

**The Benefit of Regan's Doubt:
Moral Caution and the Ethics of Eating**

Invited Paper for Symposium and Festschrift Honoring Tom Regan's Work

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When our ignorance is so large, it is not unreasonable
to give these animals the benefit of the doubt . . .

~Tom Regan (1983, 367)

Tom Regan has developed a substantial and impressive case for the rights of animals.¹ He begins by considering ordinary, interpersonal morality—moral relations between or among human beings. In essence, he argues that according to the best account of our ordinary moral thinking, tested in the light of serious reflection, human beings have basic moral rights to be treated with respect. Respect is an abstract requirement. What it requires concretely needs to be worked out, but as a minimum condition, respect requires not treating other human beings in purely instrumental ways. Though there are many possible proper relations between and among people, treating someone *simply* or *solely* as an instrument, tool or resource, available for use, without consideration of her interests, projects or perspective, is barred. Using another simply as an instrument is failing to treat her with the respect she is due as a matter of right.

Regan calls the account just sketched *the rights view*, and since it provides the best interpretation of human morality, he seeks a deeper explanation for its prescriptions. Why, or in virtue of what, must human beings be treated with respect? Is there some feature of human beings that calls forth respectful treatment, or demands it, or makes it appropriate? Regan postulates that each of us possesses *equal inherent value*. To a certain extent, this is only a label for the solution, for whatever it is in virtue of which each of us is due respectful treatment. But

suppose that we do have equal inherent value. Inherent value plausibly requires respectful treatment, but there is still a need to identify empirically those beings with equal inherent value. Why do we have it, or what accounts for our having it? To provide an answer, we will need to identify some characteristic shared among human beings just as widely as we are confident that respectful treatment is required. Since the requirement includes at least normal adults, children, babies, the elderly, and those who are disabled or handicapped in various ways, we will want to identify a feature shared at least that widely.

Regan finds the explanation he seeks in the claim that we are all equally bearers of inherent value because we are all (equally) *subjects-of-a-life*, possessors of a morally significant suite of psychological properties:

Not only are we all in the world, we are all aware of the world and aware as well of what happens to us. Moreover, what happens to us—whether to our bodies, or our freedom, or our lives themselves—matters to us because it makes a difference to the quality and duration of our lives, as experienced by us, whether anybody else cares about this or not. Whatever our differences, these are our fundamental similarities. (Regan 2004, 50)²

Since many other animals³ are also subjects-of-a-life and also have lives that matter from their own first-personal perspectives, Regan draws the inevitable conclusion: they, too, are bearers of equal inherent value and have moral rights on the same basis we do. The best account of human morality and human rights, developed entirely with a view to making sense of human morality, turns out to bring rights for many other animals in its train.

Regan's argument is elegant and powerful, but it is also in an important way modest. He carefully limits his claims on behalf of animal rights to the clearest cases—to normal mammals at least a year old. This limitation makes good strategic sense. For such clear cases, it will be hard to sustain objections based on alleged deficits of animal minds. Additionally, it seems likely that many psychological barriers to acknowledging rights for animals cluster at the species boundary. Once the species barrier is breached, resistance regarding other animals will be more difficult.

But there are also questions about what to do now. Even if we take Regan's argument as settling how to treat most adult mammals, there are other animals, that are not adult mammals or even mammals at all, whose lot is hard to ignore for anyone sensitive to issues of animal use or suffering. What should we think of non-mammals that are used for food, such as chickens, turkeys, and fish, or of mammals such as veal calves or pigs who are almost always slaughtered before they reach a year in age? Regan is well aware that these animals are also treated in ways that cause them great harm and suffering and certainly does not approve of raising them for food or otherwise treating them in purely instrumental ways. But what response has he got to offer the determined critic?

In part, Regan's answer is that he has never held that being a subject-of-a-life is necessary for having inherent value, only that it is sufficient. He is explicit that some creatures might have inherent value and therefore rights on some other basis.⁴ By itself, however, the response that such animals might have inherent value on some basis other than being subjects-of-a-life is unsatisfying without a theoretical framework to distinguish those non-subjects-of-a-life that possess inherent value from other non-subjects that lack it, such as rocks or automobiles.

