UTILITY BIOETHICS?
Market Fetishism in the GM Crops Debate

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'[Our] perspective on GM crops has been guided by consideration of three main ethical principles: the principle of general human welfare, the maintenance of people's rights and the principle of justice. Some of these considerations... have been straightforward and broadly utilitarian'.
-- Executive Summary, Nuffield Council on Bioethics report

Moral imperative?

On 28 March 1999 a hundred-odd marchers demonstrated at the Nuffield Council on Bioethics office in central London. They were attacking its report on agricultural biotechnology, which had been reported in newspapers with headlines such as 'GM crops a moral imperative for Third World'. The march was led by members of Indian farmers' organizations, who formed part of the Inter-Continental Caravan protesting against the 'neocolonialism' of international financial institutions: 'The global economic system is crippling the poorest', stated a spokesperson (Vidal, 1999).

Opposing genetically modified crops in India, such organizations had 'cremated' field trials of Monsanto's GM insecticidal cotton. This antagonism derived partly from their recent experience of hybrid cotton. Many farmers had been abandoning mixed farming systems in favour of cotton monoculture, thus intensifying their dependence upon purchased seeds, which sometimes led to crop failures. As an alternative future, their organizations encouraged farmers to resow seeds and preserve diverse cultivars in the agricultural field (Pandry, 1994; Shiva, 1999).

How do these farmers' concerns relate to moral imperatives and ethical criteria? How is social utility assessed? What problems are (or should be) addressed by agricultural improvements?

To discuss such questions, this essay takes the following structure: how mass protest has changed form of 'ethics' debate; how utilitarian ideology naturalized the early marketization of agriculture; and, by analogy, how a 'utilitarian' ethics fetishizes market relations today.

Changing bioethics debate

Back in the 1980s, in the early risk debate on agricultural biotechnology, at issue was its self-proclaimed aim of further industrializing agriculture. Proponents characterized the technology as essential for making precise genetic changes which could safely protect crops and enhance agricultural production. They emphasized the R&D priority of 'value-added genetics', i.e. the search for genes which could enhance the commercial value of agricultural inputs and outputs, e.g. productive efficiency. In this view, society faces the risk of failing to realise the benefits.

Also at issue were claims about economic benefits and threats. Critics foresaw that GM crops could produce substances hitherto imported from tropical countries, thus undermining livelihoods there. An
industry lobby group replied to such criticism, 'Let there be no illusions: as with any innovative technology, biotechnology will change economic and competitive conditions in the market. Indeed, economic renewal through innovation is the motor force of democratic societies' (SAGB, 1990: 15). Thus new market pressures and economic disruption were justified as essential for democracy.

Critics also challenged the biotechnological project as a contentious mode of socio-environmental control, as an ominous redesign of the socio-natural order, and as a source of unmanageable risks. They criticized an R&D agenda which attributed socio-agronomic problems to genetic deficiencies, e.g. by seeking genetic fixes for pest problems and food insecurity. In their view, biotechnology would aggravate the problems of high-input agriculture, degrade biodiversity, and impose unknown hazards: indeed, the risk was that this technology may preclude more beneficial alternatives. As an implicit ethics, such arguments challenged biotechnological R&D priorities and their agricultural models.

In response to the early controversy, especially in Europe, new legislation was enacted to regulate genetically modified organisms (GMOs). In parallel, a state-sponsored bioethics was devised in order to judge where to 'draw the line' in applying biotechnological knowledge, as if the knowledge-production were value-free. Such official bioethics judged how to 'balance' risks and benefits, as if their definition were not an issue. They emphasized the prospect that GM crops could enable farmers to reduce agrochemical usage. Risk-benefit judgements were generally framed as tangible effects of products, relative to the current harm caused by prevalent monocultural methods.

Through those dual procedures, moreover, the state separated 'risk' from 'ethics', while reducing both realms to specialist tasks. The risk/ethics boundary was designed to gain public deference to the expert assessment of both safety regulators and professional ethicists. Contentious issues -- of biotechnological control over nature and society -- become displaced and fragmented into administrative controls of various kinds (Carr and Levidow, 1997; Levidow and Carr, 1997).

