia*	White stork
5	*Columba livia*	Rock (domestic) dove
6	*Pica pica*	Magpie
7	*Streptopelia decaocto*	Collared dove
8	*Turdus merula*	Black bird
9	*Parus major*	Great tit
10	*Serinus serinus*	Serin
11	*Carduelis chloris*	Green finch
12	*Parus ater*	Coal tit
13	*Troglodytes troglodytes*	Wren
14	*Picus viridis*	Green Wood pecker
15	*Certhia brachydactyla*	Short toed tree creeper
16	*Phylloscopus bonelli*	Bonelli's warbler

Conservation measures

Electromagnetic fields have to be recognized as a pollutant and regular monitoring must be carried out in urban areas as well as vulnerable locations like educational, hospital, industrial, residential and recreational premises and ecosensitive regions. Bird hits have to be avoided by minimizing security lighting on ground facilities. Mobile phone towers can be avoided in national parks, wildlife protection sites, bird sanctuaries, Ramsar sites and conservational important locations.

Conclusion

Electromagnetic radiations are interfering with the biological systems and affect several groups of animals including birds, bees, ants, amphibians, fishes, crabs, bats and humans. There is an urgent need to carry out well designed studies to quantify the effects of electromagnetic radiations on birds, other animals and humans.

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Identifying reasons for delays in ethics approval: Experience of an institutional ethics review committee

- Chandanie Amila Wanigatunge, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka
Email: caw@sjp.ac.lk, (Corresponding author)
- Shamini Prathapan, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka
- Gizelle Malinka Warnacula:, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka
- Rochelle Shanika Tanner, Faculty of Medical Sciences, University of Sri Jayewardenepura, Sri Lanka

Abstract

Ethics review is a mandatory process in research involving humans and animals. Incorrect applications results in resubmissions leading to delays in obtaining ethics approval. This study was conducted to ascertain reasons for resubmission of protocols to an ethics review committee. A randomly selected sample of proposals submitted during a 3 year period for an institutional ethics review committee were analyzed to find the reasons for resubmission. The qualitative variables were analyzed through the calculation of absolute and relative frequencies

Two hundred and sixty nine protocols were submitted during the study period of 3 years. Protocols for observational studies accounted for 89% while clinical trials and animal studies accounted for 7.8% and 3.3% respectively. The majority (86%) of principal investigators were those with a medical degree. Average stop clock time was 23.4 days. Majority (67.3%) were reviewed over 2 meetings to reach a final decision. Of the 95 reasons for returning the protocols to researchers, protocol related issues (66.3%) and informed consent form issues (29.5%) were the major reasons. The main protocol related issues were those in methodology (41%), statistical issues (54%) and inadequate risk benefit analysis (14%). Clinical trial related protocols needed more reviews before approval was granted.

Delays in reviewing due to ERC were minimal. Most of the protocols that required resubmission had issues pertaining to methodology and informed consent forms or processes. These are easily corrected and can be avoided with careful attention to ethical issues by researchers when preparing the protocols.

Background

Research is essential for advancement of knowledge and science. Medical research that involves humans, including those that involve identifiable human data or material must be conducted in accordance with the ethical principles laid down in the declaration of Helsinki [1]. Adherence to these principles helps to protect the rights and wellbeing and ensures respect of study participants.

Research proposals involving human subjects must be reviewed and approved by an Ethics Review Committee (ERC) prior to commencement of research. The assessment by an ERC is needed in order to ensure respect and autonomy of the research participants and to ensure beneficence, non-maleficence and justice [1]. Owing to the biological similarities seen between man and animals, animal research has been an integral aspect of research. Prior data from animal studies are almost always needed before a new product can be tried out in humans. Animal research should also be conducted in a manner that minimizes the impact on animals involved [2,3] .Thus, the ERCs' main functions include evaluating research projects based on their scientific relevance, technical and operational feasibility and reviewing ethics of the proposed research.

Over the last few years there has been an increase in bio-medical research projects being conducted in Sri Lanka. This is largely due to the government initiative to promote research. Most of these are investigator initiated while a few are industry sponsored multi-centre phase 2 or 3 clinical trials. Phase 1 industry sponsored clinical trials for new chemical entities are not allowed in Sri Lanka at present.

In the absence of national guidelines on ethics review and the ERCs in Sri Lanka rely on international guidelines such as the Declaration of Helsinki [1] and CIOMS [4] when reviewing protocols. While providing a sound basis for ethical review, these lack guidance on social and cultural issues specific to the country and the ERCs have to rely on the collective expertise and judgment of its members to reach a consensus on such issues.

Although there is a national framework for the conduct of clinical trials, Sri Lanka lacks laws to govern the conduct of research and ethics review committees (ERCs). There is no local mechanism to evaluate or accredit ERCs resulting in inequalities in the quality of ethics review provided by different ERCs where some committees are perceived as being "more rigorous" and "strict" than others. In the absence of a national mechanism for accredit ERCs, many are now seeking recognition by the Forum for Ethics Review Committees in the Asia and the Western Pacific (FERCAP) under its Strategic Initiative for the Development of Capacity in Ethical research (SIDCER) [5]. In the absence of a legal framework, ERC remains a major form of research oversight.

The ERC of Faculty of Medical Sciences (FMS), University of Sri Jayewardenepura (USJ) is an institutional ERC established in 1995 to facilitate research of its academic community. ERC FMS USJ was granted recognition by the FERCAP under its SIDCER recognition programme and is one of the 8 ERCs recognised by the Ministry of Health of Sri Lanka to approve phase 2 and 3 clinical trial protocols.

ERC FMS USJ performs full board reviews of about 70-90 protocols a year and entertains applications from any researcher who wish to conduct research involving human participants in Sri Lanka and those involving animals. In addition to the duly completed appropriate application form, a detailed study protocol, a letter of approval issued by the relevant higher degrees board for protocols submitted for higher degrees, data collection tools, information sheets, consent forms and translations of all relevant documents are required at the time of submission.

Review by ERCs is considered by many researchers as an obstacle for research [6]. Review time and hence time for approval if prolonged may result a study site being taken off a multi-centre study and ERC reviews are therefore considered as undue delays by some researchers [7].

Sometimes proposals are reviewed over several meetings and this delays the final decision. The delays in review could be due to increasing workloads of ERCs over time, complexity of research protocols that might need external expert evaluations or even poorly prepared submissions submitted by Principal Investigators (PIs) which would lead to multiple resubmissions. Lack of knowledge about research participant protection among researchers is another factor. Understanding the issues that lead to an ERC delay due to resubmissions would help applicants to prepare their application better. In audits of ERCs in Brazil and Spain the main reasons for resubmission of protocols were issues in the informed consent form and methodological and statistical issues [8.9].

Identifying the reasons for resubmissions would help to identify what corrective measures need to be taken to minimize delays in decision making of ERC. This would in turn, will help researchers to better prepare their applications. We therefore performed an audit on a sample of applications submitted to ERC FMS,USJ from 2012 – 2014 to ascertain causes of leading to resubmission of protocols.

Method

The study was conducted between April – August 2015. Using a skip interval of three, every third protocol in the database was selected to achieve the required sample size of 88 to be analysed to find the reasons for resubmission.

All documents pertaining to individual protocols are kept is separate protocol folders in the ERC office and these were used for data extraction. Investigator profile was determined from the application forms and the other data pertaining to each protocol were extracted from the relevant minutes and the correspondences in the protocol folders. Data was entered into an Excel worksheet. Statistical analyses were performed using Statistical Package for Social Sciences (SPSS, version 15). The qualitative variables were analyzed through the calculation of absolute and relative frequencies. This project was approved by the ERC FMS USJ (ERC55/14).

Stop-clock time – i.e. time taken for principal investigator (PI) to respond to ERCs queries – was calculated separately to help determine its contribution to the time needed for final ERC approval.

Results

A total of 269 protocols had been submitted for review for the period January 2012 – December 2014. The majority (n=239, 89%) were for observational studies while applications for clinical trials and animal studies accounted for only 21 (7.8%) and 9 (3.3%) respectively. The majority (n=203, 76%) were self-funded. Eighty eight (32.7%) protocols were approved without requiring further clarifications. The average time taken by the ERC to reach a final decision (inclusive of stop clock time of 23.4 days) was 58 days. The mean number of meetings needed by ERC for the final decision to be reached was 1.8 meetings with a mode of 2.

Eighty-eight protocols were selected at random for further analysis. Of these, 93% (n=82) were human studies while animal studies and audits accounted for 5.7% and 1.1% respectively.

Of the human studies observational studies were the commonest study type (n=78, 89%) while 8% (n=7) were interventional studies / clinical trials. Studies related to herbs and other traditional medicinal products accounted for 3.4% (n=3). Sixty five (74%) of the protocols were submitted by Principal Investigators (PIs) with a basic medical degree. Of the 88 selected protocols 47 (53.4%) had required resubmission. All clinical trial protocols required resubmission and were approved after an average of 2.4 meetings. When the stop clock time was excluded the average time taken for approval was 55.3 days which is nearly equal to 1.8 meetings

The main reasons for returning the protocols to PIs for resubmission are given in table 1.

Table 1: Reasons for returning the protocols to PI for resubmission

Reasons	Total (n=95)	
	N	%
Issues in protocol	63	66.3
ICFs	28	29.5
Administrative issues	4	4.2

* Total is > 47 as some protocols had more than 1 reason that needed to be addressed.

There were a total of 95 reasons for returning the protocols to PIs for resubmission. The reasons were categorized under 3 main domains – protocol, informed consent and administrative. Of the protocols requiring resubmission, the majority (57%) were due to

issues pertaining to a single domain (e.g. protocol or informed consent process) while 43% had issues related to multiple domains. Every clinical trial protocol had issues related to multiple domains that needed to be corrected or clarified. The main reasons for returning protocols were those related to the methodology of the study (46%) and issues in the informed consent forms (27%). The issues related to protocol and informed consent forms/process are given in tables 2 and 3 respectively.

Table 2: Issues related to protocol leading to resubmission (n=47)

Issues in protocol	N	%
Clarifications in the study instruments and its translations	12	25.5
Lack of or inadequate risk benefit analysis	11	23.4
Lack of detail in the methodology	9	19.1
Failure to mention or doubts regarding issues related to sample size	6	12.8
Clarifications in recognition and provision of treatment for adverse effects and side effects	5	10.6
Inadequate definition of Inclusion criteria	4	8.5
Inadequate definition of exclusion criteria	4	8.5
Clarifications in title	4	8.5
Fate of samples	3	6.4
Inadequate justification/literature review	2	4.3
Inadequate definition of the general and specific objectives	1	2.1
Poor definition of terms used in the protocol	1	2.1
Failure to mention or doubts regarding study setting	1	2.1
Total no of methodological issues	**63**	

In nearly one fourth of protocols returned to PIs, the information sheets contained inadequate information. Administrative issues were very few in numbers, accounting to only 8.5% of the total issues.

