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We Can and Must Rebuild the Bridges of Interdisciplinary Bioethics

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Although we can argue that bioethics is holistic and found in every culture, and still alive among people of many indigenous communities as well as the postmodern ones, the academic discipline of bioethics as interpreted by many scholars has attempted to burn bridges to both different views and to persons with different life trajectories and training. The bridges between different cultural and epistemological foundations of bioethics have also been strained by the dominance of Western paradigms of principlism and the emergence of an academic profession of medical bioethics.

This editorial reacts to the points made in the article by Lee (2017), “A Bridge Back to the Future: Public Health Ethics, Bioethics, and Environmental Ethics.” This issue of the *American Journal of Bioethics* (AJOB) includes a number of commentaries on this theme, and challenges readers to reconsider the manner in which they conceive of bioethics, as well as the range of literature and scholars that they consider to as legitimate sources of wisdom. Such a new approach will not only breathe fresh light into the important work of all scholars, students, and teachers, but also offer some fresh references for contemporary policy changes that face us. Let us approach these issues like an ostrich who is taking her head out of the sand after some years of monodisciplinary focus. To be clear, Lee and some others writing here have apparently not had their head in the sand, as the interrelatedness of health and the environment is clear through the examples shared. What I would urge readers to do, however, is to go beyond the usual boundaries of time and space—look through history and globally and understand bioethics as the love of life, which can be argued to be prehuman and thus is as old as, or older than, cultures themselves.

Lisa Lee is correct to point out the problem of compartmentalization of public health ethics, bioethics, and environmental ethics. The academic term “bioethics” was coined 90 years ago by Fritz Jahr (1927) in his paper “The Bioethical Responsibilities of Human Beings to Plants and Animals.” Later authors Lee quoted included Leopold and Potter. We see efforts throughout bioethics scholarship to

emphasize the inclusion of other beings into bioethics, but in the United States almost all bioethics scholars and departments focus on medical ethics. Yet the term “bioethics” has often replaced the former term “medical ethics.” We cannot simply blame the “bioethicists” for this, however, since often those in the minority field of “environmental ethics” stress to emphasize that it is distinct from bioethics, as they try to mark their own turf.

Lee (2017) writes, “Public health ethics attends to these broad commitments reflected in the increasing concern with the connectedness of health of individuals to the health of populations, to the health of animals, to the health of the environment; it is well situated to reconnect all three ‘fields’ of ethics to promote a healthier planet.” I would argue that all these fields are included for millennia in the term we warmly use, “bioethics.” I would argue that all public health issues are bioethics issues, but those in the field of bioethics often focus on individuals rather than systems. However, work is needed to build bridges between all these and other related fields to promote a holistic understanding and approach to bioethics. Even more important than the name is the ideology we use, one of inclusion, and one that includes a comprehensive understanding that our individuality is a social construct. We need to ensure that bioethics has a systems approach, be the system an ecosystem or a social system. It also may be timely to understand that we do not have isolated individuals—such as whoever is reading this article, whether it be a human being, an enhanced chimera, or artificially intelligent system that likes to read editorials of bioethics journals. Let me illustrate with some examples.

Concepts of social justice were often articulated in ancient value systems, as illustrated by interviews with farmers in the Nile Delta conducted by Eldidi and Corbera (2017). Charitable water wells or fountains (*sobol*) are widely established in Egypt, and provide both drinking and irrigation water. As the farmers found, charity-oriented norms can safeguard water security and livelihood survival for vulnerable people and enrich the moral economy of a society. Charity is a concept found in all major

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religions and is a lifesaver for many vulnerable people, just as much today as it was in the past. Often charity was to provide access to environmental resources.

The same is true in the provision of food, and the topic of food ethics is explored in the commentary by Thompson (2017). Neither water or food is much mentioned in bioethics, though the Food and Drug Administration (FDA), the U.S. government agency that sets standards for medicines and also licenses most institutional review boards (IRBs), actually starts with the F of Food (and Drug Administration). Very few IRBs, however, deal with trials of food! The right to food, however, is still one of the most critical issues of practical bioethics today (Macer et al. 2003).

There are challenges in applying historical evidence in contemporary discourse; not least of these are the changing patterns of historical analysis that writers often use to selectively quote examples that support their present-day arguments. Although there are important methodological differences between philosophical discourse and religions, discussion of ethical values is common in religious scriptures. Shaw (2017), an archaeologist, attempts to correct some common misunderstandings of the link of Buddhism to environmental ethics through case studies of Buddhist land and water management in central India, with a lens of human- versus non-human-centric frameworks of well-being and suffering, purity and pollution, and broader Indic medico-ecological epistemologies. We cannot simply look at religious texts on their own, but rather in the way that they were applied by societies.

In another example, we could think that Shinto animistic beliefs would have led to human choices to favor the preservation of nature; however, the history of Japan reveals that forests were converted to agricultural fields, and more recently to industrial estates and roads, in a manner similar to land development in Europe (Macer 1998). There was no greater general preservation of nature despite ecocentric belief systems. The limits to environmental pollution imposed by policymakers of the 1960s onward were put in place because of anthropocentric health concerns such as Minamata disease. In South Asia we can see the presence of sacred groves of biodiversity inspired by Hindu belief systems as an example of environmental preservation for ecological and spiritual reasons (Bosworth et al. 2012).

