

# *Beyond the lab: Ethical and cultural contemplations on cultivated meat*

Luca Lo Sapiro, *Carne Coltivata: Etica dell'agricoltura cellulare*.  
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**ABSTRACT** *Carne Coltivata: Etica dell'agricoltura cellulare* by Luca Lo Sapiro critically explores the ethical, environmental, and cultural ramifications of cellular agriculture, mainly cultivated meat. Through a philosophical lens, Lo Sapiro evaluates the potential of this technology to address ethical concerns tied to traditional meat production, such as animal welfare, environmental sustainability, and health implications. However, the book also critiques the potential cultural and ecological consequences of detaching meat production from traditional agricultural practices. Lo Sapiro's discourse navigates the complex interplay between technological progress and the intrinsic value of natural life processes, urging a balanced consideration of cultivated meat's implications on global food cultures, food sovereignty, and the sanctity of life.

**KEYWORDS** Cellular agriculture; cultivated meat; ethical implications; cultural impact; environmental sustainability; food sovereignty

**RESUMO** *Carne Coltivata: Etica dell'agricoltura cellulare*, de Luca Lo Sapiro, explora de forma crítica as ramificações éticas, ambientais e culturais da agricultura celular, principalmente a carne cultivada. Através de uma lente filosófica, Lo Sapiro avalia o potencial desta tecnologia para resolver preocupações éticas ligadas à produção tradicional de carne, tais como o bem-estar dos animais, a sustentabilidade ambiental e as implicações para a saúde. No entanto, o livro também critica as potenciais consequências culturais e ecológicas de separar a produção de carne das práticas agrícolas tradicionais. O discurso de Lo Sapiro navega na complexa interação entre o progresso tecnológico e o valor intrínseco dos processos naturais da vida, incitando a uma consideração equilibrada das implicações da carne cultivada nas culturas alimentares globais, na soberania alimentar e na santidade da vida.

**PALAVRAS-CHAVE** Agricultura celular; carne cultivada; implicações éticas; impacto cultural; sustentabilidade ambiental; soberania alimentar.

*Carne Coltivata: Etica dell'agricoltura cellulare* is a pivotal work by Luca Lo Sapiro, a distinguished figure in the fields of Bioethics and Moral Philosophy. Lo Sapiro's book delves into the ethical considerations surrounding cultivated meat, offering an insightful exploration from his seasoned perspective on moral philosophy. The volume critically examines the ethical implications of cultured meat and cellular agriculture, exploring these emerging technologies' moral, environmental, and societal challenges and opportunities. This review aims to delve into the book's philosophical and ethical arguments, providing a critical analysis of the perspectives offered by Luca Lo Sapiro. By scrutinizing the ethical frameworks and moral reasoning presented, the review will highlight the book's contributions to sustainable and ethical food production discourse while identifying potential areas for further philosophical inquiry and debate.

Lo Sapiro navigates through the innovative terrain of cellular agriculture technology, presenting a thorough analysis of its ethical implications and cultural impacts and envisioning its future trajectories. The book is structured around critical sections that dissect the science behind cultured meat, the ethical debates surrounding animal welfare, environmental sustainability, and the potential human health benefits. Lo Sapiro articulates a compelling thesis on how cultured meat could significantly mitigate the ethical concerns associated with traditional animal farming by offering a more humane, environmentally friendly, and health-conscious alternative. Through this exploration, the book aims to foster a nuanced understanding and encourage a shift in the ethical considerations of food production.

He articulates a compelling argument that this innovative approach could fundamentally alter the ethical landscape of meat production. Lo Sapiro suggests that by leveraging cellular agriculture, we can significantly alleviate the ethical concerns traditionally associated with meat consumption—namely, the welfare of animals, the environmental toll of livestock farming, and the health impacts on humans. He envisions a future where cultured meat, produced without harming animals and with a reduced environmental footprint, becomes an integral part of our diets. However, Lo Sapiro does not merely champion the technological triumph of cultured meat; he critically examines the potential cultural dissonance it might introduce. Through his philosophical examination, Lo Sapiro challenges the reader to consider not just the scientific and technological merits of cultured meat but also its broader implications

on society and ethics. This balanced consideration forms the crux of his thesis, advocating for a responsible and thoughtful integration of cellular agriculture into our future food systems.