Issues in the protocols in clinical trials and in non-clinical trials were compared. On average, clinical trials took longer to receive approval and most (n=5/7) had needed 2.4 meetings for approval to be granted. Issues pertaining to study methodology, informed consent forms and translations and inadequate risk: benefit analysis were the leading causes requiring resubmission for clinical trial related protocols. These were similar to those seen with non clinical trial applications. The issues pertaining to risk: benefit analysis in clinical trial applications are given in table 4.

Table 3: Issues related to Informed Consent leading to resubmission of protocols (n=47)

	N	%
Inadequate information provided in information sheets	11	23.4
Language too technical	6	12.8
Translations not provided or inconsistency in translations	6	12.8
Contact details of PI not mentioned	5	10.6
Total no of issues related to informed consent	**28**	

Table 4: Issues related to Risk Benefit Analysis in clinical trial protocols (n=7)

	N	%
Inadequate information on treatment of adverse effects	4	57.1
Failure to provide Biological Material Transfer Agreement	2	28.6
Failure to provide or inadequate risk benefit analysis	2	28.6
Lack of information on likely adverse effects	1	14.3
No justification for use of the drug on a vulnerable population	1	14.3
Lack of appropriate medical personnel on the team	1	14.3
Role of sponsor with regard to ownership of data collected not clarified	1	14.3
Insufficient details on risk to participants	1	14.3
Failure to mention fate of the samples once study is completed	1	14.3
Total number of issues related to risk: benefit analysis in clinical trial protocols	**14**	

The non-clinical trial protocols had more reasons for resubmissions. These were related to methodology, inadequate literature reviews, definition of the objectives and justification of the study setting.

Discussion

Delays in obtaining ethics approval can be due to delays in processing by the ERC and/or due to incomplete submissions by the investigators to the ERC. The reasons need to be identified to enable corrective measures to be taken and thereby minimize delays in approval process. To the best of our knowledge this is the first study to analyse experiences of an institutional ethics review committee in Sri Lanka.

The results of our study indicate that approximately two thirds of the applications to the ERC during the study period contained scientific, ethical or administrative defects which necessitated resubmission. This is comparable with that of a similar study done in Spain [9] but nearly twice that of a study in Brazil [8] where 68% had been reviewed in a single meeting. Methodological issues were the main reasons for protocols needing resubmission in our study. Among the ethical issues, inadequacies in the

informed consent process was the commonest cause that required resubmissions.

Informed consent is the cornerstone of research ethics. Adequate information presented in a manner easily understandable would help the participants to make an educated decision on taking part in the research. It is also important for researchers, especially those who are also in clinical practice, to recognise that there are differences between informed consent for participation in research and informed consent in patient care [10]. The main issues associated with informed consent forms (ICFs) in this study were inadequate information provided, language too technical to understand the contents and inaccuracies of translations in to Sinhala or Tamil. The main problem noted in the translations was the use of written language which is in most instances not in common use, a problem encountered when profession translators are involved. The issues seen with ICFs in this study were similar to those in other similar studies [11]. Researchers must be aware that the ICF is meant for the potential participants [10] and the language and contents should therefore be appropriate for their level of education and understanding. It is the responsibility of the researcher to ensure that the ICF is appropriate in both contents and the language used. In addition to the procedures that will be carried out during the study, the ICFs must contain information regarding background, justification and objectives of the study. The responsibility of the ERC is to ensure that the ICF is written in a manner that the research participant understands the research, especially the potential risks and benefits thus enabling him to make an informed decision [11].

In the absence of a separate and independent scientific review, it falls on the ERC to review the scientific aspects of the protocol as scientifically invalid research is unethical in that it exposes research subjects to risks without possible benefit [4]. Scientific review must consider the study design, including the provisions for avoiding or minimizing risk and for monitoring safety [4]. In our study, the protocol related issues (53.8%) that necessitated resubmission were mainly those related to study instruments and its translations (25.5%), methodology (19.1%), sample size calculations (12.8%) and risk benefit analysis (14.1%). These were seen in both clinical trial and other research protocols submitted to our ERC. However, information on management of adverse effects/events (57.1%) were seen more with clinical trial protocols while issues related to study instruments and their translations were more in other types of protocols.

An awareness of what may lead to delays in ERC approval would help researchers to plan their submission better. This includes paying attention to the protocol especially the methodology, to the informed consent process and preparing the information sheets and consent forms appropriately and other necessary documentation. Investigators should be aware that scientific and operational aspects of the study must be understood not only by review experts in that field of research, but also by reviewers from other research fields, and even reviewers who are not linked to the research but are members of the community [11]. Most of these can be easily corrected if attention is paid while preparing the protocol and necessary documentation [11]. Familiarity of ethical considerations by researchers is helpful when discussing the issues raised by the ERC and negotiating these with it [12].

The delays can also occur with the review process itself by the ERC. This could be due to the workload of ERC members who in nearly all instances would be providing an honorary service in addition to their usual work. Non-availability of the required expertise necessitating the project being sent to external reviewers is another potential cause for delay. ERCs should have mechanisms to minimize delays while providing a good quality and timely review. ERC FMS, USJ has a policy of resending the documents to the original primary reviewers if they are resubmitted for major modifications and a process of Chairperson's approval for minor modifications to reduce delays associated with the administrative process.

The average time taken by ERC, FMS USJ to grant approval for a project from the time of its submission was 2 meetings (57.9 days) inclusive of the average stop clock time of 23.4 days which is the time taken by the investigators to respond to ERC comments. In most instances a single resubmission addressing the issues of ERC was all that was needed for approval. The approval time was longer for clinical trial protocols which took an average of 3 meetings to reach a decision. Investigators of such trials would also take longer (average of 34.6 days) to respond to ERC's queries. This would necessitate the protocol to remain in the agenda for extra meetings without it being taken up for discussion. The ERC approval time can be further shortened if the investigators take note of the scientific and ethical issues when preparing their protocols.

Conclusions

Ethical analysis of a research project must be viewed as a fundamental and essential step by all those involved in conducting research involving both humans and animals. Researchers need to have greater awareness of the rights of individuals who participate in biomedical research, especially with regard to protecting the autonomy of participants and ensuring their safety and wellbeing. Greater understanding of research ethics by those conducting research would help to minimize delays associated with the ethics review process. The interactions between the researchers and ERC should be viewed positively by all involved to ensure that the research is conducted in a scientific and ethical manner.

Competing interests - CAW was Chairperson, SP was Secretary and RT and GW were administrative assistants of ERC, FMS USJ during the study period.
Authors' contributions – CAW proposed the initial conceptual framework for the research and were

responsible for overall conduct of the project. CAW, SP and RT and GW were involved in the protocol design, writing and editing the manuscript. CAW, SP and GW contributed to collection and analysis of data including the statistical analysis. CAW prepared the first draft and SP wrote the second draft. All authors were involved in subsequent editing and agreed on the final version.

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Whitehead's concept of the past as objective immortality with special reference to Tanabe's idea of world religion

- Makoto Ozaki, Ph.D.
Emeritus Professor, Sanyo Gakuen University, Japan
Email: orig57eter@orion.ocn.ne.jp

The Kyoto School philosopher Hajime Tanabe proposes a new idea of world religion in which Christianity, Japanese Buddhism and Marxism are to be unified in a dialectical way as the self-developmental synthesis in history in anticipation of the second religious reformation. It would probably be tenable in comparison to Hegel's idea of history in which abstract and implicit potentiality gradually comes to actuality, superseding each specific stage, until the unity of the whole is completely realized. Whereas for Hegel the Divine Spirit is the immanent agency operative throughout the progressive history, it is the task of human endeavor for Tanabe to construct such a project as unprecedented. How is this feasible? It might be highly productive of the actualization of potentiality to employ the Whiteheadian process which is composed of the subjective becoming for the future ideal and the objective being as the real potential inherited from the past with the view of the advance of human ideas. This piece may be tempted in adventure to open a novel phase of the hidden potential truth up to the actual reality as the Aristotelian *entelecheia*, suggesting the Hegelian Absolute as the effect or end qua the actualized beginning, in the event.

The past as Objective Immortality

With regard to Aristotle's distinction of actuality and potentiality, A.N. Whitehead makes a further distinction between pure potentiality and real potentiality in relation to actuality. While pure potentiality refers to the Platonic eternal ideas or universal forms, real potentiality is on the status of the past being which is no longer subjectively active but still remains the stubborn fact or given datum functioning as the efficient causation for the succeeding subjective actuality of becoming. For Whitehead, the past is never ascribed to nothingness but is rather immanent in the present as the objective immortality. For him, the world is composed of actual entities or occasions in succession of time which have the double structure of subject and object or superject in such a way that when the subjective act of becoming in the present completes and terminates its activity, it is negatively converted and turned out into the object as being without its own subjective immediacy. In other words, the past lives in the present with the vectorial transference to the future, and hence is still actual and active in the form of memory and causality for

producing a new creation. The imperishable or immortal past as the preservation of the actualized potentialities may in some way correspond to the Indo-Buddhist idea of *karma*, i.e., action and its potential power influencing the subsequent lives. For Whitehead, becoming is more primary than being in the sense of being as the product of a becoming, and it is the replacement of the traditional metaphysical concept of substance by endurance in supersession of time. Aristotle's analysis of becoming should be balanced by Whitehead's analysis of perishing which is the weakest point of modern philosophy as well. This might contribute to searching for a solution of the puzzled problems involved in the nascent world.

Whitehead says that actual entities perpetually perish subjectively, but are immortal objectively (PR). For him, time is perpetual perishing as well as perpetual arising of actual entities in supersession, and is irreversible and asymmetric in character orienting towards the future, without returning to its beginning. This is the cumulativeness of time, contrary to the Buddhist notion of cyclic time as symmetric and to Hegel's and Heidegger's ideas of the coincidence of the end and the beginning in such a way that at the end time is the beginning fully realized, or the return of the end time to its origin as the retrieval and repetition. The irreversibility of time arises from the objectification of the past in the present, the conformation of the present to the past as the completion.

The past is re-enacted and restored in the present with richness and depth in the direction of the future by reason of its objective immortality in the modes of memory and causation. The power of the past as the immortal potentiality may give rise to the errant cause as the irrational element by virtue of which any unforeseen accident may happen.

