

The ethics of responsible acting – A systemic perspective

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Introduction

I work with research in organic farming, especially the philosophy and methodology of systemic research. In our work with research in organic farming, the relations between science and values are pivotal issues of inquiry. This is the background for the present presentation, which will include the following topics:

- sustainability and precautionary acting
- conceptions of nature and of the relationship between human and nature
- the historical extension of ethics
- moral responsibility and moral considerability
- moral significance and concepts of value
- two paths of extending moral considerability
- a cybernetic model of ethical acting
- four dimensions of extension of ethics
- towards a systemic ethics

Sustainability and precautionary acting

Agriculture is an intimate, common interface between human and nature. And therefore the questions of sustainability and precautionary acting have become important issues in agricultural research. There are, however, a rich diversity of meanings of sustainability and precaution.

Gordon Douglass (1984) made it clear that "agricultural sustainability" means different things to different people, and that it can be defined in different ways and sought through different means. Douglass distinguishes between three dominant visions of agricultural sustainability: food sufficiency, stewardship and community, which are used by different groups with different views and values. Sustainability as *food sufficiency* looks at population growth and speaks of sustainability in terms of sufficient food production, with the necessary use of technology and resources.

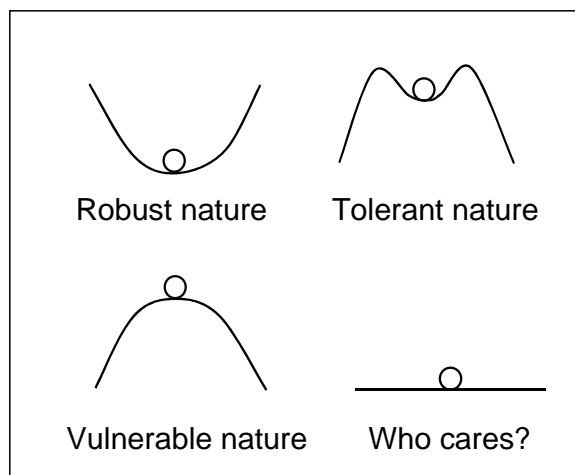
Agriculture is an instrument for feeding the world and economic cost-benefit analysis is the instruction, which guide application of that instrument. In this group we find the defenders of the modern "conventional", industrialised agriculture. Sustainability as *stewardship* is concerned with the ecological balance and the biophysical limits to agricultural production. From the ecological point of view, sustainability constrains the production and determines desirable human population levels. This is a diverse group of "environmentalists", often with a concern for the limits to growth in a finite global environment. Sustainability as *community* resembles the ecological point of view, but with special interest in promoting vital, coherent rural communities. Cultural practices are taken

to be as important as the products of science to sustainability, and the values of stewardship, self-reliance, humility and holism are encouraged. In this group we find the "alternative" forms of agriculture, and modern organic farming has also originated from within the community group.

The meanings of precaution in relation to environmental hazards and ecosystem health issues are also quite diverse. Two distinct meanings of environmental precaution are entailed in the concepts of environmental risk assessment and the precautionary principle. *Environmental risk assessment* is concerned with the calculation of proportional risks and benefits from available scientific knowledge, while *the precautionary principle* prescribes acting before scientific evidence is available, early detection of dangers, and promotion of cleaner technologies (Kasanmoentalib, 1996; Boehmer-Christiansen, 1994).

Conceptions of human and nature

Inquiring into the diversity of concepts of agricultural sustainability and precaution, conceptions of nature and of the relationship between human and nature play an important role. Figure 1 shows different conceptions of nature (modified from Schwarz and Thompson, 1990): A nature without limits of its own, which we may call *robust* nature, where human impacts and use of natural resources are only limited by economic and social growth. This is the conception of nature found in mainstream neo-classical economics as applied to environmental issues, as far as it adheres to a strong principle of infinite intersubstitutability - that all natural resources are substitutable by human labour, capital and technology (Norton, 1992). It is not a "who cares?" conception, where nature is of no importance, but a strictly economical view of nature. In opposition to this conception of nature is the *vulnerable* nature, where almost any human impact will push nature beyond the limits.