Lo Sapiro provides a nuanced perspective on the role of cultured meat within our dietary systems. He critically evaluates whether the advent of cellular agriculture should serve as a direct substitute for traditional meat sources or function as an innovative addition to our existing dietary repertoire. The volume articulates that while cultured meat emerges as a scientifically advanced, more humane, and environmentally sustainable option, it should not be misconstrued as an outright replacement for all traditional meat sources. Instead, he argues for a complementary approach where cultured meat enhances and diversifies our dietary choices rather than eliminating conventional farming practices.

Lo Sapiro's advocacy for cultured meat is grounded in its ethical, environmental, and health advantages, including significant reductions in animal suffering, lower greenhouse gas emissions, and diminished risk of zoonotic diseases. However, he also acknowledges the complex cultural, social, and ecological roles that traditional livestock farming plays across global societies. Lo Sapiro suggests that the integration of cultured meat should be thoughtfully balanced with preserving traditional agricultural livelihoods, culinary heritage, and biodiversity. This stance underscores a vision for a future food system that is both technologically progressive and, ethically sound, and ecologically harmonious. Lo Sapiro envisions cultured meat as a pivotal element in a broader mosaic of sustainable food practices, urging stakeholders to consider its introduction an opportunity to enrich and diversify, rather than homogenize, our global dietary landscapes.

More broadly, Lo Sapiro does not shy away from the contentious debates that cultivated meat incites. Instead, he seizes them, using them as a fulcrum to pivot the discussion from mere technocratic innovation to a more profound existential examination of human-animal relationships and our stewardship of the environment. One of the primary thrusts of Lo Sapiro's argument rests on the premise that cellular agriculture can alleviate the ethical concerns of traditional animal husbandry (e.g., Stephens & Ellis, 2020). He posits that cultivated meat could disrupt the cycle of suffering, environmental degradation, and health risks endemic to conventional meat production (cf., Leo Horrigan et al., 2002). However, this is where the critical analysis must begin. While allevi-

ating animal suffering and reducing environmental harm are laudable goals, Lo Sapiro's work can be critiqued for its potential underestimation of the complex interplay between natural biological processes and technological interference.

The ethical critique of cultivated meat may be independent of theological arguments to be compelling (cf., Chauvet, 2018). One can appeal to the intrinsic value of natural biological processes and the dignity of life forms. Lo Sapiro's valorization of technological solutions might be seen as a form of "technological triumphalism" that overlooks the intrinsic worth of the natural lifecycle and the interconnectedness of ecosystems (cf., Moor et al., 1988). His perspective could be critiqued for advocating a form of "moral outsourcing," where the responsibility of ethical eating is transferred from individuals to technological processes, potentially diminishing personal accountability and the cultivation of virtue (cf., Forsyth et al., 2008).

Lo Sapiro's proposition of cultivated meat as a solution to the ethical dilemmas of conventional meat production is underpinned by a utilitarian framework that emphasizes the reduction of suffering as the ultimate moral good. This perspective, while pragmatic, opens the door to a potent critique that questions the moral rectitude of justifying the means solely by their ends. The philosophical stance that could challenge Lo Sapiro's utilitarian leanings emphasizes the inherent dignity and integrity of natural life forms and processes (i.e., Hamlin & Griffin, 1987). From this vantage point, the contention is not merely about the consequences of actions (i.e., the reduction of suffering) but about the intrinsic value and respect due to life as it is woven into the fabric of nature. The ethical framework transcends a calculative approach that measures right and wrong regarding net utility. It posits that certain absolutes in our treatment of life are not subject to utilitarian calculus.

