

Ethics in Food Safety Management

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INTRODUCTION

Food production is a complex matter, affecting people's lives, organizations' profits and the well-being of the whole planet. It is not always straightforward to say what is right and what is wrong when it comes to the production of food. Many ethical questions can be raised regarding the food supply chain, including agricultural production.

Climate change, animal welfare, fair trade, health and safety of employees as well as consumers, fair treatment of employees and their social rights, economic sustainability and use of natural resources are all important dimensions within the system of production, processing and trade, and where every food item often includes value conflicts. An increasing number of the Western population are becoming overweight and obese. Should the food industry limit their marketing of fat and sweet foods to reduce these problems, or is this the responsibility of consumers as far as they have an informed choice? Maybe the industry's

aim first of all is to increase profit and secure employment? Tremendous variation in the global food production system exists. People in parts of the world are starving and to secure enough food supply is important. But is it unethical to focus on efficient food production, when this is set up against animal welfare and environmental friendly production? And is it acceptable that multinational companies have a double standard, which means that products rejected in one country can be exported to another country with less stringent safety legislation? If so, what would be the eventual consequences? Would other kinds of non-ethical practices, e.g. dumping of food, increase? The question of how far a single standard for reasons of ethics should be respected in the world was raised in an Asian country where a multinational company was required to produce its products according to the European safety standards. Is it unethical behavior when they, due to environmental contamination and local practices, were unable to have raw material meeting European requirements?

We may also ask if the short-term consequences on people are more important than the long-term consequences on the planet, and if it is all right that what is closest in time and space is most important for us. How the food industry responds to these questions will influence how consumers, citizens and other relevant stakeholders perceive them. A perception of the food industry as a large-scale sustainable production and processing system or as a business with the main purpose of making financial profit will influence consumer trust and thereby their acceptance of novel technologies, novel foods and food science and technology in general.

Food security, food safety and sustainability are considered as first priorities related to the modern developments in agricultural technologies (EGE, 2008a). In this chapter we will discuss the scope of ethics in the food industry in relation to food safety. We start out by defining ethics. Then, ethical dilemmas in food safety cases are discussed. Lastly, the precautionary principle and a framework for ethical decision-making in the food industry are highlighted.

WHAT IS ETHICS?

Ethics is defined as the philosophical study of the moral value of human conduct and of the rules and principles that ought to govern it (www.thefreedictionary.com/ethics). Simply stated, ethics refers to standards of behavior that tell us how human beings ought to act in the many situations in which they find themselves – as friends, parents, children, citizens, businesspeople, teachers, professional food producers, consumers, and so on.

Ethics is different from following the law. A good system of law incorporates many ethical standards, but law can also deviate from what is ethical. Selling tobacco to children in countries with no laws against it can be perceived as unethical. Ethics is not the same as following culturally accepted norms either. Some cultures are quite ethical, but others become corrupt – or blind to certain ethical concerns: “When in Rome, do as the Romans do” is not a satisfactory ethical standard. Ethics is not science, feelings or religions. Science can provide important data to help us make better ethical choices. But science alone does not tell us what we ought to do. Science may provide an explanation for what humans are like. But ethics provides reasons for how humans ought to act. And just because something is scientifically or technologically feasible, it may not be ethical to do it. Even though science makes

it possible to breed cattle with extreme overdevelopment of muscles, we may question if it is ethical when we take animal welfare into consideration. We cannot trust our feelings either. Some people feel bad when they do something wrong, others do not. While most religions do advocate high ethical standards, they do not always address all kinds of ethical dilemmas (Velasquez et al., 2012; Baumhart, 1961).

