"Dissecting Bioethics," edited by Tuija Takala and Matti Häyry, welcomes contributions on the conceptual and theoretical dimensions of bioethics.

The section is dedicated to the idea that words defined by bioethicists and others should not be allowed to imprison people's actual concerns, emotions, and thoughts. Papers that expose the many meanings of a concept, describe the different readings of a moral doctrine, or provide an alternative angle to seemingly self-evident issues are therefore particularly appreciated.

The themes covered in the section so far include dignity, naturalness, public interest, community, disability, autonomy, parity of reasoning, symbolic appeals, and toleration.

All submitted papers are peer reviewed. To submit a paper or to discuss a suitable topic, contact Tuija Takala at tuija.takala@helsinki.fi.

Precaution and Solidarity

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Health care services are constantly assessed by their ability to accommodate values popular in contemporary societies. Autonomy, justice, and human dignity have for some time been among such values in the affluent West.[1] Relative newcomers in the field are the notions of "precaution" and "solidarity," which seem to attract, in particular, Continental European ethicists.

The allure of precaution and solidarity is based on several related concerns. Like the ideal of human dignity, they offer an alternative to the American "autonomy and justice" approach, which is thought to overemphasize the role of individuals as consumers of health services. They can, however, also be detached from purely religious beliefs, which seem to underlie most pleas to human dignity.[2] And they can be seen to embody values that transcend hedonism and egoism, the hallmarks of utilitarianism and liberalism.

In this article, I will try to explicate the concepts of precaution and solidarity, as they are understood in European bioethics. Where possible, I will examine their similarities and dissimilarities with related notions used in other traditions.

The Precautionary Principle

The notion of precaution, or the *precautionary principle*, is best known in the contexts of climate change and the

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conservation of our natural environment. Formulations of it can be found in documents concerning the protection of the North Sea, the Baltic Sea, and the ozone layer and declarations and treaties on the environment and global development.[3]

The logic of precaution seems to be something like this:

- We know that A (e.g., global warming) is a very bad (or extremely harmful) thing.
- We suspect that x (e.g., the emission of greenhouse gases) causes A, but this cannot, for the time being, be scientifically proven.
- We conclude that, in the name of precaution, we ought to ban x, even if it may turn out that it is not the cause of A.

The principle, according to one commentator,

> embodies the idea that public and private interests should act to prevent harm. Furthermore, the precautionary principle suggests that action should be taken to limit, regulate, or prevent potentially dangerous undertakings even in the absence of absolute scientific proof. [The degree to which climate change mitigation by precaution succeeds] provides a measure of our kind's ability to manage responsibly the global commons which we inherited from our ancestors and which our generation enjoys, the global commons which we will pass on to today's children and to generations to come.[4]

Or, as another commentator has put it:

> [The Precautionary Principle] is designed to address the existence of scientific uncertainty in areas where our failure to anticipate (with reasonable certainty) future harm may lead to disaster. The principle says that in these cases we have to be prepared to act [with precaution] even though our fears of disaster may turn out to be unfounded in the long run. The Precautionary Principle appeals to our sense of controlling risks, and it assigns responsibility to present generations to think about the consequences of their action for future generations. It has an intuitive moral appeal.[5]

These quotations convey two messages.

The first is that it would be unwise to mess with the natural environment, the only setting in which humankind can, for all we know, live. This is especially true because environmental changes are often irreversible. If they are harmful, the harm will be inflicted on many people who are not even born yet.

The second message is that scientific proof is not a crucial factor in environmental decisionmaking. If a policy can be seen as ecologically menacing, then it should be banned, and this is not a question of ample, or even adequate, evidence. Uncertainty, the authors state, provides in these matters an argument for restrictions.

Precaution or Utility?

As the principle of precaution gained popularity in environmental ethics and policy, it also found its way to discussions concerning medicine and healthcare. The principle was employed in two European Council directives on genetically modified organisms in 1990 and since then issues like blood banking and human genetics have also been addressed in similar terms.[6] The question is, what can the logic of precaution in this new, and no doubt expanding, context be?

In the passages quoted above, proponents of the principle argue that it can help us, as political decisionmakers,

- to prevent harm
- to limit potentially dangerous undertakings

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- to anticipate future harm
- to control risks
- to manage responsibly the world's resources and
- to be responsible for the consequences of our actions to future generations.