This is due to the fact that the potential past is still active and actual in the arising of the present event as its efficient causation. Tanabe refers this errant cause in Plato's idea of *khola*, i.e., space or place or the matrix of becoming in the *Timaeus* to the Buddhist notion of *karma* as the past potentiality. According to the Buddhist principle of non-duality of subject and object, human existence and its environmental world are viewed as correlative, or even the environmental world is effected by the human subjective action, in the depth of karma causality of action and its potential. This means that one should not be confined within one's own past causality but rather beyond it take action to reform the given actual world in conformity with the subjective aim of the ideal towards the future.

Historical Actuality

In the western metaphysical history, on the other, Aristotle emphasizes actuality vis-à-vis his mentor Plato's eternal ideas or universal forms transcending the actual imperfect world, and seeks for a unity of the opposed constituting factors of actuality and potentiality as complete reality, i.e., the so-called *entelecheia*. And this tendency towards actuality is taken into Hegel's philosophy as indicated by the famous phrase "what is rational is actual, and vice

versa". In this sense, his thought may be regarded as evolutional pantheism in the way of unfolding of the Absolute in history as its own self-manifestation in process, reaching the goal at the end of history in which the presupposed abstract beginning is fully realized. This thought may be reflective of the Christian idea of the Incarnation of God in history in the human form of Jesus which is also influenced by the Aristotelian immanence of form in matter or of potentiality in actuality.

Another modern German philosopher Heidegger, too, is in pursuit of returning to the historical origin of western type of thinking which is to be resumed as the second other beginning of a new era of history, concealed in the depth of the first beginning, i.e., the pre-Socratic age, at the eschatological present time, in preparation for the coming of the last and ultimate God. His expectation of the last God in the other beginning implies the second coming of Christ along with the realization of the Kingdom of God at the end of history in view of his earlier study of Christian theology, as his disciple Karl Löwith and others mention. The Christian idea of the Incarnation is the immanence of the transcendent God in the human world, and Hegel and Heidegger express this idea in terms of metaphysics as the secularized version of Christian theology. In fact, Heidegger interprets Aristotle's metaphysics, and it might not be denied that his thought is much influenced by the latter as well. Hereby it might be no surprise to find out some affinity in structure between Heidegger's idea of the last God and the Bodhisattva in anticipation of the eschatological era over 2000years after the historical Buddha's passing, which is predicted in the Lotus Sutra.

Inadequacy of Zen and Pure Land

In this regard, the Kyoto school philosopher Tanabe proposes a new synthesis of Japanese Buddhism, Christianity and Marxism from the dialectical perspective in that Japanese Buddhism, represented by Zen and Pure Land, which are devoid of the historical actuality, should be mediated by the historical character of Christianity and the Marxist socio-historical practice as well, and the mythological connotation of the Christian idea of personal God should be demythologized in terms of the Buddhist principle of Emptiness. Although Tanabe is much influenced by Zen and Pure Land Buddhism, nevertheless, he later on criticizes both of them for being devoid of the socio-historical actuality in such a way that Zen is devoid of social extension of practice due to its abstractness of sole one's own action and with respect to Pure Land the Amida Buddha as the Absolute Other saves human beings in the one-sided way without mediating human beings' own subjectivity and independency.

By the same token, the Japanese philosopher of law Tsuneo Hirano also points out the deficiencies of Zen and Pure Land in that Zen remains abstractness of sublation or abolishment of the historical actuality of the causal determinations into absoluteness and Pure

Land is involved in the direct redemption of this world's people by the other world's authority without historical actuality of the causal determinations on this side.

Another Marxist Kyoto School philosopher Jun Tosaka makes a criticism of Tanabe's philosophy as a kind of creative eclecticism or syncretism as well. Even if so, however, as Hegel also foresees the third religion which is neither Catholic nor Protestant, and Nietzsche declares that a new God has never appeared over 2000 years, Tanabe's insight may not be curious but rather profound in view of the historical development of religion on a world-wide scale. For the French thinker Jacques Attali, too, predicts the future fusion of the Christian view of linear time and the Buddhist view of cyclic time. Whitehead also says that philosophers have expressed the same idea differently. The American process theologian John Cobb also proposes a mutual transformation of Christianity and Buddhism from the Whiteheadian process perspective in favor of the Christian superiority of historical reality of Jesus as the Christ to the mythological Amida Buddha in the other world. If so, it might probably be cogent that the existing world religions are to be unified in the historical development of humankind, though in the immensely far future.

Dialectic

From the Whiteheadian perspective, since a new becoming of actuality arises from the existing actual world as the past potential data, a new form of creative advance occurs by mediating a diversity of the historical elements accumulated so far to a unity of concrescence of them at a higher stage of development. Tanabe's methodology of dialectic as the triadic logic of the genus or universality, the species on the particular level, and the individual is much influenced by Hegel's dialectic of negative mediation which bears a resemblance to the Buddhist principle of Emptiness perpetually emptying itself in the temporal process. Tanabe's grand project might implicitly reflect the second coming of Christ or the Bodhisattva in anticipation of the eschatological future in a metaphysical manner. So, Tanabe and Heidegger might be in agreement with each other in the expectation and preparation for the unseen God or Being à la Heidegger, or the Bodhisattva as the self-transformation of the eternal original Buddha hidden in the depth of history.

How is this related to Whitehead's concept of the past as objective immortality? A new actuality takes place in conformity of the past to the present together with the subjective aim; in other words, when the efficient causation and the final causation are unified with each other, a new actuality becomes in the present as a creative advance into novelty. This signifies that the past is mediated in and through negation to the present in which the past, in the lost mode of its immediate subjectivity, is turned out into and preserved as the objective being, i.e., superject (his own new term), in the succeeding higher stage of becoming of actuality mediated by the subjective aim. According to this scheme, the existing world religions

in the different cultural areas, Buddhism and Christianity, are to be mediated in negation to each other into a novel creation of actuality whereby both religions as the past continuous objective beings (the given data) are negated and still preserved as the inner constituent elements of a nascent actualization of the real potentialities transformed from the subject to the object. So, Tanabe's attempt at a dialectical unification of Buddhism and Christianity may be necessarily directed towards the ideal world religion in the sublated or lifted up mode in the creatively advancing process of history. As a result, it is not a mere mixing of the different religions but rather a new synthesis of the past beings in potentiality into a higher creative becoming of complete actuality as the self-realization of the real and pure potentialities in the concrescent novel origination of actuality lured by the subjective aim. Hereby it is obvious that the subjective aim plays the important role in the complete actualization of potentiality, and when the potentiality is fully realized, it is no other than what is meant by the Aristotelian concept of *entelecheia*, i.e. the perfect unity of the opposed elements of potentiality and actuality in the dynamic movement. Tanabe's ideal world religion as the postulate aims at a harmony to be attained in the future, though indefinitely remote for the present. Hereby might be seen his propensity for Kantian and Platonic idealism, contrary to Hegelian realism.

As a whole, it might be tenable that Christian theology and Heidegger's metaphysics as the secularized version of it are indicative of the messianic expectation from the apocalyptic perspective, and this may in some way correspond to the Bodhisattva in anticipation of the eschatological future of the post-the historical Buddha, as alluded in the Lotus Sutra.

Identity in Diversity

According to Eugen Fink, for Hegel Being is time as the process of producing its own moments in the self-movement of becoming and perishing, retaining itself in and through its changes as the subject as well as the substance. Even so, however, Fink points out that Hegel remains obscure in respect to the possibility of opening up of a new aeon of history. For Hegel, following the Aristotelian concept of *entelecheia*, the Absolute is nothing but actual being as the movement of activity participating in actuality. For Fink, however, it is almost impossible to tell in advance about the possibility of a new self-revelation of God or Being on the final stage of history with Hegel. According to Hegel, Being cannot remain as such but goes a step further to negate itself in the other form, differentiates itself into the multiplicity of forms, and then returns to itself as a unity of the outer appearance and the inner essence.

Process

In particular, for Whitehead the teleology of the universe is directed to the production of beauty as truth which is the conformation of appearance to reality, interweaving absoluteness upon relativity as the

realization of harmony, and the harmony of harmonies is peace as the self-completion of civilization. The past objective immortal being is reenacted in the present in unison with the subjective aim for the future. This may imply the return and repetition of the most archaic past or even the eternal original essence hidden in the depth of history upon the present free subjective action of realizing the ideal potential for the future purpose. The messianic expectation of the occurrence of Being as the last God or the coming Bodhisattva as the eternal Buddha in the transformed mode of being as a result of the self-emptied Emptiness in a cyclic way might be in resonance with the Whiteheadian conception of process.

For Whitehead, the process in which actual entities perpetually arise and perish with the vector direction of the future upon the accumulation of the past potentials does not end but goes on further endlessly; there is no eschatology in his system of thought, as compared to Christian theology, its metaphysical versions of Hegel and Heidegger, and Buddhology. In the Whiteheadian process there is no culminating point of the current of time, but ever and always increases the objective immortality of the past towards the future irreversibly in its asymmetric structure of time. Hence, the process theologian Lewis Ford asserts in respect of God's future activity in that God is everlastingly becoming and never in being, always subject, never object, always future, never present, never becoming past. This is the divergence of Whiteheadian thought from others mentioned as above. Even so, however, in order to avoid the involvement in the schematic logic of dialectic, it might be necessary for us to adapt the Whiteheadian idea to the Buddhist and Christian thought with the view of constructing a unification of them.

For Hegel, too, the history of philosophy is nothing but the self-unfolding of itself in historical process, the self-manifestation of the Absolute Spirit or Reason in history. This is because the Infinite can manifest itself in the finite regions, and the finites are the modes of the Infinite in space and time; there is no Absolute apart from the relative, no eternity without history. The Absolute as the Infinite exists in relation to the relative finite as the reciprocal relationship between the opposed. For Tanabe, eternity is to be manifested in the present in and through the mediation of human free subjective action as the self-realization of eternity in history. Even so, however, in Tanabe's viewpoint there is no line and direction to connect each present but simply a point in isolation without conjunction with other points in the form of continuity of discontinuity eventually due to his involvement with the Zen standpoint of one's own action as the self-power.

For Hegel, Being occurs as event, becomes actual in space and time of human existence; God as the subject becomes manifest and present in history, and history is the predicate. On the identity of time and being, for Picht, too, truth is not the truth of unchangeable being but the truth of changing time, and the appearance of the becoming present of the past. God's being is in becoming in the event of the

Incarnation in the human form, and this is the logic of Christology, as expounded by Eberhard Jüngel. This logical scheme, however, is not only relevant to Christianity but also to Buddhism as well in which the eternal original Buddha assumes a variety of forms and names in his immensely long journey of salvation history on a multi-universal scale beyond our planet, as elucidated in the Lotus Sutra. The eternal Buddha returns to himself in the primordial origin upon the self-completion of saving course and inaugurates his activity of salvation again ceaselessly. So, at issue is how to make both religions compatible with one another. In this regard, the Kyoto School philosophy is in need of further explication of accommodating them in a harmonic unity on account of its limited scope of the knowledge of Buddhist thought.