This critique gains further traction when considering the concept of "telos" — the end or purpose that is an innate aspect of the nature of beings. In the context of animals, this concept refers to each species' unique nature and purpose, including its way of life, habitat, and manner of interaction with the ecosystem. Technological manipulation of life processes for producing cultivated meat could be seen as a disruption of this telos. This unwarranted overreach disregards the essence of living beings for the sake of human ends (cf., Galusky, 2014).

Furthermore, Lo Sapiro's implicit endorsement of a worldview that privileges efficiency and utility can be challenged for its potential to

lead to a slippery slope where other forms of life are commodified and valued only for their utility to humans. This perspective raises substantial ethical concerns about the precedence it sets for how we might justify future interventions into natural processes and beings. It could lead to a future where technological manipulation becomes rampant under the guise of reducing suffering or increasing efficiency but at the cost of undermining the very sanctity of life itself (Clarke, 2023). Moreover, such an approach could inadvertently contribute to a distancing effect, where the natural world and its beings are increasingly seen as mere resources to be engineered rather than entities with their right to exist as nature has shaped them (Goyes and Sollund, 2018). This distancing could numb societal sensibilities to the marvel and mystery of life, reducing the living world to a set of problems to be solved through technology rather than a wondrous reality to be revered and conserved (cf., Wilson & Borgmann, 1986).

Lo Sapio's sanguine perspective on integrating cultivated meat into the societal fabric requires a more rigorous examination, particularly regarding the deep cultural, symbolic, and even spiritual significances that traditional food sources hold (Leroy & Praet, 2015). Food is not merely a source of nutrition; it embodies rituals, traditions, and shared meanings that coalesce to form a community's cultural identity. It is an expression of heritage, a vessel of history, and a medium for conveying values and stories from generation to generation (Carruth, 2013; Weller & Turkon, 2015). The introduction of cultivated meat represents more than a technological innovation; it signifies a profound shift in the cultural narrative of food (cf., Bellini et al., 2020). For many societies, meat rearing and preparing are imbued with tradition — acts that often carry ritualistic importance and are interwoven with communal bonds (Swatland, 2010; Smil, 2002). Hunting, harvesting, and sharing meat can be central to the social rituals affirming community cohesion and identity (Dyble et al., 2016; Collings et al., 1998). These practices are not mere relics of a bygone era but are active and meaningful components of cultural continuity.

Lo Sapio's optimistic projection may overlook the potential disruption lab-grown meat poses to this continuity. For all its ethical reasoning, cultivated meat is at odds with the organic processes that historically defined our relationship with food. It strips away the narrative of life, growth, and sacrifice traditionally accompanying meat consumption, offering a narrative of efficiency and scientific mastery. This narra-

tive does not resonate with many cultures' storied relationship with the animals they raise. It does not honor the sacredness that these cultures may attribute to the life cycle (cf., Morris, 2000; Hutchins, 2014).

Moreover, the communal aspect of traditional food practices — where the collective effort of farming, slaughtering, and cooking reinforces community ties — is at risk of being supplanted by a sterile and isolated process from the community (i.e., Kuhnlein, 2000; Malhotra et al., 2021). The shared experience of food, from its origins in the soil or the flesh of a living being to its final preparation, is a thread that weaves together the social fabric (Hinrichs, 2000). The detachment inherent in the production of cultivated meat could lead to an attenuation of these communal bonds, relegating the act of eating to a mere transaction devoid of its communal significance (Ávila et al., 2022).

Introducing cultivated meat as a universal solution raises the specter of cultural imperialism, where a homogenized global narrative overshadows the nuances of local practices. Such a scenario risks diminishing the rich diversity of food cultures worldwide as the unique practices of animal rearing, butchery, and preparation are replaced by a standardized, lab-based production model. While technologically advanced, this model may need more cultural sensitivity to recognize and preserve the heritage embedded in traditional meat consumption.

