REVERSING MEAT-EATING CULTURE TO COMBAT CLIMATE CHANGE

Writing and research by Dr Nik Taylor

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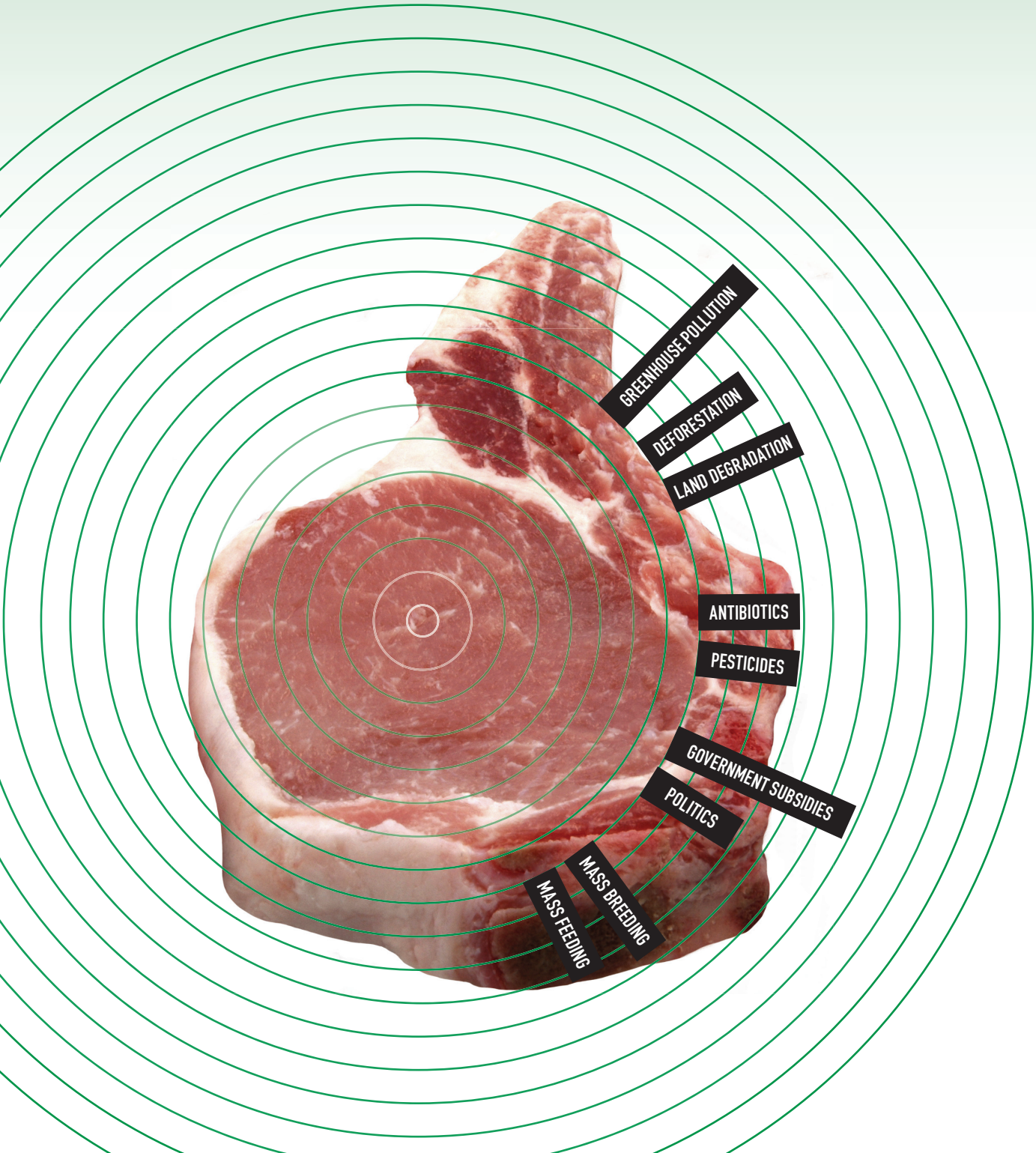
IS THIS NORMAL?

IS THIS NATURAL?



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We rarely, if at all, challenge the fundamental ways in which we humans approach the environment and our belief in our rights to consume it as a resource.

Dr Nik Taylor

School of Social and Behavioural Sciences,
Flinders University, Australia

One of, if not the, most serious issues confronting humanity today is that of global warming and concomitant climate change. Despite the remaining scepticism of a few[1] there is plenty of evidence to suggest that we are in a period of global warming which is at worst caused by, and at best exacerbated by, human behaviour. This is the core of the idea of anthropogenic climate change[2]. There is also plenty of evidence to suggest that unless we do something—and something quite drastic to alleviate anthropogenic pressures on the environment things will get considerably worse[3]. Predictions include worsening drought in dry areas, global food and water shortages, increased famine and global food insecurity and unpredictable and wild weather patterns[4].