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A comparison of socio-cultural values in Japan and Iran based on social media communications

- Nader Ghotbi, MD, PhD
Professor, College and Graduate School of Asia Pacific Studies (APS), Ritsumeikan Asia Pacific University (APU), 1-1 Jumonjibaru, Beppu city, Oita 874-8577, Japan
Email: nader@apu.ac.jp

Abstract

The core sociocultural values of a nation may have a significant influence on the pace of its socioeconomic development and adaptation to a globalized community of nations. Max Weber was the first sociologist to conduct a comparative study of two belief systems and their impact on socioeconomic development. This study examines the social values of contemporary Iran in comparison with the developed nation of Japan to investigate whether there are meaningful differences that could be responsible for the shortcomings in the socioeconomic development of Iran. Besides the review of literature regarding core social values in both Iran and Japan, data was collected from Internet-based discussion forums run by a few hundred educated Iranians over a period of 8 months. Data was examined through a qualitative method to refine and update the findings in literature and through debates over the cultural aspect of social change in Iran in the years following the 1979 revolution. The study provides a cluster-based system for exploration of the core social values in Japan and Iran, and compares the typical Japanese and Iranian character prototypes. The discussion includes a description and an analysis of these values, and concludes that a number of traditional values in Iranian society including individualism and societal division particularly into religious (*mazhabi*) vs. national/ethnic classes may have played a role in the slow pace of

development in Iran

Introduction

The motivation for this paper came from the exchange of messages and other communication through Internet-based social media shared by hundreds of my university alumni, including a few friends and relatives, all living in Iran. During a period of 8 months, I realized a common preoccupation of this large group of Iranians, based on their observations of daily life in Iran, was that a gradual "*cultural decline*" had been in progress over the last 30 years. Because I grew up and lived in Iran till graduation and followed a career there for a few years before moving to Japan in my early 30's, I was familiar with many of the 'social changes', but some recent ones were surprising even to me. Therefore I decided to review a few already published papers on the subject, gather the group's observations, and use a sociological analytic method to describe, analyze and then explain the cultural aspects of social change in contemporary Iran in a way that helps with its understanding to anyone interested in this debate.

However, without a point of comparison, such a study would suffer from being one-sided, interpreted wrongly and would probably appear as a subjective stereotyping of Iranians and an attempt to connect a false cultural image to the myriad of 'socioeconomic' problems. Therefore I decided to use my familiarity with Japanese society and ethical values, related to my research career in Japan, by conducting a comparative study of core cultural values in contemporary Japanese vs. Iranian society to reveal their differences, as well as any similarities that Japanese social values have with Iranian values. A comparative method would thus help avoid unfettered stereotyping and non-deserved criticism, while demonstrating whether there were any significant differences in sociocultural values that could be associated with socioeconomic problems in Iran.

Before attempting an analysis, we need to review some basic concepts in sociology for our discussion and describe our main assumptions to help simplify the task. Values of a culture define what is desirable or considered good, right and/or worthwhile in that culture. The 'norms' in a society develop out of its cultural values. We assume that social behavior, including the norms of a society, is significantly influenced by sociocultural values that are learned directly and indirectly through living in a society. The 'core' values of a society are values that are commonly adhered to, or acknowledged as fundamental by most members of that society. It is assumed that these values influence social behavior and the norms of the society. Some of these values are so closely related to one another that they can be grouped as a 'cluster value', while others may contradict one another to some degree and appear as 'value contradictions'. This is different from another possible situation where the core values of a large number of people in a

society clash with the core values of another growing number of people supporting an opposing value. Such a situation is common during social change.

Max Weber (1864-1920) was probably the first sociologist to use cross-cultural material to examine social change and to explain how differences in social groups could affect their socioeconomic orientation. He realized that followers of the Catholic belief system would preserve their traditional way of life, while followers of the Protestant belief system searched for financial success. In a comparison of capitalism in Catholic and Protestant countries he showed that capitalism had flourished in the latter (Henslin, 2011). Here we adopt from Max Weber's theory in forming the hypothesis that a comparison of core social values between Iran and Japan may provide clues as to the radically different directions in socioeconomic development between the two nations. World Bank data (2014) show that Japan has the third largest GDP in the world (4.6 trillion US dollars) compared with Iran at 29th (415 billion US dollars).

After the 1979 revolution in Iran substituted the kingdom rule with an Islamic republic government, a social change started that has been promoting *shia* Islamic values in Iranian society ever since. Here we limit the study to the sociocultural aspect of change and exclude the political process so that we can have a sharper focus on the role of core 'cultural' values. It is worthwhile to note that 'ideal culture' refers to values and norms that are considered as ideal in a society while in reality many people may not follow and/or achieve them, hence 'real culture'. So perhaps one question this paper attempts to answer is whether the real culture in Iran conforms to its ideal culture. This will be further explained in the discussion part.

Methodology

This research is partly based on a review of the literature including published academic papers and books about Iranian society and cultural values (Beeman 1976; Hillman 1990; Bar 2004) and Japanese society and cultural values (Wierzbicka 1991; Yoshino 1992; Morishima 1982; Hofstede 1988; Soutar 1999; Davies 2002; Hendry 2012). Moreover, an analytical tool for qualitative research was used to examine information collected through Internet-based social media, as well as observations of Japanese and Iranian societies by the author and the focus group members, respectively. The analytical tool used was the "three- layer structural analysis" after Takao Takahashi (Takahashi 2011) who refined this method for use in ethics research after John Rawls (1921-2002) in "A Theory of Justice". The so-called "three-layer structure" in sociological research as used here refers to the fundamental or 'core values' as the 3rd level, the existing 'social directives' as the 2nd level, and the social 'norms' of behavior as the 1st level.

Figure 1 shows a scheme of the relationships between the three levels of analysis and where deductive, inductive and abductive reasoning is used in the course of analysis (Figure 1). Takahashi made a distinction between intrapersonal and interpersonal

reflective equilibrium; these processes represent the working out of data and information in the brain of a researcher (intrapersonal), vs. the analysis of the information among a group of researchers (interpersonal). Takahashi made the distinction following the work cited as "Reflective Equilibrium: Essays in Honor of Robert Heeger" edited by W. van der Burg, T. van Willigenburg (1998). He used deductive, inductive and abductive reasoning to position data in different layers of this structure, as seen in Figure 1.
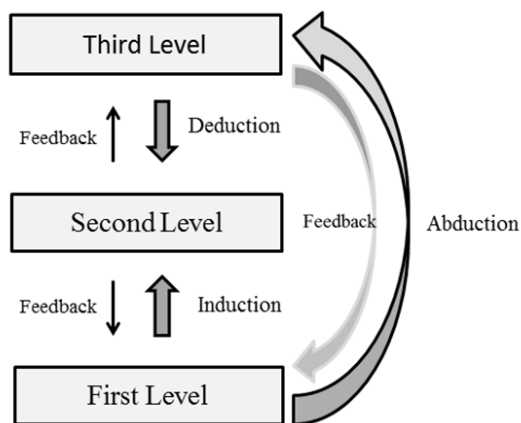
Figure 1: A scheme of "three-level structural analysis," after Takao Takahashi, showing the steps where deduction, induction and abduction are used, as well as the associated feedbacks. There are two pathways to identify the components at the 1st, 2nd, and 3rd level. One uses abduction (with feedback used as a check) between the 1st and 3rd levels, and the other uses induction and deduction between 1st and 2nd, and between 2nd and 3rd levels, respectively.

The data for the qualitative study was collected from social media during a period of 8 months from January to August 2015, with the participation of the author in Internet-based discussion forums where a few hundred Iranians participated in sociocultural discussions. A wide range of social issues were put forward for discussion; tentative hypotheses to help explain them were sought and formed step by step, using the three-layer structural analysis as the framework of research. Observations from the society (1st level) were used in abduction to reach a potential core value, and each value found in literature was traced to see if members of the society were observed or known to act (3rd level) according to it. These findings were double checked by the other path which uses induction to arrive from social norms (1st level) to social directives (the 2nd level) and uses deduction to trace core values (3rd level) to social directives (the 2nd level).

For example, the observation of "increased violence in Iranian society" at 1st level was correlated to the values of strength and bravery (*shoja-at*), zeal and honor (*gheyrat*) and emotionalism at the 3rd level. The social directive at the 2nd level would be: "vigorously fight a man who insults you and your family"; this was corroborated with the participants in social media.

Also, the observation of "cleanliness of public spaces despite a lack of garbage cans in Japanese cities" at 1st level was correlated with the value of "concern for the environment" at the 3rd level. The social directive at the 2nd level would be: "do not throw away garbage in public space"; this was also corroborated with Japanese subjects. Such a process was conducted for all the values listed in the two forthcoming tables.

To avoid biased criticism, negative attributes were not presumed to be sociocultural values. This aspect makes our study different from many critical writings which associate socioeconomic problems with negative cultural characteristics. Our approach has been different as we assume no society would promote a negative value; thus if a problem seems to be associated with a sociocultural attitude, it may be because of the 'lack' of a positive value, as compared with the other society where it exists, rather than existence of a 'negative' one. The comparative nature of our study between Iran and Japan facilitated this approach.

Findings

Although Iran and Japan are both located in Asia, they are culturally very different and it may be wrong to assume that they share an Eastern (as opposed to Western) characteristic. For the most part, Japanese society is quite secular, as opposed to the strong role of religion in Iranian society. Japanese people are also much more homogenous, as compared with the multiethnic society in Iran with a multitude of ethnic groups who share many values but also have their own different tunes. It is thus naïve to consider 'one' average Iranian prototype for comparison with the average Japanese prototype; for the purposes of this paper, we simplified the differences among Iranian people to the level of 'two' typical Iranian characters in order to examine their shared values and differences with those of a typical Japanese character. Also, for simplicity, we did not consider "gendered" characters in this study while we should acknowledge the existence of differences between values common to men and women, particularly in Iranian society. It is hoped that other studies look into the important gender issues especially in Iran.

Let's start by listing the core values of Japanese society. Table 1 shows a list of these values as well as clusters (A to F) that group some of them together. It should be noted that this table is not an attempt to stereotype the Japanese society but rather to recognize a series of (positive) sociocultural values that can then be compared with the core values of the Iranian society.