Precaution in this sense comes close to "negative utilitarianism"—an outcome-based moral doctrine that states that the removal and prevention of harm is what morality is all about.[7] We should never willingly inflict unnecessary and avoidable suffering on sentient beings, and where some suffering is inevitable, it ought to be kept to a minimum.

Continental European moralists have, however, usually rejected utilitarian theories as naïve or immoral. This schism has its historical origins in Greek antiquity. Plato, arguably the first moral philosopher in Europe, claimed that virtue is rooted in an invisible world of ideas, to which our souls can emigrate when our bodies die. Against this, another early moral theorist, Epicurus, argued that because the world we live in now is, in fact, the only world there is, our only duty is to be happy here. Plato's followers, who, during the subsequent centuries, joined forces with the emerging Christians, have over two millennia reproached Epicureans for their alleged self-indulgence and hedonism. And this is the category under which utilitarianism, including negative utilitarianism, has been classified, because the doctrine states that our choices ought to maximize pleasure or minimize pain.

It is obvious, then, that precaution must be distinguished from utility if we want to rescue its status as a truly European notion. But how? What is the difference?

The answer can be found by focusing on the alternative costs of actions and inactions. In the context of dioxin scares, an American politician made the following statement, which elucidates the matter:

> [B]efore there is something proven to be a health risk, passing regulations that will cost billions of dollars to the American people is not justified.[8]

Whatever the validity or invalidity of this comment in its original context, it points to a significant distinction between two ways of thinking.

The utilitarian outlook, reflected in the passage, requires us to compare the costs and benefits of alternative actions and inactions before passing judgments concerning them. For instance, if we intend to test all the blood used in transfusions for rare but fatal diseases, we must also think about the money that will be spent on this. If the procedure is expensive, then more lives can conceivably be saved and more suffering prevented by allocating the money to other purposes. And if this were the case, then it would be wrong to set up an extensive policy of testing.

The cautious approach, on the contrary, entails that there are cases in which comparisons between action alternatives would be immoral. Because blood transfusions are generally supposed to be safe, their safety must be secured irrespective of the cost. The situation does not present a choice, or a trade-off, between two goods. It demands us to protect a value that must not be forfeited, in this case presumably public safety.

Maximizing Minimal Outcomes

An attempt can be made to conceptualize precaution in decision-theoretic terms. It has been argued that the decision strategy called "maximin," immortalized by John Rawls in his theory of justice,[9] approximates reasonably well the precautionary principle.[10] Accord-

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ing to this strategy, we ought to choose that action or policy that gives us the best outcome in the worst scenario we can think of. In other words, we must maximize the minimal good outcome of our decisions.

In blood banking, the worst outcome, intuitively speaking, will probably always be that unsuspecting members of the public contract deadly or crippling diseases from infected blood. In view of this, the maximin rule and the precautionary principle advise us to check all donated blood for every conceivable disease, whatever the monetary cost.

In this model, the "worst outcome" is not, however, defined purely in terms of human well-being or human lives. The same resources could, namely, be employed to promote well-being, and to save lives, in alternative ways. The public expenditure on blood tests in affluent countries, for instance, could feed entire regions in developing countries. In terms of physical harm, the worst scenario could be that the safety of blood in Europe or in the United States is secured at the expense of famine-stricken areas in other parts of the world.

But this is not the way precaution is usually understood in the cases of blood banking and genetics. Although the precautionary principle was first formulated to address global concerns, the emphasis of its application to health-related services is not necessarily on universal well-being, but on more local values. One of these seems to be the trust people in affluent societies have in the safety of their national healthcare systems.

Forms of Altruism

Many European ethicists have recently argued that the trust people have in the healthcare systems of their nations should be linked with the notion of solidarity.[11] This is one of the most elusive concepts in contemporary social ethics, but I will try to approach it here by starting from the idea that solidarity is a communal form of altruism, with a theoretical niche somewhere between the psychological, social, and political categories of sympathy, universal benevolence, and justice. Let me begin by giving brief descriptions of these alternatives and their backgrounds.

Altruism as a generic moral principle explains or justifies good deeds done to others out of unselfish, or what seem to be unselfish, motives. It can be accounted for in many ways, and only some of these involve the concept of solidarity.