While governments and other pressure groups are increasingly cognizant of the dangers posed by continuing as though nothing is wrong, they tend to support campaigns and research into small scale, and relatively 'safe,' changes such as investment in green fuels and the instigation of various taxes aimed at encouraging (but not mandating) changes in practices. I refer to these as 'safe 'options because they rarely, if at all, challenge the fundamental ways in which we humans approach the environment and our belief in our rights to consume it as a resource. As a consequence some of the more complex and confrontational issues and potential solutions are often overlooked. The food we consume, and the ways in which we produce that food is one such issue. This report addresses one important part of this topic, namely, the need for a reduction in meat production and meat-eating and an accompanying increase in plant based diets.

Over the last few years attention has turned to the myriad ways in which the mass production of meat wreaks havoc on the environment due to a multitude of factors which include increased and widespread use of antibiotics, mass feeding and breeding in confined spaces, and the increased uses of pesticides to intensively produce the plants to feed to meat animals. However, it remains the case that meat and dairy consumption are ingrained in modern (western) societies; they are so taken for granted as to be believed normal and natural. For this reason raising questions about the centrality of meat in western diets remains difficult and highly contested. Add to this the fact that meat production is highly politicised through its increasing control by an ever decreasing number of corporations whose vertical integration across the breeding, feeding, slaughtering and packaging industries ensures they hold significant political and economic power.[5] All of this makes it a subject which most people prefer to stay clear of. Nonetheless it is imperative that it be addressed. Meat production is inextricably embroiled in both climate change and in increasing food insecurity due to the large, and growing, demands it places on the natural environment. As such, it is a, if not the, key area in need of illumination, debate and change, at both societal and individual levels of practice. We cannot afford to ignore the role of meat production in the current environmental and food crisis; we have to begin to consider this issue seriously—for the animals who are condemned to short, nasty and brutal lives as products within this system and for our own health, as well as the wellbeing of our environment and the future of our planet.

Following an overview of the environmental impacts of meat production, this report turns to an outline of the research addressing changing to meat free diets and by doing so I review research into both the barriers and incentives to adopting a meat free diet. I then turn to a more sociological consideration of meat-eating and discuss the cultural and social practices which surround our food choices and beliefs about the necessity of meat in our diets. What this report does not do,

however, is consider historical arguments about the "rights" of humans to eat meat or arguments from moral philosophers regarding the rights of other animals not to be eaten. While recognising that these arguments are highly important I have elected to omit them here partly due to confines of space and partly because they detract from the central issue which is not whether humans should eat animals because they (arguably) always have done so, but is whether the environment can sustain current meat-eating practices.[6]