The typical Japanese character described in Table 1 usually behaves as a responsible member of the community and the society at large, tries not to stand out among others, controls his emotions to avoid direct confrontation, consults group members to reach a consensus decision, believes in fairness, and shows deep respect to the law and regulations in public and at work (cluster A). Values in cluster B imply that the Japanese prototype behaves politely towards everyone especially his/her seniors, shows

consideration to others by trying not to cause them any trouble, has friendly manners, says thank you when anybody does him a little favor, is apologetic whenever he feels others might be constrained because of him, does not show off and is humble especially to his seniors, and takes good care not to embarrass himself by wrong actions; many researchers (Befu 1990; Hendry 2012) have emphasized on the significance of feeling 'shame' which is more of an outward emotion compared with the feeling of 'guilt' which is more inward. It is also worth noting that some of the mentioned values involve a consideration of the hierarchical system of Japanese society.

Table 1- Values in Japanese society arranged in clusters (produced by author as explained in methodology)

A-1	Respect to social obligations & social conformity (collectivism)
A-2	Self-control (avoid confrontation)
A-3	Group conformity (seek consensus)
A-4	Concern for Fairness
A-5	Deep respect for law & regulations
B-1	Politeness and social manners (such as consideration for others, friendliness)
B-2	Gratitude
B-3	Ability to apologize
B-4	Modesty
B-5	Avoid shame & embarrassment
C-1	Honesty & seriousness (*majime*)
C-2	Effort (*gambari*) & hard work
C-3	Endurance (*gaman*)
C-4	Stay safe
D-1	Reliance on science & technology for betterment of life
D-2	Reliance on evidence & professional advice for decision-making
D-3	Concern for the (natural) environment
E-1	Individuality (have/keep/value one's unique features)
E-2	Respect to one's ancestors
F-1	Strive for health & physical fitness
F-2	Youthfulness

The next cluster (C) may be considered the 'work ethic' of the Japanese character. He is typically honest, follows his job seriously, shows a lot of effort at hard work, and endures difficult work conditions for a long time while paying particular attention to the safety of everyone including himself ("*safety is first*" as a Japanese motto).

Cluster D includes values that imply the roadmap to the development and betterment of society by relying on science and technology, relying on evidence for decision-making, and respecting the value of nature and its protection. Thus our Japanese prototype believes that using science and technology can help solve most problems, understands that decisions should be supported by (scientific) evidence and seeks the advice of professionals in each area, while trying not to disturb the nature and to keep the environment clean.

The individuality value in Cluster E may be seen as relatively contradictory to collectivism in Cluster A but in fact it helps reduce the pressure of collectivism in Japanese society by allowing people to enjoy a series of individual characteristics that can make one feel unique (Hoffmann 2000). Thus our Japanese character has a strong sense of his own individuality and believes such unique features can help differentiate him from others, features he has received from his line of ancestors and are in his blood. In other words, he commonly values being a unique individual at the personal level.

Finally cluster F is about the value of preserving one's health and fitness. The average Japanese emphasizes a healthy lifestyle with healthy food and exercise, appreciates youth and tries to preserve his stamina and appearance as he ages. The youth are seen as enjoying their best years of life, and are admired for their youth; people want to preserve youth by leading a healthier lifestyle. These cultural values have probably influenced the choice of universal healthcare through social-community coverage in Japan. On the other hand, this may underlie the common fear of getting old and losing social significance after retirement.

The common values of Iranian society are presented in Table 2; however, we propose two Iranian character "variants" that represent average prototypes that belong to two opposite sides of a spectrum with a wide range of characteristics in between. We thus describe two typical Iranian characters to grasp the wider heterogeneity of Iranian sociocultural styles of behavior; let's call them N for national (*melli*) and R for religious (*mazhabi*). We assume that social change after the 1979 revolution resulted in the demarcation of two typical Iranian characters that probably already existed but instead of moving closer over time gradually moved more apart. However, there are strong cultural similarities between the two which still bind them together. The main difference may appear as having a more religious/conservative character, but there are other differences including pursuing leisure vs. wealth, and using humor vs. a more serious appearance. Still, the two prototypes share many core values though they may apply them differently when adopting social norms that are influenced by these values. One observer said: "*the religious character colors the social and public activities of those who are defined as such.*"

It is not simple to define what religious (*mazhabi*) means in the Iranian context; the most common feature of this group is that they want to be identified as such! For this reason, physical appearance plays an important role such as by wearing a beard among men, the dress code (quite well defined for men and women), and manners of speech. Next in relative frequency, is the observance of *shia* Islam rituals, mourning customs, and following Islamic celebrations as well as visiting mosques for group prayers. Only next would be adherence to Islamic requirement of daily prayers and fasting in Ramadan, paying *zakat* and etc. Under the current political system, being

identified as *mazhabi* would be advantageous in respect with power connections and may also provide some extra protection and a higher chance of getting public and governmental employment.

The other group (N) would be identified by observing a relatively free dress code within limits of public, faithful observance of Iranian ancient celebrations such as *Nowruz* (the Iranian New Year), *Yalda*, *Mehregan*, and *Chahar-Shanbe Suri*, paying respect to national heroes, poets, novelists, etc., and enjoying Iranian music, singing and dance. This group simply identifies itself as non-religious (not *mazhabi*) even if they observe Islamic daily prayers and fast in Ramadan! Iranians with a strong ethnic affiliation (such as the Kurdish, etc.) are also included here. Table 2 summarizes the core values of the two typical characters in today's Iranian society.

Table 2- Values in Iranian society and the associated clusters (produced by author as explained in methodology)

	N(national) Prototype	R(religious) Prototype
A-1	Individualism, with some emphasis on relations with the extended family & close friends	
A-2	Stronger National (*melli*) or ethnic identity	Stronger Religious (*mazhabi*) identity
A-3	Loyalty to one's family and group, skepticism of 'others'	
B-1	Cleverness (*zerangi*) for success & achievement (outwitting others)	
B-2	Pragmatism (practical rationalism)	
B-3	Sophistication (through formal or self-education)	
B-4	Iranian etiquette in speech called *taarof* (pleasantry)	
C-1	Bravery & strength (*shoja-at*)	
C-2	Zeal & honor (*gheyrat*)	
C-3	Emotionalism (rage, sadness, sensitivity to insult, …)	
C-4	Frequent use of humor (playful & fun-loving)	Conservative (more serious, less humor)
D-1	Concern with material comfort: More inclined to pursue leisure	More inclined to increase wealth
D-2	Aestheticism (beauty, art, poetry, ...)	
E-1	Valuing friendship and its code (*marefat, maram*)	
E-2	Hospitality to guests (*mehman-navazi*)	
E-3	Altruism and assistance to the poor and needy (*kar-e kheyr*)	

The two typical Iranian characters, N and R prototypes, both firmly prioritize their individual wants and needs, and consider themselves, their immediate and extended family and a few close groups they associate with as having priority over the rest. They highly value family relations and demonstrate a lot of respect to their closest relatives. The two prototypes of N and R both value loyalty to the groups they are close

to, and may be skeptic of other groups. However, prototype N is less religious and considers his nationality or ethnicity to be a more significant factor in defining who he is, while R has a relatively stronger religious (*mazhabi*) identity in which certain religious characteristics are as significant as, or even more important than, national/ethnic characteristics. Thus by being identified differently, they may already feel somehow skeptic towards one another and may have reservations on whether they can get along in a shared project. Indeed, some groups have tried to bridge the gap by calling themselves *melli-mazhabi*, but they risk coming under the suspicion of both main groups! In summary, Cluster A shows the strong role of individualism in Iranian society plus familial (as well as small group) bonds that grow around it. However, a considerable amount of skepticism and suspicion of others exists that may complicate cooperation and solidarity. The stronger the loyalty to one's bonded group is, the more skepticism towards others may be expected. In a sense, people may 'envy' to see close relations of one of their members to another group.

Cluster B defines a series of values common to most Iranians; they believe in using various strategies to outwit others (called *zerangi*) in order to succeed in life, and are quite pragmatic about it (Bar 2004). This implies that the purpose of behavior can be more important than the actions composing the behavior. Therefore they may rationalize unfair actions to other groups as necessary and justified; these may include a certain amount of trickery and deception, such as "white lies". However, people must demonstrate a sort of 'sophistication' in how they commit themselves to their purpose and avoid acting in a lame manner (Hillman 1990). When dealing with others in social situations, this requires following a unique Iranian etiquette called *taarof* (pleasantry); it is an exaggerated form of nicety in manners that would be taken with a grain of salt by a wise listener who may respond only with more of the same etiquette!

Cluster C includes a number of values that are in relative contradiction to the previous cluster (B). The two Iranian prototypes both value strength and bravery (*shoja-at*) to the point that safety, reason and manners may all be sacrificed. They also value a unique code of zeal and honor (*gheyrat*) though it may mean different things to different people. Prototype N, for example, may find it honorable to do sacrifice for the sake of one's family or nation while prototype R may put considerable value on religious symbols especially protecting the chastity and innocence of women in their family or group. People in both groups may act quite stubbornly (*ta-assob*) and show strict adhesion/resilience in changing their position. Doing so, Iranians commonly express strong emotions that they barely try to control, such as rage, anger and sensitivity to insult. The N prototype however may have a happier mood compared with R. The N prototype shows more desire to fun activities and commonly uses humor (*shukh, shukhi*) in his vision of life and in speech, while the R prototype is more serious-looking and conservative; in extreme

situations, one may describe N as acting like a maniac while R appears as suffering from depression.

Cluster D describes the interest of both of our Iranian characters in "material comfort" with this difference that the N prototype is especially on a pursuit of leisure while the R prototype is more conservative and may seek more comfort in accumulating wealth/property. They both appreciate beauty such as in art, poetry and music; however, the R prototype may limit the vision of beauty to more conservative forms such as mystic poetry and traditional music without female singers. However, the N character enjoys working on the beauty of appearance including fashion, and shows an appreciation for art including traditional and modern music and dance.

Cluster E describes the very warm and sympathetic values common to most Iranians. They value friendship and have close friends who observe a strong code of support and assistance (*marefat, maram*), warmly welcome even strangers as guest to their home (*mehman-navazi*) and commonly engage in altruistic donations, financial aid and assistance with the needs of those who seek help (*kar-e kheyr*).

In spite of all the differences existing between the N and R prototypes (and the two spectrums of Iranian characters they represent), there is no constant clash between them. It appears as they are well familiar with one another and have accepted the reality of life under one banner. Although they may sometimes try to compete by pushing their community in one direction or the other, there are also many instances that they show an appreciation for the opposing norm as long as it helps avoid a direct confrontation. Still many find the existing differences in values too big for true reconciliation and usually stay away in separate groups.