Those who believe in the psychological notion of *sympathy* argue that people have a natural tendency to be kind to each other.[12] We may not be inclined to give our last penny to a stranger, but we do not normally hurt others for no particular reason, either, and we do usually help them if that is possible without personal sacrifices. Explanations given of this phenomenon vary, but one possibility is that our inborn faculty of sympathy makes us, to some extent, feel ourselves the emotions we observe in others. When we see that somebody is sad, we can sense some of the sadness in ourselves, too, and we are then psychologically forced to remove its causes. Similarly, when we see that somebody is happy, we are bound to ensure that this desirable state of affairs is not disrupted.

Others have argued that our life together as social animals obliges us to be *universally benevolent*. Our unaffected mode of being, as individuals, can be egoistic or altruistic, but in any case we have a duty to pursue the greatest happiness of the greatest numbers.[13] If we do not acknowledge this ourselves, the laws and policies of

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the nation must be arranged in a way that makes it prudential for us to help others, directly or indirectly. This is partly a matter of moral education, but where education fails, laws must be devised to encourage altruistic behavior and to root out malevolence and excessive egoism.

Another way to justify altruistic legislation is to state that it is politically reasonable to comply with the demands of *justice*. Individuals, as rational agents, have rights and duties that regulate their mutual dealings. These rights and duties can be defined in many different ways, but at least according to the influential reading of John Rawls, affluent nations have a strong responsibility to look after those citizens who are materially worse off than the rest. The foundation of this responsibility is that rational, self-interested individuals would recognize it, if they did not know their own personal qualities, or their position in society.[14]

Advocates of *solidarity* as a distinctly communal form of altruism tend to criticize the foregoing psychological, social, and political accounts of their individualism and egoism. Human beings are, they believe, essentially interdependent, and all liberal and utilitarian theories, which assume that individuals can exist prior to their culturally determined values and social relations, are fundamentally mistaken. Proper manifestations of altruism should be communal, voluntary, spontaneous, and reciprocal, not state-controlled, externally enforced, organized, or contractual.

Why Is Solidarity Needed?

Sympathy, universal benevolence, and justice do not always prompt us to do good to specific human beings. Consider, for instance, the following case.

> An old, demented person, without means, relatives, or friends, lives alone in a small house in a remote area. It is obvious to her and to anybody who is acquainted with her situation that she cannot take care of herself.

What are the responses of various kinds of altruism to this case?

Sympathy, some would say, requires us to cater to this person's needs. But in its stringent psychological form, the theory of sympathy can only assert that, as a matter of fact, people who come into contact with her will feel an urge to help her. There are two problems with this claim. The first is that it is a factual statement whose validity has never been proven, not a normative prescription. The second is that people who do not come into contact with the person do not, according to the model, necessarily feel anything. In practice this means that we can elude the demands of this type of altruism simply by turning our backs on others. The obligation to help those in need is made subject to our own choices.

Universal benevolence runs into another set of difficulties. Even granted that our actions should be guided by the greatest happiness of the greatest numbers, it is not evident that this would call for assisting the person in our example. Some utilitarians have argued that the most basic needs of individuals should be accounted for first, which could imply that old, demented persons living alone are at the top of the list.[15] But what if more well-being can be produced, or more suffering prevented, by other means? In theory, at least, the utilitarian solution is always open to the possibility that the general needs of others prevail over the needs of one specified individual.

Justice understood as the protection of rationally defined rights can, depending on the interpretation, either drive us to provide for old demented

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persons or not. Rawls's model can call for active, publicly funded assistance. But libertarian philosophers like Robert Nozick have argued that by collecting involuntary taxes for welfare purposes, the state inevitably violates the rights of its citizens and treats them as mere means to the ends of others.[16] Because both views are based on similar intuitions concerning individuals, their rationality, and their rights, it is difficult to raise one above the other as the true liberal reading of justice.

A point on which proponents of solidarity can agree with Nozick is that people's actual moral beliefs rather than their hypothetical choices should form the foundation of rights and duties. Rawls stated in his theory that individuals would choose egalitarian political principles, if they did not know who or what they are. Although this may be perfectly true, many people think that the real question is, what principles do they choose in the real world, where they have a fairly good idea of their own lot.

In any case, these forms of liberalism would be too egoistic and individual-centered to most champions of solidarity. Nozick denied the needy the right to be cared for by others because he thought that norms like this would violate other people's prior entitlements to their private property. And although Rawls's conclusions were quite altruistic, his starting point was the choice of a self-interested individual behind a "veil of ignorance."