If our ethics are not based on feelings, religion, law, accepted social practice or science, what are they based on? Some ethicists emphasize that the ethical action is the one that produces the greatest good and does the least harm for all who are affected – customers, employees, shareholders, the community and the environment (the utilitarian approach). The utilitarian approach deals with consequences; it tries both to increase the good done (e.g. ending hunger) and to reduce the harm done (e.g. environmental and social destructions). Other philosophers and ethicists suggest that the ethical action is the one that best protects and respects the moral rights of those affected (the rights approach). This approach starts from the belief that humans have a dignity based on their human nature *per se* or on their ability to choose freely what they do with their lives. On the basis of such dignity, they have a right to be treated as ends and not merely as means to other ends. They have a right to adequate food and a fundamental right to be free from hunger (FAO, 1996, Rome Declaration). The list of moral rights – including the rights to make one's own choices about what kind of life to lead, to be told the truth, not to be injured, to a degree of privacy, and so on – is widely debated; some now argue that non-humans like animals and plants have rights, too. Also, it is often said that rights imply duties – in particular, the duty to respect others' rights. Aristotle and other Greek philosophers have contributed the idea that all equals should be treated equally (the fairness or justice approach). Today we use this idea to say that ethical actions treat all human beings equally – or if unequally, then fairly based on some standard that is defensible.

The power distribution between retailers and suppliers has led many producers to state that multiple food retailers are abusing their position of power and engaging in practices that adversely affect the competitiveness of suppliers. To address these adverse effects it has been recommended that a code of practice be introduced to govern retailer–supplier relationships (Duffy et al., 2003). The Greek philosophers have also contributed the notion that life in community is a good in itself and our actions should contribute to that life (the common good approach). This approach links ethics to social responsibility and calls attention to the common conditions that are important to the welfare of everyone. Companies have a duty to be good citizens including their own workers and staff and “to do the right things” (Porter and Kramer, 2006). A very ancient approach to ethics is that ethical actions ought to be consistent with certain ideal virtues that provide for the full development of our humanity (the virtue approach). These virtues are dispositions and habits that enable us to act according to the highest potential of our character and on behalf of values like truth and beauty. Honesty, courage, compassion, generosity, tolerance, love, fidelity, integrity, fairness, self-control and prudence are all examples of virtues. Virtue ethics asks of any action, “What kind of person will I become if I do this?” or “Is this action consistent with my acting at my best?”

Each of these approaches mentioned above helps us determine what standards of behavior can be considered ethical. Different actors may not agree on the content of some of these specific approaches. They may not all agree to the same set of human and civil rights or on

what constitutes the common good. They may not even agree on what is a good and what is a harm. Nonetheless, each approach gives us important information with which to determine what is ethical in a particular circumstance. And much more often than not, the different approaches do lead to similar answers (Velasquez et al., 2012).

ETHICAL ISSUES IN FOOD SAFETY

The series of food scandals and scares during the last decade resulted in a melting consumer confidence. Despite the fact that food has never been safer, it seems that consumers are considerably uncertain, anxious and increasingly critical about the safety of their food.

The safety of food products for human consumption as a precondition for their marketing must be guaranteed. But who is responsible for food safety? Are the producers and processors, or the food business operators in general responsible as stated in the European legislation (178/2022/EC), or should this responsibility be shared with consumers? Should consumers having sufficient education and knowledge be able to make informed choices? This might apply to nutrition-related choices but the safety of foods cannot be judged by consumers. Here the operators of the food supply chain are mainly kept being responsible. In food safety, the border between ethic, compliance and responsible behavior, as seen below, is not always clear cut and at times these issues are intertwined.

One of the largest food safety incidents the World Health Organization (WHO) had to deal with recently was the Chinese melamine scandal from 2008 involving milk and infant formula. By November 2008, China reported an estimated 300,000 victims, with six infants dying from kidney stones and other kidney damage, and a further 860 babies hospitalized (Branigan, 2008; see also Chapter 41). The chemical melamine appeared to have been added to milk to cause it to appear to have a higher protein content (McDonald, 2008; Macartney, 2008). A spokesman from WHO said the scale of the problem proved it was “clearly not an isolated accident, [but] a large-scale intentional activity to deceive consumers for simple, basic, short-term profits (VOA, 2008).” The issue raised concerns about food safety and political corruption in mainland China, and damaged the reputation of China’s ability to manage the safety of its products. It also affected its export, with at least 11 countries stopping all imports of mainland Chinese dairy products.

