

Evolutionary ethics: can values change

K C Calman

See end of article for authors' affiliations

J Med Ethics 2004;**30**:366–370. doi: 10.1136/jme.2002.003582

Correspondence to:
Professor Sir K C Calman,
Vice-Chancellor and
Warden, University of
Durham, University Office,
Old Elvet, Durham DH1
3HP, UK; kenneth.
calman@durham.ac.uk

The hypothesis that values change and evolve is examined by this paper. The discussion is based on a series of examples where, over a period of a few decades, new ethical issues have arisen and values have changed. From this analysis it is suggested that there are a series of core values around which most people would agree. These are unlikely to change over long time periods. There are then a series of secondary or derived values around which there is much more controversy and within which differences of view occur. Such changes need to be documented if we are to understand the process involved in the evolution of differences in ethical views.

Received 19 June 2002
Revised version received
7 February 2003
Accepted for publication
9 February 2003

The topic which this paper examines is not a new one: T. H. Huxley gave the Romanes Lecture in 1893 on evolution and ethics which, while not dealing directly with the issue of the evolution of ethics does make some important related points, perhaps best described in the prolegomena to the essay.¹ The first of these is that values have changed over time from primitive societies to the present. The second is that the mechanism of these changes is not genetic, but is modified by a different process. The third is that the process of social ethics indeed acts in the *opposite* direction to the cosmic process—that is, evolution—in that medical science and the wish to help others inhibits the process of survival of the fittest. Thus doctors can be seen as the main agents for interfering with nature.

To begin with two quotations: the first is from John Locke in his *Essay Concerning Human Understanding*.²

When men have found some general propositions that could not be doubted of, as soon as understood, it was, I know, a short and easy way to conclude them innate. This being once received it eased the lazy from the pains of search, and stopped the inquiry of the doubtful, concerning all that was once styled innate: and it was of no small advantage to those who affected to be masters and teachers, to make this the principle of principles, that principles must not be questioned.

The second comes from *Captain Corelli's Mandolin* by Louis de Bernières.³

"It's a question of science," said Weber "you cannot alter a scientific fact." Corelli frowned, "I don't care about science. It's an irrelevance. It's a moral principle you cannot alter, not a scientific fact."
"We disagree," said Weber amiably "It's obvious to me that ethics change with the times as science does. Ethics have changed because of the theories of Darwin."

These two quotations set out the territory and the possible conflicts. Can values change, and if they do, what changes them? In brief, the conclusion is that values can and do change, though certain core values may be unaltered over a

long period of time. The changes which occur, particularly in medical terms, relate to changes in knowledge, changes in social and cultural values and norms, and changes arising through an individual's personal experience of life. The mechanism of these changes will also be considered.

TO BEGIN AT THE BEGINNING

For the last 25 years the author has had an interest in palliative care and in the early 1970s was involved in a remarkable "think tank" with Dame Cicely Saunders during which we explored a range of aspects of what was then called terminal care. Over the years this subject has changed and it has been evident that attitudes and values have also changed. Three brief examples illustrate this.

Communication and involvement with patients

When the author qualified in the mid 1960s, communication with patients seemed to have a low priority, though many teachers were particularly skilled in the process. Patients were rarely told the diagnosis, and indeed what the patient was told was not conveyed to other doctors. In 1974 there was a review of 100 letters sent to general practitioners (GPs) from a well known surgical unit. All patients had had the diagnosis of cancer confirmed. In all instances the GPs were told the diagnosis, the details of the surgical procedure—including the type of sutures used, but in only two cases was the doctor told what the patient had been told about the illness. My experience as a professor of oncology, again in 1974, taught me that it was very unusual for the patient to have been told of the diagnosis before referral.⁴ Things have now changed dramatically, and for the better. Patients are seen as full partners in the process and informed and involved in decision making.

Looking back to the student experience it is not difficult to see why such attitudes occurred. Here is a quote from a handbook of clinical methods used widely in the 1960s.⁵ It begins:

The interrogation of the patient. The object of interrogation is to elicit information regarding the patient's present illness, the state of his previous health and that of his family. The interrogation must be patiently carried out, the patient being allowed, as far as possible, to tell his story in

his own words. One patient is a good witness and another poor. One gives an excellent history. Another has to have the history of his illness dragged out of him by methods of slow extortion, and even then a great deal of what he says may prove irrelevant. Some patients seem quite unable to give any precise account of what they feel to be wrong. This may be due to stupidity or to the effects of disease on their mental faculties.

