L1.1_thompson.pdf

thomp649@msu.edu

Ethical Bases of Sustainability

Draft September 14, 2006

Paul B. Thompson, Michigan State University

ABSTRACT: Sustainability has proven to be a fruitful concept for interpreting and promoting a wide range of environmentally oriented goals and values. It is an implicitly normative concept: sustainability is always understood as something that societies, organizations and individuals should try to achieve, rather than a purely empirical or descriptive accounting of current or future trends. However, the literature on sustainability offers many different ways to integrate ethical norms (understood here as encompassing the full range of normative values) the conceptualization of sustainability. This paper reviews several leading theoretical approaches to the achievement of sustainability within livestock production systems, and examines how ethics either are or might be analyzed as playing a role in each approach. In particular, I will emphasize approaches to sustainability that utilize "indicators" of sustainability as a way to resolve value conflicts over environmental goals. One point of view sees each indicator representing alternative ethical norms, then utilizes empirical research to measure the relative effectiveness of alternative production systems in meeting achieving progress with respect to indicators. An alternative point of view sees indicators as themselves reflecting a consensus among parties holding different values, a consensus that should be reached before empirical work begins. In the end, it is important for livestock researchers and environmental policy analysts to continue debating the relationship between ethics and sustainability, if there is to be any hope of attaining any measure of coherence among alternative approaches.

How does ethics relate to sustainability? This paper will sketch two very broad ways of understanding this relationship. One understands sustainability as one among several ethical norms that can be used to evaluate agricultural production methods or overall configurations of the agrifood system. The alternative understands sustainability as a social movement that has 'acting ethically' as one of its political commitments. The paper makes a brief assessment of the relative merits to these two ways of conceptualizing the ethical bases of sustainability, then turns to some recent attempts to develop indicators for sustainable livestock production. Each of these two conceptualizations of the ethical bases for sustainability suggest distinct ways to understand the relevance of indicators both to ethics and to policy decision making.

Ethics and Sustainability

What is agricultural ethics? One answer is that we should understand agricultural ethics primarily as a debate about the social goals that any given configuration of production and distribution systems for food and fiber should fulfill. This approach differs from other areas of applied ethics and especially medical ethics or research ethics, where 'ethics' is understood primarily as an evaluation of individual conduct. In agriculture, individual agents may be guided by norms such as preserving a family lifestyle or seeking profits, but what matters ethically is whether the combination of these motivations along with technology and public policy produces an agriculture that meets our goals as a society, (Thompson, 1986). Among the social goals of agriculture we can list the need to provide adequate supplies of food and fiber commodities, a safe and wholesome food supply, a becoming rural landscape, and a fair distribution of benefits and burdens. More controversial goals might include the preservation of autochthonous rural communities, the promotion of national identity and the encouragement of moral virtue. Agricultural ethics is, on this view, an articulation of these respective goals, and a deliberative assessment of the trade-offs between and amongst competing goals as applied to alternative ways of configuring the agrifood supply chain (Zimdahl, 2005).

Given this understanding of agricultural ethics, sustainability is arguably one goal among others that should be assessed and debated from in a deliberative fashion. Developing a normative conceptualization of sustainability has at least two components. One is the specification of what sustainability is and why it has normative content. The second is deliberation on how sustainability should be weighed against other social goals (productivity, efficiency or distributive justice among them) that can be appealed to in evaluating the food system from an ethical perspective (Thompson, 1995). In previous publications I have documented two general strategies for addressing these tasks, one which specifies sustainability in terms of *resource sufficiency*. This conceptualization has been particularly influential in debates over sustainable development. The alternative is to focus on the elements of the agrifood system that relate to its regeneration, or to its ability to reproduce itself over a series of cycles. This notion of sustainability, which can be called *functional integrity*, looks to models for sustainable yield that have been developed for fisheries management for its primary content, and that can be readily adapted to a variety of renewable resources including soil fertility and surface water management. It can also be extended to a number of socio-economic dimensions, including agricultural credit and conservation or tax policy (Thompson, 1997; Thompson and Nardone, 1999).

As noted already, both of these approaches leave much of the modeling of sustainability to agricultural and ecological science, including social science, and sees ethics as playing two roles. First, it will be necessary to make value judgments in order to specify how much is enough, in the case of resource sufficiency, or how the system is to be modeled, in the case of functional integrity. Is it "enough" to be able to produce for 50 years, or should it be 100? Who is included? Should we presume that substitution for nonrenewable resources will go smoothly as they are depleted? Should the model of the food system be at farm, local, national or global scale? Should it presume a certain economic standard of living for farmers? For food consumers? Second, once sustainability is specified and measured, we will be presented with trade-offs that will need to be evaluated ethically. Do we accept some system vulnerability (that is some unsustainable elements) in order to promote humane treatment of animals, or cheaper

food production? Do we accept some decline in our short term standard of living in order to help producers in less developed nations adopt more sustainable methods? These are just examples of the types of ethical question that might be posed in connection to sustainability. The relationship between ethics and sustainability can be summarized as follows: ethics is an evaluative and deliberative form of social inquiry; sustainability is one of several values or goals that this inquiry should address in connection with agriculture.