(After Schwarz & Thompson 1990)

Figure 1: Conceptions of nature as more or less vulnerable

Ecological economics challenges the assumption of infinite intersubstitutability and the robust conception of nature, arguing that certain elements, relations or processes of nature represent irreplaceable resources, which constitute a separate category of capital, natural capital. Natural capital can be "critical" in as far as it is not substitutable with the conventional forms of human

capital (Norton, 1995; Goodland, 1995:14). This view of natural capital is now also entering the mainstream economics (Danish Economic Council, 1998). We may characterise the conception of nature in ecological economics as a *tolerant* nature, a nature that is vulnerable, but which tolerates human impact within certain limits. Hence, the type and scale of human impact becomes of key importance. Within environmental economics the two different "paradigms", neo-classical and ecological economics, give rise to a distinction between *weak* and *strong* sustainability, corresponding to the distinction between a robust and a tolerant nature (Daly and Cobb, 1990).

The different conceptions of nature shown in figure 1 have no explicit reference to human's place in nature. Taking a broader perspective on our conceptions of nature, which includes both human and nature and the relationship between human and nature, we may distinguish between two different kinds of conceptions of nature, the *distinctive* and the *systemic* (figure 2). The distinctive kind of conception of nature sets man as separate from nature, often by characterising the natural as the uncontrolled, that which has not been changed or inflicted upon by man, in contrast with human culture. There are two opposing views of nature within the distinctive conception, which we may call the *agriculturalist's perspective* and the *natural historian's perspective*.

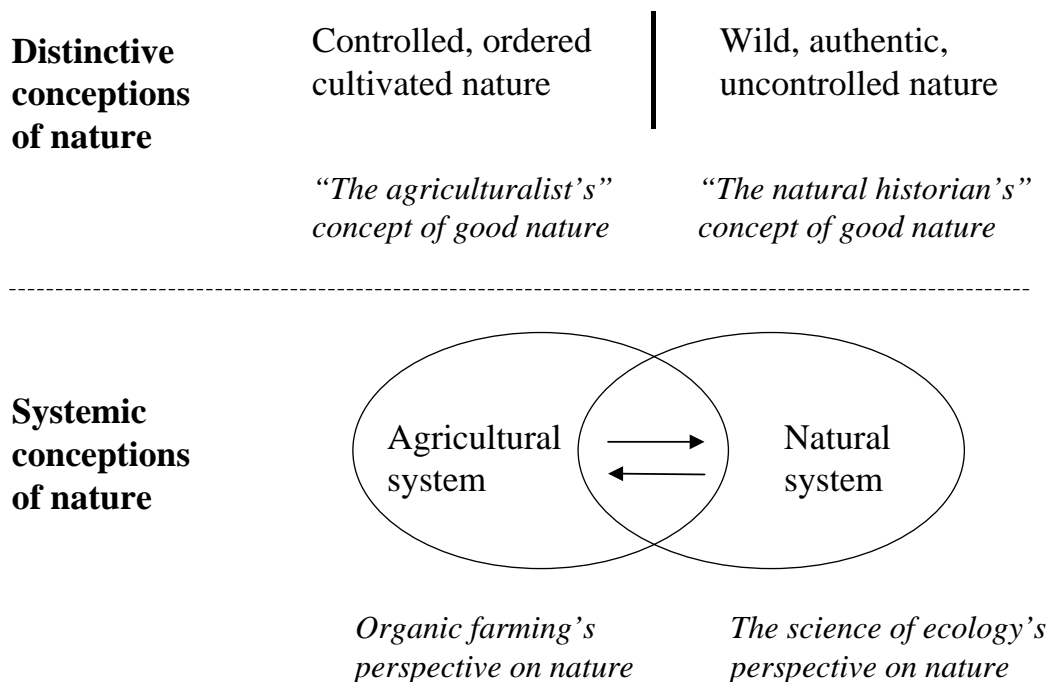


Figure 2: Distinctive and systemic conceptions of human and nature

The "agriculturalist's" perspective on man and nature, which takes the controlled and ordered nature to be good nature, has deep roots in the Judeo-Christian religious tradition, as indicated by God's command to man to "be fruitful and multiply, and fill the earth and subdue it; and have dominion over the fish of the sea and the birds of the air and over every living thing that moves upon the earth" (Genesis 1:27-28). The "agriculturalist" conception of man apart from nature is presupposed in the view of nature as robust in figure 1. The "natural historian's" perspective, which takes the wild and authentic nature to be good nature, has been one of the motivating factors in the conservation movement.

