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Fake Meat

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Keywords

Carnism; Clean meat; Cultured meat; Fake meat; Faux meat; Imitation meat; In vitro meat; Lab-grown meat; Meat alternative; Meat substitute; Mock meat; Synthetic meat

Introduction

Fake meat, also known as faux meat, imitation meat, mock meat, meat alternative, or meat substitute, is a food designed to approximate the culinary qualities of flavor, texture, and appearance of different types of meat. Many fake meats are made from gluten (seitan) or soybeans (tofu and tempeh). Fake meat is different from clean meat. Clean meat, also known as cultured meat, lab-grown meat, in vitro meat, or synthetic meat, is muscle tissue grown in cell culture in a laboratory (Shapiro 2018). Clean meat is produced using many of the same tissue engineering techniques used in regenerative medicine. Carnal meat, in contrast, is flesh taken from the corpse of an animal. Fake meat is a meatless substitute for both carnal meat and clean meat.

Advantages of Fake Meat

Reasons that commend fake meat over carnal 29 meat can be grouped into six groups of consider- 30 ations. These considerations appeal to (1) health 31 benefits, (2) reducing environmental harms, 32 (3) conserving agricultural resources and energy 33 to feed more people, (4) rejecting the patriarchy 34 implicated in meat, (5) moral consideration for 35 nonhuman animals, and (6) religious or spiritual 36 commitments.

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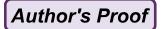
Health Benefits

Vegetarian diets tend to be healthier than diets 39 based on meat and animal fat. Meat-based diets 40 are associated with higher rates of heart disease, 41 atherosclerosis, high cholesterol, stroke, peptic 42 ulcers, osteoporosis, kidney disease, colon cancer, 43 lung cancer, breast cancer, uterine cancer, cervical 44 cancer, and prostate cancer. People suffering from 45 diabetes, angina, asthma, bladder disease, diver- 46 ticulitis, gallbladder disease, hypertension, kidney 47 stones, peptic ulcers, and rheumatoid arthritis 48 have been shown to benefit from switching to 49 vegetarian diets. Meat eaters risk serious and 50 sometimes fatal food-borne illnesses (Stephens 51 1994). Thus, other dietary factors being equal, 52 fake meat contributes to a healthier diet than 53 carnal meat.

Reducing Environmental Harms

The global populations of chickens, cattle, pigs, 56 and sheep continue to grow with the global human 57

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population. In 2011 the world's average stock of chickens was almost 19 billion; there were 1.4 billion cattle, about 1 billion sheep, and nearly 1 billion pigs (Economist 2011). Industrial livestock production is a leading source of organic freshwater pollutants and nitrate groundwater pollutants. Cattle are major causes of soil compaction, erosion, and depletion of freshwater aquifers. Cattle are a leading cause of deforestation, desertification, habitat loss, and destruction of thousands of species of plants, insects, birds, reptiles, and mammals. Moreover, industrial livestock production consumes great amounts of nonrenewable energies (Stephens 1994). On one analysis, livestock and their by-products account for 51% of annual worldwide greenhouse gas emissions (Goodland and Anhang 2009). Consequently, livestock contribute considerably to global climate change. Concentrated animal feeding operations (CAFOs) are where an increasing percentage of the world's meat, milk, fish, and eggs are produced (Imhoff 2010). Therefore, the meat industrial complex is responsible, both directly and indirectly, for devastating, manifold, worldwide environmental harms. Compared to industrial meat, fake meat treads much more lightly on the planet.

Conserving Resources and Feeding More People

Breeding livestock and feeding them grain and soy in order to make meat is an extremely wasteful way of feeding people. Most of the calories and protein in the grain and soy fed to livestock is lost by cycling it through their bodies instead of consuming the grain and soy directly. Transforming grain and soy into fake meat requires some additional inputs, depending on the kind of fake meat product. Nonetheless, fake meat products are a more efficient means of making foods from grain and soy than are meat products. Citizens of affluent, developed nations consume far more meat per capita than citizens of developing nations. So, one can argue that those who lack enough to eat deserve basic food more than the wealthy deserve the unnecessary luxury of meat from CAFOs. Justice suggests that agricultural resources be distributed equitably in order to reduce unnecessary human suffering and death caused by malnutrition 105 (Stephens 1994). Thus, fairness favors fake meat. 106

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Meat and Patriarchy

Another argument for meat substitutes is that there 108 is an intimate connection between meat and male 109 dominance. Meat is exalted in our patriarchal 110 culture. The male prerogative for meat is 111 exhibited in the Bible in Leviticus 6, in the ancient 112 Greek myth of Zeus and Metis, and in fairy tales 113 that portray meat eating as the male's role. In 114 societies with animal-based economies, men 115 hunt, control meat distribution, and wield social 116 power typically to dominate women. In many 117 nontechnological societies, women are forbidden 118 to eat meat. Violence against animals intersects 119 with sexual violence against women. Anthropo- 120 logical, sociological, and historical studies illus- 121 trate that the oppression of women and other 122 animals is interdependent. Twentieth-century 123 meat textbooks proclaim that meat is a virile 124 food. Our society equates vegetarianism with 125 emasculation or femininity (Adams 1990). Con- 126 sequently, to reject meat in cultures where meat is 127 plentiful signals rejection of male control and 128 violence. Adams concludes that feminism and 129 vegetarianism ought to be embraced by members 130 of our "meat is king" patriarchal culture in order to 131 transform it from within (Stephens 1994). How effective the choice of fake meat is in achieving 133 this goal will be addressed below.

