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From Inviolability of Human Body to Prevention of Induced Human Meat Craving

Locarno, Marco

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DISCUSSION PAPER

Cultured Human Meat Acceptability: From Inviolability of Human Body to Prevention of Induced Human Meat Craving

Marco Locarno[1]

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Abstract
Cultured meat is a lab grown product that aims to tackle the cravings of omnivores who struggle to switch to a plant-based diet, while still being friendly to animals and the environment. Possibly, in time, the curiosity to apply this technology towards human meat production will emerge. However, when presented with the thought of eating cultured human meat potential consumers' reaction greatly varies from pure disgust to indifference to excitement. This instinctive response indicates a lack of preformed judgements towards the topic. Without a clear vision on the possibility of cultured human meat, scattered and uncertain regulations will fail to uphold paramount moral values. The risk is that we would either dig into this option out of excitement, or ban it without convincing motivations. The ethical theories of deontology and consequentialism can be followed to investigate this divisive issue. With an evaluation based on disgust I argue that the deontological perspective is mostly concerned with values of identity and humanness, while with a chain-reaction reasoning I argue that consequentialism would be concerned with health safety, privacy and equality. I conclude that cultured human meat is not acceptable.

Keywords Cultured human meat · In vitro meat · Cannibalism · Deontology · Consequentialism

Introduction

Imagine being vegetarian and taking part in a survey where you are offered a beef burger cooked by a renowned chef: no matter how good it looks, you will probably decline the offer. Then you are offered a second burger, which impressively resembles the previous one and has been cooked by the same chef, but you are also told that this one was made in a laboratory. The scientific commission explains to you every detail of how this meat has been synthetically cultured, starting from only a few muscle cells that have been taken painlessly

✉ Marco Locarno
m.locarno@tudelft.nl

[1] Department of Imaging Physics, Technische Universiteit Delft, Delft, The Netherlands

from the bovine and then grown in a totally non-animal-based media. The whole explanation makes it clear that this burger is not so different from other animal products meant for human consumption, being just a derivative of a creature that was not significantly harmed at any time. You may make up your mind and accept this second offer, but even if you don't, you might consider this option more acceptable compared to conventional meat production.

Now a second thought experiment can be extended from the previous one, with similar conditions. This time, however, the burger you are offered is explicitly made of human meat. You are assured that the donor's consent was obtained and even declared that the procedure was surprisingly painless. No matter if you are a vegetarian or an omnivore, most probably your reaction would be pure disgust and rejection. While a few people may still be curious to try it, most would label such an action as deeply unethical, unacceptable, and simply wrong. A philosophical issue can then arise: humans are animals just like bovines, and the whole process would include the full consent of the donor, but we still make such a clear distinction between cases.

Given the scattered opinions from the general public and a lack of a solid argument in favour or against cultured human meat, the risk is that future legislators will either dig into this option out of excitement or ban it without convincing motivations. To formulate balanced, informed, and effective judgements, either in favour or against the legalization of cultured human meat, lawmakers and stakeholders should first fully analyze the ethical issue.

The main point of this essay is to address the following ethical question: *can we justify cultured human meat as food either from a deontological or consequentialist point of view?* Starting from the state-of-the-art tissue engineering biotechnology and recent consumer reception surveys, I will argue that perceived differences in consumption of traditional animal meat versus cultured meat involve non-negligible psychological and ethical components, regardless of the fact that biochemically the final products are indistinguishable. I will suggest that, analogously, different ethical values are involved when treating the issue of cultured human meat versus classical cannibalism. The fundamental differences between the two will be made clear, framing the research question as relevant and unique. Then, I will approach the issue both from a deontological and a consequentialist point of view, which in the end will show that, despite the different reasoning, they both lead to the conclusion that cultured human meat is not acceptable. Being a new, undiscussed question, the aim of this paper is not to dig into specific arguments, but to carve out the main questions about the topic and stimulate discourse over them.