It is quite impossible to think that such attitudes would be written about in this way now. In addition, it was quite frowned upon to become involved with patients: it would cloud clinical judgment and the doctor must remain disinterested and aloof. Those involved with patients in moments of crisis know, however, the value of "being involved" and of the benefits it can bring to both parties.

The concept of extraordinary means

This concept, in summary, states that in life saving decisions at the end of life only ordinary means or techniques should be used, that is techniques which would be considered routine and not out of the ordinary. It is clear that over the years the definition as to what is ordinary and what is not ordinary has changed considerably and thus the decisions to be taken, and knowing how far one can go to prolong life, have become more difficult.

In a similar way it is perversely much easier to make decisions about treating an illness if the illness cannot be treated, though not for the patient, it must be added. Once treatment becomes available a whole range of new questions arise, from access to care, the costs of treatment, the facilities available, and the choice of the patient.

Euthanasia

It is also clear that public and professional views on euthanasia have changed over the years. The debate is more widespread and recent well publicised cases both in the UK and overseas have stimulated this discussion. Those who 20 years ago might have dismissed the concept out of hand are now prepared to at least discuss the topic. Why has this happened? Part of the explanation must be that as a society we are living longer and thus subject to an increasing number of debilitating diseases at a time when family structures are dissolving. Faced with this situation it is perhaps not surprising that some express the wish "not to be a burden". Such changes in social and cultural values are likely to impact on professional practice at some point and illustrate an issue which will be picked up later, namely that doctors and other health professionals are part of civil society and react to changes within it.

These three examples encouraged our think tank to review other areas where changes in practice have resulted from changes in ethical principles. It began with a look at the Hippocratic Oath by asking how many of the principles remain intact. Here are a few comments.

The Hippocratic Oath

Written in 4th century Greece, the context and the content are quite different from today. There is no mention of rationing, public health or research. Nevertheless, some important points emerge.

1. **Abortion.** The Hippocratic Oath makes it clear that abortion should not be performed. Yet at the present time over one hundred thousand are carried out each year in Britain by doctors, some of whom at least have taken the Hippocratic Oath.
2. **Confidentiality.** The oath makes it clear that everything in the consultation should be kept secret and be

confidential between the patient and the doctor. This is clearly not the case nowadays. Information is shared widely among the team, and indeed circulated to a range of non-professionals for a variety of purposes.

3. **For the benefit of patients.** The oath strongly suggests that the doctor's task is to do everything possible for the benefit of patients. Most doctors would agree with this, but most would also recognise that this is just not possible in all circumstances. Resources and facilities may not be available for the best to be done. Clinical trials are another example of how a particular treatment may not be for the benefit of an individual patient, but may benefit future patients.

These examples do not make the modern doctor less "virtuous", rather they illustrate the changes which have occurred.

Some further examples

Further examples can be used to illustrate the point that values have changed.

1. **Health care reforms.** Who would have believed 20 years ago that doctors in Britain would be talking the language of the market. Cost benefit analysis, audit, priorities, rationing, governance, etc all trip off the tongue with ease. What a remarkable change in values.
2. **Lifestyle issues.** Now that there is clear evidence that some lifestyle issues are closely associated with ill health, smoking being the obvious example, it was only a small step to suggest that those with smoking related illness should not be treated in the National Health Service (NHS) since they had brought the disease on themselves. Such a view, suggested by some doctors and organisations, would not have been considered 20 years ago.⁶ Similar issues could arise with HIV infection, gross obesity, and drug misuse.
3. **Vaccination.** Of all the techniques for improving health vaccination is one of the most successful and cost effective. It is well recognised that a small number of complications can result from the procedure. As the knowledge of the wild type infection recedes in the population there is questioning as to whether vaccination is still needed. The disease has gone, hence the need for vaccination has disappeared. Again, there has been a very considerable change in views.
4. **HIV infection.** Initially HIV infection was seen as something related to gays, and not to "ordinary" people. Apart from some important players it was not taken very seriously. As a problem it had little consequence for the population. That began to change as the epidemic developed and the result has been a significant shift in behaviour, namely in the practice of "safe sex".

Changing values

If we accept for the moment that values can and do change (and many other examples could be used) what is it that causes the change? Three possible mechanisms can be considered.

Changes in the knowledge base

This is the most obvious, and comes in two forms. The first is new knowledge about existing problems or techniques, and the second comes from completely new areas of work. In the first category, new drug treatments and modifications of existing surgical practice may add to the ethical implications. It is in the brand new areas, however, where completely original problems are created, that most of the interest lies. Here are some examples.