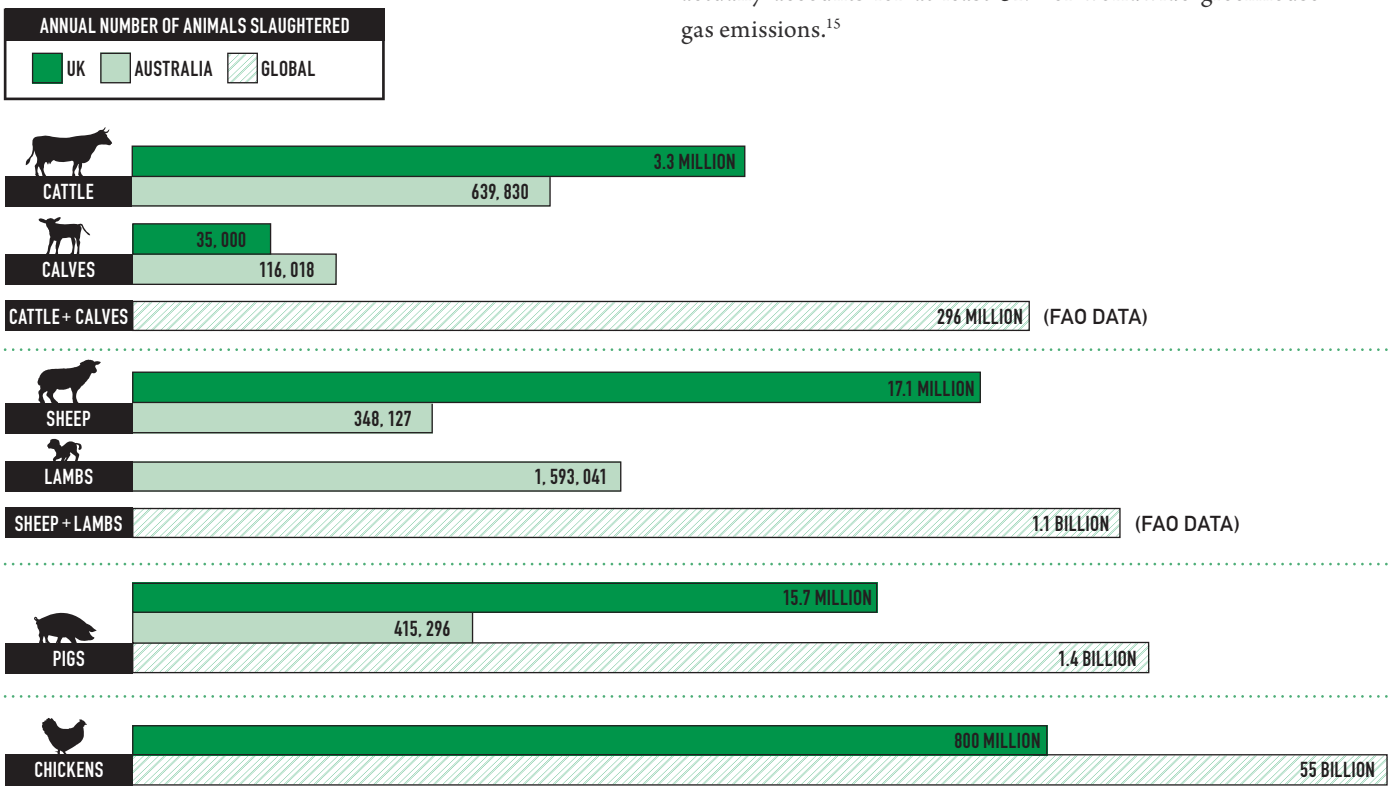
THE CONTEXT OF THE PROBLEM

Meat-eating has become an integral and normalised part of most (western) human diets. Once closely linked to class status, meat is now considered to be a normal part of a healthy mixed diet for most people in the western world. As a consequence meat-eating has increased significantly over the last few decades, and demand for meat continues to grow.

Williams and DeMello point out that almost 10 billion animals are killed for food in the US annually[7]. Confirming this is data extrapolated by Farm from U.S. Department of Agriculture reports which shows nearly 10.2 billion land animals were raised and killed for food in the United States in 2010[8]. In Australia the pattern remains high, the Australian Bureau of Statistics report that in August of 2011 the number of livestock slaughtered were: cattle—639,830; calves—116,018; sheep—348,127; lambs—1,593,041, and pigs—415,296.[9] Similar figures can also be seen in the UK where data from Compassion in World Farming shows annual animal slaughter numbers to be around 3.3m cattle; 35000 calves; 15.7m pigs; 17.1m sheep; and over 800m chickens. This is confirmed by the Department for Environment, Food and Rural Affairs which report that over 850 million animals are killed annually in the UK for food[10]. Global figures are even more staggering and equate to approximately 55 billion chickens and 1.4 billion pigs[11]. Furthermore, despite growing awareness of the potential health hazards of meat-eating, in general, meat consumption continues to increase. Global meat production has more than doubled since the 1980's and in the global South it has tripled[12].

LIVESTOCK'S LONG SHADOW

In 2006, a report by the United Nation's Food and Agricultural Organization called Livestock's Long Shadow, investigated the impact of industrial animal agriculture on the environment. While not the first report to point out the damage that industrial animal agriculture contributes to the environment[13], perhaps due to other concerns about the environment and climate change, this 2006 report caused quite a stir. Aggregating greenhouse gas emissions across the entirety of the livestock commodity chain (i.e. feed and animal production, processing and transport) the authors concluded that the livestock sector globally accounts for 18 percent of greenhouse gas emissions which represents more than the contribution by the transportation industries.[14] In 2009, a further report by World Watch, argued that the UN report had misallocated and/or miscounted approximately 25 million tons of CO_2 attributable to animal agriculture. The authors of the World Watch report argued that, when these figures are included, animal agriculture actually accounts for at least 51% of worldwide greenhouse gas emissions.[15]