Cultured meat Technology

Cultured meat is a form of in vitro cellular technology that involves culturing muscle tissue in a liquid medium on a large scale, alternative to animal slaughter (Betti and Datar 2010). For the sake of brevity, when not otherwise specified the term "cultured meat" will refer to cultured animal (nonhuman) meat.

The need for such technology is justified by the negative effects of growing livestock production, including massive greenhouse gas emissions and agricultural land use (Poore and Nemecek, 2018). In addition, more and more people are becoming interested in vegetarianism for reasons of empathy, health or religion (Rosenfeld and Burrow 2017).

Globally over 300 million tonnes of meat are produced each year for consumption, and the projections show that meat demand will double in the next 40 years (Roser and Ritchie 2017). A change in the trend is unlikely as meat consumption often has strong cultural roots and is difficult to give up. One proposed solution to contain meat consumption is to induce pharmacological meat intolerance, expressly to evoke vomit or unpleasant feelings while eating meat (Liao et al. 2012). However, there would still be concern about the health impact of a strictly vegetarian diet and the naturalness of inducing meat intolerance. These projections indicate that it is highly improbable that enough consumers will become vegetarian. In this context, cultured meat would instead allow humans to keep an omnivore diet while saving animals and the environment at the same time.

It is important to highlight that cultured meat is not a plant-based substitute, but rather real meat that under the microscope is indistinguishable from the cells of a cow, pig or chicken.

State of the Art

A cultured meat product starts from a few animal cells, taken with a biopsy under anaesthesia. The cells are then put in a medium that provides nutrients and synthetic growth factors, just like the ones they could get inside the animal. Proliferation goes on in a bioreactor until growth factors flux is interrupted, and differentiation into muscle cells can then take place. A second phase involves the transfer of the cells into a hydrogel matrix, consisting of 99% of water, to naturally form the muscle fibres. The process is repeated so that thousands of muscle fibres are layered together into a meat-like tissue.

The first slaughter-free hamburger was researched at Maastricht University, funded by Sergey Brin (the co-founder of Google) and unveiled at a press conference by Professor Mark Post in 2013 (BBC News, 2013). The project evolved in the Dutch start-up Mosa Meat, so far the leader in the pioneering field of cultured meat production. Despite being the first company in the field to gather so much media attention, Mosa Meat is not the only agent able to raise a large amount of capital. Ranging from customary fish, seafood, beef, pork and chicken to more peculiar pet food, foie gras and kangaroo meat, almost 40 companies around the world are advancing biotechnology towards a slaughter-free meat market (Sunness 2023). And alongside the laboratory tests, the first national regulations are starting to be implemented: in December 2020, Singapore became the first country in the world to authorize the sale and consumption of cultured chicken bites from the American start-up company Eat Just (Hives 2020). The rapid rise of this potentially profitable technology may make consumers question their convictions about food ethics and ultimately revolutionize the way we think about meat.

Consumer Acceptance and Perceived Differences with "Natural" Meat

Since the first cultured hamburger was presented publicly, several surveys have been conducted both in Europe and in the United States to test consumer acceptance. In the earliest surveys, only verbal acceptance was investigated, meaning that no taste test was made at the time. The results were scattered, indicating a range of willing first-timers that would go from 10 to 90% of the total population (Barnett and Bryant 2018), with a higher representation of

male, young, liberal and educated consumers among the potential users. All of these studies suggested an increased acceptance of cultured meat in recent years.

A slightly different study divided the participants between meat-eaters and vegetarians, and assessed disgust towards cultured meat and the reasons behind this gut feeling (Rosenfeld and Tomiyama 2022). The results indicated that 35% of meat-eaters and 55% of vegetarians found cultured meat too disgusting to try. While perceived unnaturalness predicted disgust in both groups, resemblance to animal flesh decreased disgust among meat-eaters and increased it among vegetarians.