Regan's main response⁵ is not to provide an account of when non-subjects-of-a-life have inherent value but to appeal instead to our uncertainty about which animals *are* subjects-of-a-life and which are not. He maintains:

The reasons for viewing fish as subjects-of-a-life are so plausible, that I personally would rather err on the side of moral caution and give them the benefit of the doubt—which is why I think we should think and act *as if* fish have rights.” (Regan 2004, 102)

Of other non-mammals, Regan writes:

We simply do not know enough to justify dismissing . . . the idea that a frog, say, may be the subject-of-a-life, replete with desires, goals, beliefs, intentions, and the like. When our ignorance is so large, it is not unreasonable to give these animals the benefit of the doubt, treating them *as if* they are subjects, due our respectful treatment . . . (Regan 1983, 367)

Of very young human beings, he writes:

Precisely because it is unclear where we should draw the line between those humans who are, and those who are not, subjects-of-a-life . . . the rights view would advocate giving infants and viable human fetuses the benefit of the doubt, viewing them *as if* they are subjects-of-a-life, *as if* they have basic moral rights . . . (Regan 1983, 319–320)

Elsewhere, similar reasoning is applied to young, non-human animals:

[W]e ought to err on the side of caution, not only in the case of humans but also in the case of animals. . . . Because we do not know exactly where to draw the line, it is better

to give the benefit of the doubt to mammalian animals less than one year of age who have acquired the physical characteristics that underlie one's being a subject-of-a-life. (Regan 1983, 391)⁶

I think Regan's informal appeal to the benefit of the doubt can be fleshed out and made more compelling. What I shall do differs from his project, however. It is narrower in scope, because I shall focus on a single issue, the dietary use of animals.⁷ On another dimension, though, I aim to do more. Regan thinks that it is "not unreasonable" to extend the benefit of the doubt, and that it is better to do so. I shall be arguing that it is unreasonable *not* to do so.

In Section I, I argue that it's wrong to take a reasonable—that is, non-negligible and non-ignorable—chance of doing something seriously wrong. In Section II, I try to show there *is* just such a reasonable chance that meat-eating is seriously wrong. At the end, I draw the threads of both sections together into an argument that links a reasonable chance that meat-eating is seriously wrong to the conclusion that no more is needed to see that meat-eating is actually wrong.

I. The *Don't Take Chances* Principle

Consider a commonplace: If we don't think ethics is hopeless, we have to deal with uncertainty. Even though we can sometimes confidently rule out error, other cases remain controversial. If there are real obligations in such cases, then there are obligations to act, even in the face of uncertainty.

I think such obligations are real for two reasons. First, if we believed that uncertainty removed obligation, it would be difficult to explain the moral phenomenology, the felt urgency

to get things right. The appropriate response might then be relief that we could not at any rate be doing wrong. The second reason is practical: were we convinced that uncertainty removed obligation, we might be tempted to evade obligation by *inducing* uncertainty. (“Can you be certain that feeding starving children is a good thing?” Any philosopher worth her salt can produce half a dozen reasons it *might* not be.)

If there are such obligations, something can be morally required, even when we are less than certain of it. How uncertain may we be? That will be hard to pin down, but at least we are not talking about *trivial* chances. Virtually always there will be a trivial chance an act is wrong but also a trivial chance that its omission is wrong. Such trivial chances will cancel out and can reasonably be ignored. We are only interested in *serious* chances that some act or practice is morally required or morally prohibited—that is, we are interested in chances that cannot reasonably be ignored.⁸

We can attempt to formulate a principle to cover such cases in this way:

- (1) For someone, x , and some act, φ , if there is a reasonable (non-negligible, non-ignorable) chance that φ is seriously wrong, then x ought not do φ .

Principle (1) is not the universal formula,

- (2) For anyone, x , and any act, φ , if there is a reasonable (non-negligible, non-ignorable) chance that φ is seriously wrong, then x ought not do φ .

For there are possible cases in which there is *both* a reasonable chance that x ought to φ *and* a reasonable chance that x ought not to φ . If, for example, there is a reasonable chance we ought to impose capital punishment for first-degree murder and a reasonable chance we ought not, (2) would unacceptably imply that we ought to do both.