Discussion

A comparison of the listed core values between Japanese and Iranian society in Tables 1 and 2 demonstrates the lack of certain key values in each of the two compared with the other, as well as a few opposing values, most importantly collectivism in Japanese society vs. individualism in Iranian society. In the context of our paper, we especially differentiate whether a typical individual demonstrates in his/her behavior a priority for group goals over his/her individual goals, or vice versa. Let's analyze some of the observed differences between the two and the potential impact and implication for the whole society.

The first observation is the dominance of collectivism in Japan versus individualism in Iran. Iranians have traditionally been known as especially loyal to their family (as a social group); however, this has been changing with the changing form and size of the families in recent times and their breakup into smaller units because of millions of people who migrated to larger cities or to abroad. The Japanese, however, commonly emphasize on the goals of the larger groups they are a member of, whether at work, in the community they live in, and in the wider society and nation that they strongly associate themselves with.

The implications of this difference for economic development are not too hard to elaborate.

Moreover, Iranians are not as homogenous as the Japanese; we limited the wide variety of typical Iranian characters into two common prototypes to simplify our comparison. The size of a truly secular population inside Iran is still limited but a large population of non-religious Iranians commonly identify themselves as nationalist (*melli* or *mihan-parast*) or ethnic centered (especially common among Kurdish and Azeri people). However, those identifying themselves as religious (*mazhabi*) have the wider support of the government as compared with nationalists or the ethnic-centered. This situation may especially intensify the rivalry between the two sides and/or obstruct their cooperation; people from both sides sometimes try to reduce friction by softening their stance "in public" and inclining towards the middle. Although this tactic helps avoid a direct clash, it may also aggravate the existing skepticism to others because in the start of a negotiation, people are sure of the true affiliation of a person they do not know, and thus it takes a long time to acquire somebody' trust. Some people may tend to only trust and work well with those who they already know well, such as their relatives. This situation leads to nepotism which is a very common observation in Iran. On the other hand, Japanese society can benefit from values in its B cluster to increase cooperation between all members of the society, though the hierarchical system in Japan puts some pressure on less senior members to conform and give in to the demands of more senior members. Iranians, however, depend on their unique etiquette in manners (*taarof*) which although nice is mostly skin-deep and cannot prevent from rivalry, infighting and enmity when a conflict exists.

Another significant difference is the lack of a strong work ethic in Iranian society as compared with Japanese society (cluster C). In fact, values in cluster B of Iranian society include cleverness and outwitting (*zerangi*) which may imply the value of success with less effort. A person who tries very hard to earn a living may be considered as "less clever" and a person who can outwit others and succeed with the least amount of physical effort may be considered as "cleverer".

The Iranian values in cluster C as well as individualism itself may provide a source of pride and motivation for individual growth. However, the excessive use of these values in the context of an already existing skepticism, heterogeneity, and pragmatic competition centered on outwitting rivals cannot be helpful for the growth of the society as a whole. There are also certain disadvantages such as the higher rates of social violence in Iranian society associated with emotionalism and a strong sense of personal or family honor. In comparison, Japanese society shows a significant value for controlling one's emotions to reduce confrontation. Thus Japanese society values encourage cooperation.

Likewise, the "lack" of strong values in Iranian society similar to those in Japanese clusters D, E and

F may explain the weak pace of economic development in Iran despite having rich natural resources; the assignment of related but unqualified people in sensitive positions in policy-making, etc. which has led to mismanagement at the industry; a significantly higher incidence/prevalence of death, illness and injuries among Iranians because of unhealthy lifestyles such as risky driving; and higher levels of environmental degradation and overuse of natural resources to the point that the natural environment and water resources in Iran are currently at critical levels.

Values in Iranian Cluster E are probably the nicest qualities that foreigners travelling to Iran recognize among Iranians. Also, Iranians in general show significant solidarity to the poor, the needy, and people who they feel are oppressed. They also develop warm friendships that may last a long time. There are a lot of observations to support the strength of these values among Iranians; from common low interest loan systems and charity donations to the poor, to tourism hospitality and personal sacrifice there exists so much among Iranian people, which is not observed commonly within the Japanese society, in comparison.

Iranians, however, do not demonstrate the strong sense of individuality that can be observed among the Japanese. An observation was the huge interest in cosmetic surgery among Iranians to acquire the 'same' beauty that others have; however, the stronger sense of individuality existing among the Japanese discourages them from losing their unique qualities. Many Iranians do not attempt to preserve their own unique form and instead, they "envy" the beauty of others and want to become like them.

Reviewing the turbulent history of Iran and its conquest over the centuries by many armies including the Greek, Arabs, Turks and Mongolians, one may suggest that many of the existing social values could have evolved as a response to invasion or an attempt to adapt to life under the ruling armies. However, it can be debated that this traditional system of values (Beeman 1976) is no longer helpful in the modern era when Iranians need to cooperate with one another and be less skeptic about relations with other nations.

One of the strong influences remaining after the Islamic conquest of Iran is the religious affiliation which has been further reinforced under the more recent Islamic republic government. While the government has been busy promoting *Shia* Islam to its people, the promotion of other values such as a strong work ethic, observance of law, reliance on science and evidence-based decision-making, respect to environment and etc. has not received due attention and support. The currently increasing rates of social problems in Iran can be ascribed to many factors including the pressure of economic sanctions, mismanagement by the ruling government, lack of agreement between traditional socioeconomic practices and modern economics, increasing urbanization, and overcrowding of the cities. However, we believe that the comparative lack of certain sociocultural values among Iranians plays a significant role in slowing the pace of socioeconomic development. This relative lack of positive values, as compared with Japanese society, may act primarily through channeling the human resources away from constructive social development and rather on individual goals. Following individual (or limited group) goals does not help overcome the existing barriers in societal cooperation based on fairness, rule of the law, and improved management of national resources by the experts.

Fortunately, the increasing usage of Internet-based social media in Iran by a growing number of people and the younger generation may provide a means for Iranians to engage in discussions over social issues whereby they may get to know each other better, find trust, and organize shared activities that may improve solidarity and cooperation in the nation and thus to a stronger socioeconomic development in the future.

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"Is dialogue possible with Islam?"

- Osama Rajkhan[1]
Saudi Arabia
Email: osamarajkhan@gmail.com

It depends on who is talking to them. I would like to invite you to read this anecdotal experience to explain why.

I celebrated the Millennial New Year with an American friend from work in Phuket. He had just finished a two year stint on board of a nuclear submarine in the service of the US Navy and joined the UN System in Bangkok. I, a citizen of Saudi Arabia, had been recently transferred on promotion from the UN High Commissioner for Human Rights in Geneva to assume the functions of the Programme Management Officer at the UN Economic and Social Commission for Asia and the Pacific in the same city. We both left friends and loved ones behind to move to Bangkok and the pain of distance was made that more intense with the approaching holiday season, so we felt maybe we should try something different to distract ourselves from missing girlfriends back home and heart breaks. The healthy adult response in such a situation is to reach for support from others, and so we decided to spend the holiday together.

The ensuing adventure beat the pain of loneliness. When we arrived in Phuket the sky was clear and it was almost sunset, befitting the resort we chose as it was also called Sunset Resort. The transfer from the airport was smooth and I was listening to my favorite song by Heart "let me go crazy on you" on the headphone set when I was the hotel's counter, and at that instant, the artist sang, "whatchya gonna do," and my heart lept forward and started beating faster; my imagination soared as I thought of what we were going to do now that we are here, and the sight of the sea and smell of the breaze wafting across the lobby sent heart-warming shivers through me. "I love this place." "Whatchya gonna do?" There was nothing left to do now other than the obvious. We checked in, changed and went out and hired an electric golf-cart to take us to dinner at a cliff-side fancy restaurant overlooking the beach. The view, the company, and the conversation over dinner made our ordinary concerns disappear in the midst of the moment. Life just couldn't get better than that, the things off the view of the naked eye –

loved ones, family issues, work, even identities – seemed to burn.

We were just a couple of young men looking for fun and building new friendships, maybe even laying some roots if the circumstances were right, in a new country that would be our home for some years to come. At the restaurant the waiter asked us if we had reservations and at once both of us looked to the sea. He looks at us in anguish and escorts us to a white clothed table with a red candle glass in the centre. "We are doing alright," I said to myself as we sat down. It might as well be summer in the northern hemisphere. Doo-wap, we went with heart bruises and now the view from the table felt like the soothing balm the doctor ordered. With eyes pinned on the waves in the distance, our dinner conversation began and in time covered many areas of the living – from girls to geography and from successes to disappointments in life to movies and novels – and when we arrived to the topic of beach reading material , like the latest publications and novels, which most travelers carry to their destinations, much to our surprise and delight, we learned that we both brought books that essentially dealt with politics, in his case it was Samuel Huntington's "Clash of Civilization" and "War and Peace" by the Russian author, Leo Tolstoy, in mine. What followed was a 3-hour stimulating conversation that took us unnoticeably to midnight. We were both educated and skilled so this was more than a conversation: it was more like a chain of reactions to the arguments that humanity handled during difficult transitions in time and how it stayed connected under the strain and stress of fear and boredom while seeking redemption. Our discussion stayed away from the familiar "official" angles of "republican" vs. "democrat" positions and instead teased out the philosophical assumptions people make in everyday life and what they saw as true or fiction.

We both grew up in the liberal and democratic West where the individual was considered supreme, and pretty much trusted in the West's righteousness not only in terms of its virtues but also culture of freedom of choice. American pop-culture was the foundation and spring board that shaped our outlook on life. Our work at the United Nations was essentially about spreading this outlook on human freedom, to include all people though (not just the smug), from the constraints of nature and society. This was understood as a necessary condition to ensure everyone had their own space on the map and could pursue their own aspirations in due time. Choice is what mattered in the end. That's what we thought. But freedom can take a long time to build.

