FOOD ETHICS: A CRITIQUE OF SOME ISLAMIC PERSPECTIVES ON GENETICALLY MODIFIED FOOD

by Mariam al-Attar

Abstract. This article critiques some Islamic approaches to food ethics and the debate over genetically modified (GM) food. Food ethics is a branch of bioethics, and is an emerging field in Islamic bioethics. The article critically analyzes the arguments of the authors who wrote in favor of genetically modified organisms (GMOs) from an Islamic perspective, and those who wrote against GMOs, also from an Islamic perspective. It reveals the theological and the epistemological foundations of the two main approaches. Moreover, it provides an attempt to critique what is perceived as an exclusivist and legalistic trend adopted by some authors. It argues that an alternative approach that acknowledges the priority of reason in ethics and is at the same time rooted in Islamic tradition would be more inclusive and constructive.

Keywords: Ash'arism; bioethics; ethics; exclusivism; food ethics; genetically modified food; GMOs; Islam; Islamic bioethics

Food Ethics

Food related concerns have spanned cultures and civilizations (Zwart 2000). Pre-modern food ethics predominantly focused on issues related to the consumption of food, whereas modern food ethics typically center on issues related to food production (Zwart 2000). In order to understand the various concerns that will be investigated in this article and their relation to food ethics, I will first explain the three main trends in food ethics. The first two trends have roots in pre-modern traditions including religious prescriptions and ancient peoples' concerns about food, while the third is modern and more related to socioeconomic and political concerns.

Pre-modern food ethics mainly focused on dietetics, which is "the willingness to regulate one's life in accordance with self-ordained rules" (Zwart 2000, 121). Dietetics today relies on measurement (weight watching), labeling, and informing the consumer about the components of the food products. The other trend in food ethics which is also related to food

Mariam al-Attar is a former clinical scientist who is currently Visiting Assistant Professor at the Department of Arabic in the American University of Sharjah, Sharjah, United Arab Emirates; e-mail: malattar@aus.edu.

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consumption rather than production is the binary distinction between contaminated (or innately bad) and uncontaminated food, where the rejected product is regarded as intrinsically bad (in a moral sense). For example, a vegetarian consumer would consider meat products as contaminated, mainly because they are made from animals and not because they are unhealthy. A Muslim or a Jew would consider pork products contaminated, mainly because they are derived from pigs, forbidden in their religion. Besides that, new forms of contamination have emerged with the introduction of pesticides, preservatives, and, more recently, genetically modified (GM) products (Zwart 2000). The eighteenth-century German philosopher Immanuel Kant explicitly denied that dietetics can be regarded as a form of ethics, since it is basically the application of scientific knowledge to matters of health, which is a matter of prudence rather than ethics. In the twentieth century, and after the publication of *Food Ethics* by Ben Mepham (1996), the subject gradually emerged as a subdiscipline of bioethics. "Food ethics" can now be defined as an interdisciplinary field since it may entwine economics, politics, science, and other disciplines. Thus, agro-biotechnology, for example could be criticized not because of the intrinsic nature of the food product but mainly because of its effects on a social or global scale.

In Muslim societies, as in many others, there is a growing interest in bioethics as well as in food ethics, and a shift in interest from focusing on food consumption to food production can also be discerned. This article will focus on the arguments and the deliberations related to genetically modified organisms (GMOs) by Muslim authors, deliberations that take the Muslims' food ethics beyond the binary distinction between the contaminated (or innately bad) and uncontaminated food, or what is traditionally considered *ḥalāl* (religiously or legally permissible) and *ḥarām* (religiously or legally forbidden). Many Muslims argue that for something to be considered *ḥalāl,* it needs first to be *ṭayyib* (good, wholesome, and nutritious) (Dahlan-Taylor 2015). Good food is not only wholesome and nutritious, but it is derived from trusted and reliable sources that are not involved in unjust practices such as usury, monopoly, hurting the environment, or disturbing the ecological balance. Of course, in order to qualify as *ḥalāl* in addition to goodness, specific religious dietary regulations need to be considered by Muslims, including that it should be free from any ingredients that they consider religiously forbidden, such as pork.

Relevance and Interest. This article seeks to engage not only those readers who are interested in understanding some aspects of the reasoning related to genetically modified food/GMOs controversy in the Muslim world, but also those readers interested in issues related to Islamic ethics in general, because it sheds light on various ethical arguments provided by Muslims and attempts to critically analyse various perspectives by

unveiling and assessing certain theological, cultural and political assumptions. I believe that the article's relevance and interest stems from the fact that it focuses on the issue of the GMOs as a target for deliberation against the background of economic globalization on one side and global ethics on the other.

Modern food ethics seems to transcend religion and culture, especially when a new food technology is at stake. Nevertheless, some scholars and researchers have raised concerns about the extent to which an ethical discourse has to be religiously or culturally specific in a modern globalized world (Shabana 2014). Indeed, Muslims and other religious communities have to ensure that universal ethical principles such as the well known principles of bioethics—autonomy, nonmaleficence, beneficence, and justice—are informed by fundamental religious and cultural values to enhance their legitimacy and acceptability as indicated by Ayman Shabana (2014). However, that definitely does not mean that one should endorse any kind of cultural relativism or "theological voluntarism." Theological voluntarism is a meta-ethical theory that entails an exclusivist approach in ethics, as will be argued later in this article.

For a religious community confronting a range of challenging and practical questions within larger structures of governance—from globalization to liberal capitalism—debates about technology including agro-biotechnology often sponsor a set of larger concerns including specific economic and political circumstances (Moosa 2016). Yet, having specific circumstances does not preclude the potential for an inclusive universal language and transcultural framework of ethical principles that provide an opportunity for a dialogue between people belonging to different cultures, traditions, and religions.

Before discussing the arguments related to GMOs which reflect various Islamic perspectives, I will provide an outline of the general landscape of the normative debate in Islam.

Normative Landscape of Contemporary Muslims' World

Islamic law (*fiqh*) is considered to be a central domain of Islamic ethical thought, as indicated by Muslim and non-Muslim scholars. "Islamic law is not merely law, but also an ethical and epistemological system of great subtlety and sophistication" (Reinhart 1983, 187). Understanding its relation to the *Sharīʿah,* how it works, and what the sources for legislation are will help us understand various Islamic ethical perspectives discussed in the rest of this article.