So, (2) needs to be revised to reflect only those cases where there is a reasonable chance that an action is morally wrong, but no reasonable chance that it is morally required. That is,

- (3) For anyone, x , and any act, φ , if there is a reasonable (non-negligible, non-ignorable) chance that φ is seriously wrong, and no reasonable chance that φ is morally required, then x ought not do φ .

Principle (3) seems plausible already, but its plausibility is reinforced by considering examples:

Consider a variant of a case presented by John Noonan.⁹ You are in the woods shooting at a target fifty yards away. Suddenly, there is a stirring of leaves near the target. There is a one in five chance it is caused by someone's movement, but a four in five chance that it's just the breeze. May you shoot anyway, knowing there's a one in five chance of injuring or killing someone? Surely not.

Consider negligence law. You can be held legally responsible for harm that befalls someone, not because you deliberately caused it, but for failing to take adequate precautions against causing it. Your responsibility extends beyond what you intend or foresee to what you should have considered or foreseen.¹⁰

Consider laws against driving while intoxicated. You may drink too much and weave

your way home without incident. You are prohibited from driving while intoxicated, not because you aim to hurt someone or will actually hurt someone, but because there is an unacceptable risk. Taking the risk is wrong, not just causing the harm.

These suggest something like (3) above, the *Don't Take Chances* principle: When there's an alternative, then, if there is a reasonable chance an action is seriously wrong, it is also wrong to take the chance.¹¹

II. A Reasonable Chance that Meat-Eating is Seriously Wrong

I believe the moral case for vegetarianism is compelling. My concern, however, is not to establish that. I aim only to establish that there is a reasonable chance that eating meat is wrong.¹² To that end, I shall present five separate arguments for the conclusion that eating meat is seriously wrong.

The Environmental Argument

Animal agriculture for purposes of food production is implicated in a host of environmental problems, beginning with global warming. A recent analysis found that “livestock and their byproducts actually account for *at least* 32,564 million tons of CO₂ [equivalent] per year, or 51 percent of annual worldwide [greenhouse gas] emissions.”¹³ The United Nations report, *Livestock's Long Shadow*, found animal agriculture to be a major contributor to many other environmental problems as well, arguing that

the livestock sector is a major stressor on many ecosystems and on the planet as a whole. Globally it is one of the largest sources of greenhouse gases and one of

the leading causal factors in the loss of biodiversity, while in developed and emerging countries it is perhaps the leading source of water pollution. (Steinfeld et al. 2006, 267)

Animal agriculture also has a significant role in the creation and transmission of disease. There is strong evidence, for example, that swine flu originated in factory-farmed pigs. According to Brandon Keim, “Scientists have traced the genetic lineage of the new H1N1 swine flu to a strain that emerged in 1998 in U.S. factory farms. . . . Experts warned then that a pocket of the virus would someday evolve to infect humans, perhaps setting off a global pandemic.” (Keim 2009) Indirectly, matters may be even more frightening. Livestock on factory farms are routinely given antibiotics to promote growth and prevent disease. A predictable effect is the breeding of super-germs—germs that are resistant to antibiotics because their survival in factory farms depends upon such resistance. Their antibiotic-resistance is worrisome because the antibiotics fed to the animals are also used for human ailments. We are making a practice, if not a policy, of breeding disease-strains that can resist the best treatments we have.¹⁴ Kellogg Schwab, director of the Johns Hopkins Center for Water and Health, worries:

This development of drug resistance scares the hell out of me. If we continue on and we lose the ability to fight these microorganisms, a robust, healthy individual has a chance of dying, where before we would be able to prevent that death. . . .

It's not appreciated until it's your mother, or your son, or you, trying to fight off an infection that will not go away because the last mechanism to fight it has been usurped by someone putting it into a pig or a chicken. (Keiger 2009)

Such issues are among the reasons the American Public Health Association has called for a

moratorium on new factory farms.¹⁵

Other recent research links infant mortality and animal agriculture:

Stacy Sneeringer [has] documented the impact of CAFOs [Concentrated Animal Feeding Operations] on infant mortality. . . . Sneeringer looked at a 15-year period between 1982 and 1997, analyzing [U.S.] data on a county level for the number of CAFOs and animal units. Controlling for a host of variables, she found that changes in animal units directly compared to changes in infant mortality. [For every] 100,000 animal increase in a county, there were 123 more infant deaths under the age of one per 100,000 births and 100 more infant deaths under the age of 28 days per 100,000 births. As well, the research suggests that a doubling of animal production induces a 7.4 percent increase in infant mortality.¹⁶

It is widely agreed that we have a responsibility to take steps to avoid or reduce environmental harm and risks to public health. We are urged to recycle, to use renewable energy, to reduce our carbon footprints, to prefer public transportation over private automobiles, to replace older cars with fuel-efficient hybrids, to consume locally grown foods and more. All of these seem like sensible measures, and it is reasonable to think consumers have a responsibility to take such steps, especially when changes can be made with little trouble or expense.

