Introduction

In his introduction to the first edition of the Encyclopedia of Bioethics, editor in chief Warren T. Reich defined bioethics as “the systematic study of human conduct in the area of the life sciences and health care, insofar as this conduct is examined in the light of moral values and principles.” This definition has shaped the previous three editions of the Encyclopedia of Bioethics (1978, 1995, and 2004) and provides the jumping-off point for this new fourth edition, now simply called Bioethics. The scope of this formulation depends on what one includes in “the life sciences,” the definition and the determinants of health, and the methods of ethics. The fourth edition, like its predecessors, treats these matters broadly and has a capacious conception of the scope of bioethics.

THE INVENTION OF BIOETHICS

The word bioethics was coined nearly half a century ago, notably by Van Rensselaer Potter in Bioethics: Bridge to the Future (1971). Behind the term stood the idea of encouraging public and professional reflection on two new and serious topics, which were, in the words of Stephen G. Post, editor in chief of the third edition, (1) “the responsibility to maintain the generative ecology of the planet, upon which life and human life depends,” and (2) “the future implications of rapid advances in the life sciences with regard to potential modifications of a malleable human nature.” In the beginning these two aspects of bioethics were intertwined; later they tended to diverge, as the field of environmental ethics worked on the first, while bioethics attended to the second, focusing on the so-called biological revolution, which involved innovations in medically assisted reproduction (test-tube babies), genetic components of disease and diagnostic genetic testing and population screening, and aspects of behavior modification and control (as popularized by the novel and film A Clockwork Orange).

In addition, the scope and focus of bioethics were influenced by the long-standing traditions of professional medical ethics, by advances in technology with powerful applications in clinical medicine, such as organ transplantation, and by ethical awareness of problems and abuses arising in the conduct of biomedical research using human beings as experimental subjects. New clinical capabilities created the need for explicit choice and decision, which were not resolvable on the basis of scientific or medical information alone. Such choices provoked ethical dilemmas—they involved personal and social values, religious convictions, and ethical and legal rights and obligations. It is perhaps revealing that when
the Hastings Center, a pioneering bioethics research institute, began in 1969, the first research groups formed there were in the areas of death and dying, behavior control, genetic testing, and population control.

Medicine, the law, and ethics began to converge. Those who specialized in moral philosophy and political theory were ready to contribute because at precisely this same time the academic study of ethics was moving away from abstract conceptual analysis and toward public policy and practical application, as evidenced by the launching in 1972 of an influential new journal, *Philosophy and Public Affairs*.

In the mid-1970s in the United States, with cognate events occurring from time to time in other countries, research ethics broke into the headlines because of various abuses involving medical research and in response the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research was formed. Research ethics issues recalled the terrible legacy of the Nazi era and the unethical medical experiments documented during the Nuremberg Doctor Trials in the late 1940s. In 1966 an influential article in the *New England Journal of Medicine* by Henry Knowles Beecher called attention to questionable research practices that were then commonplace. (In the 1990s disturbing questions also arose in connection with research on the effects of radiation conducted in the United States after World War II.)

Clinical ethics followed suit with the controversy concerning mechanical life-sustaining technology (as in the case of Karen Ann Quinlan, whose parents wanted their permanently and irreversibly unconscious daughter to be allowed to die) and the paternalistic refusal of physicians to honor the wishes of a competent patient (as in the case of Dax Cowart, who had been severely burned and explicitly attempted to refuse continued life-sustaining, but extremely painful, treatment). In 1974 a documentary film about the Cowart case titled *Please Let Me Die* was widely shown. Quinlan’s case got publicity worldwide when the New Jersey Supreme Court affirmed the right to refuse medical treatment in 1976. In addition to technological interventions involving life support, clinical ethics controversies also arose from advances in neurological testing that permitted a new whole-brain criteria for the declaration of death and in surgical and medical advances that permitted organ transplantation.