Classical Sources of Legislation. The Qur'an is the sacred book of the Muslims and is considered an important source of Islamic ethics and law. It contains 6,236 verses revealed to the prophet Muhammad (d. 632) in

the seventh century, over twenty-three years. The Qur'an is addressed to all human beings and its ethical framework is presented as one of universal applicability, "This message is no less than a reminder to all mankind" (81:27) Some Muslims adhere to the literal meaning of the Qur'anic verses; others believe that the Qur'anic injunctions are open to interpretations that necessarily reflect epistemological situations of different times and places. Nevertheless, Muslims agree that the Qur'an is the first and the ultimate source of guidance. The second source is the *Sunna* (the tradition) of the prophet Muhammad codified in the books of *Ḥadīth* that include reports of what the prophet did or said or approved.

The other two sources that are largely recognized by various traditional scholars are *qiyās* (reasoning by analogy) and *ijmā'* (consensus). In addition to those, *'urf* (local custom), *istiḥsān* (juristic preference), and *maṣlaḥa* (well-being or public benefit) are also taken into consideration by different classical schools of *fiqh* when deriving rules and legislations, especially when certain issues that need to be addressed are not explicitly mentioned in the Qur'an or the Ḥadīth.

The principle of *maṣlaḥa* is usually linked to *maqāṣid al-Sharī'ah* (the aims or the objectives of the *Sharī'ah*), and the aims themselves seem to be derived by an induction process from the rules and principles of the Qur'an and the Sunna by some classical Muslim scholars who flourished between the eleventh and the fourteenth centuries. Those objectives are traditionally considered to include the preservation of five universal necessities, namely, life, religion, mind, progeny, and property. Prominent classical scholars such as al-Ghazālī (d. 1111), and al-Shāṭibī (d. 1388) have indicated that these objectives are universal and acknowledged by all traditions and communities (al-Attar forthcoming).

Sharī'ah, Fiqh and Religious Authority. *Sharī'ah* literally means "a path to water" and indicates the method or the way of living rightly in this life in order to thrive in this world and achieve salvation in the hereafter. *Fiqh* literally means "understanding," and includes methods, rules, and principles developed by the *fuqahā'* (jurists who are also religious scholars) in order to understand the teachings of the *Sharī'ah*. For a Muslim to live according to the *Sharī'ah* means to live according to principles and values indicated in the holy book and to follow the example of the prophet Muḥammad, whose character and behavior embodied the teachings of the Qur'an. The two concepts of *Sharī'ah* and *fiqh* are often equated, and both are usually translated as "Islamic law," which is misleading. *Fiqh* indicates our understanding and knowledge of what it means to follow the right path and is open to modification and change, whereas *Sharī'ah* is believed to be the "absolute way of truth and justice as it exists in God's mind" (Abou El Fadl 2007, 150). For example, we can have various schools of *fiqh*, yet only one Islamic *Sharī'ah*. The canonical schools of *fiqh* which are still active

today in Sunni Islam include the Ḥanafī, Mālikī, Shāfiʿī, and Ḥanbalī, in addition to the Jaʾfarī school in the Shīʿī Islam and Zaydī among the Ismaʾīlī Muslims. Islam is far from being a monolithic tradition, and the schools of law just mentioned do not exhaust the various trends and living Islamic traditions. Also, most Muslims nowadays do not identify with any particular school of law.

In Islam there have never been councils or assemblies to solve dubious juridical or theological questions as is the case in Christianity. In the Muslim world no institution has the religious authority to formulate new religiously sanctioned rules incumbent upon all Muslims. However, in practice some Muslims follow the advice of a learned religious scholar or accept a *fatwa* (a legal opinion) issued from any of the great centers of religious scholarship (Shadid and Koningsveld 1995). Nowadays, Muslims also have recourse to the opinions provided by meetings, conferences, congresses, and academies that bring together jurists and experts from various parts of the Muslim world (Atighetchi 2007, 89). Yet, in case of disagreement, which often happens, there is no superior religious authority that can decide. In Muslim majority countries, the religious affairs ministries appoint councils or a religious scholar Grand Mufti to issue *fatwas* (Moosa 2014). Also, some large Islamic organizations are sponsored and financed by groups of different Muslim countries, lending to them the responsibility of being their political-religious instruments (Atighetchi 2007, 9). Thus, *ijmāʿ* (consensus), mentioned above, which had been traditionally considered a source of legislation, can no longer be invoked regarding current issues and modern technology. Indeed, the meaning and the application of the principle of consensus itself has never been agreed upon. In the modern time, reaching a meaningful consensus is almost impossible, due to the socioeconomic, political, and geographical diversity of Muslim societies. In the absence of consensus, some have indicated that every Muslim should follow his/her own conscience and abide by what he/she believes to be the genuine religious rule (Shadid and Koningsveld 1995).

Kalām Theology, Law and Ethics. Before the canonization of various schools of Islamic law during the early years of Muslims' intellectual history, debates centered on the role of reason in deciding issues related to law and morality. The main school of *kalām* (speculative theology) that emerged during the eighth century was the Muʿtazilite school. For most of the Muʿtazilites, and also for many non-Muʿtazilites, ethical values and moral obligations were considered to be cognizable by human reason before the advent of revelation (Reinhart 1995). The Muʿtazilites school was heavily opposed by traditionalists who insisted on grounding each and every judgment in textual evidence, either from the Qur'an or the Sunna. They insisted that moral values and moral obligations themselves are only realized through revelation. They were further supported by a school of

speculative theology that was found by al-Ashʿarī (d. 936). From the late eleventh century onward Ashʿarism gradually prevailed and the Ashʿarite moral theology was accepted and developed by prominent jurists of the classical Islamic era, including al-Ghazālī and al-Shāṭibī, mentioned above. Theoretically, they remained faithful to the Ashʿarite theory of ethical value and obligation, which basically states that what is right and what is wrong are established by revelation only. Thus their position is often described as "ethical voluntarism," which is a meta-ethical position that entails the view that God did not command the acts because they were good; rather, acts became good only because God commanded them. Accordingly, human reason cannot discern right and wrong apart from what is commanded and what is prohibited, and there is no reason behind divine commands and prohibitions, which implies that divine commands are arbitrary. Ethical voluntarism is a meta-ethical theory that is also largely endorsed by various Protestant scholars, including the contemporary "divine command theorists" in the United States and elsewhere (Al-Attar 2010, 110).