But an anomaly infects our environmental conscientiousness. One of the most important ways consumers harm the environment is through consumption of meat and other animal products. Our diets make as much difference as our cars.¹⁷ If we ought to take reasonable

measures to protect the environment, we ought to avoid eating meat.¹⁸

The Hunger Argument

Forty years ago, Frances Moore Lappé made the case that animal agriculture almost literally takes food from the starving.¹⁹ It is more efficient—about eight times more efficient—to feed people by growing plants for human consumption rather than by growing them for consumption by animals to be fed in turn to people.²⁰ As James Rachels puts it:

What reason is there to waste this incredible amount of food? Why raise and eat animals, instead of eating a portion of the grain [that we feed to animals] ourselves and using the rest to relieve hunger? The meat we eat is no more nourishing than the grain the animals are fed. The only reason for preferring to eat meat is our enjoyment of its taste; but this is hardly a sufficient reason for wasting food that is desperately needed by people who are starving. It is as if one were to say to a hungry child: “I have eight times the food I need, but I can't let you have any of it, because I am going to use it all to make myself something really tasty.”
(Rachels 1977, 185)

The argument is simple. Hundreds of millions live on the edge of starvation, and thousands die every day. There are two issues here. One is that without spending more, we could feed most or all of the world's hungry—if we changed our diets. The other is that a significant part of the world's hunger is indirectly due to affluent consumers outbidding the poor for grain in order to feed the animals that the affluent choose to eat. As long as people are going without food, we should not be contributing to conditions that make it less available to the

poorest of the poor.²¹

The Health Argument

There is mounting evidence that vegetarians are healthier, live longer and are less subject to numerous diseases than non-vegetarians.²² According to the American Dietetic Association, [A]ppropriately planned vegetarian diets, including total vegetarian or vegan diets, are healthful, nutritionally adequate, and may provide health benefits in the prevention and treatment of certain diseases. Well-planned vegetarian diets are appropriate for individuals during all stages of the life cycle. (Craig and Mangels 2009, 1266)

Summarizing numerous studies, Gary Fraser reports that

There is convincing evidence that vegetarians have lower rates of coronary heart disease . . . probable lower rates of hypertension and diabetes mellitus, and lower prevalence of obesity. Overall, their cancer rates appear to be moderately lower than others living in the same communities, and life expectancy appears to be greater. (Fraser 2009)

Health-based arguments are primarily appeals to self-interest, but not entirely. It is better for me if I am healthy, but also, the healthier I am, the more I can contribute to my community and the less strain I will put on health care resources and public health budgets.²³ Whatever reason there is to look out for one's health, contribute to the community and avoid imposing unnecessary burdens on others is also a reason to avoid consuming meat.²⁴

The No Big Difference Argument

This argument is a variant of *the argument from marginal cases*.²⁵ Applied to the current issue, the idea is that if it is morally permissible to eat all other animals but not to eat human beings, there must be a *Big Difference* between humans and other animals. The problem comes in trying to explain what the Big Difference is.