GREEN HOUSE GAS EMISSIONS

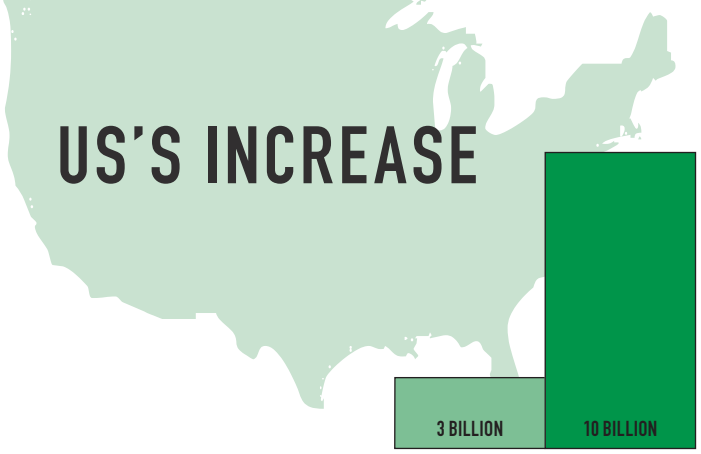
51% of the GHGs are contributed by livestock production

CONCENTRATED ANIMAL FEEDING OPERATIONS

80% of livestock are kept in CAFO's

GLOBAL FRESHWATER USAGE

8% of global freshwater is used for livestock production



Between 1980-2010, animals slaughtered for food increased by 7 billion.

The UN report further pointed out that the majority of growth in the meat production sector is occurring through industrial livestock production (approximately 80%) which means the animals are held in concentrated animal feeding operations (CAFO's). CAFO's are designed for maximum efficiency and high output at lowest cost; animals are kept in confined spaces and fed a high protein diet of corn or soy to fatten them quickly. This is problematic as it means that the livestock sector is responsible for the consumption of up to seven times as much grain as the human population[16] which has knock on effects on the land due to the production of the grain as well as its inefficient conversion to meat. While estimates vary it is clear that the conversion of plant to animal protein is inefficient. One study estimated the efficiency of conversion from plant based feed to animal protein varied from 5% for beef through to 40% for milk.[17] Given that many humans go hungry worldwide this inefficient system, designed to give those with the means a meat based diet, seems hard to justify.

Unsurprisingly CAFO's generate a large amount of animal and agricultural waste which is often fed back into the water supply. Compounding this is the fact that the high protein diets fed to the animals require large amounts of water and pesticides which adds further stress to the environment; agriculture accounts for approximately 70% of global freshwater use and of this livestock production accounts for 8% usage[18]. The UN report concluded that livestock "is probably the largest sectoral source of water pollution"[19]. Finally, the confined living spaces for the animals in CAFO's necessitate the administering of large amounts of antibiotics throughout the herds. According to the UN report half of all antibiotics produced globally go to livestock production facilities. Disease is not only an issue for the confined animals; reports also suggest that the proximity of CAFO's to human habitation (usually poor, disenfranchised humans) increases the spread of various zoonoses. The World Bank claims "the extraordinary proximate concentration of people and livestock poses probably one of the most serious environmental and public health challenges for the coming decades"[20].

Adding to the above the fact that animal agriculture plays a large (if not the largest) part in soil degradation, land clearing and land overgrazing and considering the inefficiency of meat in terms of the energy taken to produce it compared to its nutritional value leads one author to conclude that "the mass consumption of animals (and the intensive, industrial methods that make this possible) is a primary reason why humans are hungry, fat, or sick and is a leading cause behind the depletion and pollution of waterways, the degradation and deforestation of the land, the extinction of species, and the warming of the planet"[21].

Given all of this (and the above is simply a sketch) why, then, do humans seem so attached to the consumption of meat? While once thought of as a healthy source of protein in modern diets, even the health benefits of meat-eating are being questioned with reports demonstrating that meat-eating is linked to several health problems such as obesity, various forms of cancer, heart disease and hypertension to name but a few[22]. Despite this, meat production and consumption continues to grow at an unprecedented rate; over the last three decades or so the number of animals killed for food has risen from 3 to 10 billion, representing a rise in animal deaths from 56 annually for a family of four to 132 annually[23]. It is to this question of why meat-eating remains so embedded in western cultures that the remainder of this report now turns.

TO MEAT OR NOT TO MEAT?

One of the key findings of research into people's food choices regarding meat consumption has been to identify that most meat-eaters display some form of ambivalence towards eating meat; in one study this was as high as 69% of respondents reporting ambivalence about their meat consumption, compared to just 4% of vegetarians reporting that they felt ambivalent about abstaining from meat consumption[24]. This ambivalence tends to centre on perceived health related issues with respondents to surveys indicating they have concerns over

the health implications of meat-eating. Despite this, meat-eating remains a routine, and indeed culturally embedded, part of the diet for many humans. Reasons given for meat-eating are both intrinsic (e.g. taste) and extrinsic (e.g. social and peer pressure) [xxv]. Reasons for adopting a vegetarian or vegan diet are broader and include ethical and moral motivations, disgust and/or dislike of the taste/texture of meat, health concerns over meat consumption, and peer or family pressure[26].