Regardless of their adherence to the above doctrine, the Ashʿarites from the late eleventh century onward widely opened the door for the use of reason by developing the theory of *maqāṣid al-Sharīʿa* (the objectives of divine law). A theory that presupposes aims or objectives behind divine rules and regulations definitely implies that divine laws are not arbitrary but relevant to reason and the well-being of humanity. Thus it can be called "divine purposes theory" rather than "divine commands theory."

In the modern time, innovation in methodology via the doctrine of public interest *maṣlaḥa* and the objectives of *maqāṣid* "caused a gradual shift in modern Muslim ethical thinking. With this approach contemporary Muslim ethicists are able to question the inherited cultural logic embedded in the ethical values" (Moosa 2014, 50). However, classical Ashʿarite moral theology, as we will see below, prevails in some modern discourses and leads to exclusivist moral views. An exclusivist approach to ethics is the approach that is based on the belief that moral truth is only accessible to a certain religious group to the exclusion of all others. This article will critically analyze exclusivism as a doctrine explicitly or implicitly held by some authors discussed below. I will be arguing for a more inclusive approach when dealing with moral issues, an approach that is based on the belief that all human beings are endowed with reason that enables them to articulate "moral universals that could serve as shared and common goals with humanity at large" (Abou El Fadl 2014)

Islamic normative ethics, as also noted by Ebrahim Moosa, is a combination of different discourses merging duty-based rules of *fiqh* (which can be compared to deontological ethics) with a teleological or a consequentialist approach of maṣlaḥa and *maqāṣid* (which Moosa and other

contemporary scholars often compare to utilitarianism). Virtue ethics was developed mainly by Muslim philosophers who followed the Greek Aristotelian tradition (Moosa 2014).

Attitude towards Science and Technology. It is hard to characterize the relationship between religion and science in contemporary Islamic thought with any finality. Most Muslim intellectuals, and people with a broad range of opinions, generally proclaim the value of science and its neutrality (Dallal 2010, 157). Voices have been raised that demand the Islamization of knowledge, including science. This was promoted by leading Muslim intellectuals like Sayyed Hossein Nasr, the late Ismail Raji al-Farouqi, and the Pakistani intellectual Ziauddin Sardar. Their discourses are distinct from each other and some are highly sophisticated. Yet, the Islamization of science project is sometimes simplified, to the extent of being reduced to a set of dogmatic beliefs that are utilized to filter and suppress any knowledge or scientific theory that is deemed non-Islamic. Even Sardar, who seems to have nuanced his view on the whole project of the Islamization of science later on, pointed out that "the Islamization program will inevitably lead to suppressions and censorships of any knowledge that is deemed non-Islamic, thus creating a cast of scholars who will subjectively filter out knowledge as they see fit" (Guessoum 2011, 123). Indeed, "Muslims find it difficult to digest any 'separation' of domains, widely believing (quite erroneously) that Islam is a complete system, which covers every aspect of life. That is why Muslim societies are the only ones to continue to resist 'secularism'" (Guessoum 2012).

On the other hand, Muhammad Abdus Salam, a Nobel Prize winner in physics, alongside many other scientists and lay people, believes that science is universal, and only its application is affected by various cultural factors. Nidhal Guessoum seems to agree with Abdus Salam on the universality of science, while at the same time emphasizing the importance of the interpretation of scientific theories and taking into consideration their possible implications. Guessoum proposed a theistic philosophy of science that could substitute for the prevailing materialistic philosophy while still embracing methodological naturalism. Methodological naturalism is essential for scientific practice and leads to scientific knowledge that cannot be disputed, whereas metaphysical naturalism as a materialistic philosophy can definitely be disputed. Scientific theories can be interpreted in a way that is consistent with theism (Guessoum 2011, 94–97).

However, science is distinguished from technology, because the latter is comprised of a mixture of science, policy and social environment. That is why debates about technology often sponsor a set of larger concerns (Guessoum 2011, 138; Moosa 2016). Muslims experience major transitions under the pressure of modernization and globalization, and the

question of the relationship between technology and ethical thinking triggers issues related to economics, politics, culture, and society. In what follows, the article seeks to engage with Islamic perspectives regarding GMOs, a highly debated modern technology.

Arguments in Favor of GMOs from Islamic Perspectives

According to the mainstream Islamic institutions like the Islamic Fiqh Council, affiliated to the Muslim World League, food derived from biotechnology-improved GMO crops are permissible *ḥalāl*—fit for consumption by Muslims (Hazzah 2000). This is also the position of the main North American *ḥalāl* certifying body, the Islamic Food and Nutrition Council of America (IFANCA) and the Indonesian Ulema council (MUI). The certification by IFANCA for *ḥalāl* food is recognized and accepted by the MUI, the Muslim World League, and Saudi Arabia, as well as by the government of Malaysia, the largest exporter of *ḥalāl* certified food (Hazzah 2000; Bouzenita 2010). Some scholars suggested that such food could possibly be *ḥarām* if it contains DNA from explicitly forbidden sources, and the issue is still debated among scholars and *ḥalāl* certifying organizations (Bouzenita 2010; Moosa 2009). However, the mainstream position of most Islamic scholars and institutions is that there is no prohibition in Islam against genetic modification of food provided that it contains no religiously prohibited ingredients such as pork and alcohol. This position is based on two arguments: first, that there is no textual basis from the Qur'an or the Hadith for the prohibition of biotechnology; and second, that the benefits of biotechnology outweigh any unforeseen harms.

