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ETHICAL TOOLS TO SUPPORT SYSTEMATIC PUBLIC  
DELIBERATIONS ABOUT THE ETHICAL ASPECTS OF  
AGRICULTURAL BIOTECHNOLOGIES

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**ABSTRACT.** This special issue of the *Journal of Agricultural and Environmental Ethics* presents so-called ethical tools that are developed to support systematic public deliberations about the ethical aspects of agricultural biotechnologies. This paper firstly clarifies the intended connotations of the term “ethical tools” and argues that such tools can support liberal democracies to cope with the issues that are raised by the application of genetic modification and other modern biotechnologies in agriculture and food production. The paper secondly characterizes the societal discussion on agricultural biotechnology and defends the thesis that normative perspectives fuel this discussion, so one cannot come to grips with this discussion if one neglects these perspectives. The paper thirdly argues that no such thing exists as “one” societal debate in which these issues should be discussed. There are several intertwined debates, and different actors participate in different discourses. Some practical instruments are necessary in order to include the right issues in these debates. These instruments will be coined as “ethical tools,” since they are practical instruments that can be used (tools) in order to support debates and deliberative structures for a systematic engagement with ethical issues (hence, ethical tools). Finally, the paper clarifies the ethics of these ethical tools and presents the tools as discussed in the remainder of this special issue: 1) tools to include ethical issues in public consultation and involvement; 2) tools to support systematic reflection upon ethical issues in decision-making; and 3) tools to support explicit communication about values in the food chain.

**KEY WORDS:** Ethical tools, GM evaluation, normative perspective, societal debate, values in the food chain, participatory decision-making, communicative space, value pluralism

This special issue of the *Journal of Agricultural and Environmental Ethics* presents so-called ethical tools that are developed to support systematic public deliberations about the ethical aspects of agricultural biotechnologies. This introductory paper will clarify the intended connotations of the term “ethical tools” and will argue that such tools can support liberal democracies to cope with the issues that are raised by the application of genetic modification and other modern biotechnologies in agriculture and food production.

This introduction adopts the following strategy: First, the societal discussion on agricultural biotechnology will be characterized. The thesis will be defended that normative perspectives fuel this discussion and that one cannot come to grips with this discussion if one neglects these perspectives. Second, the argument will be that no such thing exists as “one” societal debate in which these issues should be discussed. There are several intertwined debates, and different actors – like governments, food companies, citizens, and NGOs – participate in different discourses. Third, the intention is to show that some practical instruments are necessary in order to include the right issues in these debates. These instruments will be coined as “ethical tools,” since they are practical instruments that can be used (tools) in order to support debates and deliberative structures for a systematic engagement with ethical issues (hence, ethical tools). The remainder of this paper will clarify the ethics of these ethical tools and present the tools as discussed in the remainder of this special issue: (1) tools to include ethical issues in public consultation and involvement; (2) tools to support systematic reflection upon ethical issues in decision-making; and (3) tools to support explicit communication about values in the food chain.

## 1. THE SOCIETAL DEBATE ON BIOTECHNOLOGY IN AGRICULTURE AND FOOD PRODUCTION

The application of genetic modification and other modern biotechnologies in agriculture and food production has been a prominent issue in public debates. One can only understand these debates, if one is prepared to consider the social and cultural importance of food and agriculture. The debate about the use of GMOs in agriculture and food production is for many people not just confined to the acceptability of the consequences of the application of this specific technology, it is also a debate about the future of agriculture, rural communities, landscapes, and cultural identities. It should be clear that a debate about such comprehensive issues is not merely a factual discussion. Agreement and disagreement in this debate are not confined to the scientific analysis of the impacts of GM-technologies on, e.g., the natural environment and public health, and the acceptance or refusal of GM-foods thus cannot be based solely upon risk assessments. Notwithstanding their importance, the results of risk assessments or a better public understanding of the technologies will not realize consensus in these debates, since main drivers of these discussions are normative. The discussions are fuelled by different perspectives on obligations towards producers, animals, and future generations, on values like justice, animal welfare, and environmental sustainability, and by different ideals about a good life and

society. In other words, an ethical analysis of the issue at stake is necessary in order to understand the nature of these discussions.

