

Health, Food and The Right to Choose

Professor Stuart B. Hill

School of Social Ecology & Lifelong Learning,
University of Western Sydney-Hawkesbury, Richmond, NSW.

In the mid-1970s, when I established a resource centre on organic farming (Ecological Agriculture Projects [EAP]: www.eap.mcgill.ca) at McGill University in Montreal, Canada, I listed the following key debates that were going on in the organic movement at the time:

- regional self-reliance vs an export focus,
- growing your own and bartering vs commercialisation,
- raw, unprocessed and fresh vs cooked and processed,
- certified organic vs contaminated produce,
- design-based prevention and benign problem solving vs symptom-based disruptive controls,
- small vs large scale, and
- community systems (nourishment, quality of life) vs industrial (productivity, profit).

It is interesting that these are still some of the dominant issues being discussed nearly 30 years later. Progress has certainly been made, but not as much as I had hoped for at that time.

I will start my discussion of the topic “**Health, Food and The Right to Choose**” by sharing some of my preliminary thoughts on each of these three areas. The best definition I have of **health** is from Williamson and Pearce (1980), who were responsible for the Peckham Experiment, which ran from 1926-1950 in a suburb of London. They said “health is seen in a progressive mutual synthesis participated in by both organism and environment. It is a wholeness” (i.e., it is an active relational quality, not just the absence of disease). The people involved in this Experiment were closely associated with Sir Albert Howard, the ‘father’ of organic farming. With respect to most **food**, one of the problems is that it does not come labelled with its full range of nutrients and contaminants. So when we sit down to eat, we do this with enormous trust. The problem is that this trust has been betrayed repeatedly -- through the contamination of food with toxins, the removal of nutrients, and other changes with unknown effects (as with bio-engineered foods). Consequently, we are rarely in a position to make an informed **choice**, and often there is no healthy option available. Furthermore, the choice needs to be about more than just nutrients and contaminants.

In 1990 our group at EAP published a hypothetical example of a comprehensive label for instant baby food (MacRae et al 1990). Ratings for each of the criteria were out of 10, and covered the following: certified organic [8], under *processing*, excessive heat from milling [5], no supplements [10], recycling of milling waste [7], local distribution [8]; under *food analysis*, it received [6] for medium levels of fibre, trace minerals and vitamins, [8] for fat and [10] for no added sugar or salt; and under *social justice* it received [8] for safe working conditions, preferential local purchase of raw materials and level of pollution, [5] for wage level, and [0] for donations to charities. I have gone into this in this level of detail to illustrate how uninformed are most of our choices. The point is that most of the time we only see and engage with a very small part of the picture.

It may help to view the food system as occurring in the middle of a triangle, with the three points representing the human condition, resources and the environment. The history of this system has been one of increasing dependence on fossil fuels and

non-renewable resources, and in the process converting an energy producing system into an energy sink; increasing impact on the environment; and displacing people from the land and from being connected to food, and exposing them to an increasing array of toxins. Another image of the food system pictures it at the centre of issues relating to culture, consumption and our identity. People often forget that we have our most intimate relationships with food (not with sex! - more often and more trusting).

Most industrial food systems are still designed as monocultures, highly simplified, vulnerable to pests and resource dependent. So, it is not surprising that the organic fields shown by speakers at conferences are often also typical 'bare-soil' monoculture designs. Such simple designs do not occur anywhere in nature; they will always suffer from a diverse, and worsening with time, range of pest, disease and weed problems; and ranked in a similar way to that applied to the baby food above, they could only ever receive a very low score. In fact very little of the food produced in such systems directly nourishes people. Much of it goes to feed livestock in feedlots, and some of it is fabricated into 'neo-foods' (some of which, for example, make a noise when you pour milk on them!), all of which we have zero requirement for. If you go into most supermarkets you will notice that the elemental foods are usually located around the perimeter. In the middle are shelves upon shelves of over-processed and excessively packaged commodities, most of which we do not need. My nutritionist friend Professor Ross Hume Hall used to say that best piece of advice he had for consumers shopping in supermarkets is to 'keep out of the centre aisles'.