This case clearly shows the catastrophic consequences when a firm puts its own goal above others. Adding a potentially fatal chemical compound to a food product is not only unethical, but also illegal and above all a criminal action. The case is not a difficult dilemma to judge in terms of ethics, legality or criminality. What was particularly unethical was that the problem was known for some time at the regional level but not divulged for fear that the scandal may have negative impact on tourism and the upcoming Olympic Games. The incident was brought to the attention of the general public after the games. An even greater negligence and source of outrage was the fact that this event was the second melamine incident; the first occurred in the USA in 2007 and was due to wheat gluten imported from China. Hundreds of dogs and cats were intoxicated (see Chapter 41). No efficient corrective action was put in place after the first incident. The products of a multinational company which had already experienced the problem in the United States was affected again in China and had to be recalled. Although a professional food safety management and crisis

management calls for corrective actions after a first incident, it is also a matter of due diligence and ethics to be cautious on emerging risks. Consumers can forgive a first and an unexpected risk but when the same incident happens again for a second or a third time it is a matter of negligence.

Sometimes, issues are clearly illegal and reveal an underlying unethical attitude on the part of managers responsible of companies. For instance, release of a product knowing that it is contaminated or does not meet regulatory requirements, or repeating a microbial test until a negative result is obtained as evidence of safety is a sign of an unethical or immoral attitude of managers.

Other food safety issues are more problematic and less clear cut. The case of unpasteurized cheese is more controversial. Unpasteurized milk is known to be a potential source of foodborne pathogens, including *Listeria monocytogenes* (Todd, 2011). Thus, consumption of soft cheese made from unpasteurized milk is viewed as a medium to high food safety risk. *L. monocytogenes*-contaminated unpasteurized cheese has caused abortion and in a large cheese outbreak in California in 1985 one-third of 142 cases had fertile outcome (Linnan et al., 1988; Hof et al., 2003). Since the first compulsory law requiring milk from cows to be pasteurized, milk pasteurization is credited with dramatically lowering the incidence of typhoid fever, scarlet fever, diphtheria and tuberculosis. In USA today, it is forbidden to sell raw milk cheeses that have been aged for less than 60 months (US Code of Federal Regulations CFR, section 7 CFR 58.439). In Europe, the European Food Safety Authority (EFSA) states that there is a substantial risk of *Campylobacter* with milk and milk products if products are not subjected to a combination of treatments that eliminate the risk (EFSA Journal, 2005).

On the other hand, those in favor of unpasteurized cheese state that these cheeses, which have been made for centuries in France (e.g. Roquefort, Brie, Camembert) and other European countries (e.g. Serra da Estrela, Queijo da Ilha, mozzarella) are superior in taste. They are more complex in aroma and flavor, and they have longer lasting tastes. In addition, some believe that raw-milk bacteria and enzymes are helpful digestive aids and argue that lactose-intolerant people are able to digest raw-milk cheeses without their usual difficulty (Sheehan, 2007). Some cheese producers are also concerned with the extended ripening time for pasteurized cheese (Buffa et al., 2001). Up until the early 1900s, all cheese was made from raw milk, and raw-milk cheese defenders state that the unpasteurized cheese problems are related to hygiene problems and lack of knowledge. Raw-milk cheese makers, whether they are making young or aged cheese, must pay extra attention to the type of bacteria that develop in milk at different temperatures, and need to routinely test for bacterial counts. Food hygiene conditions must be held to the highest standards to avoid the introduction of bacteria that can develop in unheated milk. Raw milk needs to be made into cheese immediately to avoid fluctuations in temperature or possible contamination. Because the most likely source of *Campylobacter* in raw milk appears to be the feces of cows or goats, good hygienic practice (GHP) during milking is important (EFSA Journal, 2005). An HACCP system in place would serve as an appropriate tool for avoiding food safety outbreaks.

So what are the dilemmas? Is it all right to forbid sales of cheese made with unpasteurized milk? Here food safety is set up against people's pleasure of eating tasty cheese, traditional food cultures and the food industry's economic interest. Is unpasteurized cheese safe enough? In theory, a fully informed consumer might decide which food-related risk to

take and which to avoid. But what does it mean to be fully informed? Can we expect that all consumers are able to collect the detailed information about the wide array of food safety issues and make their own decisions? Are there any good strategies for providing relevant information in such a way that consumers understand the risk? Is the correct thing to do to delegate this responsibility to responsible authorities? And what if the consumers do not trust these authorities?