Another study carried out in the Netherlands showed that, when given the choice and sufficient information, every participant would try cultured meat over normal meat (Rolland et al. 2020). The same study included an assay to test the perceived differences between conventional and cultured animal meat. Participants were presented with information on the quality and taste of cultured meat, as well as the social or personal benefits. The subjects were offered two hamburgers, labelled respectively as "conventional" and "cultured". In reality, both were regular burgers. Despite the absence of any objective difference, some participants preferred the flavour of the "cultured" hamburger over the regular one.

Interestingly, ethical values such as sustainability and animal welfare translated into perceivable psychological effects although in the experiment the two burgers were virtually identical. This is not surprising when considering that in the food industry comparable yet more extensive studies have shown that the perceived differences between organic and conventionally produced foods go well beyond the sensory characteristics (Yiridoe et al. 2005). The emerging moral values from those surveys were safety, human health, sustainability and farm animal welfare.

To a certain extent this hints that, analogously, the issues with cultured human meat might not be specifically about taste, presentation or circumstances, but rather on values that we associate with the flesh itself. This is very relevant for the treatment of cultured human meat as distinguished from classical cannibalism, regardless of the material equivalence of the final tissue.

Ethical Debate Over Cultured Meat and Lack of Argumentation Concerning Humans

Countless philosophers and authors have made their contributions to the multifaceted debate over the ethics of animal farming, animal well-being, ethical vegetarianism and veganism (Carruthers 1992; Coetzee 2017; Francione 2008; Regan 2004; Singer 1975). While the public discourse over cultured meat has developed only in the last decade, it is flourishing rather quickly thanks to an extensive amount of pre-existing literature regarding animal ethics in general.

What emerges from the literature is that the acceptability of cultured animal meat is closely related to concerns about sustainability and animal welfare (Dilworth and McGregor 2015; Laestadius 2015). The greater the concerns about the environment and animal well-being, the higher the interest in guilt-free products. Veganism is an ideology indeed based on these two principles, and it is interesting to analyze cultured meat from a vegan perspective.

For the sake of this narrative, the following example will focus on two ethical perspectives: consequentialism and deontology. These are two of the most prominent ethical theories often applied to issues related to animal ethics (Singer 1975; Regan 2004). A decisive *consequentialist* vegan might generally approve of the use of cultured meat as a sustainable

and empathetic alternative to drastically reduce animal slaughter, weighing those values over the negligible pain inflicted on the animal. Some people will never give up meat in favour of plant-based products, so cultured meat appears as the only sound option to overcome this obstacle on the way to a slaughter-free world. On the other hand, a firm *deontologist* vegan might still see in cultured meat the debasing of animal dignity and identity, just forcing the world to keep seeing animals as food factories.

One would expect that, starting from the essential concept of consent in veganism, the philosophical discussion over cultured meat has already extensively explored the application of the technology to human flesh. On the contrary, very little attention has been given to the issue, resulting in a serious gap in the literature. In the very few cases where cultured human meat was considered, it was only an ancillary argument in the larger synthetic meat discussion. Reasonings about cultured human meat and its relation to cannibalism generally led to the dismissal of the issue as a consenting act of tissue donation, not ethically problematic and even to be encouraged, as proposed by Schaefer and Savulescu (2014) and separately by Milburn (2016). Although these stances in favour of ethical cannibalism are acknowledged as valuable contributions to the discussion, one could argue that they avoid the most controversial issues that cultured human meat poses. With this paper, I aim to fill a gap in the ethical debate concerning cultured human meat, for which detailed arguments either in favour or against have been lacking, with the hope of also stimulating further discussion on the subject.

The paper does not aim to provide further sociological or economical evidence for the incumbency of cultured human meat but rather to critically analyze it. Ethics is not about measuring what people with different convictions will think, but about exploring the implications and moral reasoning behind a certain ethical theory. The analysis should be viewed as a theoretical exercise, to understand how we can address the possibility of cultured human meat from a moral perspective. Hence, the current lack of evidence or plans from companies to produce cultured human meat is not relevant in the ethical analysis. It is important to consider the ethical implications of this technology and its potential consequences, regardless of the current state of development.