The alternative way to conceptualize sustainability almost reverses the relationship to ethics. Here, sustainability is seen as a social movement that incorporates agricultural ethics as one of its elements. On this view, agriculture and food system activities have been under assault from pressures associated with capitalism, the growth of global corporations and the development of industrial production technologies designed to increase return on capital investment. Resistance movements have struggled against this monolith, seeking thematic ways to consolidate their activity and recruit allies. While this orientation to sustainability is sometimes associated with socialist or at least strongly anti-capitalist political activism, it is not necessarily so. It is possible to see sustainability as committed to the creation of a social consensus on economic development and resource use that is capable of accommodating a fairly broad swath of the political spectrum. Nevertheless, sustainability is a "banner" or rallying point for people concerned with health, personal autonomy, social justice and environmental protection. "Ethics," is just one of the concerns that are included under the banner of sustainability (Allen and Sachs, 1993).

This way of understanding the relationship between sustainability and ethics does not provide much specificity about what is meant by ethics, but it is rare for ethics to be understood as a deliberative discussion about social goals. Instead, ethics is more typically conceptualized in terms of personal conduct and individual decision making. In the book *Food for the Future*, ethics is portrayed in an essay by philosopher Tom Regan as a personal commitment to vegetarianism. That is, people allied in the movement for sustainability should be morally committed to vegetarianism (Regan, 1993). This emphasis on accepting personal ethical responsibility in dietary decision making has been reiterated in recent books that promote sustainability, though most authors do not call for vegetarianism. Instead, ethics is associated with the consumption of products that promote fair trade, organic production, small-scale diversified farms, and humanely produced animal products, and with opposition to 'factory farming' and GMOs. Here, it is not so much that there is an ethical basis for sustainability, as the title of my paper suggests. Rather, sustainability is the basis for ethics.

Ethics and Sustainability: Debating the Alternatives

What can be said in favor and against each of these alternatives? I will start with some advantages associated with the view that sustainability is a social movement that incorporates ethics, and then consider the alternative, that sustainability is a norm. This will not be a complete inventory of considerations that bear on this question, and I cannot be regarded as an unbiased evaluator of the debate, in any case. Nevertheless, I do think that the social movement conceptualization of sustainability has a number of points in its favor.

First, there is nothing wrong with encouraging people to take personal responsibility for their dietary choices, most of the moral advice the sustainability advocates offer is advice that I would endorse myself. I see nothing wrong with telling people to pay some attention to the way that their food and fiber products were produced, as well as evaluating characteristics of the product itself, and I think that moving away from a commodity based food system is mostly a good thing. Telling people that this supports sustainability may be a little misleading, and there are a few things on the list of ethical products that I do not think are particularly ethical at all, but these are not points I would press.

Second, along with promoting these personal behaviors, many advocates of the sustainability social movement associate sustainability with participatory decision making processes that encourage open-ended deliberative consideration of key options and choices. This is particularly evident in books by Bryan Norton (2005) and by Paul De Jongh (1999), as well as with theorists who have seen the social movement toward sustainability as a symptom of reflexive modernization. Since my understanding of ethics relies heavily on the participatory discourse model developed by Jürgen Habermas, ( ) I see this as a good thing. I am, again, reluctant to associate this too strongly with the idea of sustainability. When considering participatory models for environmental decision making, I am reminded of Oscar Wilde's observation that the trouble with socialism is that it takes too many evenings. I am not really sure how sustainable these participatory models are, but this is, again, not a point I would care to press.

Finally, I need to acknowledge a substantial weakness in my own approach, which is that most of the people who have broad agreement with me about how we should understand sustainability do not tend to see this notion as requiring any input from ethics. I have no trouble locating technically brilliant articles on the way that agricultural systems can be made more regenerative or that scientists can model agricultural ecosystems in ways that would reveal vulnerabilities in their integrity, but these articles tend to presume that this is a wholly technical exercise, that the authors are in full possession of all the values they need to conceptualize relevant systems, and that these results can simply be handed off to political decision makers who will choose based on the optimization of consumer preference satisfaction. I am, in short, fighting battles on two fronts. My potential allies in the battle against a social movement conceptualization of sustainability are dead set against carving out any role for ethics.