For example, Ibrahim Syed, the president of the Islamic Research Foundation International (IRFI) based in the United States, presented arguments in favor of GMOs from an Islamic perspective. After considering the Qur'anic verses that are sometimes interpreted to be against genetic engineering—such as Q. 4:119, in which Satan is depicted as saying "I will order them to alter the creation of God" and Q. 30:30 which includes "No change should there be in the creation of God"—Syed stated that "the consensus is that this Qur'anic verse cannot be invoked as a total and radical ban on genetic engineering. If followed too literally it would conflict with many forms of curative surgery that also entail some change in God's creation" (Syed n.d.). It is true that invoking "textual evidence" against a modern technology is problematic. Interpretations given by some Muslims to texts that seem to ban changing God's creation mainly reflect their predisposition and their conventions. Such an interpretation, if carried too far, might result in banning many medical procedures, since medicine definitely interferes and tries to change and improve the human condition. Indeed, the validity and viability of medicine have been occasionally

questioned, but such objections have never amounted to or resulted in a total rejection of medicine (Shabana 2014). Most modern and classical scholars have indicated that the specific verses quoted above have to be understood metaphorically, since they refer to the moral natural disposition of humans and not physical aspects of creation (Moosa 2009, 138).

Syed also argues that "scientists know of no generic harms associated with genetically engineered organisms." He considers the possible or potential harm to health and the environment, and the maintains that "the full set of risks associated with genetic engineering have almost certainly not been identified" (Syed n.d.), as is the case with any new technology. He weighs harms and benefits and concludes that "if imports like these are regulated unnecessarily [genetically modified food], the real losers will be the developing nations" (Syed n.d.). Yet it should be noted that Syed completely disregards the fact that GMOs are not regulated or labeled in most developing countries, in spite of the continuous demand of activists and concerned people worldwide.

Those who support GMOs usually tend to emphasize the importance of scientific advancement and stress the fact that there is no conflict between Islam and science (Al-Hayani 2007; Mahmod and Kabbasi 2013), which is actually a position not disputed by most of opponents of GMOs. They believe that "the knowledge we acquire comes with God's help, guidance and will" (Al-Hayani 2007). Citing the Qur'anic verse that includes "He knows all that lies open before men and all that is hidden from them, whereas they cannot attain any knowledge except that which He wills" (Q: 2:255), some hold that genetic engineering is a technology that God taught to humankind (Mahmod and Kabbasi 2013). Given the absence of any verses that directly relate to genetic engineering in the Qur'an and the Hadith, some proponents of GMOs have indicated that according to Islamic ethics one should adhere to the consensus agreement of Muslim scholars (*ijmāʿ*) (Mahmod and Kabbasi 2013). The concept of (*ijmāʿ*) or consensus agreement is problematic, as already indicated above. Those who invoke the Islamic principle of *ijmāʿ* and/or *maṣlaḥa* (public interest or well-being) for embracing GMOs do not take into consideration economic, social, and political factors that have led many people in the world to protest against the GMOs industry.

Fatima Agha Al-Hayani emphasizes the need to take care that "the drive for monetary gain does not eclipse wider benefits" and that "the results of scientific gains via GM foods are not detrimental to the needy and at their expense" (2007). Yet, in her apologetic approach, there is no attempt to investigate the role of the transnational corporations that monopolize the food industry and find out whether those could actually be trusted. There is no attempt to assess the extent of their commitment to the well-being of people and the environment and the impact of their products on agriculture in the Muslim world and the global south. The blanket

approval and the endorsement of GMOs has resulted in legitimizing the import, trade, and eventually the monopoly over food products.

Nevertheless, it is fair to mention that even among those who declare GMOs to be *ḥalāl,* there remains a concern about safety. For example, some say that "risks and benefits of GMOs must be analyzed in terms of ethics and safety; any harm caused by GMOs in the long term or the short term on any of Allah's creations is prohibited in Islam based on the sources of ethics of *Al-Qur'an* and *Al-Hadith*" (Mahmod and Kabbasi 2013). One should also note that the Islamic *fiqh* council, mentioned above, "did show some awareness of the gravity of genetically engineered substances in the human food chain"; it insists that the use of GMOs in food and medicinal products be disclosed through labeling (Moosa 2009, 143). It seems as though those who accept the technology are not fully convinced; most of them abstain from fully embracing the technology as safe and natural by indicating the necessity of labeling GMOs. But the import and consumption of genetically modified food, willingly or unwillingly, with or without the knowledge of the authorities, is happening in the Middle East (AmalBakr and Ayinde 2013) and in many countries where labeling is not enforced, and/or where there are no proper tools, methods, or even guidelines to determine the presence of GMOs in the food. For example, in the United Arab Emirates, Premanadh et al. carried out an empirical study on the food stuffs in the market. The results proved that the "majority of food were GM food, although GM food was never officially imported to the UAE" (2012). Currently, the region as a whole cannot fully address the problem of uncontrolled movements of GMOs in the area which can have unpredictable effects on human health and the regional biodiversity (Rawashdeh n.d.). Legislation that obliges importers to label food exists in some countries that have signed the Cartagena Protocol of Biosafety, yet these laws are not enforced in most of them.

Also, it seems that "ethical questions related to GMOs came to the attention of governments long before they were socially and ethically debated" (Moosa 2009, 143). Moosa states that issues related to new biotechnology "were handed to religious elites, for they require rubber stamping and legitimation from the religious authorities who merely endorse policies adopted by their states" (2009, 142). According to Tariq Ramadan, the Islamic label *ḥalāl* which is supposed to be a label for good permissible food "is exploited then sullied to enable market logic to work on minds but invested with additional religious legitimacy" (2009, 250). He rightly asserts that *ḥalāl* or "Islamic labels have become to Muslims an ethical smokescreen that—badly—hides the greedy distortions of those systems are into which those strategies are integrated and are supposed to reform" (Ramadan 2009, 254).

Modern Halāl and Muslim Ethics. Writing for the Islamic Foundation for Ecology and Environmental Sciences (IFEES) publication, Mohideen Abdul-Kader, vice-president of the Consumer Association of Penang, Malaysia, said that "the *Sharīʿah*-compliance of GM is being discussed in a profit-motivated context, manipulating Islamic scholars into issuing highly controversial *fatwas* in support of GM food" (Abdul-Kader 2011). It has been pointed out that the problem lies in the fact that *ḥalāl* certification is related to economic orientation, particularly due to the increasing demand and the rise of the "global market." Thus, it is vulnerable to the rise of commercialization and conflict of interests among Islamic institutions (Anwar 2014).

