

# Foreword

The term “Bioethics” appears to have first been used in 1927 by Fritz Jahr, a German protestant pastor, in an article titled “Bio-ethics: A Review of the Ethical Relationships of Humans to Animals and Plants.” Jahr (1927: 2–4) was calling for the development of what today would be called an ecological ethic. That was also the sense in which Van Rensselaer Potter, an American biochemist and oncologist, used it in the 1970s, apparently without knowing of Jahr’s earlier usage, to urge that we broaden our understanding of ethics to include not just how we should act with regard to our fellow-humans but also towards our environment, and the biosphere of our planet (Potter, 1970). Potter in turn acknowledged his debt to Aldo Leopold, the ecologist who wrote of a “land ethic” that would govern our relation “to land and to the animals and plants which grow upon it” (Leopold, 1949).

To coin a term is one thing; to control how it is used is another. In 1969, just a year before Potter first used the term “bioethics” in print, Willard Gaylin and Daniel Callahan founded the Institute of Society, Ethics and the Life Sciences, initially located in Hastings on Hudson, New York. The founding of the Hastings Center, as the Institute became known, reflected and facilitated the rapid growth of interest in the interdisciplinary field covered by “Society, Ethics and the Life Sciences.” But that field needed a shorter name, and “bioethics” was the one that caught on. By 1978, when the first *Encyclopedia of Bioethics* was published, it was clear that the term was being used to refer to an area of studies concerned with ethical, social, and legal issues in the biological and life sciences. Issues in medicine and health care were particularly prominent among them (Reich, 1978).

Potter himself recognized that the term he proposed had developed a meaning other than the one he had intended. He tried to rescue the term by adding the prefix “Global” to distinguish bioethics in the sense that he was concerned with – our ethical approach to the world as a whole, and to the global biological systems on which we depend – from ethical issues in the biological and life sciences. But “global bioethics,” in the sense that Potter intended it, was never widely used (Potter, 1988).

I start with this look back at the origin of the term because the *Handbook of Bioethical Decisions* edited by Erick Valdés and Juan Alberto Lecaros goes some way towards reuniting the two senses of “bioethics.” This first volume includes

many of the core ethical issues in bioethics, as the term is now understood, including gene editing, experimentation with human embryos, cloning, genetic enhancement, the extension of human life, and the ethics of experimentation on nonhuman animals; but a substantial part of this volume is headed “Animals, Food and Environment.” That includes several chapters examining our relations with animals, some of which are concerned with the broader question of the moral status of animals. The final section, on “GMOs for Global Challenges,” is concerned with the ethical issue of feeding the world in a time of climate change, and also considers whether the use of genetically modified foods poses environmental risks, and what it means for sustainable agriculture – issues that are not always regarded as part of “bioethics” as it is narrowly conceived but which, as I have shown, fall squarely within the original use of the term, and which, in view of their great significance for the future of our planet and all who live on it, richly deserve their inclusion in this volume.

The *Handbook of Bioethical Decisions* is a monumental project, bringing together, over its two volumes, a total of 68 full-length chapters on a wide range of issues in bioethics, focused on the ethics of biomedical research. You will find here a variety of different, and often conflicting, approaches to some of the key questions discussed. For example, now that the technique known as CRISPR makes gene editing possible with a level of precision that previously was only a dream, this new-found ability raises a variety of deep, ethical questions. Brendan Parent presents a balanced view of several of these ethical issues. He does not find a decisive objection to gene editing but emphasizes the importance of distributing its benefits fairly, especially to vulnerable and marginalized populations. In contrast, Calum MacKellar regards the use of gene editing to avoid genetic disabilities as form of eugenics, unless the parents wish to avoid having a disabled child is due solely to their belief that they would be unable to cope with a child with the anticipated disability. If they have the capacity to cope, but prefer a child without the disability because, for example, they believe that the disability will reduce the child’s quality of life, or the child’s ability to live independently, that is, in MacKellar’s view, contrary to the principle that all humans have equal dignity and worth, and therefore, always wrong. That view is in turn opposed by Ferdinando Insanguine in his chapter about gene therapy and germline cells research. Erick Valdes also takes a more liberal position when he writes about the use of preimplantation genetic diagnosis to avoid genetic disabilities.

A separate set of essays discuss the possibility of using gene editing or other techniques for enhancing our children or future generations. Nick Bostrom, Anders Sandberg, and Matthew van der Merwe convincingly set aside the objection that we are unlikely to be able to improve on human nature as selected by evolution, while Daniel Loewe weighs the case for enhancing mood. Because severe, prolonged depression is responsible for more years of suffering than almost any other illness, the case for enhancing the mood of people suffering from this condition is very strong. But if we learn how to safely change mood, should we limit ourselves to eliminating such clearly negative abnormal mental states, or would it also be permissible to select for children with a tendency to be more positive and cheerful than

the median for human beings? Further, Elena Atienza Macias asks, would selecting for psychological states that confer a competitive advantage in certain sports be a form of cheating, like doping?