The systemic kind of conception of nature sees humans as an integral part of nature. Here, we can find two opposing, but not incompatible, perspectives on agriculture and nature in the form of ecological agriculture and ecological or environmental science.

Within the philosophy of sustainability, Paul B. Thompson (e.g. 1996; 1997) distinguishes between two, and only two, philosophical meanings of sustainability: *resource sufficiency* and *functional integrity*, a distinction which corresponds to the distinction made above between distinctive (though resource sufficiency only refers to the "agriculturalist's" view) and systemic conceptions of nature. Within conservation philosophy a similar distinction has been suggested between two complementary schools: *compositionalism*, corresponding to a distinctive view (though compositionalism only refers to the "natural historian's" view), and *functionalism*, corresponding to the systemic view (Callicott *et al.*, 1999).

Important general issues in the discussions on sustainability and precaution include:

- the expanded influence of humans on nature, on a regional and global scale
- the growth of human technological action ability
- the possibility of corrupting human life support systems, and hence the life of future generations
- the growth of knowledge, and the limits of knowledge and control
- growing understanding of the systemic relations between humans, other living beings, and global geo-physical processes
- Earth as a delimited oasis in space

In the present paper these issues will be considered within an ethical framework. And the ethics that can embrace these issues and the connected normative concepts of sustainability and precaution may, in this respect, be called a systemic ethics. This approach towards a systemic ethic is described in more detail in Alrøe & Kristensen (in prep). In the following, an outline of systemic ethics will be given, taking off in a view of ethics as critical reflections upon good acting and good living. This approach resembles Hans Jonas's ethics of responsibility, where the concept of responsibility is placed at the very centre of ethical theory (Jonas, 1984).

The historical extension of ethics

The history of ethics shows an extension of ethics from ethics where only ones fellows are considered, towards the inclusion of equal men, slaves and women. In the latter centuries the universalistic theories of ethics have considered all persons (beings of reason), all human beings or, more recently, all sentient beings worthy of moral consideration. And today, the possible further extension of ethics to include living beings and ecosystems is discussed.

This historical extension gives cause for an analysis of the dimensions of ethics in which the extension takes place. First we shall look at the extension beyond the symmetry between moral responsibility and moral considerability, a symmetry presumed in the so-called golden rule: "In everything, do to others as you would have them to do to you ..." (Here from Matthew 7:12). After that, a more complete set of dimensions of ethical extension will be sought.

Moral responsibility and moral considerability

Kenneth Goodpaster made the important distinction between moral responsibility and moral considerability, in the context of environmental ethics (Goodpaster, 1978). Such a distinction is the foundation for an asymmetrical ethics, where the range of moral considerability goes beyond those who are themselves capable of moral acting.

In the following it is presumed that ethical acting is conditioned upon self-awareness – that ethical responsibility presupposes self-conscious moral agents capable of reflecting upon their intentions and actions. The limit of moral considerability in a symmetrical ethics must therefore be drawn at self-aware beings – only persons are morally considerable.

Taking moral considerability as distinct from moral responsibility leaves the question of moral considerability open. There are different approaches and arguments as to where the limit of moral considerability is to be drawn. The symmetrical ethics, where only persons are morally considerable, is a logically consistent position, but excludes young children and mentally disabled humans from moral consideration. On the other hand, considering all human beings, but no other sentient beings, worthy of moral consideration seems to be difficult to defend against a charge of chauvinism (e.g. Routley and Routley, 1979), because there seems to be no logical means of establishing human beings as a separate category.

In modern thought about animal rights, or animal liberation, the key arguments concern the capacity to suffer, or to experience pain and pleasure. Hence, the limit of moral considerability is often drawn at sentient beings (leaving the definition of sentient beings a subject of discussion). Others, like Goodpaster, draw the limit at living beings. But few include all things as morally considerable.