So what are the weaknesses in the social movement conceptualization? I will confine myself to three. First, I am concerned that the substantive understanding of sustainability as functional integrity in the social and biological reproduction of the agrifood system becomes wholly lost in the shuffle. I see no reason why a configuration of the supply chain that meets goals such as social equity for producers, humane conditions for animals and becoming landscapes will necessarily operate within the parameters needed to replenish soil, water and biodiversity, or even rural communities. For this reason, I think it is important that these values associated with the functional integrity of the agrifood system get singled out and acknowledged with a specific term. The word many people have suggested is 'sustainability', but if sustainability is just the name for a social movement aimed at resisting globalization and corporate control, then the commitment to functional integrity is substantially diluted, if it is not lost altogether.

Second, in conceptualizing "ethics" as appropriate personal conduct in a resistance movement, this model implies that any of the reasons that might be offered in support of the industrial food system are "unethical". Thus, reducing the cost of food, increasing the availability of food, and decreasing the amount of land needed for food production all become irrelevant to the evaluation of an agricultural system. Worse than that, if the people who participate in a system that accomplishes these goals earn profits by doing so, they are disqualified from participating in any conversation about sustainability because their motives are wholly suspect. Of necessity, social movements must create a sense of common identity, a sense of the "we". Often this is achieved by demonizing a common enemy. The word 'ethics' seems to be playing both roles in the social movement for sustainability. Anyone who is not with us in the sense of endorsing our ethics is against us, and while I noted above that it is possible to accommodate a broad swath of the political spectrum in a consensus oriented view of sustainability social movement, it is also possible to frame ethical commitments in a manner that valorizes some while demonizing others. This aspect of sustainability is especially evident in terms of opposition to biotechnology. Biotechnology is not be *evaluated* ethically. Instead, one's stance on biotechnology is a critical test of whether one is in the movement or outside of it. I believe that this aspect of the sustainability movement is debilitating its ability for critical reflection and deliberative assessment of its own goals.

Finally, the very idea that ethics can be subsumed under the umbrella of social movement theory indicates the cynicism implicit in some quarters of contemporary social science. It is reflected in methodological commitments that interpret all talk about what *should* be the case in terms of subjective individual preferences that are incapable of rational evaluation, on the one hand, or in terms of strategically motivated attempts to control the behavior of others, on the other. Whether deployed in service to the politics of the right or the left, these commitments in contemporary social science dictate that the analysis of sustainability cannot be conceived as a form of inquiry into what society should do. It is not as if social scientists conceive themselves to be immune from opinions on what society should do. It is simply that they must treat everyone's speech, including their own, as just another preference, just another rhetorical move within a social movement. Those who advocate an ethics debate or social inquiry into the goals of agriculture, such as I do, cannot be understood until we find out what secret preference or interest group they are trying to promote. As above, you are in the movement or you are against it, and social inquiry into norms is viewed as an impossibility.

Sustainability Indicators and Social Movements

These abstract arguments can, I hope, be made more concrete by examining some indicators that have been suggested for promoting sustainability in livestock production. Indicators are measurable quantities that, while falling short of an exhaustive characterization for the phenomenon under investigation, but that can nevertheless be taken to be a sign of relative progress toward it in a given domain. Indicators have long been utilized in a variety of social policy contexts including development studies, where "development" has been recognized to be a complex and multi-faceted phenomenon. Well before the 1987 Bruntland report called for "sustainable development," development theorists had begun to develop means to integrate diverse development indicators into an index that would streamline evaluation and simplify decision making

for development projects and policy planning. It is therefore not surprising that the use of indicators would be proposed for sustainable development.

Indicators that have been suggested for animal production systems include economic measures of farm viability such as productivity or net farmworker income, ecological measures such as eutrophication or acidification, and animal welfare measures such as mortality or air quality (Cornelissen, van den Berg, Koopos, Grossman and Udo, 2001). These three groups of indicators provide a nice contrasting class for examining the difference between "sustainability as a norm" and "sustainability as a social movement". If the word 'sustainability' is taken to refer to the broad social movement for change in agricultural production systems, then sustainability indicators should reflect the goals and values that participants in this social movement wish to promote. This will be a largely empirical question that can be answered through various kinds of social science research and political processes. The relevant question is whether the indicators chosen for farm viability, ecological impact and animal welfare a) are in fact endorsed by individuals involved in the social movement; and b) whether these reflect a sufficiently broad representation of the values that members of the social movement see as relevant to animal production systems.