1. **Transplantation.** This was a very significant development. First with kidneys, and then with hearts, lungs, and livers. It meant that doctors had to rethink who owned an organ and who could give permission for it to be used. Xenotransplantation was even more interesting. How different was it, though, from the use of other tissues of animal origin in surgical practice?
2. **Contraception, including emergency contraception.** While contraception had always been available, the advent of the contraceptive pill changed everything. It was readily available and easy to use. Coming as it did, with a liberalisation of sexual attitudes, it changed habits and behaviour. While things changed again with HIV infection and the need to use condoms, the process had already begun. A new twist arose with the introduction of emergency contraception, the “morning after pill”. It would now be possible to have casual sex and deal with the consequences the next day. How would doctors react? Was this not just like an abortion? Who would you have to tell, whose permission would need to be sought? What if the person was under age? None of these questions were new, but the technology forced doctors and others to question again the basic values and beliefs, and how they impinged on clinical practice.
3. **Infertility treatment.** This has developed very rapidly over the last 20 years. We have gone from artificial insemination to egg donation and surrogate mothers. Was it a disease anyway, and why should it be treated on the NHS? These and many other questions needed to be reviewed again.
4. **Viagra.** The latest in a long line of wonder drugs to hit the clinic. This one, however, has some new characteristics. It is expensive, but so are others. It seems to be effective but the “illness” it is used for is impotence. Should such a drug be freely available on the NHS? What would happen to those patients with “legitimate” diseases whose treatment was delayed or could not be afforded because of the use of Viagra?
5. **Cloning.** This is one of the most significant technical achievements in recent science. The possibilities are considerable, but at the same time they raise major ethical issues. Should human cloning be allowed? How far should research be encouraged and funded? If it is not done in this country will others go ahead anyway? The fundamental questions of course relate to the concept of personhood, and how that might change if human cloning became a reality.
6. **Genetic modification of food.** This has turned out, in this country at least, to be one of the most hotly debated topics of recent years. How should foods be produced? What say do I have in the process? Where has my choice gone?
7. **Genetic screening.** This is not a new concept since the cruder process of family history taking has been used for decades. It is the sophistication of the technology, however, and its broadening scope, which has changed the picture. At the moment it is single gene defects which are the commonest of the genetic problems detected. In the future it will be complex patterns of genetic coding which will change the probability for the appearance of a disease. These raise important issues such as confidentiality of the information, employment prospects, and insurance implications.

In the list given above a wide range of possibilities exists for significant change in how we think. If any of the implications and consequences come about then there will

need to be a significant relook at our values and concepts of ethical issues. In essence new knowledge indicates what we *can and could* do. The question which is raised is whether we *ought and should* do it.

It would be fair to say that perhaps with one or two exceptions there are no new ethical problems, only modifications of existing ones. Nevertheless they will alter our thinking. One new one is the “principle of equal weight” in which, contrary to previous practice where the wishes of the patient are paramount, the possibility arises that relatives of someone with a genetic disorder might have the right to know this information for their own benefit. This could mean telling a third party against the wishes of the patient. A second new ethical problem is cloning which, if applied to humans, could radically alter our thinking and practice.

Social values and attitudes

These have changed very considerably over the years, and continue to do so. They are reflected in how we dress, how we use our increasing leisure time, how we view authority, and in many other ways. Part of this process has been our changing views of major social and ethical issues. Examples of this might include:

1. **Public views of the medical profession.** There is now, quite properly, greater questioning of the role of doctors and the way in which the medical profession operates and regulates itself.
2. **Role of authority.** Less credence is now given to the role of the church and other sources of authority.
3. **Increasing interest in human rights, and now animal rights.** The human rights movement has been growing and there is greater awareness as to what these rights are and how they can be used.
4. **Religious intolerance, racial hatred.** In spite of greater internationalisation, racial and religious intolerance is a major source of conflict across the world. It can be a significant barrier to change.
5. **Rise in single issue groups—for example, environment, and health issues.** Almost all illnesses and diseases have pressure groups whose function is, again quite properly, to fight for the rights of their own members. This can sometimes change the decision making process in a way which disadvantages other groups, and in particular those patient groups who are less able to get organised and put their case.
6. **Role of information technology (IT) and the internet.** The ready access to information will also be a significant source of change. Patients already come to the clinic with their printouts, and the numbers of them doing so is likely to increase. The quality of information may be a major problem. As a vehicle for changing the medical profession, however, it is likely to be very powerful.
7. **Changing attitudes to the family and to sexual relations.** Over the last 30 years we have seen very significant shifts in family life and attitudes to sex. Doctors, as part of society, cannot fail to be influenced by this. Contraception, abortion, and the care of the elderly all fall into this category.

