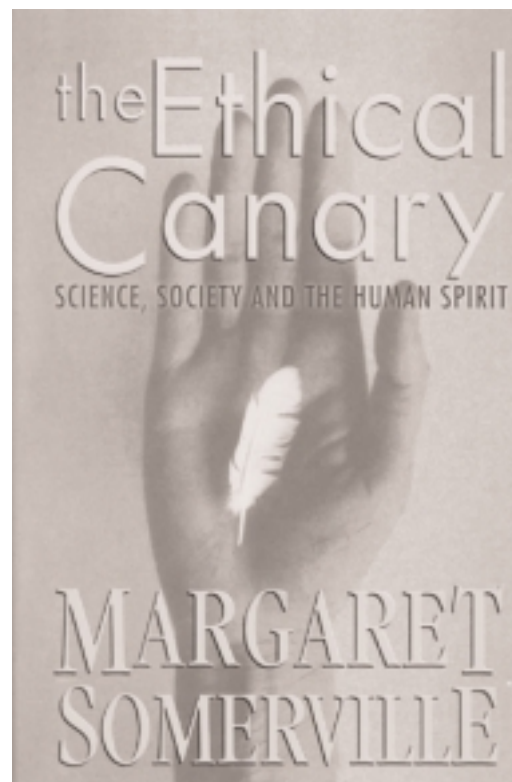


THE ETHICAL CANARY: SCIENCE, SOCIETY AND THE HUMAN SPIRIT

Margaret Somerville
Toronto: Viking; 2000
pp. ix + 344
Cloth, ISBN: 0-670-89302-1

Paul Tuns



In recent years the news has been full of stories reporting on developments in science and medicine, yet there has been a lag in the political and legal debate surrounding the ethical issues involved in what these new technologies allow us to do. The most famous innovation is probably the 1997 announcement of the birth—or production—of Dolly, a cloned sheep. That announcement sparked worldwide discussion of whether human cloning should be allowed and, if so, whether it should be limited to therapeutic instead of reproductive purposes. What was only imaginable a generation ago now is either possible or very nearly possible. When it comes to scientific progress, we now say “when” not “if.”

The ethical consideration of new technologies and practices has failed to keep pace with the dizzying pace of scientific and medical advance, however, and there is now, or soon threatens to be, a dangerous gap between what we can do and what we ought to do. In fact, we may have lost any sense that

there are things we ought not to do.

In her new book, *The Ethical Canary: Science, Society and the Human Spirit*, Margaret Somerville, founding director of the Centre for Medicine, Ethics and Law at McGill University, says we should place a higher priority on ethics. She argues that “science time” or “medicine time” should be at least temporarily replaced by “ethics time,” so as to give ethics, the law and social and public policy a chance to catch up with the science. Somerville says the public needs time “to become familiar with the benefits, potential benefits, risks and harms of a new scientific development, not only at the physical level, but also at the level of its potential impact on values, norms, traditions, customs, culture, belief and attitudes.”

In large measure, the scientific community, indeed society in general, no longer recognizes that there is a difference between what we can do and what we ought to do. In part, this is because of: a decline in shared moral beliefs; increased religious pluralism;

legal rights replacing notions of right and wrong; rampant individualism; the decline of moral absolutes; and rise of a situational ethics approach to decision-making. To counter the cumulative effects of all these influences, Somerville calls for a “third way” between religious morality and an unfettered belief in scientific progress as a good in itself. She calls this third way the “secular-sacred,” an ethic of respecting life, especially human life, and protecting the human spirit.

Somerville describes the human spirit as “the intangible, invisible, immeasurable reality that we need to find meaning in life and to make life worth living.” Eschewing any religious basis for these values, she merely asserts that they should be respected. Those who already accept the inviolability of life, including people of faith, likely will accept her secular ideals because they resemble their own. But in fact she fails to make a convincing case as to why we ought to accept such values.