A Big Difference would need to be based on some morally significant property had by all human beings²⁶ but not by any other animals, but credible candidates are scarce. Identifying *some property or other* that we, but no other animals, have, such as being members of a species that builds skyscrapers, is not enough. To make the Big Difference, the property identified must also be morally important. Skyscraper-building doesn't fit the bill since we don't imagine the ethics of eating would be different if we were not skyscraper-builders. Popular suggestions such as rationality or language turn out to be possessed by some animals, not possessed by all humans, or both. Others, such as the capacity to feel pleasure or pain, though nearly universal among human beings, are also nearly universal among other animals. But without a plausible property, it is not plausible that there is a Big Difference. And without a Big Difference, it is no more acceptable to raise and kill animals for food than to do the same to human beings.²⁷

The Unnecessary Harm Argument

In raising and killing animals for food, we cause them great harm. The overwhelming majority of animals raised for food production are raised in horrific conditions on factory farms. But even those food animals fortunate enough not to be subjected to factory farms, though they may have it better, often do not have it a great deal better. Michael Pollan, describing chickens

raised at one facility, writes:

Compared to conventional chickens, I was told, these organic birds have it pretty good:

They get a few more square inches of living space per bird (though it was hard to see how they could be packed together much more tightly), and because there were no hormones or antibiotics in their feed to accelerate growth, they get to live a few days longer.

Though under the circumstances it's not clear that a longer life is necessarily a boon.

(Pollan 2006, 172)

In addition, though animals who are not intensively farmed are sometimes treated better during their lives, they are nonetheless seriously harmed in having their lives cut short, and are treated almost identically at the point of slaughter. Indeed, it would be difficult to see how pain or suffering during farmed animals' lives could be a serious harm (and therefore could constitute a reason against its infliction) if early and violent deaths would not also be serious harms.²⁸

For animals intensively raised on factory farms—the overwhelming majority of those we eat—the story is much worse. They are badly treated at every stage of the process that brings them to our tables. Raised in crowded, filthy facilities, they are genetically manipulated and given growth hormones to rush them quickly to market and make room for their replacements. They are heavily dosed with drugs to stave off illness spawned by crowding and filth. Confined in tiny spaces, with little chance to move freely or turn around, unable to establish natural social relations among themselves, with little or no access to fresh air, sunlight or open spaces, they are crammed together with thousands of others, equally unfortunate. Then they are transported, without food or water, sometimes for hundreds of miles in extremes of heat and cold, to slaughterhouses, where their short, miserable lives are brought to a violent end.²⁹

A principle that most people accept when they think about it is this: It is wrong to cause serious harm, such as suffering and death, unnecessarily. This kind of necessity isn't easy to spell out, but the basic idea is that harm is caused unnecessarily when there is not a good enough reason for causing it. The dentist causes suffering, but for a good enough reason, to protect dental health. The sadist causes suffering, but without a good enough reason—deriving entertainment from another's suffering is not enough. In general, we think that causing harm is only justified when there is a good enough reason, and the greater the harm, the weightier the reason needs to be. Without a good enough reason, the harm is unnecessary.

A plausible minimum condition is that it is unnecessary to cause suffering and death when we could live just as well without it. When that minimum condition is combined with the facts that eating meat causes suffering and death and that we could live just as well—perhaps better and longer—without causing such harm, the conclusions seem inevitable: Eating meat causes suffering and death unnecessarily, and since it's wrong to cause unnecessary harm, it is wrong to eat meat.³⁰

A Chance Not Reasonably to be Ignored

I have sketched five independent arguments that meat-eating is wrong—the environmental, hunger, health, no big difference and unnecessary harm arguments. One of these arguments might be sound and the rest unsound. Or one might be unsound and the rest sound. At the extremes, every one of these arguments might be unsound or every one might be sound.³¹ Of course, these are only sketches and might be challenged in several ways. But also, the challenges might be met. If any one or any combination of the arguments is sound, then meat-

eating is wrong. My point, however, has not been to *establish* that meat-eating *is* wrong; just that there is a *reasonable chance* that it is.

Remember that a reasonable chance is not just a favorable balance of probabilities. There can be a reasonable chance of something which will probably not happen. You take a serious risk and a reasonable chance—one that cannot reasonably or responsibly be ignored—of injuring someone if you drive intoxicated, even if you will probably reach home without incident. But if there can still be a chance that cannot reasonably be ignored of something improbable, how can we proceed? For the present, I shall simply *stipulate* a chance of 25% or greater as a target. Later, I shall try to show what conclusions we can defend if the chance that meat-eating is wrong is 25% or greater.