Even within a single population, of relatively small size, there will be significant variation in social and cultural views. This makes it particularly difficult to reflect all the views of society when a major decision has to be made—for example, on a risk issue. How this heterogeneity is expressed following a decision by someone in authority is sometimes difficult to predict. Suffice it to say that attitudes and values in society as

a whole are constantly changing and the values within the medical profession reflect this.

Personal experience gained over time

There is little doubt that we all change with time. Our tastes, hobbies, political views, and friendships all change. These are a result of experiences, some good and some bad. We learn through stories and real events what matters to us, and what does not.⁷ The personal nature of these experiences is important, can affect each of us profoundly, and can cause us to completely change our minds.

There are therefore many ways in which our views, and those of society, can change, and the medical implications of this are part of a more universal phenomenon. Doctors and their patients are part of society and would be expected to change in a similar way. This raises the question as to whether any values are fixed, social or professional, and this is a subject to be discussed shortly.

ARE THERE CORE VALUES?

So far some possible changes in values, and how these might affect clinical practice, have been described. The next question is whether such changes are simply cosmetic and not really fundamental, in that they do not really change anything and are at the margins of thinking in medical ethics. Has anything fundamentally changed in the last 30 to 40 years, the lifetime of many in clinical practice? The answer, it is suggested, is yes and no. First then, how has it changed?

The changes

From the examples given above it should be clear that some changes have occurred. So the answer is yes, in the sense that there have been changes in values and in practice. Some of the best examples to consider would be:

- Confidentiality
- Genetic screening
- Infertility treatment and cloning
- Transplantation

They have changed the way in which we think about persons by changing our attitudes and our behaviour. It has been necessary to rethink our concepts and how we operate them.

Core values

It is also clear that some core values have not altered. These are mainly in the area of human rights where, if anything, our affirmation of them has become stronger. Some examples of this would be those taken from the Universal Declaration of Human Rights⁸ and might include:

- **Article 1.** All human beings are born free and equal in dignity and rights.
- **Article 2.** Everyone is entitled to all the rights and freedoms set forth in the declaration, without distinction of any kind such as race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth or other status.
- **Article 3.** Everyone has a right to life, liberty, and security of person.
- **Article 5.** No one should be subject to torture, or to cruel, inhuman or degrading treatment or punishment.
- **Article 26.** Everyone has a right to education.

To this list might be added those most associated with medical ethics: doing no harm (non-maleficence); a wish to

do good (beneficence); the desire to be fair (justice), and a respect for the individual (autonomy). The “Golden Rule”, “Do unto others as they would do to you”, “Love thy neighbour” or even the “My mother principle” (if it was your mother what would you do?) express in a different ways some of these sentiments.

From both of these lists, and there may well be others, it is clear that none of these are specific to medicine. They are all aspects of a democratic society. Are there then any ethical concepts which are specifically medical? Some of these might include the need to be humane, caring, and compassionate, and to have both calmness and equanimity.^{9, 10} This raises the important issue of doctors and their training. Can such values be taught?¹¹

Some consequences

If it is accepted that core values change only very slowly, and that there are derived or secondary values which can change more quickly, what are the consequences of this, and can a model be developed to assist in our understanding of how such changes occur?

Here are some implications.