Accounts of Solidarity

Solidarity, which some suppose should replace the liberal and utilitarian forms of altruism, has been linked with many different ideas. These include brotherhood, trade unionism, help to those in need, sympathy for the weak, social cohesion, fellowship, and civic duties. European moralists tend to connect the notion with communities rather than official state functions, voluntary rather than enforced activities, spontaneous rather than organized events, and reciprocal rather than contractual exchanges. The essence of solidarity in this sense seems to be "non-calculating co-operation." On the other hand, however, a significant association is also often seen between solidarity and the welfare state.[17]

It seems that solidarity in its modern meaning was introduced to moral philosophy by Christian ethicists. In the early 20th century some Jesuit thinkers invented a doctrine called the philosophy of solidarism, according to which individuals and societies are "thrown on to each other" in a way that makes a duty of mutual help inevitable. They were followed by advocates of personalism, who argued that everybody has an obligation to cultivate relationships with others because human beings have a duty to develop themselves, and this duty cannot be discharged without engaging in social life.[18]

Although solidarism and personalism are Christian doctrines, it has been argued that religion is not a necessary element in understanding the nature of solidarity. All that is needed is the conviction, shared by the followers of Aristotle, G.W.F. Hegel, and Karl Marx, that individuals are "embedded in social contexts." Seen from this viewpoint, social and political arrangements are not contracts made between individuals, but naturally developed forms of human life. From "the fundamental social embeddedness of individuals" it can be deduced, for instance, that the welfare state is not primarily a rational enterprise, but an "incarnation of solidarity as a pre-rational fundamental value."[19]

Although accounts like this can be seen as focal to the genuinely Euro-

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pean idea of solidarity, the concept has also been defined in more individualistic terms. Pooling risks and sharing costs have been identified as forms of solidarity,[20] and authors who describe solidaristic policies in their own countries have not always been explicitly committed to the social embeddedness of individuality thesis.[21] Even theorists who stress the importance of communality, spontaneity, and reciprocity make appeals to "reflexive" and "communicative" forms of solidarity, which make the content of the principle more or less a matter of contractual agreement.[22]

Solidarity, Life-Worlds, and Precaution

Maybe solidarity as a truly European principle can be best understood when it is linked with the two main elements of precaution mentioned above.

It can be unwise to mess with the social ethos of European welfare states if they are the only political settings in which their citizens can lead good and fulfilling lives. Changes in the ethical climate, like atmospheric and other environmental changes, can be irreversible, and they, too, can have adverse effects on future as well as present generations.

Furthermore, scientific proof of socially inflicted harm can be as difficult to come by as proof of environmental damage. But in both cases considered uncertainty can be turned into an argument for protective and conservative policies.

The entity protected by solidarity as a communal form of altruism is, it can be argued, a distinctly European form of life, or "life-world" (*Lebenswelt*).[23] Those who value solidarity as an ethical principle can claim to defend this life-world against the universalistic, individualistic, and technological spirit of our time. The idea is that liberal and utilitarian theories can produce only cold and calculating forms of justice, and safeguard only the interests of those who are physically fit, mentally alert, and reasonably successful in their economic endeavors. Cautious solidarity, in its turn, is supposed to preserve the dignity, integrity, and worth of all human beings in European welfare states.

The ethics of precaution and solidarity, if understood in this way, clearly provides an alternative to other prevailing moral and political philosophies. It addresses important social concerns and speaks to acute issues of intergenerational justice. It also takes into account cultural variation and allows nations and communities to have different views on shared risk management and equity.

Proponents of precaution and solidarity cherish the natural environment and communal life-worlds as they are. There is a tension between this "romantic" type of thinking and the "enlightenment" ideal that we should constantly change our material and social surroundings in the name of progress. According to the enlightenment ideology, nature is a hostile force to be conquered, and tradition a relic to be discarded. The future happiness of humankind can be ensured only by inventing and implementing new technologies and by devising and conducting social and political experiments.

I believe that if ethicists could learn to understand different approaches to moral issues instead of sticking to their own views, a workable balance could be found between the principles of utility and precaution, justice and solidarity. There is nothing fundamentally wrong with the calculation of costs and benefits or with the equitable management of scarce resources. But the same can be said about caution in the face of uncertainty, and about traditional forms of altruism,

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when the alternatives have not been properly worked out in terms of their impact on vulnerable individuals and communities.