In a recently published article, Maghfirah Dahlan-Taylor rightly argues for food ethics beyond religious dietary laws. She argues for moving away from approaching food from a strictly consumer perspective (albeit a religious one), from asking questions that are limited to what one can and cannot eat given what is specified as Islamic dietary laws, to an approach that takes seriously labor injustices that reflect the problems of power inequality inherent in cooperative relations (2015). She argues for food justice, an alternative food movement that is rooted in the environmental health and justice movement whose main focus is inequalities. Isabel Schatzschneider, writing for the Research Center for Islamic Legislation and Ethics (CILE) in Doha, pointed out that Islamic traditions concerning food have been discussed mainly in terms of Islamic dietary laws and exclusivist religious identity. She stated that "food is only permissible if it is good, wholesome and pure (*ṭayyib*). But if there is scientific research providing information on negative impacts on human health and still scientists are not sure whether GMF has risks for human health, how can this food be considered *ṭayyib*?" (Schatzschneider 2013). She also stated that "Islamic legislations should protect farmers and other individuals from pure profit considerations of GM companies" (Schatzschneider 2013).

We are told that until the end of the twentieth century most Muslim communities living in non-Muslim countries, such as some European countries, did not question the goodness of the meat sold in the supermarkets and restaurants, since it was slaughtered by people of "the book"—that is, by Muslims, Jews, or Christians (Lever 2016). That is most probably true because the permissibility of meat from animals slaughtered by the people of the book is explicitly mentioned in the Qur'an in verse 5:5, and most Muslim religious scholars agreed that this holds for food which has not been explicitly forbidden elsewhere in the Qur'an, as is the case with pork (Shadid and Koningsveld 1995). The phenomena of *ḥalāl* food consumption and production in non-Muslim countries is a relatively new one, which allows us to talk about what can be called "modern *ḥalāl*." Modern *ḥalāl* is a concept that indicates the complexities among markets, industries, religious institutions, and international trade in determining what *ḥalāl* is.

Although in Malaysia institutions started to issue *ḥalāl* certificates since the early 1980s, those were not widely recognized. Recently there has been a proliferation in industries and institutions that offer *ḥalāl* certifications. Moreover, five main international initiatives are working to create international *ḥalāl* standards (Bergeaud-Blackler 2016). Market players have estimated the value of the *ḥalāl* food market to be around $632 billion annually (Blackler, Fischer, and Lever 2016). Although the global market for *ḥalāl* products and services is expanding, it is fraught with contestation in terms of politics and power/knowledge (Blackler, Fischer, and Lever 2016). Given the huge amount of money involved, there is a competition over the legitimacy of *ḥalāl* institutions.

Therefore one would not expect decisions on what is *ḥalāl* to be based only on moral and religious considerations, as profit seems to be an important driving factor. Indeed, that might explain the emphasis put by some scholars on distinguishing between *shar'ī* legitimate *maṣlaḥa* and capitalist *maṣlaḥa* (Bouzenita 2010). A competition over legitimacy is evident between Malaysian, Gulf Arabian, Turkish, and European countries. For example, Al-Mazeedi, in a Gulf Conference on the *ḥalāl* industry organized in Kuwait in 2011, called on Muslim countries to reconquer the *ḥalāl* market from the West and warned Muslim countries of "an international conspiracy against the requirements of *ḥalāl*" (Bergeaud-Blackler 2016). The GCC *ḥalāl* standard stands in direct competition with another initiative overseen by Turkey, which is promoting the *ḥalāl* market through opposition to Western countries while at the same time trying to control the European *ḥalāl* standard.

So far, the main focus of the *ḥalāl* institution is meat and animal products. Grain or vegetable products—their production, manipulation, conservation, marketing, and distribution—seem to be dismissed as irrelevant or less relevant to the issue of *ḥalāl*. Most religious scholars simply define *ḥalāl* food by referring to certain Qur'anic verses that explicitly state what it is prohibited to eat: "You are forbidden to eat carrion; blood; pig's meat; any animals over which any name other than God's has been invoked; any animal strangled, or victim of a violent blow or fall, or gored or savaged by a beast of prey, unless you still slaughter it [in the correct manner]; or anything sacrificed on idolatrous altars" (Q. 5:3).

Moosa wrote an article on genetically modified food and Muslims' ethics in 2009 in which he lamented the fact that religious communities, including Muslims, have not been able to go beyond science-based decision making on this issue. Since then, some Muslim scholars have expanded the parameters of the debate. These arguments that went beyond science-based debates that will be the focus of the following section.

Arguments against GMOs from Islamic Perspectives

The most common approach adopted by Muslim scholars when dealing with bioethical issues is based on the theory of *maqāṣid al-Sharīʿah* (the purposes of the *Sharīʿah*), briefly explained above. According to this approach, we need to observe certain principles that serve an ultimate goal which is simultaneously religious and secular—secular because it is concerned with human well-being in this world, and religious because its observation contributes to one's ultimate salvation in the afterlife. However, like any consequentialist ethical theory, it is ultimately based on weighing harms and benefits. Accordingly, some argue that the benefits of GMOs outweigh any possible risks, and others insist on challenging this view by emphasizing the potentially hazardous effects of GMOs.

A Malaysian Islamic scholar, Anke Iman Bouzenita, reflects on such consequentialist arguments, saying that the question of biotechnology in food is often answered on the basis of a scheme of benefit (*maṣlaḥa*) and harm (*maḍarra*). However, she finds it striking that the *fiqhī* discourse (related to Islamic law as understood by Islamic scholars) on GM food does not consider what she calls *sharʿī* (related to Islamic divine law) benefit and harm, indicating that the *fiqhī* prevailing discourse merely appeals to utilitarian secular principles without taking religious law or *Sharīʿah* into consideration. She states that "the contemporary reference to *maqāṣid* often seems to mistake non-*sharʿī* benefits for authentic benefits" (Bouzenita 2010). For her, a *sharʿī* discourse would take into account what she calls "authenticity and conditions." It seems that by "authenticity" she means textual evidence derived from the Qur'an (which she quotes in support of her views), and that by "conditions" she actually means the *maṣlaḥa* principle that is guided by considerations of harm and benefit, but which often excludes the financial profits of the giant food corporations.