1. **Changes in scope.** Some of the changes observed are not real changes, simply changes in the scope of the value. It has broadened or narrowed. The changes in the definition of extraordinary means would be an example of this. Or, perhaps a new technique makes us think more acutely about a particular issue. The introduction of the contraceptive pill, which changed attitudes considerably, was no more than a technically simpler method of contraception, but it was a method which put the onus on women rather than men. Xenotransplantation is in essence no different from the use of pig heart valves, and indeed the reason for its slow introduction is not an ethical one, but a technical one, namely the possibility of viral transmission from the animal to the human. These then are not real changes in values but are a response to new developments in relation to existing ethical issues.
2. **The universality of ethical values.** There is an assumption that all values need to be agreed by everyone: that abortion is or is not acceptable; that euthanasia is or is not appropriate. This is clearly not the case and where there is real disagreement it would be difficult to call the values concerned “core values”. They are, however, derived from broader and perhaps more universally agreed, values. Look again—for example, at article 3 of the Universal Declaration of Human Rights, which says: “Everyone has a right to life, liberty, and security of person”, something with which everybody would agree to. In relation to abortion, however, it could be interpreted in two ways: firstly, that the woman has a right to choose an abortion (the liberty argument), or secondly, that the rights of the unborn child have to be considered pre-eminent (the right to life argument). Hence the secondary or derived nature of some medical ethical points, which leave room for individual choice and interpretation. “Thou shalt not kill” is an even clearer statement, but is interpreted in many different ways. There are thus legitimate differences in view.
3. **Can we then construct a model?** This can best be envisaged as a series of concentric rings. The nearer the centre the greater the likelihood that the values will be widely agreed and change only slowly. The further away, the derived values become more subject to differences in interpretation. The debate therefore is what constitutes a core value, and whether they can change.

DOES IT MATTER?

So what! Does it really matter if values change? Would it make a difference? Would clinical practice really be affected if there were no agreement on values? What are values for anyway? The contention is that it would make a significant difference for a number of reasons which are described below. These would include:

1. **Patient trust and confidence.** At present the trust of our patients is the key to clinical practice. Without this doctors and other health care professionals would have great difficulty in working effectively.
2. **Order and disorder.** In all societies some form of rules and regulations are required for those societies to function effectively. Without this chaos can reign. Doctors and others are part of civil society and as such need to be part of its cohesion and substance.
3. **Professional standards.** This is related to the first point, but is closely linked to the concept of a profession.^{9 12 13} Professional values bind groups together and provide a way of safeguarding the public. Professional self regulation is thus a consequence of developing core values, and also a mechanism for us interpreting changes in the knowledge base, new clinical techniques, and changes in the values of society as a whole. Bodies such as the General Medical Council and the state medical councils, whose role this is, are thus vitally important. What then are values for?

Values give coherence to professional groups and give both a sense of purpose, and a way of setting and monitoring standards. They define the profession. Without such a code or agreement on ethical values it would not be possible take into account the rights, wishes, and feelings of those in our care and to develop the trust required to care compassionately for patients, their families, and the community.

SOME CONCLUSIONS

This paper set out to see if values in clinical practice could change. Evidence has been presented that they can. A more in depth look at such changes suggests, however, that many of these changes have been in secondary or derived values, rather than core ones. From the patient's point of view, however, the changes, if any, may be of major importance and need careful thinking through. Professional standards are at the heart of this and must be maintained if patient trust and confidence are to be retained. Values can and do change. This requires vigilance to ensure that in making the changes we do not lose what is important in clinical practice, compassion, and care.

ACKNOWLEDGEMENTS

I am grateful for the comments of Professor Robin Downie and Professor Barry Gower in the preparation of this paper. The paper was presented in Oxford as the first Hastings Lecture.

REFERENCES

- 1 Huxley TH. Evolution and ethics. Romanes lecture. *Collected essays*. London: Macmillan, 1893:1893-4.
- 2 Locke J. *Essay concerning human understanding*. Harmondsworth: Penguin, 1997;book 1, ch IV, para 24.
- 3 De Bernières. *Captain Corelli's mandolin*. London: Minerva, 1994.
- 4 Calman KC. What does the general practitioner want to know about the cancer patient? *Lancet* 1974;ii:770-1.
- 5 Hunter DH, Bomford RR. *Hutchison's clinical methods* [13th ed]. London: Cassell, 1956.
- 6 Sheldon T. Dutch doctor refuses to treat smokers. *BMJ* 1998;**316**:247-52.
- 7 Calman KC. *Storytelling, humour and learning in medicine*. London: The Stationery Office, 2000.
- 8 United Nations. *Universal declaration of human rights. United Nations resolution 217*. New York: UN, 1948.
- 9 Calman KC. The profession of medicine. *BMJ* 1994;**309**:1140-3.
- 10 Macnaughton RJ. Core values: doctor or everyman? *BMJ* 1996;**313**:120-1.
- 11 Downie RS, Macnaughton RJ. Public morality and moral education. *Adv Bioeth* 1999;**5**:17-29.
- 12 Irvine DI. Professionalism and self regulation in a changing world. *BMJ* 1997;**314**:1540-2.
- 13 Monitoring good practice, protecting patients from poor performance. *BMJ* 1997;**314**:1613-15.