At the end of this section on enhancement, Allen Porter writes about research aimed at enabling us to live longer – perhaps much longer. In contrast to almost all of the other chapters in this volume, Porter does not express any opinion on whether research with this goal is, or is not, ethically defensible or even obligatory. Instead, he rejects the idea that we can search for true, or more defensible, or better argued, views on normative ethical questions. This belief is, Porter holds, a legacy of the Enlightenment idea that it is possible to offer a rational justification for a secular morality on grounds that will appeal to rational beings. Those who, like Porter, believe that we are living in a “postmodern” world consider this hope for rational justification to be untenable. The claim that it is untenable is, however, an assumption rather than a position for which Porter argues in any depth. Moreover, even if we cannot provide rational foundations for particular moral theories that will convince everyone, it will still be valuable to explore and clarify the ethical implications of widely held ethical views. Debates about normative ethical questions, including the question whether it is desirable to enable humans to live to 150, or even longer, can be seen as doing just that. It is, no doubt, to the credit of the editors that they have been sufficiently open-minded to include in their *Handbook* a chapter that attacks the foundations of the volume itself, but given the inclusion of Porter’s essay, I would have liked to also see an explicit defense of rational argument in secular ethics.<sup>1</sup>

During the COVID-19 pandemic, there was no higher research priority than the development of a safe and effective vaccine against the virus that was causing so many deaths. Although vaccines were developed in a shorter time than many had expected, the organization IDay Sooner encouraged people to register their willingness to participate in human challenge trials, as such trials could have enabled us to have vaccines even sooner. (The name of the organization was intended to make the point that every day’s delay in getting a safe and effective vaccine to market would cost thousands of lives). Many people registered their willingness to take part in human trials, mostly young, healthy people at low risk of death or serious illness from COVID-19. (At the time of writing, nearly 40,000 volunteers, from 166 countries have registered).<sup>2</sup> Yet, as Erick Valdes describes, there was a surprising reluctance to make use of these fully informed consenting volunteers. Some people suggested that to make use of them would violate the Kantian principle of using people as a means, even though in this case they were giving their informed consent. When acting on what some believe to be an ethical principle is going to cost many lives – as the initial refusal to hold human trials did – we need to have an extremely high level of confidence that the principle is both sound and sufficiently important

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<sup>1</sup>For one such defense, based on the views of the Victorian philosopher Henry Sidgwick, see: de Lazari-Radek and Singer (2014).

<sup>2</sup>[www.idaysooner.org](http://www.idaysooner.org), Accessed January 19, 2023.

to take precedence over saving the lives at stake. I do not believe that the arguments against using volunteers in human challenge trials were so strong that any reasonable person could have the required degree of confidence in them.

In contrast to this extreme reluctance to use informed human volunteers in low-risk, high value medical research, more than 100 million animals are used each year, without their consent, in experiments that cause them severe suffering and death, often in research that has low or negative value. Several chapters in this volume discuss the ethics of this use of animals. That in itself is to be applauded, because it is wrong to limit our ethical concern to members of our own species. Pain is, in itself, a bad thing, irrespective of the species of the being experiencing it. Nevertheless, I cannot refrain from expressing the opinion that some of the chapters discussing the use of animals in research fail to present a realistic picture of research on animals as it is carried out today. They may give readers the impression that the various regulations and guidelines described are sufficient to prevent any unnecessary infliction of pain or suffering on animals. Thus, they are able to conclude that the practice of experimenting on animals is ethically acceptable. Yet as Jeff Sebo points out in his powerfully argued chapter on “Integrating Human and Nonhuman Research Ethics,” in the area of research on animals, the necessity of using animals, or even of inflicting pain on them, is interpreted to mean what is necessary to achieve the goal of the research, without assessing whether this goal is itself worthwhile. For example, poisoning hundreds of animals may be “necessary” for testing the safety of a drug, but the drug may be a “me-too” drug that a company wishes to bring to market in order to obtain a share of a lucrative market that is currently dominated by a patented drug manufactured by a competitor. These “me-too” drugs do not need to perform better than the existing drug, and may even be less effective, but the poisoning of the test animals will still have been considered “necessary” because the drug could not be marketed without it (Aronson & Green, 2020).

Severe suffering can also be deliberately inflicted on animals when it is judged “necessary” for research that has only a very remote prospect of yielding any benefit to anyone other than the experimenters who are making their career by experimenting on animals. To give just one of a huge number of examples, and one that is far from being the worst: researchers at Florida State University put prairie voles (small rodents native to American grasslands) in plastic tubes and used plastic mesh and Velcro straps to, in their own words, “completely immobilize the subject.” They then kept them, unable to move at all, for a full hour. They did this because they were studying depression, and this kind of immobilization had been found, in previous research, to cause stress to the voles. Prairie voles are predominantly monogamous and form pair-bonds, and the study showed that the presence of a partner reduced the signs of stress in the immobilized vole. The researchers conclude that “As social environments are a critical part of our lives, we must continue to explore this area of research to understand how social bonds may ultimately shape our health outcomes and well-being.”

Voles may resemble humans in being predominantly monogamous, but their monogamy is not an adequate reason to subject them to an hour of severe stress – and if vole pair-bonds really are anything like human relationships, the partners

observing the immobilized voles must also be undergoing a stressful experience. This research was funded by the US National Institutes of Health and presumably was approved by the usual institutional animal care committee, and certified as complying with US regulations for the care of animals in experiments. Yet it is only one of several experiments involving stressed voles by various authors, and in turn only one of a much larger number of experiments conducted, over many decades, and in many countries, that deliberately cause stress and anxiety to a very large number of animals, without achieving significant benefits for humans (Donovan et al., 2023).

On this issue of the ethics of using animals in research, as with all the other issues considered in the *Handbook of Bioethical Decisions*, the material included will stimulate many valuable discussions. It is my firm belief that open, reasoned, and civil exchanges between people of different opinions lead to better outcomes than not having such exchanges. It is in this spirit that I encourage you to read the chapters that follow with an open mind, to engage critically with the arguments they contain, and yet at the same time to be prepared to learn from them.

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