The displacement of traditional meat by its cultivated counterpart can be seen as a form of cultural erasure, where the global north's technological advancements dictate the dietary choices of diverse cultures, often without regard for the socio-cultural consequences. This concern ties into the broader discourse on food sovereignty, which emphasizes the right of people to control their own food systems, including the social, economic, and ecological context of food production (Chappell et al., 2013; Akram-Lodhi, 2015). Food sovereignty advocates for preserving agricultural biodiversity and protecting indigenous practices against the encroachment of global industrial agriculture (Bernstein, 2014).

Furthermore, the imposition of cultivated meat could undermine communities' autonomy to decide how they interact with their environment and what they consume. It could lead to a loss of traditional knowledge and skills, such as those required for animal husbandry, butchery, and the culinary arts, as they become redundant in the face of lab-grown alternatives (Shepard et al., 2023). This loss goes beyond mere technique; it represents a severing of the cultural transmission that occurs when these skills and knowledge are passed down through generations.

In essence, while cultivated meat may offer a solution to the ethical and environmental issues associated with conventional meat production (e.g., Reis et al., 2020), its universal adoption could contribute to the homogenization of global food cultures (e.g., Bracher, 2022; cf., Khoury et al., 2014). Such a shift would affect dietary choices and have profound implications for the identity, heritage, and cultural diversity of communities worldwide. Therefore, a critical perspective on Lo Sapio's work must question whether the potential benefits of cultivated meat justify the cost to cultural richness and food sovereignty and whether alternative paths might exist that can harmonize ethical concerns with preserving cultural diversity.

In his exploration of the emergent field of cellular agriculture, Luca Lo Sapio presents an ethically charged argument for adopting cultivated meat, articulating a vision for a future food system that is more humane, sustainable, and conducive to public health. *Carne Coltivata: Etica dell'agricoltura cellulare* is an ambitious work that traverses this revolutionary food technology's scientific, ethical, and societal terrains. Nevertheless, it is imperative to approach Lo Sapio's thesis with a critical eye, particularly concerning the societal assimilation of such a radical shift in our food paradigm.

Lo Sapio's narrative, underpinned by a utilitarian ethic that prioritizes the reduction of suffering, invites a critical counter-narrative — one that respects the integrity of natural life processes and acknowledges the sanctity inherent in the traditional methods of food production (cf., Thiele, 2020). This counter-narrative questions whether the technological domination over natural life, even with the noblest intentions of reducing harm, may inadvertently devalue the essence of the natural world and the cultural fabric it supports (cf., Kahn et al., 2009; Ladrière, 1977; Lorca, 2019). The potential cultural displacement caused by cultivated meat is not a peripheral concern; it strikes at the heart of food sovereignty and the rights of communities to preserve their culinary heritage against the tide of a globalized, technocratic approach (McMichael, 2015). The richness of global food cultures — with their attendant customs, rituals, and identities — risks diluting by a homogenizing technological force that espouses a one-size-fits-all solution to complex ethical and environmental issues (Crist et al., 2017).

Lo Sapio's optimistic portrayal of a seamless integration of cultivated meat into the global diet also glosses over the possibility of cultural resistance. This resistance stems not from an aversion to innovation but

from a deep-rooted connection to food as a symbol of heritage, a conduit of tradition, and a marker of identity (Bessi re, 1998). By decoupling meat from its natural and social contexts, we risk severing a vital link to our collective history and the stories that shape our communal and individual identities.

In conclusion, while *Carne Coltivata* provides a compelling case for re-examining our food systems, reflecting on the broader implications of adopting cultivated meat is crucial. As we stand at the crossroads of tradition and innovation, fostering a dialogue encompassing food production’s ethical, cultural, and ecological facets is essential. We must seek solutions that honor our ethical imperatives while preserving the cultural and natural diversity that enriches our world. It is not simply a matter of what we eat but of understanding and respecting the intricate web of life that sustains us — an endeavor that requires wisdom, care, and a profound sense of responsibility towards the past, present, and future.

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