## 2. MULTIFACETED DEBATES ON BIOTECHNOLOGY IN AGRICULTURE AND FOOD PRODUCTION

There are several intertwined debates about agricultural biotechnology. First, there is the debate about consumer concerns that partly takes place in the market. In this debate, some consumers vote with their wallet; they evade, mainly in Europe, food products that are recognizable as genetically modified. Consumer concerns are often thought to signal that consumers have lost trust in the food sector and in food politics. Therefore, relatively minor irregularities in the food system easily develop into major food scandals and media hypes. This “Frankenstein food” debate on the use of new biotechnologies in food production has had rather severe impacts on European investments in this new technology. Second, there is the debate about the future of agriculture. NGOs have raised questions with respect to the safety of food, and to the environmental and socio-economic consequences for small farmers and developing countries of novel biotechnologies. In this debate, opposition to biotechnology is an expression of a deeper critique of industrialized agriculture.

Governments are involved in these debates in several ways; advisory committees, scientific committees, and think tanks have written advisory reports to governments on GM-food. Different European countries have organized consultations in the form of public debates, citizen juries, or consensus conferences. All these consultative methods are used in order to establish a kind of participatory decision-making.

One important conclusion of the debate is stated in the words of the British Food Standards Agency:

The potential impact of GM crops on the environment was the issue that gave rise to most concern and emerged in all the activities undertaken by the Agency. The safety of GM food was less of an issue, but suspicion and concern still surround the subject. (FSA, 2003: 3)

Consumers wanted to be able to make an informed choice between GM and non-GM food. They also felt that it is essential that labeling is clear and effective – possibly by using a logo to allow GM ingredients to be clearly identified (*ibid.*).

As a result of these debates the European Union has – after an initial *de facto* moratorium by several of its member states – created a legal framework “which establishes a clear EU system to trace and label GMOs and to

regulate the placing on the market and labeling of food and feed products derived from GMOs.” (EU, 2003: 1)

The biotechnology debate also has strong international implications. The government of the US is highly critical of the European labeling legislation. It argues that it is cumbersome for food producers and that obligatory labeling could prejudice consumers against genetically modified foods. The legislation of the EU is – according to the US – a barrier to free trade. “The European Union’s practice may lead other countries to block trade by imposing detailed information, traceability and labeling requirements and prompt a host of new non-tariff barriers just at a time we are trying to stimulate world trade,” said Mills, the spokesman for the United States Trade Representatives (*New York Times*, 3 July 2003). The US has filed a complaint against the EU under the WTO.

### 3. BROADENING THE DEBATE

Science, scientists, and scientific facts dominate the societal debates about agricultural biotechnology. However, in order to deal with the ethical issues of this technology, these societal debates need to be broadened. Since the issues at stake are broader, the issues under discussion need to be broader, and since the technology has societal impacts, lay perspectives need to be taken into account. It is rather unlikely that this will happen without targeted efforts, even if the currently dominant actors are willing to broaden the debate. Modern societies are not used to discuss ethical issues in agriculture and food production. Practical instruments are necessary to support the broadening of these discussions. In developing these instruments, one cannot assess the various candidate methodologies on the basis of their outcomes. If one argues that a certain tool is well qualified as a decision-support methodology because it results in an agreeable conclusion, the discussion on structuring the debate would end up in a repetition of the debate itself. Instruments to facilitate broadening the debate need to be comprehensive, transparent, and democratic tools that give all arguments fair and balanced consideration. Hitherto, the tools needed to effectively take ethical issues into account – and to satisfactorily involve the public at large – are not fully developed or described.

An EU-funded research project<sup>1</sup> has tried to develop some practical arrangements to include ethical concerns into practical deliberations about agricultural biotechnology. These tools seek to improve public participation

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<sup>1</sup> The project Ethical Bio-TA Tools as funded by the European Commission, DG Research, under FP5, Quality of Life Programme (<http://www.ethicaltools.info> provides further information about this project).

and the transparency of regulatory processes concerning the application of new technologies in general and of biotechnologies in particular. These instruments are coined “ethical tools,” since they are considered to be practical instruments that can be used (tools) in order to support debates and deliberative structures for a systematic involvement of ethical issues (hence, ethical tools). Although these ethical tools have been flavored by their development within the context of discussions about agricultural and food ethics in northwest European countries since the late 1990s, the possible application of these tools is not restricted to these countries but could also be envisioned in other well-ordered liberal democracies.

#### 4. THE ETHICS OF AN ETHICAL TOOL

The developed ethical tools are designed to help participants in public deliberations to voice the values and ideals that constitute their perspectives on agricultural biotechnologies. On the one hand, these instruments are not developed to take a particular stance in different debates about the contents and definitions of morality, the methods of applied ethics, or the proper relation between ethics and politics, since the instruments have to assist different participants with different (often implicit) ethical perspectives. On the other hand, these instruments cannot be entirely agnostic about the contents of ethical considerations, since they do need to assist people in identifying relevant ethical issues.