As some biotechnology products reached the commercial stage in the late 1990s, however, they were hit by mass protest and scientific controversy in Europe. Threatened consumer boycotts there led major supermarket chains to exclude GM ingredients from their own-brand lines. Expert claims were publicly scrutinized for their framing of the risk problem, accounts of uncertainties, trustworthiness, pro-biotechnology biases and commercial pressures, especially in the UK (Levidow, 1999). Biotechnology proponents sought to manage their renewed legitimacy problem through euphemistic linguistic shifts. A decade earlier, the phrase 'genetically engineered' had been replaced by 'genetically modified' -- which was now in turn replaced by 'genetically improved' crops in some publicity material. (For a critique of that concept, see Yapa, 1996.)

Meanwhile the realm of 'bioethics' issues was re-opened, explicitly relinked with risk in various ways. Critics questioned the ethics of prematurely declaring products to be safe, of extending patent rights to plant genes, and of commercial priorities driving R&D programmes. From their side, proponents reiterated ethical reasons for advocating biotechnology R&D of some kind -- e.g. as a moral imperative to avoid the threat of global famine.

Using the term 'utilitarian', two recent reports expound ethics arguments from different standpoints. In addition to the risk arguments which arose through the 1990s, they also take up Third World development aspects as ethics issues -- my analytical focus here. This commentary elaborates the historical origin of utilitarian ideas, then compares the two reports in that vein, and finally draws conclusions about utilitarian bioethics.

**Utilitarian agriculture?**

The term 'utilitarian' has a common-sense meaning which can be misleading. Generally it refers to tangible beneficial effects, perhaps balanced by costs or risks. Yet benefits are always framed by a
particular societal model and problem-definition, in turn expressing political-economic interests. The problem may be defined as a technical inefficiency, inadequate production, trade barriers, etc. -- or, alternatively, as economic dependency, injustice, exploitation, etc.

In the former vein, human powers and social qualities are fetishized as properties of things -- e.g., efficient technologies, precise techniques, smart bombs, etc. Commodity exchange is represented as mere technical means of distributing benefits. Such a process characterizes everyday life, as well as technoscientific solutions. When subjected to debate, however, their putative benefits can be analysed and de-fetishized as power relations. 'Efficiency' always favours some social goods over others, some forms of control over others.

Often critics challenge the legitimacy of a technoscientific development by identifying its implicit socio-political values and choices for the future. Conflicts of accountability break out over the risks accompanying commodity production -- how they can be 'distributed, averted, controlled and legitimated' (Beck, 1996: 28). Let us examine how such issues have arisen for agriculture and GM crops in particular.

Through Britain's Agricultural and Industrial Revolutions, ultimately market relations were fetishized as properties of nature. As the Enclosures transformed agricultural land into capital, people often protested against their dispossession as 'unnatural', a term which meant 'contrary to natural justice'. Not surprisingly, the old idea of 'natural law' also came under systematic attack. As Raymond Williams reminds us,

... the utilitarians who attacked it were making a new and very much sharper tool, and in the end what had disappeared was any positive conception of a just society, and this was replaced by new and ratifying concepts of a mechanism and market. That these, in turn, were deduced from the laws of nature is one of the ironies we are constantly meeting in the history of ideas. The new natural economic laws, the natural liberty of the entrepreneur to go ahead without interference, had its own projection of the market as the natural regulator... (Williams, 1980: 79).

He analysed that anthropomorphic projection as a remnant 'of the more abstract ideas of social harmony, within which self-interest might ideally coincide'. For the utilitarians and neo-classical economists, 'the market' was naturalized as non-interference, while any state regulation was deemed an unnatural 'interference'. As Williams further argues, 'Nature in any other sense fled to the margins: to the remote, the inaccessible, the relatively barren areas' (ibid.) Nature became a legitimate object of endless 'improvement' according to natural laws which embodied models of commoditization.