Provocative Artworks and Societal Consequences

On the border between guerrilla marketing, spoof campaign and satire, BiteLabs went viral in 2014 (only a few months after the first Mosa Meat event) when it launched its campaign to make cultured human salami out of celebrities. Intrigued by the absurdity of the claim and the suspiciousness of the operators of the website, several magazines got in contact with BiteLabs. It soon became clear that the primary goal of this project was to create a dialogue around the bioethics of lab-grown meat and not really produce celebrities-based *charcuterie* (Knibbs 2014). In the absence of a tangible sample, the anti-cannibalistic sentiment of the public did not last long, so the discussion ended quickly.

The approach taken by the artist Orkan Telhan in 2019 in his controversial piece "Ouroboros Steak", designed in collaboration with Dr. Andrew Pelling and Grace Knight, was as effective as it was brutal. Presented at the "Designs for Different Futures" exhibition, the provocative kit pictured a situation that enabled the growth of bite-sized steaks starting from cells of the cheek and serum from expired donated blood (Hahn 2020). Even though the artists intended to encourage the audience to question the ethics of current cultured meat

technologies that still rely on fetal bovine serum, the debate quickly degenerated into harsh criticism against cannibalism and autocannibalism (Small 2020).

The emotional response from the general public revealed the underlying feeling of disgust towards the concept, which was strong enough to propose the destruction of the artwork. Nevertheless, wiping out the design cannot erase the idea that such technology is feasible and relatively accessible as well. In other words, the concept is already indelibly imprinted in the history of art and design, and could be potentially proposed again anytime in the future.

Fundamental Differences Between Cultured Human Meat and Conventional Cannibalism

It is important to assess what makes this issue unique and not comparable to conventional cannibalism, to treat it most appropriately. According to Wisnewski (2004), the ethics of cannibalism should be examined without the influence of ethnocentric and tribalistic viewpoints, which can lead to biased or justificatory perspectives. To avoid these issues, this article will take a general approach to the topic.

Cannibalism can be defined as the intentional consumption of the flesh of a member of one's own species, in this case, the human one (Wisnewski 2004). The act itself implies a violent obtainment of meat, even if the victim is consenting. There are three ways to perform a cannibalistic act: painful or dangerous supplying from a willing donor, harming or killing of an unwilling victim, and feeding from a victim's corpse after nonmurderous death. By presenting and confuting seven arguments against cannibalism, Wisnewski (2004) argues that it is not unethical in certain specific conditions if the cannibalized individual *has died first* and *has not been murdered*.

When it comes to cultured human meat, these conditions do not apply; furthermore, the violent aspects of the act are eliminated in full when performing a biopsy on a consenting donor that has been anaesthetized. The biopsy cannot be considered a violent act in this sense, otherwise we would have to rethink actions like blood and bone marrow donations. No one is challenging the appropriateness of those examples, because the values are always balanced in favour of donation; on the contrary, donations are seen as ethical, generous acts that can be easily labelled as "good".

In this paper, the issue will be analyzed from the perspective of secular humanist ethics. Issues arising from religious dogma, as relevant as they are, fall out of the scope of this approach and are therefore neglected. It is important to ask if, when and why the development of cultured human meat is acceptable, unacceptable or irrelevant, because the more biotechnology develops, the greater the likelihood of the accessibility of such a hypothetical option.

Deontological Approach

In the context of animal welfare, various deontologists have done their best to establish important principles of what is an acceptable treatment for animals, if different from the ones that should be reserved for humans. Following the footsteps of Kantian ethics, Tom

Regan (2004), Sue Donaldson and Will Kymlicka (2011) claimed that humans should not treat beings (including animals) as mere means to our ends, i.e. for sustainment. Bernice Bovenkerk, Frans Brom and Babs van Den Bergh (2002) advocated for the importance of each animal's integrity, recognizing its violation "when through human intervention it is no longer whole or intact, if its species-specific balance is changed, or if it no longer has the capacity to sustain itself in an environment suitable to its species" with the only exception of interventions "directed toward the animal's own good". The debate over the righteousness of eating meat or animal derivatives is complex and multifaceted, mostly because there is no clarity on whether animals could or would ever give their consent to these practices. Cultured human meat would in principle resolve this thorny issue: humans can clearly give consent and therefore not be used merely as means.