The issue is even more serious when raw milk itself is sold, or worse, when raw milk is given to children. Other examples are when raw minced meat is served without information to consumers that the product may present a risk. A corollary of this situation is the subject of food irradiation. Application of this technology, evaluated as safe by the World Health Organization, can prevent a range of foodborne illnesses from foods of animal origin such as campylobacteriosis, *E. coli* O157 infection, salmonellosis and infections caused by parasites. However, its application is hampered by the fear of some misinformed consumers. Again, the question is how are consumers informed and how do they voice their view? Is it ethical that some people lose their life because of a powerful lobby against food irradiation? Or is it unethical of food scientists not to understand and pay attention to some consumers' cost of the long-term consequences of irradiation?

Another key example is when a food industry transfers responsibility of safety to consumers without providing proper warnings, crystal clear instructions on safety measures, or even worse market and promote a product in a society when it knows that consumers would not be able or have means to ensure its safety. The latter issue was raised with the question of breast milk substitute in the developing countries, until WHO established the Code of Breast-milk Substitutes that responsible companies comply with. The issue of warnings on food packaging is still not well addressed in most legislation and the clarity with which drug providers or electrical equipment or aviation companies provide information has not yet been established in the food industries. This has made some companies write an ambiguous text that does not raise the concerns of consumers, but where the company in case of an incident can decline any responsibility.

Other emerging areas where the ethics of a company is demonstrated is the validation of health claims, full consideration of safety in development of new technologies and novel foods, and in ensuring that food science and technology is not developed for the sole purpose of business interest but gives priority to consumer health.

As mentioned in Chapter 37, food safety management relies very much on the management of people, including ensuring that employees are competent in their job, have received the proper training and briefing about their responsibilities, are given the means and authority to do a professional job, and also set the right reporting structure to minimize conflict of interest in audits and investigation of incidents. Most of all a company must have a culture that fosters reporting and openly discusses problems, protects and rewards whistleblowers, and has a management that walks the talk and follows its own policies. The company culture is an area which is not legislated and enforced by law but is one of the most important aspects of the ethical practice of a company as it impacts on all aspect of operations, including safety and health and the social right of employees as well as safety of products and health of consumers.

Finally, one of the most fundamental aspects of ethics in the food industry is the commitment and "real will" of the company to build a solid food safety assurance system or just to do the minimum necessary to meet the requirements of legislation and certification bodies.

As safety of food products is the outcome of the food safety assurance system (including the professional management of its staff) of food companies, no matter how comprehensive and strong the regulatory system of a country may be, it cannot replace the everyday vigilance of managers, workers of a company who have to oversee the safety of products.

The Precautionary Principle

The precautionary principle states that if a product, an action or a policy has a suspected risk of causing harm to the public or to the environment, protective action should be supported before there is complete scientific proof of a risk. In the absence of scientific consensus, the principle implies that there is a social responsibility to protect the public from potential harm. This is a “better safe than sorry” or “caution in advance” principle that applies both to human health and to environmental protection.

One of the primary foundations of the precautionary principles, and globally accepted definitions, results from the work of the Rio Conference, or “Earth Summit” in 1992. Principle #15 of the Rio Declaration notes:

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

The application of the precautionary principle has been made a statutory requirement within the European Union (Recuerda, 2006), and according to an FAO Expert Consultation report on food safety “international food safety organizations must make clear that science, while an important tool, is not sufficient in itself for food risk analysis and that it needs to operate within an ethical framework” (Kaiser, 2003). The problematic cases are the ones where there are disagreements about the value judgments made in the risk assessment. For novel food, new technologies or newly identified hazards, the answer to what is “safe” may not be the subject of a consensus. When both the likelihood of damage and the consequences of damage are unknown, then risk assessment becomes difficult and the assessors face ethical dilemmas (Kaiser, 2003; Almås, 1999). Genetically modified organisms (GMO) are one example of a new technology which has created a lot of debate. The presence of different interest groups and diverse citizens’ values in different political arenas triggered a range of policy responses to GMOs in the 1990s (Vázquez-Salat et al., 2012). While GMO was strongly supported by the scientific and biotech industry in the USA and led to a flourish of GM crops, European citizens were strongly opposed to GM plants. Consumers were skeptical and talked about “unnatural Frankenstein’s food.” They lacked confidence due to their governments’ response to a series of food scares in the 1990s (Skogstad, 2003). Today, the GMO regulatory framework in the EU is different from the one in USA and more in line with the public’s perception of risk than with the scientific definition of risk. The precautionary principle is applied in the EU and is constantly challenged.