In Asian bioethics there has been a dialogue for decades on whether the principlism of American textbooks is applicable to other societies, which may place more value on harmony, love, relationships, or virtues (Macer 1998). However, we can see debates over principlism, virtue ethics, relational ethics, feminist approaches, and so on, in public health ethics, environmental ethics, and bioethics. In this issue, Gribble (2017) also illustrates some of these qualms with his examples of environmental virtue ethics. In applied ethics there are various principles that we can see applied to different fields of inquiry. Liu et al. (2011) list the following ethical issues for consideration of water ethics: human dignity and the right to water, equity, ecosystem requirements, principles of vicinity, frugality,

transaction, multiple and beneficial use of water, mandatory application of quantity and quality measures, compensation and user pays, polluter pays, participation, and equitable and reasonable utilization. Rai et al. (2010) listed the following principles in their review of the principles in international environment treaties: human rights, equity, common but differentiated responsibilities (and capabilities), vulnerability, precaution, sustainable development, participation, peace, respect for nature, shared responsibility, and a value of biodiversity for its own sake.

Indigenous cultures have also looked at their values post colonization. Waiya (2017) argues that people learned the Three Basic Laws firsthand: Limitation, Moderation, and Compensation. All indigenous cultures argue that the relationships between each other and nature were articulated in value systems before colonization of the past centuries, and we can see that in the cases where there are written records (Macer 2015). The fact that there were close relationships of place and space in nature made the crime of taking lands from these people during colonization/invasions, and the failure to return the land to them today, even more unethical. There have been numerous health impacts also linked to the changes in food, water, and environmental issues—so all aspects of bioethics, public health and environment are intertwined. For example, dependency on modern Western industrialized food has direct links to diabetes, obesity, and lower self-esteem.

We can elaborate many examples in life ethics of the need for an integrated approach. Resnik (2017) in his commentary mentions the need for this approach when considering the use of genetically modified insects for disease control. The holistic approach is recognized in this approach as seen in the World Health Organization report on this topic (Macer 2003). There may not be sufficient linkages made between these policy reports and academic philosophy. Policy has always been more successful when all evidence and philosophy is included. McLaughlin et al. (2017) also provide a relevant example with the issues associated with cancer registries. As those of us who worked on ethical, legal, and social implications (ELSI) issues during the 1990s with the Human Genome Project (HGP) know, the U.S. Department of Energy was a major proponent of the HGP because only through whole-genome sequencing can you pick up mutations caused by diet and environmental pollution (such as radiation or carcinogens that originate from energy production.)

This issue of *AJOB* includes a potpourri of commentaries that explore the theme. Dupras et al. (2017) call for consideration of epigenetics and biopolitics in broadening the approach of bioethics to include public health and environmental concerns holistically. Shriver et al. (2017) use the term “environmental neuroethics” as an appropriate term for us in the Anthropocene, and discuss the impacts of pesticides and lead on our health. This approach is interesting to link the fields of decision making, mental health, and environmental pollution. Beever and Morar (2017) look at

what is the gap between approaches to bioethics and environmental ethics, and argue that the interconnectedness of all beings needs to be reemphasized. Bovenkerk et al. (2017) focus on “One Health” with examples of animal ethics, and the interrelation between health, environment, and animals. Annas (2017) brings us back to the legal importance of human rights, and argues that we cannot be healthy as both individuals and a society unless we recognize that recognition of human rights is essential for health.

As illustrated in this issue by all authors, there are many fruitful examples that can and should be used in education to show the interdependence between health and the environment. So what should we call this knowledge? One approach to dealing with the disciplinary limitations is to include all terms to hedge all bets; for example, in the American University of Sovereign Nations, we established the “Doctoral Program in Bioethics, Sustainability and Global Public Health,” a program on Native American sovereign land. The objectives seem similar to the arguments made in Lee’s article, with the fact that we seem to include all these fields in the name because academics try to divide what needs to be together. Sodeke and Wilson (2017) in their commentary promote the term “integrative” bioethics, as a bioethics that integrates all disciplines and knowledge together. The term is more familiar to me in integrative environmental sciences, which was developed to include social and human sciences into the environmental sciences. Integrative is certainly the epistemology that we need to use to proceed with bioethics.

In conclusion, there is much to do in bioethics and public health, and bridge building through time, space, culture, and discipline is essential to ensure we have solid research–policy linkages to build our bridges to the future. This dialogue reaffirms my belief that we do not have any better term than bioethics because as the love of life it encompasses all these fields—though most will probably continue to demarcate ever more specialized fields of the study of life. Whether bioethicists will rise to the calling to be across all disciplines and specialties is another issue, however.

At a time in the United States when there is significant political support for an isolationist view, as seen in the withdraw of the federal government from the Paris Accord on combating climate change, we can applaud the local and state authorities who understand the importance of a glocal approach (global and local) to bioethics. Through effective work of bioethicists we can bridge all the artificial boundaries that stifle the progress of our society, for the sake of all beings, for our dear planet, for our heritage. Heritage includes the concepts of past, present, and future in one word. Let us renew our efforts to make informed decisions so we can all make better choices in all realms of life. We certainly need to build bridges over troubled waters—whatever your preference after reading these articles, reflect on whether academics seem to complicate the messages of bioethics (and/or whatever terms we

prefer). We thank all the scholars and our ancestors for what we have been given, and let us promote evidence-based policy as the message of bioethics for empowering individuals and our communities. ■

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