In what seems to be an argument targeting the prevailing mainstream position, maintains that *iftāʾ* (the process of issuing Islamic legal verdicts) hardly evaluates holistic considerations, arguing that if the end product is declared *ḥalāl*, a green light is automatically given not only to the consumption of GM food, but also to its import, trade, production, and research (Bouzenita 2010). She argues against the GM industry, pointing out that the only profit gained from GMOs is the monetary profit that goes to the main agricultural companies that monopolize the market and dominate the food industry. She maintains that sustainable solutions to world hunger and poverty will not be developed within the prevailing capitalist system. Bouzenita also realizes that patenting GMOs will lead to further monopolization of the food market. She explains that even after the patent of a GM seed expires, the emergence of superweeds due to outcrossing will remain a problem, and the matching herbicide needed to fight the superweeds will belong to the same company that provided the

GM seeds (Bouzenita 2010). Her argument is in agreement with arguments provided by scholars and activists who protest against GMOs and the monopoly of the food industry. Most of the criticisms and objections that she raises against the GMOs are not unlike those raised by scholars from different religions and cultures.

Nevertheless, one can discern a strong theological overtone throughout her article, which can definitely be disputed. Bouzenita is preoccupied with issues like "the absence of Islamic governance" and the importance and the validity of what she calls the "Islamic model of science" (Bouzenita 2010) which she juxtaposes with what she considers to be the capitalist secular Western model of science. She adopts an exclusivist approach, ignoring the fact that arguments against GMOs similar to her arguments have been developed by activists from different cultures and traditions who have targeted the food industry and the corporations that monopolize genetically modified food. Assuming that material profit is the only consideration a secular person takes into account is definitely false. Yet that is a prevailing assumption in Bouzenita's argument. For example, she writes: "With the absence of the Islamic model and the prevalence of the secular capitalist world view, however, any evaluation of what is considered as a benefit or a harm runs the risk of remaining within the confines of a materialistic value system that considers beneficial to that which yields material profit and harmful to whatever stands in its way" (Bouzenita 2010).

It is true that the current food regime is characterized by a neoliberal process of commodification and corporatization and that the current global food system is "dominated by private corporations that advocate the realization of food security, and the end of hunger through free trade and open markets" (Saab 2015, 35). In addition, "states in the global South are required to open their economies to the North-dominated international food trade, dismantle farm sector protections and adopt intellectual properties protections" (Saab 2015, 36). The current food regime has been criticized by activists and scholars from different parts of the world. For example, under the concept of "food sovereignty," a phrase first coined by the movement La Via Campesina, which is joined by 164 organizations from 73 countries (La Via Campesina n.d.), various movements have protested against this trend, and have called for an agricultural reorganization according to socially and ecologically sustainable practices. Writers from different parts of the world "claim that the industrial model of agriculture is broken and leads to increased hunger and environmental devastation. Despite representing multiple religious traditions, they are united in their call for a holistic approach to food production and renewed efforts to repair our agricultural relations" (Sanford 2014).

Hence, one would be left to wonder whether Bouzenita would consider the *fuqahā'* (religious scholars) who approved of GMOs as endorsers of the secular capitalist world view. Also, would she consider the activists

and scholars who argue against such a worldview to be Muslims? Dividing the world into capitalists and Islamists ironically suggests that. It is worth noting that Bouzenita identifies with Ash'arite moral theology and endorses what she calls an "Islamic model of science" (Bouzenita 2009). She states that "the ethical value itself needs to be evidenced in a text (*naṣṣ*) of the Qur'an or Sunnah and contextualized by an action . . . a human being does not judge based on his own opinion (according to the majority Ash'arite position by which I abide here)." This statement is significant, because it reveals a position that prevails in many Islamist ethical discourses, whether explicitly stated or not, and whether they are Ash'arites or not. The Ash'arite approach to ethics in Islam is similar to the Protestant approach to ethics in Christianity; it is usually called "ethical voluntarism" or "divine command theory," as already mentioned. Ethical voluntarism is the basis of all exclusivist religious approaches to morality; according to this approach, it is divine revelation and not reason that is the ultimate basis of morality. However, Bouzenita, like most people who adopt a similar position, contradicts herself by referring to the concept of *fiṭra* (natural disposition) mentioned in the Qur'an, and which is common to all human beings. Moreover, for her "it is part of the human *fiṭra* to worship one Creator." She states that "the inclination to recognize truth is innate as well." Thus, one is left to wonder how it is that the human being is endowed with a natural disposition that allows him/her to recognize the truth and worship God, while at the same time he/she fails to distinguish between what is right and what is wrong (Daher 1990, 222).

Also, what distinguishes Bouzenita's argument is that not only does she consider revelation to have supremacy over ethics, but that she also considers the importance and validity of what she calls "the Islamic model of science." According to her view, in the Islamic model of science revelation holds supreme authority over science and therefore, for example, she rejects the theory of evolution. Her position contradicts the views of some Muslim scientists and scholars like Guessoum and others who seem to agree with Ibn Rushd, the twelfth-century Muslim Andalusian philosopher known in the west as Averroes. Ibn Rushd addressed the question of the possible conflict between religion and philosophy and, "reviewing the problem from religious and philosophical perspectives, he concluded that not only can revelation not contradict wisdom (philosophy), the two must agree and support each other" (Guessoum 2010). What applies to philosophy definitely applies to science and to ethics as well. Indeed, religion is here to help human beings in their search for meaning and to strengthen their hearts to do what is good, not to hinder scientific advances or restrict our search for truth and meaning in this world.

It seems that the emerging interest in Islamic bioethics is somehow related to the discourse of the Islamization of knowledge, mentioned above. Guessoum (2015) explains that the Islamization of knowledge proposal

fascinated Islamic intellectuals for some years after it was launched in the late 1970s and early 1980s (2015). He also remarks that the "practical" axis of Islam and science can be seen in the growing field of bioethics (2015). However, he suggests that "to address the issue coherently and consistently we must develop an Islamic philosophy of nature, life, the cosmos and human's place and relation to it" (2015), which suggests that addressing the issue from the prevailing classical Ash'arite perspective is not enough.