Programs designed to achieve more sustainable animal production systems do, in fact, undertake social science research and organize public forums designed to ascertain just the answer to these questions. Projects that I have been able to identify generally tend to define the social movement toward sustainability as something that has been broadly endorsed by the public at large. Thus, they tend to utilize social science and public engagement techniques that involve representative samples of public opinion and open forums for discussion of indicators. This may be a very reasonable approach in the Netherlands, where recent events may be said to have created a national consensus on sustainability. But in the United States, at least, sustainability continues to be a highly contested concept. If there is a social movement for sustainability in the U.S., and I believe that there is, it would nonetheless need to be conceptualized as one that enrolls something much less than a majority of the United States public. For agriculture, at least, any movement for sustainability is one that is being actively opposed by many mainstream farm producers and producer organizations. As such, measures of opinion that reflect the U.S. population as a whole might not adequately reflect the values and goals that hold the social movement for sustainable agriculture together in a U.S. context.

In conclusion, when one sees sustainability as a social movement, the question of what indicators will represent movement values depends heavily on the local context. However, to the extent that specific indicators arise from or are endorsed by research or by a participatory process, they are indeed indicators of sustainability. Researchers may then develop indices or scenarios that reflect trade-offs amongst these indicators, which may in turn either be turned over to decision makers or fed back into an iterative process of public engagement. In either case, these indices or scenarios can reasonably be said to be informing public decision making. There is not really a clear role for ethics in this process except in so far as ethics has something to say about any process for involving members of the public or a specific group in decision making. There is no ethical content specifically associated with sustainability, in other words. Researchers must be ethical in reporting data and recruiting participation; members of the public can be expected to reflect their own ethical values in participating in the exercise. Followed faithfully, such

an exercise can be expected to reflect prevailing opinion of those deemed to be included in the social movement for sustainability to a significant degree.

Sustainability Indicators and Sustainability as a Norm

If we presume that sustainability should be understood as a norm focused on maintaining the functional integrity of an animal production system or, alternatively, resource availability in the future, there are two points of entry for ethics. First, there are questions about specifying relevant system parameters for the model that will generate measures on indicators. Second, there are questions about how trade-offs among the respective indicators (as well as additional values that might be relevant to decision making) should be made. It may be helpful to begin with the second group of questions, since these are the ones that have the most obvious ethical dimension. Clearly, the development of an index that represents the performance of alternative animal production systems with respect to economic, ecological and welfare indicators has the potential facilitate deliberative decision making by providing a scientific basis for evaluating trade-offs with respect to economic performance, environmental impact and animal welfare. This is clearly a useful tool for ethical deliberation, subject to some qualifications that will be discussed below. The question is, is it appropriate to frame indicators that relate to economic performance, environmental impact and animal welfare as *sustainability* indicators? The answer to this question depends on the way that sustainability is conceptualized in normative terms.

The suggestion above is that to understand sustainability as a norm is to understand the functional integrity of a system as one of several goals or norms to be considered in decision making, where functional integrity is, in turn, the system's capability of reproducing itself through a series of cycles. Given this orientation, we need to be able to understand economic performance, environmental impact and animal welfare in terms of system cycles. This is reasonably straightforward with respect to environmental impact indicators, where eutriphication and acidification can be related to nutrient cycling models that suggest tipping points where the production system exceeds the ecological capacity for absorption and utilization of phosphorous or nitrogen, and the system thus becomes unsustainable.

Economic performance is a little more tricky. Producers must certainly derive sufficient income from farming operations to cover their costs, including costs associated with a reasonable standard of living. We cannot assume that there is a direct correlation between profitability and sustainability, because there is certainly a point at which profits exceed the amount needed to maintain economic viability. Nevertheless, productivity measures together with models for credit and commodity markets provide a way to conceptualize economic performance in terms of system sustainability. However, a system that demands annual subsidy in order to remain economically viable is only sustainable if the political system that produces the subsidy is sustainable. In U.S. animal production systems the nature and source of these subsidies is exceedingly complex and difficult to identify clearly, as subsidies critical to the economic viability of animal production may be paid to those who produce feedstuffs, rather than to animal producers themselves.

The problem of subsidy points to a key value judgment that must be made to develop system models in the economic sphere. Economic models for animal production

systems are capable of predicting the amount of subsidy needed to maintain economic viability, but these models do not incorporate the political system itself. Thus, subsidy is an exogenous input which must be presumed secure in order for the system to be deemed economically sustainable. Is the assumption to model the economic system as a set of processes wholly distinct from political processes that regenerate political decisions to provide farm subsidies? Or should we see economic exchange as embedded within a larger and more complex system of social relations that also produces and reproduces political action? Thus, the parameters of the economic system that is to be sustained can only be established in reference to assumptions that reflect either broad philosophical values, on the one hand, or methodological values established to facilitate the pursuit of research programs in disciplinary areas, on the other. While the parameters of the economic system illustrate the sensitivity of the modeling process to value judgments, biological models also involve similar value judgments.