With this impetus and background, for over forty years bioethics has effectively addressed a range of issues having to do with justice, power, technology, and life. As it developed early in English-speaking countries, it has tended to reflect Anglo-American styles of philosophical and legal reasoning. And substantively, bioethics is most at home in the realm of liberal individualism. Its ethical vocabulary is made up of concepts such as self-interest, social utility, individual well-being based on health and choice, respect for the autonomy of persons, human rights, and equity or fair sharing in social benefits and burdens. The analytic style and substantive theory of the philosopher John Rawls in his major work, *A Theory of Justice* (1971), was important in setting the early tone of bioethics in this regard, as was the paradigmatic influence of *Principles of Biomedical Ethics* (1979) by Tom L. Beauchamp and James F. Childress, which developed an ethical framework initially established in the context of human subject research in the Belmont Report of the National Commission. Various ethical traditions in the medical profession and in religious traditions, especially the long history of Roman Catholic teachings on medical ethics, were also vitally important and influential in contemporary bioethics.

Bioethics engages with moral philosophy (and its cognate disciplines such as political and social philosophy, jurisprudence, and theological ethics) to provide a basic normative conceptual framework. Bioethics also engages with actually existing values, norms, and cultural belief systems. It should meet actors and institutions where they are, but it cannot just leave them there: change in assumptions, commitments, understanding, and action is the entire point of the enterprise. If it is not critical, bioethics can become apologetic and ideological.
THE DISCOURSE OF BIOETHICS

The discourse of bioethics is a sensitive indicator of the social context in which it germinates because the basic subject matter of this discourse—the human experience and meaning of health and illness—moves so fluidly from the most intimate, personal needs and experiences to the broadest social, systemic, and policy questions. Pain makes policy vivid and compelling; suffering makes systems come alive as tangible social agents rather than as intellectual constructs or abstractions. Every society needs to have a discourse with which to affirm and to contest power, equality, individual and group identity, knowledge, duty, and trust. Actually, societies need not merely one such discourse but several layered and overlapping ones. Repressive and stagnant societies tend to flatten and winnow this discursive array; more dynamic and open societies tend toward more diversity and argumentative conflict.

As mentioned above, in its early days bioethics was given impetus by a sudden burst of new possibilities in medicine and molecular biology, the biological revolution of the 1960s. A source of worry was a possible cultural lag between ethics and law, on one hand, and scientific knowledge and technology, on the other. The latter changes much more rapidly than the former. Therefore our repositories of value—ethics, cultural mores, religion, the law—were unable to guide and govern the use of science. Individuals were confronted with unprecedented choices in reproduction, in plumbing the body’s genetic secrets, in postponing or avoiding death. Physicians were becoming facilitators of these new powers and ranges of choice. Investors sought to profit from them, governments sought to regulate them. But all were acting without a legal road map or an ethical compass. Bioethics was invented, so to speak, in order to respond to this lag. Those skilled in ethical discernment and calibration should anticipate scientific developments and adopt safeguards and procedures of review proactively, before problematic technologies become institutionally embedded and vested interests form to protect them. Bioethics should not merely react to a scientific fait accompli. And neither should it respond with knee-jerk rejection nor with thoughtless affirmation and permissiveness.

In retrospect, however, one can see that this mission of bioethics tended to overlook two things: history—the systemic interconnection of several problems with which it dealt seriatim—and the subtle cultural effects of technology. The problems raised by biomedical technology, such as, for example, the use of in vitro fertilization (IVF) to produce eugenic “designer children,” were viewed as logical or moral puzzles to be solved by governance and social planning. (In the event, some countries, such as the United Kingdom, publicly regulated IVF; others, such as the United States, relegated it to the commercial marketplace.) This was a Solomonic bioethics, applying wisdom to individual disputes that came before it. Those in bioethics did not generally see this problem in any broader historical narrative of modernization and social change. Scholarship on the same issues in other fields, such as science, society, and technology studies or disability studies, did more along these lines than bioethics.