Some other recent research also argues against GMOs (Laxman, Ansari, and Zahwawi 2014; Solihu and Ambali 2011) from similar yet less exclusivist perspectives. Combining textual and telelogical evidence, Laxman et al. condemn the operating principles of the World Trade Organization (WTO) and its relevant treaties that promulgate trade and GMOs in particular, saying "the fact that global trade in GMOs is dominated by a few powerful transnational corporations goes against the tenets of Islam"(Laxman et al. 2014). They also note that the tenets of Islam and the principle of *maṣlaḥa mursala* (benefit not regulated with textual evidence) correspond to the precautionary principle in the Cartagena Protocol on Biosafety to the Convention on Biological Diversity. In agreement with Solihu and Ambali, they maintain that in situations where there are two contrasting opinions about issues related to GM food safety, the *maqāṣid* approach places a great emphasis on the precautionary side (biosafety) of the dilemma—that is, negative information (even from biased sources) about GM food—if the majority of the people do not gain much from a new food technology and there are plenty of nutritious and tasty natural food alternatives (Solihu and Ambali 2011; Laxman et al. 2014).

Various writers have noted a shift toward utilitarianism in contemporary Muslim juridical ethics (Moosa 2009; Solihu and Ambali 2011). To distinguish the *maqāṣid* approach from utilitarianism, Solihu and Anabali state that "the benefits in the case of *maqāṣid* must be accredited by the lawgiver" (2011). Nevertheless, they acknowledge similarities between religious principles and the basic principles of ethics and common sense morality by confirming that one does not need to be affiliated with a religion to see the good morals that religion might contain, and that one does not need to be a Muslim to appreciate Islamic moral law or see a practical problem through its eyes (Solihu and Ambali 2011). Yet one is left to wonder whether they would also confirm that one does not need to refer to Islamic moral law to solve practical ethical problems, given that the *maqāṣid* paradigm that they endorse can equally be used to justify GMOs. In fact, it all depends on one's premises, accepted facts, worldview, and assumptions.

The main principle evoked by the opponents of GMOs is the priority of life in contrast to that of monetary benefit. Yet, it is doubtful whether anyone would argue otherwise, including the proponents of GMOs. Solihu and Ambali hold that Islam provides a value-based mechanism rooted in

Maqāṣid al-Sharīʿah (objectives of Islamic law) which can enable the conflict of interest to be resolved (2011). They propose a "*maqāṣid Sharīʿah* matrix" for solving moral dilemmas in science and engineering, which reminds us of Ben Mepham's ethical matrix in his book *Food Ethics* (1996), which is based on the four principles of bioethics that he used to ethically evaluate various GM food products. However, in Solihu and Ambali (2011) no such clear matrix based on *maqāṣid* and specific to food ethics is provided.

Contempoary Islamic Ethics between Universalism and Exclusivism. It has been pointed out that "Muslim ethicists, whether they are of the traditional stripe or of the modern scientifically trained kind have yet to configure a theory and practice of Muslim ethics in relation to vastly changed social realities" (Moosa 2009), given that even those who are against or advocate a precautionary approach to GMOs "provide a rather thin theology to justify some emotional resistance to the use of GMOs" (Moosa 2009). Questioning the role of theology in public ethical discourse, some scholars maintain that "theology rarely yields precise and concrete directives for bioethical decision making, or commends insights and actions inaccessible to nonreligious persons" (Cahill 1990). Also, Moosa has stated that an important question needs to be addressed, which is whether matters of secular and scientific nature can and ought to be primarily decided by teaching and inspirations that are derived from revelation (2009). To my mind, universal ethical principles such as the four principles of bioethics should be informed by religious and cultural values to enhance their legitimacy and acceptability, as already indicated. Yet, what is needed first is a theology and philosophy that would embrace the idea of universal ethical principles. In a public discourse that is related to a common practical concern, the focus should be on reason and common ethical principles rather than religious texts, which might not be universally accepted and might not even be accepted by the adherents of closely related religions such as the three Abrahamic traditions. Therefore, I argue for a more inclusivist approach in Islamic ethics in order to establish more common ground, especially when dealing with issues related to modern technology.

A more inclusivist approach would acknowledge the fact that revelation confirms and does not contradict ethical principles and that human beings, regardless of their religious affiliations, are endowed with reason that enables them to distinguish between right and wrong. After all, the basic aims or purposes of the *Sharīʿah* are not simply derived from scriptural source texts by an induction process, which is a common belief. Anver Emon, for example, noted that "source texts, at most, confirm and corroborate them" (2010, 135). Even the classical Ashʿarite scholar Al-Ghazali (d. 1111), who was among the first to articulate the *maqāṣid* theory, acknowledged common morality and therefore universal ethical standards when he said that "it is impossible that any society or any legal system (*sharīʿah*

min al-sharāiʿ) which aims for the benefit of creation (*iṣlaḥ al-khalq*) would not include prohibitions against neglect of and restraint from the five values" (Al-Ghazali 1995, 258; Emon 2010, 135). An inclusivist approach to issues related to ethics would focus more on the use of reason, common morality, and universal moral principles, and less on religious texts which should confirm universal principles and not contradict them.

Classical Muslim scholars, mainly those who adhered to the Muʿtazilite school of speculative theology *(ʿilm al kalām*) have provided us with a theory that distinguishes between religious obligations (*taklīf sharʿī*) and rational obligations (*taklīf ʿaqlī*). The former includes obligations related to rituals such as fasting, praying, and observing some dietary rules, whereas the latter is related to obligations based on reason and shared by all people regardless of their religious traditions (Al-Attar 2010, 76–79). The specific question that was addressed is whether God or His divine law establishes morality or only indicates it (*al-sharʿ muthabbit am mubayyin*). If divine law establishes morality, then no good or evil can be perceived apart from what is commanded or prohibited by God (Al-Attar 2016). The Muʿtazilites held that the law does not establish but only indicates morality, whereas the Ashʿarites, as we have already mentioned, insisted on the contrary. Indeed, any modern ethical discourse is vague unless it first addresses this issue, which has significant philosophical and practical implications.