Research in this area paints a picture of three general groups defined by attitude:

1) those who are clearly pro-meat,

2) those who are clearly anti-meat, and,

3) those who sit somewhere in the middle—consuming meat but uncertain about their consumption and displaying ambivalence towards meat as a product.

The second group, those who avoid meat, tend to have clearly defined ethical reasons for doing so; reasons which include animal rights and welfare as well as environmental concerns. Their avoidance extends to more animal products than just meat, e.g. dairy, and animal by-products such as gelatine. Moreover, research demonstrates that those who avoid more animal products tend to do so for ethical reasons and that initial motivations such as ethical considerations of the way in which animals are raised and killed for meat, are often augmented over time with broader reasons such as environmental concerns[27]. Thus, if ethical reasons correlate to total (rather than partial) avoidance of animal based products then stressing the moral and ethical links with the environment may conceivably increase avoidance. It is also worth noting that research suggests that increasing media attention on animal welfare and animal food production methods has an effect on demand. In one study researchers found that media coverage of animal wellbeing and welfare reduced pork and poultry demand in the US. Crucially they also found that expenditure was reallocated to non-meat food rather than across to other, competing meats[28]. So, a parallel strategy might also include highlighting animal welfare and wellbeing concerns in the media.

The third group, those who have ambivalent and conflicting attitudes towards meat tend to decrease their meat consumption in line with increased ambivalence. Various studies have demonstrated a link between ambivalent attitudes towards meat and decreased consumption. Similarly higher levels of ambivalence towards meat consumption correlated with reports on future intentions to decrease meat consumption; in other words the more ambivalent a person is towards meat-eating the less they currently consume and they intend to decrease their consumption even further in the future. This group seems to be the one most open to behavioural change and it is likely that any campaigns targeted at them regarding the need to reduce meat intake, will have a better chance of success than those in the first (pro-meat) group.

MASS CULTURE OF MEAT-EATING

69% of meat-eaters are ambivalent to eating meat, mainly for health reasons

BARRIERS TO DIET CHANGE

Many studies report that people feel one of the main barriers to adopting a meat-free diet is social expectation; that meat consumption is so normalised and taken for granted that it is expected and therefore that it is difficult to function socially as a vegetarian and even more difficult as a vegan. As such, meat alternatives and meat replacements often offer vegetarians and vegans one way to overcome one of the barriers in the transition to a meat free diet. Mock meat may offer the social integration needed by those transitioning to a meat-free diet given the centrality of meat consumption in western diets. The food historian Montanari points out that most changes in consumption patterns happen when a substitute is available and that the substitute in question must fulfil the gastronomic and aesthetic roles of its predecessor. In other words, any substitute must function like meat in the dishes in which it is used as well as taste, look, feel and smell appetising. The sales of meat substitutes however, unlike meat itself, have not seen a consistent growth over time, although they do tend to peak around the time of various food safety crises, such as in 2001 with BSE and foot and mouth[29]. Meat substitutes account for only approximately 1% of the market for meat although as many as a third of households report using substitutes occasionally[30].

In a comprehensive study Schlösler and colleagues assessed consumer meat-eating practices and likelihood of adopting meat alternatives. They found that respondents reported eating meat 5.4 days a week with 28% eating meat every day and 23% reporting eating meat less than 4 days a week. While the number of reported vegetarians was low in their sample (1.2% of a sample of approximately 1100 consumers) they found that those who had health and environmental concerns reported fewer meat-eating days than those who did not share their concerns. They also found that those who preferred a traditional component meal (i.e. "meat and two veg") had a stronger preference for meat than those whose tastes were more adventurous and ran to 'combined' meal formats (e.g. pasta dishes). Moreover those who preferred combined meal formats

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and who ate vegetarian meals often did not bother with meat substitutes leading the authors to claim that meat substitution has become less prominent among those who have transitioned away from traditional meal formats. In other words attachment to traditional meal formats may be more of a barrier to adopting a plant-based diet.

The researchers concluded that encouraging routine transitions to meat free meals had to take into account various factors such as product availability, knowledge and familiarity with substitute products, ease of use and ability to fit them into customary meal patterns and structures. They point out that those willing to experiment with different kinds of foods are more likely to make a transition to a meat free diet than those who are not, and that this often occurs with a change in one's identity. This is supported by other research which demonstrates that being a vegan or a vegetarian is tied closely to a sense of self identity, for example as being ideologically aware[31].