The papers in this special issue understand ethics as the common platform for value debates in relation to a given issue in a democratic, free, and open society. This common platform is seen as the communicative space between market actors, policy-makers, and different publics. These value debates are not necessarily confined to concerns about the consequences of technologies. People express values in various contexts, and these values refer to properties of states of affairs that make these states of affairs desirable and important. In value debates, these values are important for the participants, since the valued properties are typically relational or imply relational attitudes.

Ethics as a common platform for value debates is necessary in pluralist democracies. It is rather obvious that values differ in society, and in a democracy these value differences need to be respected. If one accepts value pluralism as a given in liberal democracies, the purpose of an ethical tool will be to find ways in which one is enabled to deliberate on the basis of the recognition that values differ and that these differing values need to be respected and accounted for – in one way or another – in order to reach ethically acceptable conclusions. The authors contributing to this special

issue stand with one foot in various philosophical traditions, ranging between consequentialism, discourse ethics, liberalism, pragmatism, and principlism, and could have – and have had – lengthy discussions about foundational issues in ethics. With the other foot, they stand in more practical discussions about ethical issues in agriculture and food production, where these various traditions not so much present rival but rather complementary perspectives on the issues at hand. Most, if not all, authors in this special issue thus share a pragmatic – as a non-philosophical term – stance towards their favored philosophical theories when it comes to meeting the challenge of facilitating opinion-formation and decision-making processes about the ethical aspects of agricultural biotechnologies.

While one cannot expect – and should not wish – that the use of ethical tools would lead to a unique and completely satisfactory answer, one should expect that they are capable of simplifying and facilitating decision-making processes by capturing those considerations that are needed for an ethically well-considered judgment. Ethical tools require skillful use and should not be confused with calculating machines or algorithms. They are practical methods designed to assist those who want to improve ethical deliberations by capturing a broad range of ethically relevant aspects of an issue.

Given the availability of ethical tools, there might be a temptation for decision-makers to outsource ethics to advisory bodies, let them run the exercises, ask for an ethical recommendation, and then adopt it. There is also a risk that the use of such tools may be uncritical and/or uninformed and may overstretch the scope of the tools. And one should be aware that some actors might be tempted to use ethical tools strategically in order to give the impression that real ethical considerations are made, while other interests have pre-empted the issue. The appeal to ethics could be mere window-dressing, and the use of ethical tools might hide this from the public gaze. The ethical tools that are presented in this special issue do not prevent such misuse but with their emphasis on broadening the scope of and participation in debates the tools are relatively unattractive for such strategic abuse. The availability of the tools at least reduces the dangers of bias and tunnel vision to a certain extent.

## 5. AN ETHICAL TOOLBOX

It is unlikely that a single tool will suffice for a full assessment of the whole range of divergent ethical issues involved in the introduction and application of new technologies. It has been necessary, therefore, to develop a toolbox in which particular tools are more applicable for certain purposes and/or in certain contexts. This special issue discusses three types of ethical tools that

are deemed useful for addressing the various needs of citizens/consumers and their organizations, governmental and non-governmental regulators, and economic actors in the food chain. The tools discussed in this special issue are the following: (1) public consultation and involvement; (2) decision-making frameworks; and (3) food chain value communication.

### 5.1. *Public Consultation and Involvement*

The first section of this special issue starts with the paper “Democracy at its best?” by Porsborg Nielsen et al., which signals that public participation in technology assessment has spread as an attempt to overcome, prevent, or let an open space to discuss societal conflicts over controversial technologies. The paper shows that one outcome of this surge in public consultation initiatives has been the increased use of participatory consensus conferences. Whereas many evaluations of consensus conferences focus on the modes of organization of the conferences, this paper argues that such evaluations rest on an assumption that this type of tool relates to universally agreed upon goals and meanings and that consensus conferences can readily be interpreted and applied across national settings. The paper challenges this approach to consensus conferences on the basis of a study of national, contextual differences in ideas about what constitutes legitimate goals for participatory arrangements. The paper looks at three consensus conferences on GMOs that took place in three different countries: France, Norway, and Denmark. The paper discusses the ways in which interpretations of the concept of participation, the value attributed to lay knowledge and technical expertise, and ideas about what constitutes the layperson, are all questions that prompt different answers from country to country.