Do the arguments presented in section II collectively establish that there is at least a 25% chance that meat-eating is wrong? Consider that the arguments were selected for their plausibility. I have offered only sketches, but the arguments they represent have persuaded many reasonable and intelligent people. They do not rely upon doubtful or controversial assumptions. The environmental, hunger and health arguments are all rooted in solid, peer-reviewed science. The marginal cases and unnecessary harm arguments have been extensively debated in peer-reviewed philosophical literature. All of these arguments assume moral premises, but nothing radical or controversial.

None has proven easy to counter. My impression, based on a review of the relevant philosophical and ethical literature, is that defenders of ethical vegetarianism are winning the debate among philosophers—which is significant since most American philosophers, like most American non-philosophers, are themselves meat-eaters.³² If the better arguments favored meat-

eating, one might expect proponents of vegetarianism to be overwhelmed by meat-eaters' responses.

These facts suggest that each argument has a significant chance of being sound and certainly not less than a 25% chance. I myself would assign probabilities above 25% to each, but I shall not insist upon it. If only a single argument established a 25% chance that meat-eating is wrong, the threshold would be met: There would be at least a 25% chance that meat-eating is wrong.

But less would also suffice. Suppose each argument has only a 10% chance of being sound and a 90% chance of being unsound. Still, there are five arguments. The chance that at least one is sound would be about 41%.³³ The threshold would still be met.³⁴

Consider a further issue. I have been arguing that there is a substantial chance—25% or greater—that meat-eating is wrong. The *Don't Take Chances* principle introduced earlier was framed in terms of reasonable (non-ignorable) chances that some act was *seriously* wrong. Are the five arguments I have been presenting arguments that meat-eating is not only wrong but seriously wrong?

I think so. Each argument against meat-eating implicitly compares it to other instances of wrong-doing. If an argument is sound, meat-eating will be about as seriously wrong as what it is compared to. But on most, it is being compared to quite serious wrongs. Let us consider them briefly.

If the environmental argument is sound, refusal to change one's diet is contributing to a large range of extremely serious environmental problems when substantially reducing one's contribution can be done with little cost or difficulty.³⁵ If the hunger argument is correct, meat-

eating is about as bad as—because it is equivalent to—depriving starving people of food we could give them for free. Surely, that’s unconscionable. If the health argument is sound, eating meat is not only bad for oneself but unfairly burdens others. If the *No Big Difference* argument is sound, then eating meat is comparable to cannibalism. And if the unnecessary harm argument is sound, then enormous pain, suffering and death is caused unnecessarily by meat-eating. If any one of these arguments succeeds in establishing its conclusion, meat-eating is not only wrong but seriously wrong.

So, not only is there a substantial chance—25% or more—that meat-eating is wrong, but there is a substantial chance that it is *seriously* wrong.

The Basic Argument

We are now in a position to state the basic argument of this paper.

1. If there is a reasonable (non-negligible, non-ignorable) chance that an action *A* is seriously wrong and no reasonable chance that *A* is morally required, then we ought not do *A*.
2. There is a reasonable chance that eating meat is seriously wrong.
3. There is no reasonable chance that eating meat is morally required.
4. Therefore, we ought not eat meat.

Plainly, this argument is valid, so its conclusion is true if all the premises are true. The first premise is just an instance of the *Don’t Take Chances* principle. The third premise is established by common consent: there is no respectable case that eating meat is morally required.³⁶

The most vulnerable premise is the second, so long as it is vague what counts as a reasonable (non-negligible, non-ignorable) chance. Even if I established at least a 25% chance

that meat-eating is seriously wrong, I have not established that a 25% chance is reasonable in the sense that a 25% chance of doing something seriously wrong cannot reasonably be ignored.

I do not think this gap should be difficult to bridge. A 25% chance is one chance in four. Consider any paradigm of an action seriously wrong, such as killing, maiming, disfiguring or disabling an innocent person. One chance in four of producing such a result is far too large to be reasonably ignored. As illustrated earlier in introducing the *Don't Take Chances* principle, much smaller chances than that are commonly thought sufficient to forbid intoxicated driving. One chance in four of doing something seriously wrong is not a chance that can reasonably be ignored.