Since the first Enclosures, such concepts have become relevant anew with each further stage of industrializing agriculture, commoditizing natural resources and 'freeing' labour from earlier protective constraints. As Karl Polanyi (1944) argues, the 'self-regulating market' rests upon a fictitious description of labour, land and money as commodities inherently produced for sale. The commodity fiction supports the classical liberal principle of prohibiting any arrangement or behaviour which might 'interfere' with the functioning of the market. This fiction also downplays the coercive power always required in order to 'free' land and labour for commodity production.

In a similar vein, technological innovation and marketization have been promoted as solutions to the putative problems of backwardness and inefficiency, yet such solutions have often aggravated food insecurity. Starting in the colonial era, a shift to cash crops led to famines (e.g. Franke and Chasin, 1981). Since then, neoliberal strategies have used Third World debt as a political weapon to force similar shifts in land use, e.g. as a means to increase exports to repay the debt.

By attributing poverty to inefficiency, the World Bank has promoted the commercialization of Third World agriculture, thus facilitating and encouraging encouraging enclosures of common land (or even outright theft). Likewise, IMF Structural Adjustment programmes aim to privatize agricultural land, e.g. by abolishing any remnants of subsistence farming and communal land ownership. More fundamentally,
agricultural labour is made more dependent upon market relations, e.g. waged labour, purchased inputs, competition for buyers, etc.

**Technological efficiency for what?**

As a paradigmatic case of such issues, the Green Revolution has provoked a fierce debate over how agriculture should relate to markets. At issue is the promise that more intensive agriculture would enhance rural livelihoods and food security, by redesigning seeds to favour market relations. High-yielding varieties (HYVs) were sometimes called 'high-response varieties' because their higher yield depends upon agrochemicals, irrigation and other purchased inputs. Their use substantially increased grain yields of wheat and rice.

At the same time, that yield increase meant losing some benefits of previous practices. Higher grain yield meant less straw, used locally as animal feed. Previously many farmers had done intercropping -- e.g. sorghum and wheat with pulses -- whose combination helped to renew soil fertility, while providing other nutrients. That yield was lost in the switch to HYVs. More generally, land use shifted away from cultivating oilseeds and pulses, which had been a cheap protein source -- 'the poor person's meat'. Eventually India had a shortage of oilseeds and pulses, which had to be obtained through imports.

According to critics, moreover, the crop design favoured those farmers who could obtain loans for the purchased inputs. Financial dependency and market competition drove many into debt, even out of business, leading some to commit suicide. Landless peasants became wage-labourers for the successful farmers or migrated to cities (Shiva, 1991).

Those outcomes logically followed from the commodization agenda which underlay its putatively 'technical' imperatives. According to proponents, the Green Revolution was essential to increase food production: the main alternatives were either to risk famine or to cultivate more scarce land -- even more land than was potentially available. A chief of the Rockefeller Institute, which funded the HYV research, declared that 'agriculture is a business and, to be successful, it must be managed in a business-like fashion' (cited in Ross, 1998). As such language indicates, the Green Revolution redefined agricultural inputs and outputs as calculable commodities, while devaluing any resources which did not fit such a model.

Similar issues have arisen again with the advent of GM crops. On the one hand, biotechnological techniques have been regarded favourably for their more flexible possibilities, e.g. for overcoming dependence upon agrochemicals, unlike the Green Revolution. On the other hand, biotechnology investment has been institutionally linked with further commodization agendas, even more so than the publicly-funded Green Revolution. For example, companies have sought to patent genes even for substances traditionally produced by Third World farmers.

In the wider debate over GM crops, moreover, market relations have been identified as instruments of economic and food insecurity. According to one critic, 'Biotechnology makes food production more and more like an assembly industry. Crops as such are no longer agricultural commodities, but their molecular components increasingly are... Interchangeability of crops also means interchangeability of producers' (Hobbelinek, 1991: 95; Hobbelinek, 1995). In that account, global competition and price-cutting is intensified by more efficient or more interchangeable crops, which some farmers experience as a threat to their markets and livelihoods.