Returning to the inevitable pests within monocultures, these are conventionally sprayed with non-specific poisons, which should therefore be referred to as biocides, not pesticides - because they kill life, not just pests. Biocide-use inevitably results in the pests becoming resistant, the producer is also likely to be negatively affected, and eventually the system will break down. The primary approaches that have been proposed to deal with this situation are the **efficiency** approach (get a better nozzle on the sprayer, etc.), and the **substitution** approach (release biological control organisms). What we have to eventually do is to **redesign** that system so that it favours the crop and the natural controls of any pests, and is inhospitable to any potential pests. This requires the substitution of deep knowledge and skills for the usual purchased inputs like biocides (Hill et al 1999). This 'design' focus is foundational to our shared vision of a sustainable, ecologically managed resource base capable of meeting local needs, nourishing people and giving meaning to the lives of those involved. This contrasts with all visions of industrialised systems, whether they are producing food with or without biocides and chemical fertilisers. These will always eventually destroy the planet and the human spirit. Sooner or later we must realise that we have to be able to work with highly complex designs. Unfortunately most scientists, because of their habit of working with simplified and highly controlled systems, have little to offer with respect to the design and management of complex systems. There is sadly also an enormous arrogance in science, so it is hard for scientists to be humble enough to ask organic farmers to teach them how to work with complex systems. I say that as a recovering scientist! In earlier papers the EAP group elaborated on the above ideas (Hill 1991, 1998, Hill & MacRae 1995, MacRae et al 1989, 1989a, 1990, 1993).

It is important to realise that there is a fundamental difference between approaches that try to solve problems by endeavouring to make the existing systems work - by making them more efficient or by substituting one input for another, and being willing to engage in fundamentally redesigning the system, and doing this at every level, from the personal to the social, political, economic, technological, educational, spiritual and other levels

Let us recall the words of Sir Albert Howard from 1940: "Medical investigation should be deflected from the sterile desert of disease to the study of health". He

was what I call a 'front-end' (health promoting) person, not a 'back-end' (problem-obsessed) person. He continued, "agricultural research should start afresh from a new baseline - soil fertility - and so provide the raw material for the nutritional studies of the future - fresh produce from fertile soil.... At least half of the illnesses will disappear once our food supplies are raised from fertile soil and consumed in a fresh condition." In a later (1947) book he wrote "In all future studies of disease we must...begin with the soil. This must be got into good heart first... many diseases will then automatically disappear.... Soil fertility is the basis of the public health system of the future and of the efficiency of our great possession, ourselves." I was 'heartened' to read this many years ago, as it supports my perception of organic agriculture as a philosophy and a system of farming. In 1989 in *Advances in Agronomy* we also defined organic agriculture as "a philosophy and system of farming [the definition continued:]. It has its roots in a set of values that reflect a state of empowerment, of awareness of ecological and social realities, and of one's ability to take effective action. It involves design and management procedures that work with natural processes to conserve all resources, promote agroecosystem resilience and self-regulation, and minimise waste and environmental impact, while maintaining or improving farm profitability" (MacRae et al 1989). Many blame lack of progress in this direction on lack of government funding and various other external factors. My experience, however, from years of working with producers, and people in government, is that the main limiting factors are internal -- how awake we are, how aware we are, and how much we are willing to dare to be human. These qualities are what empowerment is about. In addition to the above, I would also argue that the goal of the whole thing must be, in addition to sustainability, the "nourishment, meaning and fulfilment for all involved". Part of the problem is that in agriculture, as in all other 'industries', we have come to almost exclusively reward productivity at the expense of maintenance and rehabilitation. This forces producers to adopt practices that erode the natural, social and personal capital of the systems involved and destroy their integrity, and so eventually productivity declines or has to be propped-up with imported, purchased inputs. Paradoxically, by rewarding the rehabilitation and maintenance of systems we would be supporting the build-up of these sources of capital and integrity, and in doing so would establish the basis for sustained productivity, and even higher levels of productivity. Within our society, the greatest institutional challenge that we face is finding ways to support 'maintenance and recovery processes'. Sustainability is about systems maintenance. Those that are unsustainable are simply those that are not being adequately maintained.

Because we must all consume a variety of foods to survive, we are daily faced with numerous decisions that are made within a context that is increasingly influenced by market processes that de-emphasise the nourishing functions of food and over-emphasise convenience, superficial appearance, stimulation and cheapness. The standards for what is normal in most of the world are now determined by a handful of transnationals whose primary aim is to maximise profit; and they are willing to do almost whatever it takes to achieve this. In this process of global homogenisation, cultures, natural environments and human health are impacted and degraded, with increasing costs for both present and future generations. Although there have been attempts to assess the costs of these impacts, they have mostly been confined to just one of the affected areas (e.g., only the environment, or just health). None have assessed the full range of impacts or their synergistic interrelationships. Most people make their food purchase decisions irresponsibly being largely unaware of the extent of those implications. And because these transnational conglomerates have greater economic power than most governments, it is naive to believe that regulations can be established that have the best interests of cultures, the environment and human health at heart. Thus, all such regulations are, in fact, negotiated compromises, not so much between transnationals and governments, but between the transnationals themselves. Because of this, efforts to improve the situation need to be focused on consumers and transnationals, rather than on governments. Such work involves raising awareness, developing sustainable visions,