A Critique of the Exclusivist Approach. A specific understanding of morality seems to have prevailed in Islamic culture since the rise of Ashʿarism. Sometimes Muslim scholars confirm that, for example, complete demarcation of law and ethics becomes unnecessary in Islam since a Muslim is obliged to obey whatever God has ordered, and that Islamic environmental ethics are derived from clear-cut legal foundations which Muslims hold to be formulated by God (Laxman et al. 2014). Such statements presuppose an understanding of morality which presumes that God could have commanded anything, and anything becomes good because it is commanded by God. This ignores the other, more rational and inclusive option, which is that God commands or approves what is good because it is good and goodness is qualified as such because of certain attributes, effects, or consequences that render the things or actions good.

In response to a review of articles on Islamic bioethics written by Willem Drees (2013), Mohammed Ghaly reflected on the importance of shaping bioethics by philosophical ethics. He said that "Drees notices that most of the bioethical discussions in the Islamic tradition focus on how people relate to normative verses from the Qur'an, Sunna, and Islamic jurisprudence. In his view, the bioethical visions do not seem to be shaped by a philosophical 'natural law' ethics" (Ghaly 2013). Ghaly seems to agree that Islamic

bioethics, as a field of study, should be broadened by involving specialists in Islamic theology and philosophy of religion besides the experts in Islamic law. This would definitely broaden our approach to bioethics, since issues related to ethics were largely discussed in *kalām* (speculative theology). However, ethics as a branch of philosophy stands on its own, and is being taught in departments of philosophy in various universities in the Arab and Islamic world. Therefore, broadening Islamic ethics should also include "philosophical ethics," which is a field of enquiry based on reason, and is thus shared equally by people belonging to different cultures and religions. Indeed, only ethical thought that is based on human reason will likely allow Muslims' ethics to contribute to the development of bioethics, including food ethics. Abdul Aziz Sachedina has rightly stated that "Islamic morality shares moral sensibilities with all other human beings equally endowed with that divinely ordained nature (*fiṭra*)" (Sachedina 2009, 15). Moreover, he says that one of the main factors responsible for the fact that the Muslim world has in general neglected to pay close attention to moral aspects related to biotechnology is "a tendency towards religious discourse that emphasizes legal rather than ethical issues" (Sachedina 2009, 199), and Tariq Ramadan noted that "the same reflexes of ritualistic and ethical formalism have set in everywhere" (Ramadan 2009, 257).

Therefore one should endorse a discourse that emphasizes ethical rather than legal issues. Isn't the law after all (whether divine or human-made) supposed to enforce some ethical standards? Also, one should make a distinction between origin and validity, and avoid "the fallacy of origin." Good ideas or concepts should not be rejected simply because of their origin. During the heights of Arabo-Islamic civilization, Muslims and Arabs were able to assimilate almost the whole of ancient Greek and Roman learning, "despite the numerous political and theological tensions that inevitably arose" (Fakhri 1992, 65) No community can claim exclusive access to moral knowledge or claim ethical principles to be their own invention. It is true that the term "food ethics" or "bioethics" was coined by non-Muslim scholars, but it is also true that the ethical principles of bioethics are not exclusively Western inventions, given that they actually incorporate ethical principles that are endorsed in all cultures and religions. Henk Ten Have has rightly indicated that Western societies cannot claim food ethics or bioethics as theirs, just as the Arabs cannot claim the numerical notation as theirs. We cannot blame the West for imposing the principles of bioethics on the Arab and Muslim world nor can the West blame the Arabs for imposing their figures on the Western world (2013).

Philosophical ethics as a discipline should incorporate relevant ideas and theories that were traditionally discussed in works of *fiqh* and *kalām*. It should build upon the accumulated wisdom and the common human heritage while incorporating relevant ideas and theories from Islamic sources. I believe that there is no reason to confine ourselves to the more

traditional Islamic disciplines, like *fiqh* and *kalām*, because those were established by humans who were neither smarter nor more knowledgeable than people today. Ethical voluntarism, which prevails in the Ash'arite moral theology and is sometimes explicitly invoked by writers contributing to the emerging field of Islamic ethics and bioethics, needs to be exposed and challenged by Muslim thinkers and intellectuals for various reasons discussed in the context of this article, including its clear exclusivist outlook.

Conclusion

In the article we have seen that textual evidence can have various interpretations. It was invoked by both the opponents and the proponents of GMOs. The concept of *maṣlaḥa* and the *maqāṣid* paradigm in Islam, like any consequential theory, can support any of the opposing positions, because it all depends on weighing benefits and harms. Only by taking into consideration a more comprehensive view including socioeconomic factors can one provide a stronger argument and take sides with the people who are opposing GMOs, not only for their unpredicted threat to health and the environment, but also for being a tool used by transnational corporations to monopolize the food industry. Only then would an ethical position cohere and make sense.

It seems that GM companies not only stand to profit handsomely but also to control and dictate, in large measure, food production (Gertsberg 2009) and support the present neoliberal food regime which has been criticized by many activists and scholars from different cultures and traditions. Food regime theorists have argued that opposition to the neoliberal food regime could lead to the emergence of a new regime which could include more emphasis on locally produced food and on more sustainable agricultural practices, and with a greater role for the public sector (Saab 2015, 40). Taking into consideration these sociopolitical concerns could lead people in the Arab world and countries with a Muslim majority to reconsider their acceptance of some food products including GMOs. Muslims' opposition to GM food might contribute to the global opposition against corporate power and help the emergence of a new food regime. Bouzenita and other authors are right when they maintain that sustainable solutions to world hunger and poverty will not be developed within the prevailing capitalist system. However, the search for sustainable solutions requires more engagement with global movements that oppose the current unjust food regime. That can only be achieved by acknowledging common moral principles that are shared by all human beings who strive to make this world a better place. What is really needed is an approach that will speak to all humanity rather than only to people sharing the same religion. It is mentioned in the Qur'an, after all, that it is the human being who is the

vicegerent of God on earth and not only the follower of a specific religious tradition.

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