The second paper in this section, “Consensus conference – A case study: PubliForum in Switzerland” by Skorupinski et al., then focuses on experiences from a case study about the Swiss consensus conference PubliForum. The paper argues that societal and ethical aspects of genetically modified food can be seen as prototypes of topics needing the involvement of the public by a participatory process, and that the important role of the lay perspective in this field seems to be widely accepted in practice. The paper also signals that there remains theoretical controversy about the necessity and democratic legitimacy of participatory processes. It flags a variety of heterogeneous problems concerning contents and procedures of public participation from an ethical point of view. The aim of this paper is to clarify criteria to support a communication process as a true dialog between autonomous citizens about ethical aspects in the field. One important conclusion of the paper is that there must be an orientation for all participants

in a consensus conference with clear rules about their different roles to support transparency, credibility, and fairness of the procedure.

### 5.2. *Decision-making Frameworks*

The second section of this special issue starts with the paper “Developing the ethical Delphi” by Millar et al., which signals that a number of European institutions and government committees have expressed interest in developing tools to facilitate consideration of the ethical dimensions of biotechnology assessment. The paper identifies the Delphi method as one of the potential tools. This Delphi method was originally developed to assess variables that are intangible and/or shrouded in uncertainty by drawing on the knowledge and abilities of a diverse group of experts through a form of anonymous and iterative consultation. The paper proposes that the classical method can be further developed and applied as an ethical decision-making framework to assist policy-makers. The paper develops an ethical Delphi as a potential approach for characterizing ethical issues raised by the use of novel biotechnologies. It discusses advantages and disadvantages of the method and indicates that further work is needed to develop the procedural aspects of the ethical Delphi and to test its use in different cultural contexts. The paper concludes that utilizing a framework of this type combines the advantages of a methodical approach to capture ethical aspects with the democratic virtues of transparency and openness to criticism. The ethical Delphi could thus contribute to better understanding and decision-making on issues that involve decisive ethical dimensions.

The second paper in this section, “Developing a user manual for the ethical matrix” by Kaiser et al., then develops the ethical matrix to help decision-makers explore the ethical issues raised by agri-food biotechnologies. The paper reminds us that over the decade since its inception the ethical matrix has been used by a number of organizations and that the philosophical basis of the framework has been discussed and analyzed extensively. It argues that the role of tools such as the ethical matrix in public policy decision-making has received increasing attention and that it is important to clarify the substantive nature of any prospective framework. In order to further investigate this issue, reflections on the ethical soundness of an ethical framework are presented in this paper. The neologism of ethical soundness is introduced in order to provide more structured evaluations of a range of ethical tools, including decision-making frameworks such as the ethical matrix.

The final paper in this section, “Value pluralism and coherentist justification of ethical advice” by Forsberg, reminds us that liberal societies are characterized by a pluralism of fundamental values and the need to respect

that pluralism, i.e., respect for individuals' rights to live by their own conception of the good, but governments cannot but make decisions that will have the effect that some values are privileged at the cost of others. The paper argues that when public ethics committees give substantial ethical advice on policy related issues, it is important that this advice is well justified. The paper discusses one approach to the justification of ethical assessments, i.e., intuitionist balancing. Intuitionism is characterized by stressing the existence of several fundamental *prima facie* moral principles, between which there is no given rank order. For some intuitionist approaches, coherentism has been proposed as a model of justification. The paper discusses justification of ethical advice and evaluates the appropriateness of coherentism as a justificatory approach to intuitionist tools.

### 5.3. *Food Chain Value Communication*

The third section of this special issue starts with the paper "An ethical toolkit for food companies" by Deblonde et al., which signals that many debates are going on that relate to the agricultural and food sector. The paper suggests that present technological and organizational developments within the agricultural and food sector are badly geared to societal needs and expectations. It presents an ethical toolkit for food companies and discusses what this toolkit can achieve, given the characteristics of the agricultural and food sector and its wider context. The paper defends the claim that this toolkit can be seen as one of the mechanisms that can help enterprises in the agricultural and food sector to be accountable. It argues also that the toolkit should be complemented with other mechanisms to empower the wider public and to stimulate a dialog between public authorities, citizens, and economic actors.

The second paper in this section, "Integrity and cynicism" by De Bakker, then argues that paying thorough attention to cynical action and integrity could result in a less naive approach to ethics and moral communication. In the first part of the paper, Habermas's approach of communicative action is confronted with Sloterdijk's concept of cynical reason. In the second part, the focus is on the constraints and possibilities for moral communication in a business context and on the corporate integrity approach of Kaptein and Wempe. The paper argues that this latter approach is a valuable and insightful contribution to the question of how to deal with conflicting interests, open discussion, fairness, and strategic decision-making in the context of stakeholder dialog. It concludes, however, that Kaptein and Wempe overstretch the concept of corporate integrity by their inclination to make it an all-purpose remedy for corporate dilemmas.

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