A main ethical question which raised a controversy with regard to GM foods was a few years ago when EU countries would, as part of food aid, propose GM foods to the developing countries (Africa). In 2002 Zambia announced it would not accept GM food aid in any form. So the question was why would a technology and product rejected by the European population be good for the African population? Most African countries approach

GM technology applied to crops with caution. “Why shouldn’t we be wary of this technology and its possible long-term health impacts, if the EU [European Union] is. If it is not good for them, why should it be good for us?” said Tewolde Egziabher, Ethiopia’s director of the Environmental Protection Agency. Positions were polarized to a great extent after a quote from a US state department official, “Beggars can’t be choosers,” hit the headlines. It prompted the then president Levy Mwanawasa to say hunger was no reason for feeding his people “poison” (see the link <http://www.irinnews.org/report/93991/FOOD-Rumpus-over-GM-food-aid>).

The evolutionary aspect of the food system influences risk assessment of food safety and triggers some ethical dilemmas. Although consumers’ food variety increases and the food industry potentials for new business grow, there are food safety issues to consider. The food market is becoming more and more global. Not only food but also food pathogens are distributed around the world. In Norway, sugar peas from Kenya led to an outbreak of dysentery in 2009, probably due to consumption of raw products. In Kenya, people boil or fry vegetables before consumption. This is not the case in Norway where unpeeled fruit and raw vegetables are consumed frequently. In many ways Norway is a food safety oasis in Europe, with a livestock population virtually free from *Salmonella* and where only one out of nine national outbreaks of infectious intestinal diseases linked to lettuce, sprouts, sugar peas and basil the last 20 years came from Norwegian produce (Røssvoll et al., 2012). The problem is that consumers’ food safety habits and routines, inherited from parents, are not always adapted to handle new food scares from imported products. When food and food pathogens change, while food preparation routines stay the same, then food safety becomes an issue. The solution to this food safety problem raises ethical questions related to freedom of choice, economic prosperities for developing countries, distribution of pathogens into clean areas, etc.

ETHICAL DECISION-MAKING

Making good ethical decisions requires a trained sensitivity to ethical issues, a practiced method for exploring the ethical aspects of a decision and a weighing of the considerations that should impact our choice of a course of action. Having a method for ethical decision-making is absolutely essential. The more novel and difficult the ethical choice we face, the more we need to rely on discussion and dialogue with others about the dilemma. Only by careful exploration of the problem, aided by the insights and different perspectives of others, can we make good ethical choices in such situations.

A framework for ethical decision-making has been developed at the Markkula Center for Applied Ethics at Santa Clara University (www.scu.edu/ethics/decision). This framework for thinking ethically, which is the product of dialogue and debate among Manuel Velasquez, Dennis Moberg, Michael J. Meyer, Thomas Shanks, Margaret R. McLean, David DeCosse, Claire André and Kirk O. Hanson, is a useful method for exploring ethical dilemmas and identifying ethical courses of action. They divide ethical decision making into five blocks:

1. **Recognize an ethical issue:** Could this decision or situation be damaging to someone or to some group?

2. **Get the facts:** What are the relevant facts of the case? What facts are not known? Can I learn more about the situation? Do I know enough to make a decision?
3. **Evaluate alternative actions:** Which option will produce the most good and do the least harm? Which option best respects the rights of all who have a stake? Which option treats people equally or proportionately? Which option best serves the community as a whole, not just some members? Which option leads me to act as the sort of person I want to be?
4. **Make a decision and test it:** If I told someone I respect – or told a television audience – which option I have chosen, what would they say?
5. **Act and reflect on the outcome:** How can my decision be implemented with the greatest care and attention to the concerns of all stakeholders?