In the end, this failure to persuade readers to accept her assumption that a sense of the secular-sacred should be the basis of ethics is not fatal. It is largely made up for by the thoroughness with which she tackles each of the many difficult ethical issues now before us, from legal considerations to worries about abuses to which new developments might be prone. (In her defence, it might also be argued that the logic of the traditional argument could be reversed: We should take certain ethical positions because they would help create a secular-sacred respect for life.)

A greater concern than this lack of common ethical ground is that nobody seems particularly bothered by the absence of serious ethical discussion. Somerville says that not having such a discussion is akin to running a coal mine without the canaries once used to warn of the buildup of harmful gases. The absence of such a discussion, not to mention laws, protocols and professional standards, is a very real danger to which society seems oblivious. Once new technologies and practices are in use—be it euthanasia, human cloning or animal-human transplants—it may be too late to consider the ethical issues they raise. They are, in effect, genies that cannot put back in a bottle.

To take but one example, xenotransplantation—the transplanting of organs between different species—may end the shortage of human organs for transplantation, a shortage that is itself an ethical issue. But because we have not studied the long-term health effects of such transplants, we have no idea of the potential risks. Primarily, there is the danger of zoonosis, the transmission of diseases from animal to man. We do not know what the effects will be of combining the viral DNA of a pig (the animal most likely to be used to harvest organs for transplant) and the viral DNA of a human. Properties benign to each species when kept separate could create new viruses when combined. This is a risk, not just for the transplant recipient,

but for society as a whole.

On the other hand, Somerville argues that even simple monitoring of the long-term effects of inter-species transplants raises ethical questions regarding limits on the freedom and privacy of transplant recipients and possibly even their relatives and close contacts. There are other important ethical questions, as well: How does “crossing the animal-human divide” affect respect for the life of both humans and animals? How does it affect our personal identity? What, if any, obligations do we owe to the animals we alter genetically to make them

A greater concern than the lack of common ethical ground is that nobody seems particularly bothered by the absence of serious ethical discussion. Somerville says that not having such a discussion is akin to running a coal mine without the canaries once used to warn of the buildup of harmful gases. The absence of such a discussion ... is a very real danger to which society seems oblivious.

suitable for transplant? Is it ethical to make them live in the sterile and unnatural conditions that are required if they are to provide suitable organs?

As mentioned, the missing canary is the ethical discussion that might prevent us from proceeding with a potentially lethal mistake. Failing to at least weigh the risks against the costs is irresponsible: Once we start down that road it may be too late to prevent the risks. If we are at all responsible, we must now debate acceptable levels of risks, and if we do decide to proceed, we should do so on

a very limited and closely monitored basis. But it may already be too late. In 1998 the University of Guelph and Novartis Pharma Canada, Inc. Canada imported transgenic pigs (pigs genetically modified and raised for the sole purpose of research in xenotransplantation) from the United Kingdom for pre-clinical research.

Carefully considering each ethical issue—from cloning to who makes medical decisions, to infant male circumcision, to new reproductive technologies (NRTs), to euthanasia, to access to health care—Somerville examines what exactly it means to respect human life and the human spirit. She concedes it is often complex, and that it “ought to be” complex: People of good will can disagree about what defines good medical care or good parenting, what are acceptable risks or limits of personal freedom, and how to weigh costs and benefits. In the case of xenotransplantation, the benefits of an increased organ supply that will allow thousands of people to continue living must be weighed against the costs of possibly creating new viruses and defining anew what it means to be human. But these disagreements need not and should not prevent ethics from being discussed or public policy conclusions made.

Ethics is often viewed as an abstract exercise, but as xenotransplantation illustrates, it has practical consequences. Another example of an issue that combines the complex mix of abstract and practical concerns is human cloning. Human cloning might potentially be used for two reasons: therapeutic cloning, which is the generation of new organs for transplant or embryos for research, and reproductive cloning, the production of children genetically identical to their cell donor. As a matter of logic, one might be ethically acceptable, the other not. Last August, Britain’s Donaldson Report supported the idea of research on cloned embryos but not reproductive cloning.