As mentioned before, a plausible reaction to the thought of eating human cells grown in a laboratory is *disgust*. Various studies have investigated the role of disgust as a moral emotion (Helion et al. 2011; Haidt and Greene 2002), it being the visceral feeling that most of all determines how harsh the deontological response to moral dilemmas will be. Disgust has been recently identified as a predictor of deontological judgments, so its role would be important in showing the emergence of moral values that are intrinsic and unavoidable (Robinson et al. 2019). Furthermore, a recent study (Santisi et al. 2021) found a positive correlation between food neophobia and food disgust, indicating that negative attitudes towards unfamiliar foods can be influenced by the fear of disease transmission.

In the context of cultured human meat, disgust would be the dominant feeling independent of how many technical explanations of the procedure are given. One of the reasons could be that the fear of diseases associated to cannibalism, such as Kuru (Gajdusek 1977), would be extended to cultured meat as well. A deontologist could then argue that, since the natural response to the issue is such, the action itself is intrinsically wrong and unethical. The reasons for this reaction need to be questioned to determine the underlying (deontological) value against this practice. The following reasoning will lead to the Kantian duty of bodily self-preservation, which emphasizes the importance of treating individuals as ends in themselves, rather than merely as means to an end (Kant 1996). According to Kant, the duty of self-preservation is grounded in the principle of autonomy, which requires us to respect the inherent value of our own personhood. In Kant's view, the duty of bodily self-preservation is not merely a personal obligation, but a universal moral duty that applies to all individuals.

Starting with a deontological reasoning from this disgust, the first objection to this feeling is that cultured human meat is not exactly human flesh as it would be when directly harvested from the body, but instead, something that grew externally and independently from it, hence disgust may be unjustified. In this sense, the part would be more appropriately considered as a human byproduct rather than a tissue that was nourished and incubated by the body itself. The objector could assert that since the tissue would not be necessary for the survival of the donor, it would not be morally problematic.

Regarding disgust, human emotions simply do not need any type of external validation. We feel what we feel exactly because we are humans: emotions are part of our mind and influence our moral values, and we could not stop having emotions even if we tried. Besides that, the objection is overall fallacious since the starting point of the cellular culture is nevertheless a sample of human cells. Such a sample would indeed come from someone's body: right until the biopsy it was nourished and incubated as part of a whole, sentient individual.

Deontologically speaking, any hierarchy between the number of cells involved, their type or the importance that is associated with them would not make sense. The sole idea of assigning a hierarchy to cells and tissues clashes with the core of deontology. Even an evaluation based on function would be unclear and arbitrary: an organ or a limb owes its functionality to the complex combination of tissues that constitutes it, as much as one tissue has certain properties only because it is made up of specific interacting cells. Without neurons, cardiomyocytes, endothelial cells or osteoblasts, the brain, the heart, blood vessels or bones, would not exist, respectively. It might be possible to argue that a hierarchy does indeed exist, as (at least some) cells appear from this reasoning to be more important than tissues and organs, because their absence results in the absence of the whole system. This is, however, an absurd conclusion, as it negates the starting proposition that the importance of organs emerges from the combination of tissues which are not completely functional on their own. Cells are not less important than organs or limbs and vice versa. Thus, it is necessary to confirm the deontological intuition that there is *no tissue hierarchy* of any kind and that a bunch of cells from a biopsy are not essentially different from an entire amputated limb.