How companies respond to these questions when facing a dilemma will impact the companies' ethical image and thereby also the performance of the company. Responsibility for those concerns is shared among the players of the food supply chain, companies, decision-makers and consumers. Production, processing, storage and distribution of food and agricultural products are generally accepted as routine parts of everyday life all around the world. Therefore these activities have rarely been addressed within the realm of ethics. But food and agriculture, and the economic benefits derived from taking part in the associated system, are means to an inherently ethical end: feeding the world's population and preserving the earth's food-producing capacity and natural eco-systems for future generations. The ethical dimension of agriculture is therefore inherent to discussions on modern agricultural technologies (EGE, 2008b).

The ethics of a company and its management becomes conspicuous in times of an incident or a conflict. The ethics of a company is demonstrated by questions such as to what extent the company will:

- voluntarily acknowledge a contamination and/or if necessary recall its products;
- investigate the root cause of incidents up to the management level;
- accept loss of benefits to protect consumers;
- act transparently and reveal information on the incident and its cause; and
- take punitive actions against those who have knowingly and irresponsibly violated the policies (note: errors are different from violations and should be not the subject of punitive actions, see Chapter 37).

In the healthcare or aviation sectors, reporting of non-compliance or problems, and independence in investigations of incidents, is much more advanced and can be a model for the food sector if food safety is to be strengthened.

CONCLUSION

Consumers want a large variety of safe food choices, while producers want safe products to sell, but also less regulation. These ideas are at times in conflict. Exotic and convenience food year round and free choice of organic, raw, local and imported food create value to the producer and benefit to the consumer, but are associated with varied and sometimes serious risk to health (Todd, 2010).

New technology, which made it possible to process the food in advance, transport over long distances, display at retail and at home, made it possible for the pathogens to grow to levels capable of causing infections. Exposure to new pathogens, from imported products or due to new technologies, creates new food safety issues and raises ethical questions. Is zero risk what we aim for, or is there a level of acceptable risk?

The likelihood of becoming sick from the next meal has probably never been less than it is today, but the long-term consequences of today's food production is less known (Almås, 1999). The production process is more complex and less transparent and consumers are no longer in control of the production. They need to trust retailers and producers. Consumers are worried. Some of these worries are directly linked to the risks involved, be they real or perceived. Other worries are more linked to ethical questions related to well-being, free choice (autonomy) and fairness (justice). Availability of safe food needs to be addressed in relation to factors such as: respect for consumer choice, right to information on safety, universally affordable food, adequate income and working conditions for employees and workers, fair practice in trade, animal welfare and sustainability of biotic populations. Also, consumers are worried about new technologies and if these new techniques take into consideration their health and safety, or if they merely are developed for business interests and the benefits of producers. Some consumers wonder to what degree science is being developed impartially, if governments and public health authorities give priority to consumers' health in their opinion on risks and risk management options, and if incidents are investigated independently and transparently.

A dialogue about the ethical implications of food production, processing, policy, supply and consumption may help involved partners make better decisions. The discussion needs to be lifted to a level above what each company at any given point in time feels is best for them.

Aristotle says that identifying the good with pleasure is to prefer a life suitable for beasts:

It is better to be a human being dissatisfied than a pig satisfied; better to be *Socrates* dissatisfied than a fool satisfied. And if the fool, or the pig, are of a different opinion, it is because they only know their own side of the question...

Every company has a social responsibility. Not behaving according to accepted norms for ethical behavior may have consequences not only for food safety, but also on a companies' image, reputation and performance. Ethics is not a question of thoughtless and slavish worship of rules, and to scrupulously check every action against a table of dos and don'ts. The fundamental question of ethics is not "What should I do?" but "What kind of person should I be?" For the food industry the question is "What image would we like for our company?" Will we accept compliances, deceive full negligence or non-compliance as long as we are not caught or will we vigilant in any condition?

"Integrity is doing the right thing, even when no one is watching" (Clive Staples Lewis, 1898–1963), and ethics is to the industry what integrity is to a person.

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