In practice, however, once one genie is out of the bottle, the other

Using a cloned embryo for research or transplants replaces the inherent good of a human being with a good defined by his or her usefulness as an instrument to benefit others; that is, as a means to an end.

As Somerville argues, no matter how much good therapeutic cloning may do, if it is inherently wrong, it must not be allowed.

probably is, too. It is therefore a case of support both or support neither. That allowing the one form of human cloning would put us on a slippery slope to the other is a perfectly good reason for rejecting both. But there are other reasons, too. Both forms of cloning fail to “respect the integrity of the human gene pool,” which is our shared heritage and a trust we hold for future generations. Moreover, human cloning for either therapeutic or reproductive reasons turns people into a commodity and thus dehumanizes them. Using a cloned embryo for research or transplants replaces the inherent good of a human being with a good defined by his or her usefulness as an instrument to benefit others; that is, as a means to an end. As Somerville argues, no matter how much good therapeutic cloning may do, if it is inherently wrong, it must not be allowed.

There are other ethical problems with cloning.

- The practice robs an individual of his or her uniqueness: In fact, by definition a clone is genetically identical to someone else.

- The transmission of life becomes a “manufacturing process” instead of a mystery.

- The destruction of excess embryos “could seriously damage important values and the ‘ethical tone’ of our society.”

- Cloning opens the door to the clearly unethical practice of genetic

enhancement or disenchantment, the alteration of genes for some (ostensible) benefit, such as to make a disease-free child or to improve intelligence, beauty or whatever. Genetic disenchantment is the alteration of genes to create less intelligent people—to serve as soldiers, perhaps, or in low-level boring jobs, or, and this is an avenue Somerville does not explore, to provide diseased bodies on which experiments can be performed. Somerville says the power to enhance genes will come with the power to disenchant them, a contemporary example of pure evil.” (Others have argued that because the wealthy will be the only ones who can afford it, genetic enhancement will further widen the gap between rich and poor; I consider this less of a problem than the moral difficulties inherent in “playing God.”)

The problem, Somerville says, with both enhancement and disenchantment is the “alteration of the human germ cell line,” tinkering with which affects the “common heritage of mankind.” Furthermore, past changes in the human germ cell line have taken place over generations, not seconds, as might now be possible, and we do not know what consequences this might have, particularly for the individual being enhanced or disenchanting.

While no one of these considerations may on its own require the prohibition of cloning, Somerville argues—I think correctly—that the whole constellation of practical and abstract considerations calls for such a ban.

It is important to understand that different ethical conclusions may be reached depending upon where the focus is placed. So an answer to the question of what should be allowed depends on how accepting new technologies or practices would affect all the people involved—the individual, the family, the medical profession, the community, mankind, even future generations. With NRTs, the ethical conclusion society seems to be coming to by

default—by blindly accepting what science can do—is that would-be parents should have no limits on their reproductive freedom. But if we consider the effect on the children so conceived, we may come to a very different set of conclusions. As Somerville asks, “Do we have ethical obligations to a future child not to use technology to assist an older woman—let’s say a sixty-year-old—to conceive?” What of the child’s psychological health? Is it really all right that children should be created from the sperm of dead men or from eggs taken from the ovarian tissue of an aborted fetus? (In the latter case, the biological mother of a child would never herself have been born.) Should the technology only be available to two-parent, opposite-sex couples?

Such concern for the obligations owed to the child are pertinent when one considers two cases reported within days last October—after Somerville’s book was printed, unfortunately. In the United States, one set of parents used genetic modification and *in vitro* fertilization (IVF) to create a child that could donate cells from his umbilical cord for a bone marrow transplant to his older sister, who could not survive without it. In the United Kingdom meanwhile, a couple wanted to use IVF and genetic modification to select the sex of their child because they felt their family was incomplete following the untimely death of their daughter. Somerville rightly concludes that the obligations owed to the future child are great and that the use of NRTs must therefore be limited to those who

Is it really all right that children should be created from the sperm of dead men or from eggs taken from the ovarian tissue of an aborted fetus? (In the latter case, the biological mother of a child would never herself have been born.)

require them for medical infertility “resulting from some disorder” and not for “social infertility” (such as not having a partner of the opposite sex) or “narcissistic” reasons.