Then the second logical step regards the nature of the part that has been painlessly and consensually separated from the rest of the body. One may still argue that there are no values associated with it and that whatever happens to it does not affect the original donor. However, it is possible to imagine the misuse of the aforementioned part that would disrespect not only the donor's will but also their identity. Two extreme examples might be the verbal humiliation in public of a piece of flesh, which is compared to scum and spitted on, or a donated kidney being refused because of its physical appearance and fed to rats instead. The point is that any unethical action with the part is just as bad as when done to the rest of the body, showing the indelible *connection to the identity of the donor* of the part.

The act of eating can be conceptualized as *appropriation by destruction*, and appropriation is the *negation of the individuality* of the subject which instead becomes a mere object. In this sense, eating implies superiority over the object eaten: we do not recognize fruits and vegetables as our peers, we do not believe they deserve the same rights and care as we humans do, so it is not a problem to eat them. Similarly, vegan deontologists see animals as beings that deserve no less dignity than humans (Cochrane 2012; Regan 2004), who are also part of the animal world. That is why eating an animal derivative is indirectly affecting the animal's dignity. Another parallel perspective is that the act of eating can be conceptualized as an act of *assimilation* instead of destruction, where the features and values of a certain entity are embodied in its substance and can be absorbed by the person that consumes it. In this case, the main issue is the dissolution of boundaries between the eaten entity and the eater in favour of the latter; this is also a form of negation of the individuality of the subject, who is deprived of their unique and distinctive features. The claim is that in both interpretations the eaten entity loses its distinctive singularity, which in the case of human flesh is its humanness, the connection to what a human is. By eating cultured human meat one is infringing on the humanness of the donor by destroying a part, no matter how small, of them.

The idea that eating cultured human meat represents an act of negation of individual identity may seem to be the endpoint of this reasoning. By induction, however, the argument can be extended even further: if an individual has been deprived of their humanness, and each individual is a living simulacrum of humanity, then all humanity is also automatically

put on the same degraded level. This follows from the idea that values are universal and pertain to each conscious being, not to just some of them, and violating one's values is no less serious than violating everyone's values; there is no scale of "how wrong or right it is" (contrary to hedonistic consequentialism), there is just wrong or right. In general, deontology brings us to a point where eating cultured human meat means *not recognizing the value of being human*. In the analogous context of classical cannibalism, Frederick Ferré (1986) considered the idea of seeing humans only as meat incredibly disrespectful to human creativity and their capacity for intense consciousness, somehow supporting the idea of a form of disrespect that transcends the single individual and affects the whole of humanity.

The last, inevitable, logical consequence is that the individual who denies the value of humanness is also negating the foundations of civil society. Indeed, safety can be established only when it is recognized that the natural similarities with all other humans, and above all their consciousness, so that a limit can be set to our primitive freedoms and thereby collectively grow as individuals. Failing to achieve this basic respect towards sentient beings translates into dangerous cases in which instinct may lead to despicable actions. To paraphrase, if I don't respect humankind why should I follow its rules?

By objectively analyzing the deontological point of view, a sense of *inviolability of the human body* arises, not in a mystical sense but as an expression of integrity and humanness. In Kantian words, humans have the duty of bodily self-preservation, and cultured human meat would violate this duty. In summary, this inviolability is the underlying deontological value that evokes disgust and constitutes the categorical imperative that implies that eating cultured meat is unacceptable.

Consequentialist Approach

In the specific context of animal welfare, I will borrow some concepts from one of the most famous consequentialists, Peter Singer. Singer defined himself as a secular, hedonistic utilitarian (de Lazari-Radek and Singer 2014). In his own words: "The classical utilitarian regards an action as right if it produces as much or more of an increase in the happiness of all affected by it than any alternative action, and wrong if it does not" (Singer 1979). The other concept borrowed from Singer is the idea of overcoming specieism by considering the distinction of animals between human and non-human to be arbitrary (Singer 1975). In this sense what matters most is the ability of a certain being to feel happiness and pain, sentient or not. Plants are not capable of experiencing pain in the way animals do, lacking nociceptors and a nervous system, therefore the distinction is justified.