Notes

1. On "principlist" approaches to bioethics, and on autonomy, justice and dignity, see, e.g., Beauchamp TL, Childress JL. *Principles of Biomedical Ethics*, 5th ed. New York and Oxford: Oxford University Press; 2001; Gillon R, ed. *Principles of Health Care Ethics*, Chichester: John Wiley & Sons; 1994; Holm S. Not just autonomy—The principles of American biomedical ethics. *Journal of Medical Ethics* 1995;21:332–8; Häyry M. Ethics committees, principles and consequences. *Journal of Medical Ethics* 1998;24:81–5; Broberg M, Knox JBL, eds. *Dignity, Ethics and Law: Bibliography*. Copenhagen: Centre for Ethics and Law; 1999; Takala T. What is wrong with global bioethics? On the limitations of the four principles approach. *Cambridge Quarterly of Healthcare Ethics* 2001;10:72–7.
2. Häyry M. Another look at dignity. *Cambridge Quarterly of Healthcare Ethics* 2004; 13:7–14.
3. *Ministerial Declaration of the Second International Conference on the Protection of the North Sea* (1987); *Declaration on the Baltic Sea* (1990); *London Amendments to the Montreal Protocol on the Protection of the Ozone Layer* (1990); *Rio Summit Declaration on the Environment and Development* (1992); *Maastricht Treaty* (1992). See Martin PH. "If you don't know how to fix it, then please stop breaking it!" The precautionary principle and climate change. *Foundations of Science* 1997; 2:263–92 at pp. 282–3.
4. See note 3, Martin 1997:264.
5. Kaiser M. The precautionary principle and its implications for science: Introduction. *Foundations of Science* 1997;2:201–5 at p. 202.
6. See note 3, Martin 1997:282, 290; Hermitte M-A. Le Principe de Précaution à la lumière du drame de la transfusion sanguine en France. In: Godard O, ed. *Le Principe de Précaution dans la Conduite des Affaires Humaines*. Coéditions INRA, MSH et Association Natures, Sciences, Société-Dialogues; 1997: 179–89.
7. Cf. Häyry M. *Playing God: Essays on Bioethics*. Helsinki: Helsinki University Press; 2001 at pp. 69, 71–3.
8. See note 3, Representative Dana Rohrabacker, cited in Martin 1997:281.
9. Rawls J. *A Theory of Justice*. Oxford: Oxford University Press; 1972.
10. Hansson SO. The limits of precaution. *Foundations of Science* 1997;2:293–306.
11. See, e.g., Bayertz K. Solidarity and the welfare state. *Ethical Theory and Moral Practice* 1998;1:293–392; Houtepen R, ter Meulen R. Solidarity in health care. *Health Care Analysis* 2000;8:329–411; Takala T. Justice for all? The Scandinavian approach. In: Battin M, Rhodes R, Silvers A, eds. *Medical and Social Justice: Essays on the Distribution of Health Care*. New York: Oxford University Press; 2002:183–90.
12. See, e.g., Hume D. *An Enquiry Concerning the Principles of Morals*, orig. 1751, Schneewind JB, ed. Indianapolis: Hackett Publishing Company; 1983.
13. See, e.g., Bentham J. *An Introduction to the Principles of Morals and Legislation*, orig. 1789, Burns JH, Hart HLA, eds. London: Methuen; 1982; Mill JS. *Utilitarianism*, orig. 1861, Sher G, ed. Indianapolis: Hackett Publishing Company; 1979.
14. See note 9, Rawls 1972.
15. Häyry M. *Liberal Utilitarianism and Applied Ethics*. London: Routledge; 1994.
16. Nozick R. *Anarchy, State, and Utopia*. Oxford: Blackwell; 1974; cf. Kant I. *Ethical Philosophy*, 2nd ed. Ellington JW, transl. Indianapolis: Hackett Publishing Company; 1995.
17. Houtepen R, ter Meulen R. New types of solidarity in the European welfare state. *Health Care Analysis* 2000;8:329–40.
18. von Nell-Breuning O. *Baugesetze der Gesellschaft*. Freiburg: Herder; 1990; McFaden A. *The Call to Personhood: A Christian Theory of the Individual in Social Relationships*. Cambridge: Cambridge University Press; 1990.
19. See note 17, Houtepen, ter Meulen 2000:335.
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23. Cf. note 22, Houtepen, ter Meulen 2000:361.

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