More recently, development NGOs have taken up such critical perspectives. As one argued, 'even if no GM crops are actually grown in developing countries, the technology could still have a significant adverse effect on their national economies' (Panos, 1998). For example, GM tropical fruits could accelerate the switch in land use away from staple crops for local consumption, while making Third World economies more dependent upon export markets (ActionAid, 1999). Under present economic-political conditions, another charity warns, biotechnology 'will leave people landless and in debt; damage
the environment; tend to monopoly control by large companies; be of dubious long-term benefit to consumers; deny the viability of other, proven, sustainable farming systems; and be expensive to small farmers' (Christian Aid, 1999).

Moreover, even efficiency gains can harm the food supply if they replace 'less efficient' farmers. Traditionally, small farms efficiently supply informal household networks with food, particularly in rural areas -- 'food which never reaches the market and thus tends to be omitted from official figures of production'. To displace such networks would decrease the amount of unmarketed food available to poorer people' (Corner House, 1998).

While these organizations cite environmental risks, they also emphasize the commodization pressures which predictably favour some economic relations and interests over others. In various ways, they analyse markets as threats to food security. Such critiques intensified in the year or so before publication of the two 'ethics' reports on GM crops. Let us examine how they in turn conceptualize market relations.

**Meeting 'market demand'**

As the Nuffield Council report acknowledges, the main GM crops developed by multinational companies may not benefit most people, and import substitution (by grain traders) may even harm Third World livelihoods. As an alternative future for biotechnology, it proposes government funding for R&D on different GM crops, especially for 'higher, more stable and sustainable production of tropical and subtropical food staples', so that these products would provide 'gains for poor farmworkers, food consumers and smallholders'. Reversing the logic of some development charities, it warns, 'The most serious of the dangers for the developing world may arise from not developing the capacity to screen, breed and safety-test GM crops, and to manage their release and use'.

According to the Nuffield Council report, its considerations 'have been straightforward and broadly utilitarian'. By that term, the authors mean tangible problems 'such as the need to ensure food security for present and future generations, safety for consumers and care of the environment'. At the same time, consistent with the historic utilitarian ideology, they fetishize 'the market' as an objective force, even a benign one. Little is said about market competition and pressures among producers, nor how these dynamics might influence changes in land use or product choices, nor how markets are shaped by government policy. Let us consider these passages:

- '[New crop varieties are] expected to lead to increased crop yields, greater efficiency of farm management practices and improved product quality, assisting market penetration in much of world agriculture'. Such effects are cited simply as benefits. In this account, 'the market' provides a means to circulate the beneficial results of efficient products, as if inefficiency were the main problem.

- 'We have been much concerned with the global distributional issue: how to ensure that the potential benefits of GM technology address the pressing food needs of the developing world, while at the same time meet market demands of the developed countries.' Those two aims are presumed to be compatible, or at least complementary. Trade with the most industrialized countries is fetishized as a 'market demand' to be accommodated -- without asking (for example) why so much land in Third World countries is used to export animal feed, nor why their own staple crops are undermined by cheap US exports.

- '... in the developed world, the present mix of public sector research and commercial research and development is well structured to provide the motive power to develop the new GM technology appropriately as determined by the market'. Again, this account ignores various competitive pressures -- e.g. the race to cash in on patents, commercial influence on publicly funded R&D, company lobbying for safety approval, subsidies which influence farmers' choice of crops, etc. These commercial-political strategies are fetishized as 'the market', which benignly 'determines' product development.
'Although market power is mainly concentrated in a group of multinational firms, the Working Party believes that there is effectively competition between them in most areas, and that the pace of innovation and development to the market is rapid.' The report diagnoses the potential problem as inadequate competition or slow commercialization; presumably the competition would be problematic only if some companies gained a power imbalance over others, thus restricting market access to some prospective products. That is, the only problem would be that competitors unfairly interfere with 'the market'.

Thus the Nuffield report generally defers to 'the market' -- except when consumers make negative choices. As it argues, 'for some consumers in the UK and the EU, the avoidance of GM foods is itself the good they seek', and therefore has no relation to ethics. Moreover, 'A demand for consumer choice not based on harm needs to be justified [in the context of regulation] to politicians, regulators and food producers' (Nuffield, para 1.15). Apparently the authors regard direct tangible harm as the only valid grounds for consumer avoidance, while accepting official safety claims as the standard, so that there are no valid grounds.