While I avoid the utilitarian quantification of the outcomes in terms of happiness, I believe that Singer's ethics are sound to most consequentialists. A series of sequential reasonings analyzed one by one will lead to a conclusion about the acceptability of cultured human meat.

Generally, a consequentialist might not frown upon the act itself of eating cultured human meat, if the tissue was made with the full consent of the adult donor and without any health hazards involved. After all, animals are eaten without consent, so it would apparently be even better than normal meat. The more one digs into the potential consequences, however, the more it becomes clear that such permission would unleash a series of events that would put civil society in great danger. Detrimental effects can be divided into two categories,

depending on the moral value affected: the ones that pose risks to health and life, and the ones that undermine values such as privacy and equality.

Cultured human meat might be produced following strict standards, but what if the consumers start to prefer its taste over animal meat? It could become a habit to eat cultured human meat, at least for a subgroup of consumers. To meet the market demand more products would be made available. In turn, availability could stimulate more consumption and the desire for more choice. At a certain point one could wonder: if I like cultured human meat so much, what does “natural” human meat taste like? The first prominent consequence of allowing cultured human meat is then the *induction of a craving for natural human meat*. At present, there is no way to obtain natural human meat without going through cannibalism, and each feeling connected to consuming human flesh starts from an undeniable disgust towards what is usually a violent act. This disgust could be overcome with desensitization based on cultured human meat. Even if a single person is pushed into this curiosity to at least try natural human meat, and this is not possible without committing a perverse action, it would pose a great risk to the safety and health of other people.

Assuming for a moment that no one develops such curiosity, because presumably everyone in the world can understand the difference between the two cases and the associated dangers of cannibalism, perversion could still be possible. Due to the simplicity of the biopsy, the cells of an anaesthetized, unwilling, nonconsenting donor could be grown externally for an indefinite time and commercialized on the black market. Famous actors, singers, politicians and athletes, but also neighbours, acquaintances and friends would be targeted. No one would be safe from this type of *illegal sourcing of cells*, and even minors would be at risk. Such a risk would soon become uncontrollable and exponentially dangerous.

Another related issue of primary concern is giving away the most intimate data about a person’s DNA, which could be misused in uncountable ways. For example, one could copy DNA from a sample of commercially available cultured human meat, replicate it and then place it on a crime scene to frame the original donor. This case could be considered a form of *identity theft*, going against the value of privacy. This issue is relevant also for pathological and genetic testing in general, but the crucial difference here is that consumers of cultured human meat could not be traced in their purchase and distribution as precisely as a few controlled laboratories, which keep sensitive information in their databases and retain biological samples.

Even if it is assumed that whoever owns the technology will protect it from abuse, other issues arise after commercialization, affecting society on the important level of equality. Indeed, there would be a *reinforcement of discrimination* based on the perceived quality of the meat obtained from certain categories of people: gender, sexual orientation, ethnicity, age, social class, religion and even lifestyle. In parallel, a *new form of discrimination* based on the price differences of cultured human meat would be created. Subject to market demand, different people would be valued differently, as their meat samples would have different prices. This would become a strong judgment criterion, even if implicit.

In short, allowing cultured human meat would unleash a chain effect bringing only disastrous consequences for health, privacy and equality. Instead of trying to put a patch on each negative consequence, it is much less consequential to forbid the option in its entirety.

Conclusions

The purpose of this article was to carve out the main questions, reignite the debate over cultured human meat and lay down the foundations of such a debate. I showed how from both a deontological and a consequentialist point of view it can be concluded that it is not acceptable to allow cultured human meat if we believe in values of identity, humanness, health safety, privacy or equality.

This type of application ban should not slow down the use of this technology on animals, but rather its use on humans should be forbidden in the same way as "classical" cannibalism. The reason for this is that, even if cultured human meat has different unethical foundations from those of cannibalism, indirectly they suffer from the same drawbacks.

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Consent to participate Not applicable

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