In an Australian study into public views of both the benefits and barriers to the consumption of plant based diets the authors concluded that for changes to take place, the benefits of change needed to be seen to outweigh the barriers to change. They argued that people had both practical and attitudinal barriers to change and that both needed to be addressed in order to bring about change. They found that the main perceived barrier to change to a plant-based diet was lack of information/knowledge about plant based diets along with lack of available alternatives when eating out and an unwillingness to change by other family members. They also found that many people were already aware of the health related benefits to a change towards an increased plant base diet and that fewer barriers were perceived in this study (2006) than in a similar study conducted 3 years earlier[32]. They did find, however, that many of their respondents were unsure of additional, extrinsic, benefits to be gained such as those to animal welfare or to the environment. Corroborating this is research which discovered that consumers thought purchasing products with less packaging was more important than a move away from meat products. This research demonstrated clearly that consumers are often unaware of the deleterious effects of meat on the environment, thus suggesting the need for information campaigns outlining the effects of animal agriculture on the environment[33].

They concluded that a two pronged strategy was needed to encourage more people to adopt plant based diets: more widespread dissemination of

1) practical information on the nutrition and preparation of plant based foods, and,

2) information regarding other benefits, such as those to the environment, may be more effective at bringing about change.

The various authors of research into this area are all at pains to point out that bringing about any large scale changes in meat based diets can only occur if the structural and cultural aspects of meat consumption are deconstructed and critiqued. They point out that there is a belief that humans are supposed to eat meat, that it is natural to do so, and that this is particularly the case for men who, as a result tend to have a higher environmental impact due to food choices[34]. They also demonstrate that meat-eating practices are so ingrained in our culture that those who choose alternatives often face considerable prejudice and pressure from others who do not support their choices. This leads the authors of one report to conclude that "structural support for a communications campaign should come from a broad base" if attitudes are to be changed at a cultural level[35]. It is to this issue of the culture of meat-eating that the remainder of this chapter now turns.

THE STRUCTURE AND CULTURE OF MEAT-EATING

Gastro-ontology is the term used to refer to the existence of certain discourses regarding food. One of the strongest and most enduring discourses concerns meat. The idea that attitudes towards meat are culturally determined takes into account the various socially derived ideas embedded about meat. These ideas are variously the product of familial, religious, scientific, cultural and popular doctrine and they are subject to change over time; change which is linked to broader political and social events or beliefs. A current example would be the

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preoccupation with organic meat which is held to be healthier compared to its non-organic, mass produced alternative.

Cultural beliefs regarding meat, however, appear to be more ingrained and enduring than most others and as a consequence anthropologists have argued that meat is likely to be the subject of ritual and taboo more so than any other form of food[36]. The beliefs that a culture has towards meat are also inextricably bound with its attitudes towards animals, after all, one cannot have meat without first killing an animal. Thus, the remainder of this chapter turns to a consideration of the role of animals, meat and slaughter in contemporary (western) society in order to argue that if we are truly to change to an environmentally sustainable, non-meat, diet then we have our work cut out as we need to dismantle various cultural and social prescripts regarding meat which are bound to our broader beliefs about the place of humans and the role of animals and the environment as consumable products.

Central to this argument is the concept of discourse. The idea of discourse is that knowledge and power are both produced by, and operate through, certain ways of talking about, framing and seeing a particular issue. Thus, if meat-eating is culturally normalized then this is as a result of the operation of certain discourses[37]. For example restaurants are assumed to sell meat based dishes and those that do not are forced to designate themselves as different to the norm, as 'vegetarian' restaurants. Other cultural tropes regarding the normalcy of meat in human lives exist. In fact, there are far too many of them to present an exhaustive list but other examples include the idea that there is a link between virulent masculinity and meat consumption,[38] the idea that meat-eating is a necessary part of a healthy human diet, and the idea that vegetarian and vegan lifestyles are 'freakish' and/or 'difficult'[39]. Language plays a crucial part in the formation of particular discourses; after all it is through language that most human communication occurs. However, discourses are broader than merely words. They are irrevocably linked to institutions and to practices which constantly create and re-create and, perhaps most importantly, confirm particular issues and ideas as "normal". In turn this is linked to the production of power, in large part because it is difficult to contest anything that is considered by most to be normal and natural.