Moreover, the field of bioethics did not always recognize the conceptual baggage carried by its central motifs and problem definitions. The notion of a lag effect between two social systems flows out of a structural-functionalist orientation in sociology that has been taken to task by many social theorists for being ahistorical. From an anthropological point of view, bioethics also did not inquire with sufficient nuance into the dynamics of cultural response to behavioral innovation or comprehend the varieties of ways in which values are given cultural meaning.

However, pointed such criticisms may be, bioethics persevered and often succeeded in framing issues, both in the media and in the thinking of professionals and policy makers, in certain ways. The bioethics puzzle and the lag effect were then solved using the following steps:

1. **Identifying moral principles, ideals, or standards.** Universal ethical principles make up a commonsense or “good reasons” morality. This is taken to be both rationally authoritative and widely accepted in the broader society, at least implicitly and by those most articulate and morally self-aware. Its principles are the touchstones for deducing justifiable conduct in particular situations.
2. Assessing practice or behavior in the light of principles. The conduct that emerges from the new biomedical knowledge and technology (such as the so-called technological imperative, the objectification of the person, and genetic engineering) is then assessed in light of the normative standards deduced from the general ethical principles.

3. Suggesting policies or procedures to bring practice into line with principle. Finally, regulation and governance of the new technology are proposed so that the morally beneficial conduct it induced would be promoted and the morally harmful conduct it induced would be minimized.

This pattern of discourse was widely endorsed over time by political and professional leaders and was welcomed into the precincts of law, policy, and clinical practice. For some, especially those who were unalloyed supporters of new technology and those who resented any incursion into professional self-sovereignty, the voice of bioethics was resisted or at best condescended to. But overall, bioethics gained a strong measure of legitimacy from the professional establishment, the philanthropic sector, and the media from roughly the late 1970s on.

THE REFERENCE IN THE FIELD

There is no doubt that bioethics succeeded in injecting a higher standard of ethical propriety and self-consciousness into medicine and health care, certainly into medical research with human subjects (and later into the care and use of animals in research) and important areas of health law, but also into clinical practice and public policy. Nonetheless, bioethics did not powerfully challenge or threaten the biomedical establishment with this pattern of discourse and analysis. The explanation for this, I believe, is precisely that bioethics discourse did not cut deeply into the workings of institutional, political, and economic power. It scrutinized the human and social consequences of the use of science and technology up to a point but no further. Many reasons can be adduced—the need to gain entry into certain professional, governmental, and financial citadels, the need to retain academic respectability by not becoming too activist or radical, and personal and temperamental factors of those self-selected individuals who entered the field.

I simply would add the proposition that, factors such as those aside, the character of the analysis and the remedies contained in much of bioethics discourse over the years has been shaped from within and delimited by the conceptual frameworks that bioethicists (whether they be physicians, nurses, lawyers, philosophers, or social scientists) brought to bear on the troubles they identified. To be sure, the field of bioethics today is becoming more self-reflective and critically aware of the conceptual limitations of its own discourse, but this is a relatively recent trend, prompted often by the work of feminists, philosophers working out of nonanalytic traditions, social scientists, and others who are able to adopt an external stance on mainstream bioethics. Included in the articles that are new to this edition of Bioethics are numerous entries focused on particular ethical and philosophical concepts. We have commissioned articles on such concepts to supplement cognate articles revised and updated from previous editions in order to broaden Bioethics’s engagement with the essential working vocabulary of the field. New articles along these lines include “Authenticity,” “Biocentrism versus Anthropocentrism,” “Biopolitics,” “Epistemic Injustice,” “Exploitation,” “Genetic Citizenship,” “Global Justice,” “Liberty,” “Naturalism,” “Oppression,” “Reductionism,” “Social Constructionism,” “Solidarity,” and “Vulnerability.”