Brendon (not his real name), understood this and gave his attitude a certain tincture epitomized by what he told me: he lives by the credo of "high discrimination, high survival chance." He shared this point about half way through the evening, unexpectedly. Having spent close to six years working as a Human Rights Officer in Geneva, that reply struck me as a bit odd. Understanding difference and similarities fascinated me ever since high school

biology so I asked him with an open mind why he felt discrimination was a "good" thing to live by as he put it. Decisions are made every moment in an instant, he explained, and like in a football match, you have to quickly run with the ball, pass it, tackle, or you will go down. He saw life as football game; a struggle between two teams for survival and glory. And here is where we differed. I also saw life as a struggle for success too but for me the losers in the confrontation needed consolation to pave the way for their re-integration (not isolation) in recognition of their human right to exist in dignity and diversity and let a market-like model decide what is best for achieving their well-being. In other words, the looser was not the enemy; in fact there is no enemy – that is just an abstract of the mind people like to imagine to simplify the complexity of real life. I felt strongly about this also because I wanted to be consistent with the idea of individual supremacy. In the Kantian tradition, which permeated my work as a human rights Officer, the idea that individualism was sacred meant seeking the consent of the person in all aspects of life before making any implicit or explicit judgments about what is best for them and that's how the system can guarantee everyone's free will. Kant believed in free will, but not Nietzsche; he saw humans as prisoners of genetic and environmental determinism.

My friend was more Nietzschean, believing that we are all hard wired by our respective cultures and that free will was an illusion, a nice idea but not real, a view he explained so poignantly that prompted me to decide to read Nietzsche's philosophy when I got back to Bangkok. Then I asked him what he thought about Hiesenburg's quantum observation, upon which many liberals rested their arguments for free will. "That was a tiny effect," he replied and, it was a rare thing, as the rarefied habitats of the jet set. The rest of us are enslaved to our backgrounds and only with extraordinary effort and high-energy can a man or woman escape the warp of determinism. So do we give up on development I said? Do we give up on making people come first? No, we just need to understand that if someone wants to fly, then there are walls to be climbed over, mountains to be scaled, and a lot of heartbreaks along the way. Look at America's history: it wasn't built in a day. So is there room for Kant's ideas today. I mean, where does liberalism stand in the world today? The State is the dominant player on the field, he said, which was also my understanding, and added that the liberal tradition was antithetical to the notion of the State, which is political. Liberalism tries to constraint the actions of the State, even aiming to abolish it; politics is founded on the idea of conflict, the constant duality of friends and foes, allies and enemies. When war breaks out, he said, you cannot be a liberal, watching from the side and doing nothing: you quickly get to know yourself and take sides, the side of the State. It's like being in a storm, debris can hit you in the head and the wind can lift you and throw you on a deadly pile of unknowns, and you will go down to the ground, like a football on the football field if you lost it when you hit that breakdown wall. In a storm, you need to decide what is safe and what is not, and that required a high capacity for discrimination. And this is why he believed the human capacity of discrimination was good and must be cherished as it had survival value in difficult times.

For him, different cultures are like different football teams, their game is essentially about a struggle for survival, and when it came to Islam, a culture currently devoid of the liberal tradition that prevailed in the West after enlightenment, and disappeared from its domain around the same time (circa 15th century), one could only assume that they are essentially dealing with a people hard determined to pursue a way of life that is different than that in the West, and with affinity dissolving into phonetic claims of peace and tolerance, obscurity and darkness can only lead to a clash of civilizations, and indeed a clash reared its ugly head like a medusa in the form of oil wars in the 1970s.

"Sure," I said, it maybe that 20 years ago commitment to development at the United Nations to reduce the wretchedness of the people of the third world helped push developed countries to transfer more of their wealth over but the three main players of the world system appear to be playing for each other, not against one another as in the football match. "How so," he asked?

His question jotted my memory back to the dreaded gas lines on Sunset Boulevard in Hollywood during the second oil shock on 1979. The inconvenience was dramatic -- that's actually when the thought of commuting to college by bicycle first entered my youth's mind as I spent up to two hours in line every morning before going to class. That's also when I started taking novels to read in the car to kill the agony of the wait. But, in retrospect, it seemed that was an aberration – a freak accident in the history of international relations because in reality things were not so disjointed and distressed; our leaders worked hard to make our world, our cities, our families and ourselves safer and better. Besides, no government wants to govern over consenting poor people because stately governments who live with a lot of poor people must dread and hate poverty.

Fast forward and I explained that during my post graduate studies at Arizona State University (1990), I found the Wallersteinean school of thought in international economics best explained my understanding of the world back then. Immanuel Wallerstein viewed the world as a triangular system of a division of labor and power consisting of core, semi-peripheral and peripheral countries with a high degree of cooperation and coordination between them, in spite of their ideological differences. At the time, three theoretical approaches prevailed in the study of international politics and economics at my university: conservative, liberal, and revolutionary. The conservative school was premised on the status-quo argument that saw life as comprising harmonious cycles of repetition that preserved (not changed) the order of things. By contrast, the liberal view was centered on the idea of evolutionary change that was

driven by human innovation and eventually leading to total freedom from the deterministic shackles of life. The revolutionary school believed the internal contradictions of any system will eventually produce a crisis and lead to its transformation - or worse, overthrow and replacement.

It is perhaps that religions best capture the essence of the conservative school and feel enraged when challenged believing that things ought to stay unchanged. Conversely, the market philosophy is more or less grounded in the liberal school of thought and thus, is predisposed to pursue freedom of choice and individualism. And as for the revolutionary school, at the heart of it's framework of reference of the view of the world system is the myriad of human issues related to poverty and environmental degradation brought about by globalization and hence, for this view society takes precedent over the individual because in the end it's all about a class-struggle between the haves and haves not. This was just a rough comparison between the three world views and notwithstanding their differences, it might be worth noting that both the conservative and liberal views agree that the State is the most important actor in world politics, not the individual nor society, and thus, coordination, cooperation, and communication between the organs of the States were vital for continuity and self-perpetuation.

In his counter reply, he said indeed coordination is what separates the few from the majority. However, because information communication was still problematic in the world, with quality information about the intentions of other countries extremely difficult to acquire, there is a limit to loyalty and besides, people can move from one country to another but rarely shift their world views of how things work. So even when wealth was transferred from the West to the developing countries, these countries quickly realized that to keep things smooth with their people, they knew things had to live up to the standards set by their culture and religion – in the case of Islam, it meant their leaders had to demonstrate their Islamic credentials at every turn and that meant using and creating only convincing images that in most cases have nothing to do with the underlying reality of their social situation or the world at large. As the realist he was, he added that in politics, it is easier for leaders to give the appearance that the development problems of their countries had been solved by focusing on those images that create comfort in the minds and hearts of the public rather than actually solving them. This maybe a very effective way to create consensus internally but not between countries in international settings because while these much desired transfers of wealth and technology can bring about certain comforts, as he said, there are limits. And thus, a clash is only inevitable and peace unlikely, he thought.

In retrospection, I can definitely see some merit to his argument. I mean the flow of petrodollars in the 1970s did prompt Islamic scholars of all colors and shades in every Muslim country to quickly remind -- and insist -- the rulers about their social duty toward

the public, and in so doing, produced very rich literature accounts on what they deemed as necessary for a just distribution of this newly acquired wealth, even demanding that the rulers share it with the public and other Muslim countries equally. The strategies devised by these Islamic scholars slowly but surely led to an unprecedented "islamization process of Islam" that swept throughout the Muslim world, contaminating urban as rural areas, replacing secularism with faith in "Allah" and in the span of 30 years gave birth to an Islamic middle class that accessed the spoils of science and technology but in practice remained somewhat true to its traditional faith. I remember mainstream media playing a dramatizing and major role in this planned transformation. This I believe pushed a religious consciousness to become permanently seated in the realm of the self (nafs or ruh, in Arabic or psyche, in English). For example, the Minister of Haj in Indonesia went on public television advising "good" women to wear the *hijab* in public and read the Kuran at home, and constitutions were changed by replacing references to secularism with faith in God. The use of the word "Allah" was as a salutation became the norm. In no time, once the decision was made, all media outlets participated and helped governments mobilize public opinion to represent and mainstream this change in the 1970s. Their role was tremendous. Indeed, the skill and speed by wish this change was made in the span of a few years marked the ability of changing public attitudes with a convincing new version of "reality," no matter how artificial or far removed from the fact. Brendon said what happened in Islam in the 1970s was akin to what former Secretary of State Dean Acheson said once to his staff, the job of public officers was to make their points "clearer than truth". Brendon was very well informed about clear politics, I felt.

Thus, the point was that the middle class in Islam did not emerge organically or spontaneously from the ashes of a couple of centuries of violent struggles between science and religion, feudalism and the market, and collective interests against individual rights that in the end created a middle class in the west, and led to the emergence of a new set of values and virtues that were compatible with the demands of science and protected by a social contract, the rule of law and engagement, and human rights in society. In the absence of this hard-won social structural transformational tradition, a person in other cultures, like Islam, has clearly arrived in this post-modern world of globalization with no free will, no freedom of choice, and therefore no choice but to fall back on their inherited social customs and beliefs to protect his survival when the storm breaks out, so to speak. Storms clear the ambiguity. If he or she chose individualism, like many in the west would in the face of life challenging decisions, he or she would not make it much less the group, and thus notions of human rights and the rule of law will be rendered meaningless in their society, or obscure at best, if not dangerous, Brendon explained. That's discrimination at work.

This is not to say that the Western tradition of liberalism is "bad" for the Islamic people, he added; its only to say that the Western liberal tradition of freedom of choice and responsibility does not fit all other cultures: it is uniquely and contextually Western and the others will likely revert back to tribal ways and their old religions believing they are acting to protect themselves and their heritage from extinction when they clash with the west in the end.

Wow, I mused! "So you believe the world is heading towards conservatism in the early 21st century," I said, if I recall correctly. Does this mean that we will see the rejection of mechanistic approaches to fix social problems, the return of the family and heavy-handed security measures by the State, and property rights? Well, he started saying, in a football match no one is entirely innocent. Everyone causes some social injury to somebody. If you had to choose between defending a teammate in a clash with the others, no matter how justified they are, you're not going to stay on the sidelines and watch. That's just what you do. You don't follow untested ideas or passions; you don't go off the beaten track, that's what inexperienced youth travelers do. If you want to look at a tree in the jungle, he smirked, "here, look at this tree," and pointed out one next to our table, "they're all the same."

At that point, a couple of young tourists arrived to the restaurant and were seated next to us by the waiter, and I looked at them wondering if the path they'd taken to get here was a familiar one or the unbeaten one Brendon alluded to. The next thing I heard jazz music coming from the corner by the edge of the bar area overlooking the bay, and we both turned towards the band. A frail looking African man played a huge cello with a beautiful Philippina who sang standing next to him. The waiters were going back and fro between the tables serving clients, and one of them sang along as he brought two plates of salmon and asparagus to the table next to us. The restaurant became lively at that instant and for a moment I had a flash of clarity – so I took a sip from my glass of a local fruit mix decorated with an umbrella and a slice of pineapple, and tried to hurtle through the theories and concepts I have learned in college for ammunition but all I saw in my mind was college football matches, one stood out in particular; it was a hard-fought and exciting game between ASU and the University of Arizona played at the ASU stadium in Phoenix that was followed by a great open-field barbeque and a lot of pitchers of Budweiser beer. I look back in happiness on that experience, the cheers of the crowds and the joyful buzz in the air that was characteristic of sports and academia in America.