In such ways, double standards are applied. In the same report, investment and purchasing choices by companies are simply accepted as 'market demand'. Unlike those market decisions, however, consumer choice must be specially 'justified' as rational. As the Food Ethics Council asks, 'whose standards of rationality are to prevail'? (FEC, p.21). We might further ask: why does the Nuffield report apply double standards to the market choices by companies and consumers?

Like the Nuffield report, the Food Ethics Council too uses utilitarian language, though in a different way: 'In utilitarian terms, ethical issues relate to whether the use of GM foods, or of such material in animal feed, on balance, benefits consumer wellbeing or presents risks to consumer health.' It maintains some distance from the term, by rejecting a naive form of utilitarianism which equates the "good" with a simple surplus of pleasure, profit or preference' (FEC, pp.19, 30).

Also unlike the Nuffield report, the Food Ethics Council cites market relations in an ambivalent way. For example, if there is an uncontrolled spread of GM genes, 'the aspirations of those who wish to compete fairly in the marketplace might be frustrated, thus undermining producer respect for both fairness and producer freedom not to adopt GM technology' (FEC, p.18). In this account, GM products can turn out to restrict people's market choices. For Third World countries, GM crops are seen as extending the harmful effects of the Green Revolution: 'By disempowering the small farmer and placing even more power in the hands of corporate industry, they fail to address the critical criterion for "sustainable livelihood security" which was proposed by the Bruntland Commission...' (p23).

**Conclusion**

In the early debate over agricultural biotechnology, the term 'risk' was used to challenge the legitimacy and problem-definitions of the dominant R&D priorities. In response, state procedures were designed to fragment the issues through separate administrative procedures for safety and bioethics. With the advent of mass protest and intense public debate, 'bioethics' has again been contested, now more clearly linked with globalization and development issues.

Even within ethics discourse, utilitarian concepts are used to emphasize tangible product benefits, which are defined according to particular socio-economic assumptions. Although few people claim that the present commercial GM crops will help to alleviate world hunger, many suggest that other types of GM crops might benefit Third World countries, especially small-scale farmers. The latter arguments rest upon assumptions that food insecurity results from inefficient agricultural methods and deficient inputs.

More fundamentally, such favourable arguments idealize 'the market' as a quasi-natural force which somehow judges and distributes benefits of products. They ignore the coercion necessary in order to
'free' resources for sale and purchase.¹ They attribute beneficial effects to specific types of products or to higher productivity itself -- decontextualized from any changes in market relations and land use.

In sum: a pervasive utilitarian ideology is reinforced by the Nuffield report. As investors devise political-commercial strategies for commoditizing plant resources and intensifying global competition among producers, these forces are fetishized as 'the market', as if given by the nature of things. At the same time, when consumers demand different market choices, their rationality is questioned. This response extends the original 'utilitarian' ideology -- by naturalizing the commodization process, while disparaging any resistance as illegitimate interference with progress. In this form, utilitarian bioethics delinks R&D priorities from the relevant forces -- which shape the 'market demand', subordinate resource use to market relations, and marginalize practices outside such relations.

Only by de-fetishizing 'the market' can there be a democratic debate on technological options such as GM crops. We should ask: What kinds of market relations are presupposed and/or facilitated by the R&D priorities? Why do 'efficiency' criteria value some types of production and devalue others? For what kind of society should nature be 'improved'? And to whom should these decisions be accountable?

References


FEC (1999) *Novel Foods: Beyond Nuffield.* Southwell, Notts: Food Ethics Council, foodeth@globalnet.co.uk, <www.users.globalnet.co.uk/~foodeth>


¹ Note added for the webpage version: These New Enclosures transfer control of resources from small-scale producers to commercial circuits, whereby the commodity form appropriates public goods. Such producers can be effectively disposessed even if companies do not acquire intellectual property rights to seeds.