In my view, she is right to conclude that a respect for life entails being especially careful about the transmission of life. We must never treat people as commodities or products to be manipulated. Somerville says the double mystery of both life and death requires placing limits on what we do and do not allow. The attempt to have complete control over ourselves and defeat nature could have very harmful effects on our individual and societal health—physiologically, psychologically and spiritually.

An unfettered use of these new developments will certainly mean a decreased respect for life and the human spirit. So it is puzzling that despite her support for respecting human life and protecting the human spirit, Somerville still supports abortion. Pro-abortion advocates—supporters of the status quo of having no abortion law and consequently no legal limits on abortion—admittedly would not be happy with her position, which is to limit abortion to the first-trimester, except for “genuine health protection reasons.” But neither does she line up on the anti-abortion side.

Her support of abortion in order to respect a woman’s “right to self-determination,” seems contradictory to her ethic of respecting life. But note that while she “respects” life she “protects” the human spirit. Respecting life includes respecting personal liberty and autonomy and the right of competent people to make their own medical choices and to be free from invasive procedures. Somerville does indeed respect the life of both the fetus and the woman, but she subordinates the rights of the fetus to those of its mother.

This creates another ethical problem, which Somerville addresses in the context of NRTs but not abortion: the moral status of the fetus or future child. This is not to suggest Somerville is hypocritical, just that she is capable of extraordinary nuance and subtlety, and, to this reviewer at least, insufficiently respectful of human life.

Considering the complexity of ethical issues, the discussion is bound to be nuanced and subtle. In fact, while there might be general agreement about the larger issues—be they euthanasia, cloning, xenotransplantation, NRTs, or who makes medical decisions—it is at the margins that public policy, professional ethics and the law will most likely come into play, especially when the federal government’s aversion to dealing with

Looking beyond a narrowly defined set of individual rights, society must consider the rights of all individuals impacted by the decisions we make about what scientific breakthroughs to proceed with and which to limit, delay or reject.

moral issues is considered.

If we “do ethics,” as Somerville admonishes us to, we may still end up accepting some technologies and developments but not others. As Somerville says, “When we intervene on others, we have moral responsibilities that we do not have if the same situation occurs naturally.” Looking beyond a narrowly defined set of individual rights, society must consider the rights of all individuals impacted by the decisions we make about what scientific breakthroughs to proceed with and which to limit, delay or reject. Our answers will indicate the value we put on human life. That valuation may at times involve abstraction, but its consequences will be profound and very real.

Paul Tuns is a Toronto journalist.

Temptation of the good

There may be some answers to the ethical problems raised by human therapeutic cloning on which there could be consensus. With further scientific advances, we might not need to use an embryo to obtain stem cells but could obtain them from the person who needs a tissue or organ or from another person ... Usually doing science in “ethics time” means that we need time to work out the ethics that should govern the science. But here, somewhat ironically, we need more time to work out the science in order to avoid ethical problems.

We need thorough consideration of

the competing interests that are brought into play by human therapeutic cloning. These are, on the one hand, that we cannot wait for further scientific advances, because those who are suffering or dying and could be helped by human therapeutic cloning and embryonic stem cell research need treatment now. On the other hand, we will not be able to repair or reverse the harm that we would do to our sense of respect for both human life and its transmission, and of wonder about them, if we unethically use human embryos.

On a personal note, even though I believe that human cloning is morally

wrong, I am not sure, if my life or that of someone I loved depended on using therapies developed as a result of human therapeutic cloning, that I would make the decision I believe is the ethically correct one. We should be very concerned that the cynics might prove to be correct, that no matter what ethical conclusions we come to, human cloning will proceed, especially if people believe that the good that might come from this new science would far outweigh any of the risks or harms we currently perceive it as presenting.

Margaret Somerville, *The Ethical Canary*