Moral considerability and moral significance – the question of value

In discussing moral considerability it is equally important to distinguish between considerability and significance (Goodpaster, 1978). Considerability does not imply significance. Saying that all living beings are morally considerable does not imply that they are equally significant, that a mole should be treated equally to a person. Moral considerability corresponds to the concept of *intrinsic value* in environmental ethics, in the sense of “being capable of valuing” or “having value in itself” (e.g. VanDeVeer, 1995). Moral significance concerns the weighing between subjects of moral consideration, and thus corresponds to general concepts of value, such as *direct* (aesthetic or experiential) value and *indirect* (instrumental) value.

The possible positions in relation to moral considerability and moral significance are often discussed in terms of the concepts of *anthropocentrism*, where only humans (or persons), are morally considerable, and *non-anthropocentrism*, where moral considerability includes more than humans, or persons. *Biocentrism* is a less precise term, which is sometimes used in the same sense as non-anthropocentrism, and sometimes in the sense that all sentient (or living) beings are equally morally significant.

Two paths of extending moral considerability

Returning to the concepts of sustainability and precaution, we need to consider the possible extension of moral considerability to communities and ecosystems. Are ecosystems, for example, morally considerable? This approach takes up the tradition from Aldo Leopold's "Land Ethic", as promoted by J. Baird Callicott (e.g. 1979; 1982).

I shall argue that there are two different paths, along which moral considerability may be extended: an *individualistic* and a *systemic* path. This distinction builds on two related ideas: That ecosystems cannot be mended within an individualistic approach to considerability, and that the concern for ecosystems and communities is different from the combined concern for individual entities within the system.

The historical extension of ethics to all men, all humans, and all sentient beings has been squarely within the conventional individualistic approach in western thought. Some, like William K. Frankena (1979), have sought to place the concern for ecosystem within the individualistic frame, with the effect that the considerability of ecosystems is found to be the same as the considerability of "everything". Others equal ecosystems to living organisms, but this seems empirically unfounded since ecosystems are not teleological systems in the same way as organisms are.

The extension of ethics can be seen as involving an extension of the *self* (Næss, 1974:177ff). Within a systemic perspective, there are two paths of extending the view of oneself: By way of identifying with individuals of more or less the same kind, in the spirit of "love thy neighbour like thyself" – the individualistic path of extension. And by way of identifying with larger communities or systems of which one is, more or less unconditionally, a part – the systemic path of extension. This second path of extension moves from oneself towards more and more inclusive systems of which one is a part, such as the family, the local biotic or ecological community, and the global ecological community. It is, off course, possible to include other systems than those mentioned, and there is not one but many possible hierarchies of systems – the same way that other kinds of individuals may be included in the individualistic path, because there is no one right way of identifying with "others like me".

Four dimensions of ethical extension

In a fuller analysis of the *dimensions* of ethics – the kind of "space" in which the extension of ethics may take place – the relevant dimensions must be determined from some kind of model of ethics. Here, the dimensions will be determined from a cybernetic *model of ethical acting* (figure 3). This approach is in line with the understanding of ethics as reflections on good acting, and with the kind of systems theory found in second order cybernetics (Foerster, 1984). In the cybernetic model we find the moral agent; the intentions in relation to some subject of moral consideration ("the other", which may be an individual or a system); the action and the actual consequences of the action; and the informative feedback on the actual consequences for "the other".

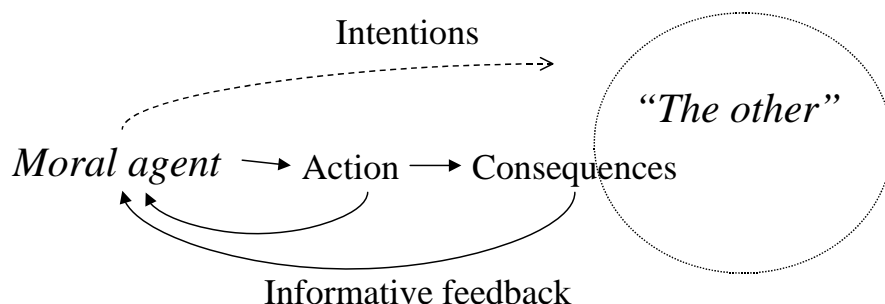


Figure 3: A cybernetic model of ethical acting

This cybernetic model of ethical acting gives rise to four dimensions in which ethics may be extended (figure 4). The first two make up the distinction, mentioned above, between *moral responsibility*, referring to the moral agent, and *moral considerability*, referring to the moral subject. Moral responsibility is traditionally restricted to the individual person, but there are reasons for talking of collective social (and global) responsibility, as in the "tragedy of the commons"

described by Garrett Hardin (1998). The dimension of moral considerability refers to both the individualistic and systemic extensions described above.