In contrast to economic performance and environmental impact, animal welfare is not easily modeled as a dimension of system cycles. Like human welfare social indicators, animal welfare indicators are typically framed so as to provide some measure of the organisms' well-being, understood to encompass criteria that include mortality, morbidity, and measures of experiential quality of life. Indicators for human welfare have probed the possibility that wage rates might fall so low that death and disease in the working class would lead to a circumstance where birth rates and life expectancy would dip to a point where the working class literally might fail to reproduce itself, but indicators for human *and* animal welfare are more typically developed to specify levels of well-being that far exceed the literal capacity of a population to reproduce itself. As such, while animal welfare is indeed one of the important parameters for ethically evaluating a production system, it is not an indicator of the system's sustainability. In a normative approach sustainability is seen as one of the things that might be subject to trade-offs in the process of implementing an animal production system. There may be trade-offs between high levels of profitability and sustainability, as well as trade-offs between sustainability and animal welfare.

Conclusion: Norm vs. Social Movement

Both of the approaches sketched above endorse the use of indicators to create indices or scenarios that are used to simplify and communicate trade-offs in a decision making process. In both approaches, the evaluation of these trade-offs can be conceptualized as a deliberative, reflective or democratic process in which the role of indicators is to facilitate clear and informed decision making. In both approaches, one may stress that this process should be understood as informed by ethics, though not reducible to any ethically rationalized algorithm or decision rule. Thus for both of these approaches, ethics comes in at the stage of decision making and can be understood as providing a statement of the values or philosophy that is intended to guide decision making in light of trade-offs. Decision making about these trade-offs will involve ethical deliberations about how much weight to give each dimension for which an indicator has been selected, and clearly, an index of indicators will be helpful in conducting these ethical deliberations. One might reasonably ask, given these similarities, what is the

debate between sustainability as a norm and sustainability as a social movement all about?

There are two points to make in this connection. The first has to do with ordinary language and effective communication. 20th century philosophers devoted a great deal of effort into examining a number of ways in which decision trade-offs might be framed and evaluated. These include using economic and quasi-economic valuation methods to assign common scales to multiple indicators, weighting indicators associated with morally significant features such as harm or compromise to rights, and rationales for regarding outcomes associated with a specific class of indicators (such as rights) as unacceptable, regardless of trade-offs for other dimensions. Some multi-variable decision making theories have attempted to reflect these philosophical considerations, though I think it fair to say that current consensus favors the conversion of an index into more intuitive scenarios so that citizens who lack expertise in quantitative decision making can provide input into decision making processes. To the extent that this is so, it is important ask whether framing an indicator such as animal welfare as a *component* of sustainability aids or detracts from their understanding of the normative issues at hand. My suspicion, noted above, is that simply allowing everything that people want to be seen as dimension of sustainability will obscure the importance of functional integrity and resource availability in decision making. This is a hypothesis that is amenable to research, so we will simply have to wait and see.

1. P.B. Thompson, "The Social Goals of Agriculture," *Agriculture and Human Values* 3(4): 32-42 (1986).
2. P. B. Thompson, *The Spirit of the Soil: Agriculture and Environmental Ethics*, London and New York: 1995, Routledge.
3. P. B. Thompson and A. Nardone, "Sustainable Livestock Production: Methodological and Ethical Challenges," *Livestock Production Science* 61(1999): 111-119.
4. P. B. Thompson, "Sustainability as a Norm," *Techné: Technology in Culture and Concept* 2(2): 75-94 (Winter 1997).
5. Tom Regan, In *Food for the Future,* Patricia Allen, Ed. New York: 1993, Wiley and Sons.
6. Patricia Allen and Caroline Sachs in *Food for the Future,* Patricia Allen, Ed. New York: 1993, Wiley and Sons.
7. Bryan Norton, *Sustainability.* Chicago: 2005, University of Chicago Press.
8. Paul de Johng, 1999. *Need citation.*….
9. Cornelissen A.M.G.[1]; van den Berg J.; Koops W.J.; Grossman M.; Udo H.M.J. "Assessment of the contribution of sustainability indicators to sustainable development: a novel approach using fuzzy set theory," *Agriculture, Ecosystems & Environment,* Volume 86, Number 2, August 2001, pp. 173-185(13).