I offer these remarks on the development and what I take to be the mainstream orientation of the field as a way of introducing what this new edition of Bioethics has to offer. Although not laid out as schematically as I have done here, a great many of the articles in this edition implicitly follow the working of the pattern—identify principle; assess practice; recommend process to align practice with principle—through the discussion of the topic in question. This can be seen across the entire body of articles, from access to health
care and adoption through divided loyalties in mental health care and impaired professionals to privacy in health care and surrogate decision making. What is instructive about this is precisely that it is not a formulaic analysis but rather an exploration of three main realms: the logic of theoretical reasoning about universal values and norms; the nuance and complexity of making judgments and interpretations of general values in the light of specific cultural and social circumstances and situations; and the pragmatic considerations of devising measures to organize and control human behavior in accordance with considerations of efficiency, enforceability, and fairness.

If some work in bioethics is insufficiently aware historically and culturally, we have tried to craft articles that do not make that mistake. This edition, like previous ones, embraces cross-cultural approaches, the history of medicine and bioethics, comparative religious and philosophical ethics, and global perspectives. A common thread running through many, if not most, of the articles is the degree to which our contemporary theories of ethics and bioethics evolve from particular social, cultural–religious, and historical contexts. Virtually every major spiritual and faith tradition’s outlook on bioethical issues is represented in this edition, as they have been in the prior ones. If some work in bioethics is overly individualistic, there is an answering voice in many articles that explore the roots of freedom and autonomy in relationship and community. Some of these articles focus on particular concepts such as care ethics, community and communitarianism, narrative, solidarity, and trust. Traditional dichotomies are often confronted and questioned. When it comes to ideas, at least, many articles here, on the basis of reason and evidence, afflicting the comfortable. This edition of Bioethics does not overlook or play down questions of power in the realm of science, technology, and health. Ethical dilemmas are often indicative of underlying structural, institutional, and systemic inequality and injustice. Again, these themes are explored in numerous articles relating to public health, inequality and exploitation, racism, and issues having to do with child welfare, gender, and sexuality.

In 2014 the field of bioethics is one that has changed and is changing. Three major developments are particularly salient among a range of articles in this edition. These are professionalization, disciplinary rigor, and international expansion and the recognition of a global perspective.

Bioethics is becoming more “professionalized” as many now take primary degrees in bioethics, as distinct from studying some other discipline first and then coming into bioethics issues from another intellectual home. Nonetheless, I would guess that a majority of the contributing authors to the fourth edition of Bioethics still would not call themselves “bioethicists” as a first impulse. Many of those with the greatest knowledge and expertise on bioethics topics come to them because of those topics’ intrinsic interest and importance but have other intellectual identities and label themselves in different ways. A number of articles explicitly take up themes of professionalization and governance within the field of bioethics itself, including entries on bioethics professionalism, the ethics of bioethics, the sociology, anthropology, and politics of bioethics, and developments in clinical ethics consultation.

The field is also becoming more “disciplinary” in the sense that it is more conscious of its methodological approaches and conventional requirements of scholarship, and it is more oriented than it once was toward an audience of fellow specialists and practitioners. For many in the field today, career advancement requires conformity to grant-seeking strategies and quantitative research. There are signs that the “two cultures”—as C. P. Snow called the divide between the sciences and the humanities—is becoming a factor in the culture of bioethics itself. Interdisciplinary work is always vulnerable to charges of dilettantism and a lack of rigor. On the other hand, disciplinary specialization can weaken the kind of serious, even passionate, ethical concern and social engagement that has so animated the field of bioethics over the years. Articles on bioethics methods generally and empirical methodology specifically, those that look at the field from social scientific perspectives, and those that study the patterns of discourse, ideological disagreement, and legitimation—all make note
of intellectual, occupational, and economic forces affecting the field of bioethics and emerging internal divisions in it.