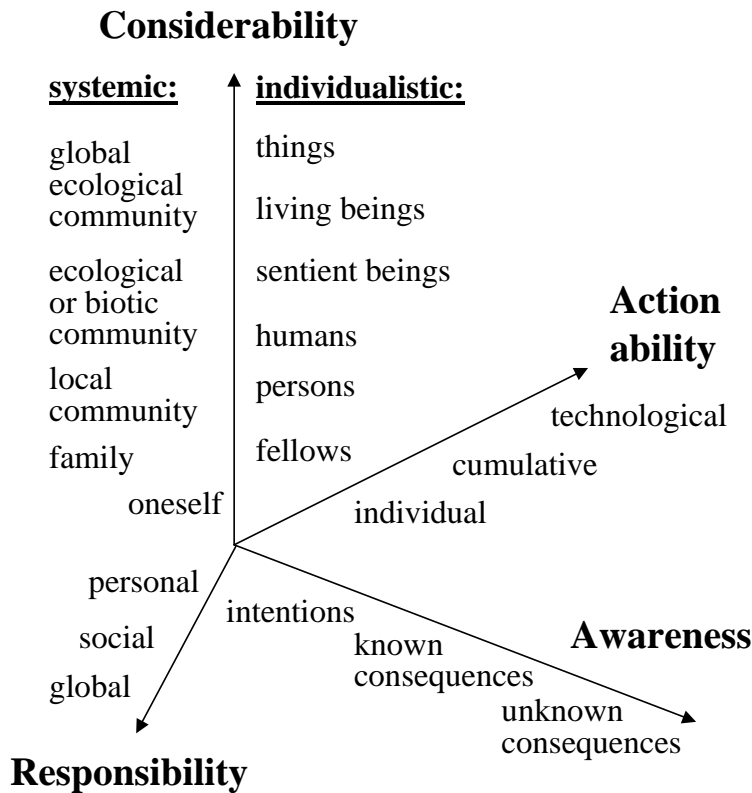


Figure 4: Four dimensions, along which ethics may be extended

The third dimension, *action ability*, is related to the actual actions and their consequences. The expansion of action ability may be cumulative, as in the increase of the size of the human population, and it may be technological. The ethical implications of the technological expansion are discussed in detail by Hans Jonas (1984). The increase in actual and potential human influence on earth is an important aspect of the problems of sustainability.

The fourth dimension, *awareness*, is related to the nature of the informative feedback from the consequences of action, with a possible extension from intentions (no feedback) to known consequences (e.g. utilitarian ethics), and further on to unknown consequences. The inclusion of unknown consequences – the acknowledgement of the limits of knowledge and the use of this awareness in decisions and practice – is exemplified in the use of the principle of precaution in environmental regulation. And the extension of awareness to include uncertainty and limits of knowledge also plays an important role in sustainability, at least in some meanings of sustainability.

Towards a systemic ethics

If we take ethics to be critical reflections on good acting and good living, in the tradition of Aristotle, an authoritative religious foundation of ethics seems superfluous. And authority may even be an obstruction towards a suitable ethics for the new millennium, in as far as it blocks the road of inquiry.

In a systemic ethic of responsible action, the growth in technological action ability is a question to be considered within ethics, together with the question of the limits of our knowledge of – and our means of learning about – the consequences of our actions. Such an ethic is founded on the increasing awareness of the intimate systemic relations between the different beings on Earth, between humans in society, and between society and nature. Facts and values are in constant interplay in ethics, since the world, and our understanding of the world, is always changing and human values are transformed in accordance with knowledge and awareness. The systemic ethics calls attention to certain limits to human acting and living, but it does not prescribe one unitary or optimal way of acting and living. Within certain common limits, it leaves space for a pluralism of ways of living in accordance with different visions, structures of meaning, and spiritual approaches.

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