personal empowerment, developing and implementing alternative methods of production, handling, use and waste management, and the facilitation of a co-evolutionary process of fundamental personal and social change. There is an aching need in our society for individuals who are capable of carrying out this facilitation function. If I asked you to point to the politicians, the academic leaders, the religious leaders, the technology leaders, the business leaders who are leading us in that respect, most of us would have a very difficult time pointing to somebody. I encourage you to assume that you are that person, because without such leadership we will never be able to fundamentally change our food system in the ways that we would like to.

Often people talk about sustainability in terms of taking into account the needs of future generations. In addition to thinking about future generations, it is important to think about who each of us is right now, and who we were when we started out as small babies. When you are making decisions, think of how your still undamaged "core" being might decide. Other powerful images can help us make wise decisions. I once lived on a tropical coralline island. It had a little lens of fresh water about a meter underneath the surface. This was the population's primary source of fresh water for drinking, irrigation etc. It was very clear on that tropical island that one could not use a toxic chemical, or a concentrated fertiliser, or grow a monoculture, because this would destroy that island for hundreds of years. I had to learn how to manage and work with that system according to nature's rules. The earth is just a large version of that island. The fact that we can sometimes get away with irresponsible behaviour does not mean that it is okay. It just means that most of the negative outcomes will be experienced at some other place or at some other time. The island was so small, and the feedback so rapid, that there was no other place or time.

We have got to engage in collaboration with nature, in 'eco-laboration'. We have got to give up our deceptive simplicities and be willing to be confused for a while as we engage with the complexity that is always there, being alert always for the profound simplicities that emerge when we are ready to recognise and receive them. One profound simplicity that has been powerful for me is the idea that at every moment we have a choice of acting on fear or acting on love.

We must stop denying and postponing; clarify our values and expand our perceptions; and deepen our understanding of nature, of community and of ourselves. We must learn to design and work with natural processes, and get started with what I call small, meaningful initiatives that one can carry through to completion, and then celebrate to make them contagious. It involves effective relating and communicating. This is all about authenticity, honesty, paying attention, listening well, connecting and working together. It is also about doing things collaboratively, knowing that you can only guarantee your own contribution, which must support collaboration, not postponing, knowing that you have already been working on this from the beginning, validating what you have done up to now. It requires clarification of one's passions, worldviews, values and priorities, developing one's big picture visions and specific imaginings with respect to the needs of local situations - designing, redesigning, planning, acting, monitoring and learning from outcomes. It requires continual movement between the known, which we need to be in contact with to act with confidence, and the unknown, which we need to be aware of in order to discover and create and find new ways, and working with both similarity and difference. It means letting go of obsessions with safety and feelings of having no choice. It involves radical redesign, and redesign, and again redesign, and reframing and lateral thinking and deep understanding, and realising that deep understanding in any one area can be used to deepen your understanding in every other area. You cannot do this if you are only half committed. Indeed, both the soil and people need more fibre!

Finally, remember that buying organic food is an opportunity to give five gifts. 1. To your body, mind, heart, spirit and soul. 2. To the farmer and his or her associates. 3. To your community, society, culture through your clarification of values you want to live by and acting on them. 4. To your local and global environment by caring for it and its rich biodiversity. 5. To future generations, to the psychosocial evolution of our own species, and if you are religious, to God. Yes, you can do all of this by buying and or growing organic food, or you can choose to not buy or grow organic food and give one gift -- to the multinationals and transnationals -- it's your choice!

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(Additional references on organic farming by Prof. Hill and other members of the EAP group are available at the web site mentioned at the beginning of the article).

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Professor Stuart B. Hill, Foundation Chair of Social Ecology
School of Social Ecology and Lifelong Learning
University of Western Sydney, Locked Bag 1797
South Penrith Distribution Centre, NSW 1797, AUSTRALIA

Location: Building G7, Room 1-023, UWS-Hawkesbury, Richmond, NSW
Phone: 61(0)2-4570
-1507; Fax: -1531; email: s.hill@uws.edu.au

Social Ecology website is:

http://www.uws.edu.au/schools/aou/uwsh/socialinq/social_ecology/

Social Ecology Research Group website is:

<http://www.uws.edu.au/serg/>