Finally, the field is becoming more international as nations all over the world develop their own educational and research structures devoted to bioethics and as regional and international bodies such as the Council of Europe and the World Health Organization fund and sponsor important bioethics research and policy analysis. These developments are perfectly understandable and appropriate in the wake of new developments in the biomedical sciences and economic and commercial interests surrounding biotechnology, not to mention widespread interest among the general public in many nations. Studies on the use of genetically modified food, technology transfer and patenting, and research in the area of synthetic biology are three examples of international bioethics collaboration. And one should not discuss international bioethics without mentioning what has sadly but undeniably been a major factor in the growth of international interest in bioethics, the worldwide HIV/AIDS pandemic. Many articles focus on AIDS and human rights issues. There are also country-by-country reviews of bioethics research, education, and regulation in virtually every region of the world.

Indeed, the international aspects of bioethics have increased the relatively scant attention that bioethics in the past has paid to population health and public health policy and practice. Influenza pandemics, and all-hazard types of public health emergency preparedness, have demonstrated that matters previously understood from a domestic, national perspective need to be viewed more broadly; old questions need to be asked in new ways. Articles in this edition that address this topic are more numerous than in previous editions, including entries on global justice, globalization and health, cross-border medical travel, health justice, and a variety of human rights entries, as well as those on pandemic, climate change, and multinational research.

In the years ahead international bioethics will take another step and become global bioethics. This is necessary because the questions of power, justice, science, technology, and health with which bioethics fundamentally deals today have no geographical boundaries, and the legal sovereignty of separate nation-states is more of a hindrance than a help in managing and regulating the bioeconomy of the world today. These global problems seem to be particularly challenging, and perhaps beyond the ken of existing forms of international cooperation. The record thus far in managing global climate change certainly does not make one sanguine in this regard.

NEW POINTS OF EMPHASIS

Bioethics now includes a total of 108 articles on topics new to this edition. In addition to those previously mentioned, it contains new articles on such topics as “Abortion: Hindu Perspectives,” “Abuse of Health Care Workers,” “Biodiversity Conservation,” “Cognitive Impairment/Traumatic Brain Injury,” “Hospitals, Ethical Issues in the Governance of,” “Humanitarian Relief,” “Nuclear Weapons,” and “Pedagogy of Bioethics.”

Several topics have received expanded emphasis in this edition. One is a greater focus on public health and public health ethics and on matters closely linked to public health policy and response, such as infectious disease and environmental health, and emergency preparedness. Another is health policy and policy bioethics. At a time of significant health policy innovation and reform in the United States and many European countries, numerous articles in this volume are devoted to those topics and to improvements in health care quality, comparative effectiveness research, and economic sustainability and justice, both domestic and global.

Aging, chronic illness, and long-term care also receive concerted attention. Changing attitudes and policies toward abortion internationally are surveyed. An emphasis is given to new developments in biotechnology, genetics, and reproduction, and end-of-life care is thoroughly discussed, with more expansive coverage of palliative care, again both domestic and global.
Finally, this edition of Bioethics envisions greater communication in the future with the field of environmental ethics in terms of its philosophies and theories (biocentrism and ecocentrism), scientific fields (ecology, conservation biology, evolutionary biology), and policy problems (climate change, biodiversity loss, environmental health hazards, freshwater, the ecological and health effects of technology, urbanization, agricultural practices, and the like). Areas like posthumanism and transhumanism, advances in neuroscience, nanotechnology, and synthetic biology are topics where a creative engagement between bioethics and environmental ethics should prove to be quite interesting. This will put the “bios” back into bioethics in a new way, and may bring us back full circle to thinkers like Van Rensselaer Potter.

**ORGANIZATION OF BIOETHICS**

Entries are arranged alphabetically. Some entries comprise several subentries. For example:

- Care: I. History of the Notion of Care
- Care: II. Historical Precedents for an Ethic of Care in Health Care
- Care: III. Care Ethics
- Care: IV. Care and Society/Public Policy

The reader wishing to study ethical aspects of care and caregiving would do well to read all four of these interlocking articles.