I felt even better after I took another sip and I look at Brendon now and say, Ok, "you think a clash between the West and Islam is in the works and since friction is most intense along the lines of contact, the Levant will be the place of the fight. He nods his head in agreement. I continue. Both sides will keep their eyes on the trophy at the end of the fight, because that's why two teams clash in a football match as you said.

Agree. So who do you think will get the hardware in the end? "It depends on how many touchdowns you win," he answered. "If everything you do is gold, victory is guaranteed." "Does victory means God is on your side," I asked. "Yes, many people of a religious mind will understand that victory in battle is God's signature on his message, and thus approval."

At that stage in this incredible conversation (why I love hanging out with smart people) my ears heard what could be interpreted as a common ground between both sides, I thought at the time. "Brendon," I said. Please consider this. Muslims, like Christians [and Jews], believe in angels and miracles, and although their understanding of their sacred books have changed over time as science pretty much posed serious questions about the veracity of such a belief, both still believe angels can appear and miracles can happen in a moment of need, and especially on a battle field; the English vs. the Spanish Armada, Saladin vs. the Crusades, to mention a couple of desperate situations that seemed miraculous to observers at the time for their incredible results. Obviously, "victory" in both cases was perceived according to the epistemology or ontology of the day. This means Muslims and Christians today will rely on their respective experiences and presuppositions when they assess what victory means. Can both Muslim and Christian observers look for "inter-universals" to overcome the social and cognitive boundaries that define them to enable better communication with their respective followers?

Good question, Brendon said. His response was based on the idea that many Christians today understand that the language of the Bible is merely symbolic of life's experiences (not a literal representation of phenomenology). For Muslims, on the other hand, religion is a living discipline that enables humans to experience what "good and moral" means in social and economic interaction with others.

Back then, many people would ask me whether or not a living tradition was better than a dead one, so I had just started studying quantum theories and feelings, and so I told Brendon that most of us believe and agree that making people feel comfortable in life is the "good-and-moral" thing to do, that's what technology and innovation are all about, to make people more comfortable. This means the good-and-moral are two mentally perceived virtues that hover above knowledge production and thus, can be reduced to physical phenomena, it is believed today, though from recent findings in the neurobiology of the brain, some scientists think that the "qualitative characters of such an experience"[2] are not so reducible. That is because some aspects of our experience are subjective. For example, what the color yellow feels like to you may be different than what it means to me. We can both agree that what we are seeing is the color yellow but, its meaning for us can differ. Why

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[2] See Jaegwon Kim, "The Mind-Body Problem at Century's Turn," in The Future for Philosophy, Brian Leiter, editor, 2006.

does this difference exist between us even though the source of the information is the same?

A lot has happened in the 16 years since that amazing dinner conversation in Phuket with Brendon. Science has given us many answers to questions about why humans consciously or even sub-consciously discriminate. Answering this question is currently the target of very interesting neurobiological research trying to understand, for instance, how the receptors on the retina of the eyes process environmental information and investigate how the wiring of the brain interprets the information to produce survival-enhancing knowledge. Once we understand the mechanisms, we can be then be in a better position to tell if the "facts" inform anything new about the world or merely produced by people to lend credibility to particular social ends. Until then, this qualitative difference will probably continue to problematize communication with the public in both camps because all processes of evaluating choices and making decisions are placed in interpretive frameworks that filter knowledge on the basis of epistemic presumptions to give them an ironed look (not wrinkled).

Therefore, to counter this conundrum I would argue for the gradual decolonization of knowledge to remove the lid of the jar that contains our implicit judgments so we have a better idea of which "facts" to take seriously and which to ignore when solving a crisis. For example, Mr. Donald Trump the President-elect of the United States, i.e., of the world, is in favor of deregulating the US market with likely scornful world-wide implications that can potentially affect everyone of us where it matters, our wallets, maybe even our sex lives. I have yet to hear Gloria Steinem's reaction but I wonder, like many people here in Bangkok, if this is wither economics that will make many trading countries in the Pacific rim feel like a fox with its tail caught in a thorny bush or good for everyone as it reflects the spirit of the age? Regardless, this means it's high time that we all need to work better to feel better and the smart use of knowledge can be crucial for understanding things like empowerment, agency, and freedom of choice today.

In a world that is equally dedicated to the pursuit of religion and science, a smarter way of using knowledge also means we recognize that mental phenomena are not always experiential; i.e. physical; sometimes it is self-produced on the basis of deduction but sometimes it's not: a man of science my understand knowledge that is not, that is mysterious, as paranormal, extra-sensory perception, but a religious person will most likely say it was given by god. Thus, a man of science would say we live in a man-made world. A man of faith, on the other hand, would claim it's a god-made world.

So, if this is a valid and reliable dichotomy, and if you agree that all humans are conscious beings, then perhaps both Muslims and others could consider human experience as a powerful source of learning, philosophical reflections and debate, and dialogue, not just in relation to angels and miracles in the battle field but all aspects of life, material and spiritual. If so, is it then possible to look for a common and verified experience that both have interpreted similarly in its epistemic dimensions that can be used to authenticate a message from scripture or science that both sides consider as decisive that coheres with both traditions to launch a dialogue about common grounds (theoretical and practical)?

Therefore, to get back to the original question, "is dialogue possible with Islam", for a more nuanced answer, instead of diving with the sharks, good manners would require us to first try to understand whether or not the experiences of a people, like the ones alluded to in the anecdote above, and their contemporary epistemic meaning, are perceived as self-deduced or god-induced. It is important to understand the interplay between these two distinct and overlapping sources of knowledge. This would probably help more people stay on the right side of the argument. In my opinion, I believe this is an area for academic verification and critical study that could be undertaken to adequately and critically answer the above original question.

Would we leave our ageing parent or grandparent in the care of a robot? – A perspective from Islam

- Sibtain Panjwani BDS MA PhD
sibtain@blueyonder.co.uk

You may think this question is far-fetched. It is not. Just look at what the social/economic trends tell us. In Western Europe and Japan, there is ageing population and shrinking population size. In the long term, it is estimated that by 2050, all the continents except for Africa will have increased ageing population and shrinking general population. Two important challenges for the world in 2050 are:
1. Demands of the Ageing population
2. Limited human resources available from the declining general population.

In the UK, there are 11 million people aged 65 or over with 3 million people aged 80 or over. By 2050, estimates predict that the elderly will account for 16% of the global population. Research suggests that about three in four of elderly people will develop a social care need such as assistance getting up in the morning to all day support for physical, emotional and mental care. With declining population generally throughout the world, there will be shortage of human resource willing to take on the responsibility. Families that traditionally look after the elderly will also come under pressure due to much social and economic pressure.

In the last 500 years, technology has come to the rescue of humanity to solve some of our challenges. It

is said that, in the last 100 years, more knowledge is discovered than ever before. It is increasingly likely that robots and artificial intelligence (AI) assisted appliances will take on the part of the role of care providers, including, meeting practical care needs, providing round–the–clock support and even providing a form of companionship. Over 22% of Japan's population is currently aged 65 or older and many companies are working on robots that can assist the elderly, ranging from those which offer therapeutic care to those which can help move and carry objects. Within the next 20 years, it is increasingly likely that (AI) robots will be used in the care of older adults throughout the developed world. What are the implications for human society as a whole of this intervention in our social relationships? What ought to be the Muslims perspective on Artificial Intelligence (AI) assisted appliances?

As part of larger global society, Muslim communities are also undergoing increasing ageing populations. The community needs to deliberate upon the key ethical and social implications on the use of this technology; implications it will have, on the family life, social life as well as on individual identity. I am expressing a reflection from an Islamic perspective on this topic briefly, hopefully, to encourage deeper deliberations on this topic among bioethics and religious scholars:

Metaphysical perspective

Though there is little work, if any, done in the aforementioned subject, there is one major issue which runs throughout Islamic metaphysical and philosophical literature – the soul (nafs). There is no indication in the Qur'an or hadith that a being higher than the human being would possess something like the complexity of the human soul – both in terms of its intellect, desires, capacity, emotion and transcendental yearning. For this reason, a robot would not be able to replace the human soul but only resemble it. We have to ask, is this resemblance enough for communication with an elderly person? It is possible that in cases where an elderly person has no one at all, a highly developed robot with some human-type personality possessing self-awareness could be programmed to communicate with the elderly person. It is up to an elderly person to accept such an entity. However, from the Islamic viewpoint, this does not replace the soul which is the basis for human identity, emotional capacity and spiritual, ethical and transcendental growth. This complexity allows for deeper intuitions which the robot may not be aware of. Therefore, one may argue that the use of robots in absolutely replacing humans (from a metaphysical point of view) is not only counter-human but dangerous as it reduces human beings to nothing more than mechanical beings who require mechanical communication. There would no room for deep human communication or flourishing. However, the use of robots in aiding human beings to perform certain services like cleaning or the such would be permissible as the role of human identity is not threatened in a major way.

Scriptural perspective

There is nothing in the Qur'an and ahadith which explicitly talks about A.I or robot. Even if so, it has to be interpreted a great deal. From a purely textualist angle, one may argue there is no prohibition on using robots to communicate with the elderly but this is a limited angle requiring a greater ethical and metaphysical framework which is not present in Islamic theory.

Legal viewpoint

This depends on the judgment of a jurist with his own ijtihad. Again, this is subjective as no overall framework exists with regards to bioethical issues. Usually ihtiyat or bara'ah (exemption) is used in the face of bioethical issues unless some verses and hadith is found which contain some sort of order prohibiting or permitting the technology or action in question.

The Islamic viewpoint may, at present, utilize a mixture of principles from metaphysics, philosophy and ethics with a broad reference to scripture to argue for the protection of human identity. This would position the soul as the basis of human identity requires cultivation rather than hindrance. If robots hinder the transcendental and ethical cultivation of the elderly, even at the time of death, this is against the spirit of journeying towards God. It is possible that robots aiding human beings in their services to the elderly would be allowed and as a last resort, to allow robots to replace a human in the case of truly isolated and alone elderly persons (as some movies have suggested). But the thumb-rule is one of prohibition and caution as from a metaphysical viewpoint, it renders human beings like machines which is not their purpose in accordance with Islamic scripture and metaphysics.

Dr Sibtain Panjwani has a special interest in bioethics and currently operates on a freelance basis in both Muslim community life and the wider academic environment

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