Sparing Nonhuman Animals

Moral consideration for the animals bred into 136 existence, made to suffer, and killed to make 137 meat is a popular reason for adopting vegetarian- 138 ism. The most influential arguments motivated by 139 moral consideration for the animals themselves 140 have been formulated in either utilitarian or deon- 141 tological theories. Utilitarians object to the tre- 142 mendous suffering animals experience in 143 CAFOs and argue that meat is unnecessary for 144 virtually everyone nearly everywhere (Singer 145 1990). Deontologists argue that animals are 146 experiencing subjects of a life with inherent 147 value, so we have a duty to treat them with 148 respect, not as our resources. This duty includes 149 boycotting all animal products, including meat 150



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151 (Regan 1983). The global meat industrial complex grievously harms and destroys billions of 152 innocent animals every year. Therefore, replacing 153 murdered meat with a meatless substitute rights a 154 real wrong. 155

Religious or Spiritual Purity

Some religions prohibit or discourage eating meat. Because of their commitment to the Dharmic concept of ahimsa (non-violence), Jains entirely abstain from meat, fish, and eggs. Vegetarianism is also common in Hinduism, Mahayana Buddhism, Sikhism, and Taoism. Some Christians argue for vegetarianism based on the eschatological hope in the promises and providential work of God (Webb 2001). Others see vegetarianism as a logical expression of one's understanding of oneself as a Christian and one's exercise of one's Christian faith and discipleship (Largen 2009). The ancient Greek philosopher Pythagoras taught metempsychosis – the belief that the soul is immortal and transmigrates into other kinds of animals. Their spiritual beliefs led Pythagoreans to abstain from meat, fish, and beans. The third-century polymath Porphyry of Tyre, a follower of Plotinus, also believed in metempsychosis. In On Abstinence from Animal Food, Porphyry defends vegetarianism both for the purpose of freeing one's soul from the body and the sensible world and for ethical reasons. Thus, for thousands of years, vegetarianism has been adopted for the sake of spiritual purity. Fake meat can promote this goal.

Fake Meat and Carnism 183

Fake meat products are intended to persuade meat eaters to replace real meat with a meat substitute. Fake meat is designed to cater to those who have been conditioned to prefer meat. Companies that produce fake meat presume that foods that resemble meat are the norm for appetizing food. Carnism is the ideology that conditions people to eat certain animals (Joy 2010). Carnists regard meat as normal, natural, and necessary. Consequently, one could argue that purveyors of fake meat actually capitulate to and perpetuate carnism

under the guise of supplanting it. For example, if 195 someone is not a racist but at a glance appears to 196 act like a racist, then there is a risk that racism 197 could be reinforced. Similarly, if someone is a 198 vegan but at a glance appears to act like a carnist 199 by eating what looks like meat but isn't, then this 200 might subvert achieving the goal of veganism.

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Do fake meat products reinforce carnism? Proponents of fake meat could deny this. They could 203 argue that fake meat products give people the 204 option of eating less carnal meat, or none at all. 205 From this perspective fake meat could serve as a 206 bridge to help meat eaters cross from carnism to 207 vegetarianism. Once accustomed to eating a sub- 208 stitute for meat in her diet, the consumer may no 209 longer miss carnal meat. The person for whom 210 fake meat becomes the new normal may come to 211 find the appearance and smell of carnal meat dis- 212 gusting. Such a consumer could then explore 213 vegan foods that do not resemble carnal meat at 214 all. Perhaps an analog is the use of e-cigarettes to 215 quit smoking tobacco. Vaping can serve as a 216 bridge from tobacco use to vaping an e-liquid 217 that contains nicotine to vaping an e-liquid 218 entirely free of nicotine.

Ultimately, this argument for fake meat as a 220 transition to vegetarianism or veganism is 221 pragmatic. Most meat eaters are likely to be per- 222 suaded only to try meatless foods that closely 223 resemble meat in appearance, texture, flavor, and 224 perhaps smell. Fake meat gives consumers the 225 option for sources protein that is not as morally dubious as actual meat products.

Summary

Fake meat products are healthier to eat than carnal 229 meat. Fake meat products inflict far less damage 230 on the environment than meat from CAFOs. Eco- 231 logically, fake meat requires fewer agricultural 232 resources, less water, and less energy to produce 233 than carnal meat. Using the same amount of agri- 234 cultural inputs, fake meat feeds more people than 235 carnal meat. Unlike carnal meat, fake meat harms 236 no animals. Still, the advocate of veganism could 237 object to making food that *looks* like it supports 238 carnism. If fake meat is marketed with the slogan 239

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240	that "it tastes like meat, but is better for you," then
241	a worry remains that, by taking meat as the norm,
242	fake meat capitulates to carnism. Defenders of
243	fake meat argue that such products help people
244	transition away from carnal meat. Perhaps in the
245	future, if fake meat aids in persuading enough
246	consumers to overcome carnism, vegans will be
247	content with foods that look like fruits, vegeta-
248	bles, grains, legumes, nuts, and seeds.

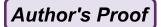
Cross-References

250	► Carnism
251	► In Vitro Meat
252	► Meat: Ethical Considerations
253	➤ Synthetic Meat
254	► Vegan Lifestyle
255	► Veganism
256	▶ Vegetarianism

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