In other words, the literal and figurative disassembling of animal bodies to make meat for human consumption occurs in tandem with the cultural production of ideas about animals and humans that justifies this practice in the first place. The killing of other animals for meat becomes normalised through various institutional and cultural practices which, in large part, work to maintain the cultural invisibility of animal killing for food[40]. One key component in this is the constant and consistent separation of humans and animals into discrete categories. This 'purification' of categories occurs at a symbolic level by ensuring animals are considered as objects instead of subjects[41]. Animals are transformed into consumable things by removing any sense of agency, individuality or personhood from them. This neatly separates humans from animals and, crucially for the current debate, allows them to be seen as 'walking larders' and potential food sources as opposed to emotional individuals. In effect, any potential connection that humans may feel with other (consumable) animals is removed through a series of cultural sleights of hand which in turn removes any empathy with their plight. This ensures a general acceptance of their slaughter.

Similar processes are at work in order to turn them into consumable commodities. Culturally, such processes can be seen in the ways in which animal parts are generically termed 'meat', how the specificities of the animal-that-was are over-written by the individual's right to choose healthy meat, or lean meat or tasty and juicy meat, not healthy cow parts, or lean pig parts etc. In this way, then, the real animal, the whole animal-that-was becomes what Adams refers to as the "absent referent": "Behind every meal of meat is an absence: the death of the animal whose place the meat takes. The 'absent referent' is that which separates the meat-eater from the animal and the animal from the end product. The function of the absent referent is to keep our 'meat' separated from any idea that she or he was once an animal ... to keep something from being seen as having been someone"[42].

In this way, then, the ways in which cultures 'talk about' animals both reflects and creates the reality of their lives, or their deaths as in the current case. It is also inextricably bound up with the idea that animals are products for us to consume. This is part

of a wider belief system which sees humans as the centre of the universe who are justifiably able to use any 'natural' resource as they see fit. These two discourses are clearly intertwined in modern attitudes towards the necessity and the 'right' to eat meat which must be readily and cheaply available for all, a feat which can only be accomplished through the mass production and slaughter of animals.

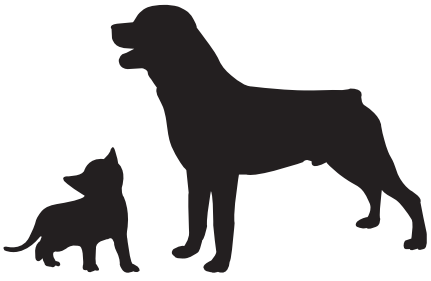
I have been arguing here that there are various cultural mechanisms in place which render meat-eating (and attendant animal killing) as normal, natural and "right", as well as being "a right" of humans. The deeply entrenched nature of these beliefs should not, however, suggest that there is no hope of changing them. As many scholars have noted, human attitudes towards animals are inherently ambivalent[43] and subject to change over time. We have not always, for instance, invited companion animals to share our homes and our hearths[44]. And, while we work very hard to maintain the "silence and denial"[45] surrounding the lives of animals destined to be food, we also go to great lengths to care for other species. At the same time that the various practices surrounding meat-eating occur, we live in a society where 63% of Australian households include a companion animal, 91% of people living with companion animals consider them to be 'family members' and the pet animal industry contributes approximately $4.74 billion annually to the economy (Australian Companion Animal Council, nd).

One strategy to encourage a move to plant based diets would be to begin identifying the ways in which we constitute some animals as meat and others as family.

COMPANION ANIMALS IN AUSTRALIA

63% of households include a companion animal

91% of people consider companion animal as family member



One strategy to encourage a move to plant based diets, then, might be to begin identifying the ways in which we constitute some animals as meat and others as family. Linked to this could be the encouragement of empathy for all animals, based on an increasing recognition of their complex emotional and social lives as is now being documented by various ethologists and biologists[46]. Another strategy would be to make visible intensive farming practices and to make sure that the public gaze is no longer averted from the reality of intensive farming and slaughtering techniques. Clearly documenting and demonstrating the "tremendous technological and ideological effort expended in maintaining the artifice of the subject-object boundary between 'companion' and 'farmed' animals demonstrates its precariousness and its susceptibility to dissolution under scrutiny"[47]

On the other side of the coin, meat consumption is normalised by processes which serve to render deviant those who choose not to consume it. One study assessed ways in which the British media portrays veganism. From a pool of approximately 400 articles which used the terms vegan, vegans and/or veganism throughout the calendar year 2007 the researchers coded the usage as 'positive', 'neutral' or 'negative.' They found that only 5.5% of the articles were 'positive,' while 74.3% were 'negative.' The researchers pointed out that the derogatory discourse they found fell into 6 broad categories:

1) ridiculing veganism,

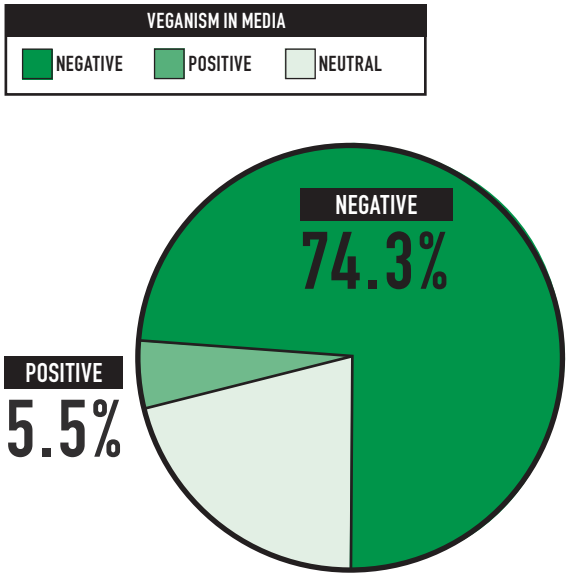
2) characterizing veganism as ascetism,

3) describing veganism as impossible to sustain,

4) describing it as a fad,

5) characterising vegans as oversensitive, and

6) as hostile[48].



The researchers conclude that such discourse "facilitates the continued normalisation of human violence on an unimaginable scale" by endorsing the idea that meat-eating is "natural" and that those who abstain are "freaks". Again, while such practices are widespread and speak to the deeply embedded idea that meat is natural and should be eaten by humans, illuminating the ways in which these social forces operate offers concrete suggestions regarding how to combat them. Campaigns which contradict the idea that meat-eating is normal, natural and right alongside those which show the benefits to alternative diets would go some way towards mitigating the cultural hegemony of meat-eating. Combine this with practical campaigns which offer consumers advice regarding the benefits to alternative diets as well as practical advice on how to eat well and we may begin to dismantle some of the forces at work which promote meat-eating as a superior choice.

This is no small endeavour, and involves tackling head on entrenched ideas and institutions. But, taken as part of an overall strategy which seeks to educate humans about the importance of their natural environment and includes a deconstruction of the belief that the environment is ours to use as we see fit then the evidence is clear that a significant reduction in animal farming and concomitant meat/dairy based diets will make one of, if not the, largest impact/contribution.

In closing it is worth noting that there are other advantages to the promotion of a meat free diet. A wholesale adoption of less, or no, meat based diets is something that everyone can do with relative simplicity. It is quicker than many other climate change solutions which often involve huge investments in infrastructure and research and development to reach their fruition, simply because no new technology is needed. It will also generally improve human health as well as the lives of countless billions of animals. Finally, there may also be unforeseen, "peripheral" benefits. Research is increasingly demonstrating that the work involved in slaughtering animals is damaging to the humans that are engaged in it and to the wider community at large. Anecdotal evidence suggests that there may be higher incidences of familial violence (as well as other crimes and social problems) amongst populations of meatworkers[49]. When researchers examined arrest rates across a number of communities comparing those where either a large animal-processing facility or a large-scale manufacturing plant (with similar sized workforce and demographic factors) was present they found increases in arrests for violent crime (including rape and other sex offences) were only observed in communities surrounding meat works. This led them to conclude that there is sufficient evidence to support the existence of the 'Sinclair Effect'—i.e., that the unique and violent nature of the work involved has a deleterious effect on employees[50].

Taken together then, we are seeing an emerging picture which suggests the importance of advocating a switch away from meat based diets to diets that are primarily, if not wholly, plant based. The relative ease of a move to plant-based diets and the fact that it is something within individual control are clear advantages as are the gains to human and animal health and welfare. Clear strategies can be surmised from a review of the available evidence and research in this area and must be two pronged: practical and discursive. At one and the same time we need to provide pragmatic information on how to adopt a plant based diet along with why this is necessary. This needs to go hand in hand with a deconstruction of the symbolism of meat and a wide ranging critique of the way it is culturally and institutionally normalised. Adopting one strategy without the other will only tackle the problem superficially and will be doomed to failure when there is a clear and urgent need for success.

FURTHER INFORMATION

The issues raised in the current chapter are the focus of increasing attention. It is impossible to outline all of the key research in this area, just as it is impossible to do justice to all of the arguments contained here, many of which are worthy of much more attention and detail. Because time and space do not allow me to give many of these issues the attention they deserve, I have compiled a list of suggested further reading/information sources below for those interested to learn more.

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CONTACT US

Web: www.WorldPreservationFoundation.org

Email: info@worldpreservation.org

Post: World Preservation Foundation, Strawberry House, Square Drive, GU27 3LW Haslemere

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