Cross-references are provided for each article. However, for a complete perspective on the thematic relationships between articles, please see the “Topical Outline” at the beginning of the first volume, following the list of contributors.

The bibliographies following each article are an important resource. These were prepared by the authors or otherwise updated with approval by the editor in chief. The bibliographies are necessarily selective rather than exhaustive given the volume of significant new books and articles relevant to each article.

The appendices contained in the sixth volume are of great value to students and researchers. In the past they have been reprints of primary source documents. In keeping with our digital research environment, the current edition provides electronic links to many documents rather than reprinting the documents themselves. This section of the work includes: (1) a group of articles on historical perspectives on medicine, ethics, and health care, (2) a listing of historical and contemporary codes, oaths, and directives related to bioethics, with links to the primary documents, (3) a listing of additional resources in bioethics, (4) an annotated list of key legal cases in bioethics, and (5) an annotated bibliography of literature and health care, including a filmography of works related to bioethics themes.

Bioethics has always been a distinctive reference work because it includes so many voices and theoretical and disciplinary orientations in an effort to foster dialogue, prevent the narrowing of the field, and engage a wide international readership.

A special effort has been made to keep these volumes free from technical jargon. The articles should be accessible to students at the high school, college, and graduate levels, as well as to interested lay readers. They are written in such a manner as to be authoritative for professionals wishing to gain a clear perspective on how ideas have evolved.

A special effort has also been made to ensure that this new edition of Bioethics lives up to the example of its predecessors in being an exemplar of civic discourse. By this I mean that within each article and for the body of articles taken as a whole, we have strived to offer discussions that are clearly reasoned, evidence-based and diligently researched, respectful and open to serious engagement with opposing views, open to difference and plurality, free from objectifying stereotype or stigma, and ardent in their vision of justice and moral possibility. Many of the finest contributors to the field of bioethics are represented in these
pages. These are men and women actively engaged in the service of others through voluntary associations or professional practice. As appropriate to the assignment they have undertaken for Bioethics, they often move beyond the mere exposition of the essential inventory of existing thoughts on a topic to argue persuasively for a normative viewpoint. Indeed, I hope that those who read these volumes will be motivated by a sense of responsibility and service, as well as by intellectual curiosity.

THE PRESENCE OF THE FUTURE

One way to look at an academic encyclopedia in any field is to see it as a comprehensive repository of the current state of knowledge and scholarly discussion in that field or discipline. This is the idea of an encyclopedia as a mirror. A reference work of that sort is of great utility and value, to be sure. Another way to view an encyclopedia, however, is to see it not only as a repository but as a publication that expands and develops the field beyond its current position. Such an encyclopedia reflects what is behind but also illuminates what lies ahead. This is the idea of the encyclopedia as a lamp. As such, an encyclopedia can be a creative intellectual force in the dynamic of the field, inspiring new lines of research and new questions and theoretical perspectives that are currently underdeveloped in the mainstream.

The philosopher Thomas Hobbes remarked that only the present is real because the past is gone and the future does not yet exist. Closer to the truth, I believe, is the novelist Marcel Proust’s idea that the past exists through memory, the future exists through imagination, and the present is largely constituted by the interplay of memory and imagination. My notion is that perhaps the main calling of bioethics now is to muster the moral imagination necessary to sense the presence of the future. If we can manage that, then we may be able to grasp the fact that we bear a moral responsibility for what we are doing toward the well-being and the life conditions of others—others living now and close to us, yes, but also those living far away and those who are not yet alive.

As editor in chief, I hope that at least in a modest way this fourth edition of Bioethics will serve as a lamp. I also hope that readers of these volumes become more knowledgeable about the presence of the past and more sentient about the presence of the future and its profound ethical demands on all of us.

Bruce Jennings
Editor in Chief, Fourth Edition
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