III: Conclusion

What we have been developing is a valid argument for the wrongness of meat-eating. Moreover, it is an argument that works, even if it is less than certain that it is seriously wrong to eat meat or less than certain that all the animals commonly used for food are subjects-of-a-life. It provides a kind of vindication for Regan's intuition that certainty is not needed in a case like this. Since the argument proceeds from *very plausible* premises, it is hard to resist. Those who try face a burden of proof. They need to show that there is not even a reasonable (non-ignorable) chance that meat-eating is seriously wrong or else that it is not wrong, other things being equal, to take a reasonable chance of doing something seriously wrong. Unless that burden of proof is discharged, the animals deserve the benefit of the doubt.

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¹ See Regan 1983 and 2004 for representative presentations.

² Superficially, Regan's account in *The Case for Animal Rights* is more complex, but the differences are unimportant for present purposes. See Regan 1983.

³ Hereafter, I will abbreviate by referring only to *animals*, rather than to *non-human* (or *other*) *animals*.

⁴ "[T]he rights view advances the subject-of-a-life criterion as a sufficient, not a necessary, condition for possessing inherent value and, by implication, basic moral rights" (Regan 1983, 319).

⁵Regan also suggests that some animals lacking the complex psychology of subjects-of-a-life might deserve a lesser degree of protection:

It may be that animals, for example—which, though conscious and sentient . . . lack the ability to remember, to act purposively, or to have desires or form beliefs—can only properly be viewed as receptacles of what has intrinsic value, lacking any value in their own right. (Regan 1983, 246)

Even if they are only receptacles of intrinsic value, we may have responsibilities to avoid unnecessarily causing them pain, to improve their quality of life, so far as it is in our power, and so on.

⁶See also the surrounding context (Regan 1983, 390–392).

⁷I shall be referring to meat-eating and vegetarianism, but my arguments or readily constructible analogues may well support the adoption of vegan rather than vegetarian diets. In addition, if my arguments are correct, they may readily be adapted to other issues.

⁸Moral requirement and moral prohibition, considered on a sufficiently abstract level, are of course equivalent. If action *A* is required, then its omission is prohibited; similarly, if *A* is prohibited, its omission is required. I shall generally speak of what is *morally prohibited*, *wrong*, or *ought not be done*.

⁹Noonan 1970.

¹⁰The point of the example of negligence law is to illustrate a context in which there are normative (and I would argue, ultimately moral) objections to taking certain kinds of chances, even if no actual harm is done. The point is not to try to claim a parallel in all respects between “moral negligence” and legal negligence.

¹¹I take this formulation to be approximately equivalent to (3).

¹²When I speak of meat-eating being wrong, I mean *wrong for nearly everyone in circumstances like ours*—i.e., with ready access to alternatives.

¹³Goodland and Anhang 2009, 10-19. See also Russell 2009 and Tidwell 2009.

¹⁴Mason and Mendoza 2009.

¹⁵American Public Health Association 2003.

¹⁶Niles 2008, citing Sneeringer 2009.

¹⁷See Eshel and Martin 2006.

¹⁸See Tidwell 2009 and Bittman 2008. An older paper, connecting vegetarianism to more general environmental concerns is Wenz 1984.

¹⁹Lappé 1985.

²⁰The animals use the bulk of their food for movement, respiration, metabolism and building inedible parts, such as hide, bone and hooves. See Matheny 2003, especially 506-507, for detailed accounting of how animal agriculture compares in land use to growing crops for

human consumption.

²¹See Rachels 1977, Lappé 1985 and Engel 2004.

²²See the extensive discussion in Campbell and Campbell 2005. Also see Singh, Sabate, and Fraser 2003, which finds that vegetarian diet increases life expectancy even in an otherwise healthier-than-average population, with the greatest increases in life expectancy being associated with longer-term (≥ 20 years) vegetarianism.

²³See Barnard, Nicholson, and Howard 1995.

²⁴Numerous sources detail evidence for the positive effects of well-planned vegetarian or vegan diets upon health and for the corresponding negative effects of meat-centered diets. Among these are Campbell and Campbell 2005, Barnard, Nicholson, and Howard 1995, Craig and Mangels 2009, Fraser 1999, Fraser and Shavlik 2001, and Sabate 2003. For the most part, these arguments are framed in prudential terms. (A partial exception is Garrett 2007.) The argument sketched in the text has not received as much attention, that insofar as the prudential arguments are cogent, there are also moral reasons, which are not purely prudential, for adopting and adhering to a vegetarian diet.

²⁵For excellent surveys, see Dombrowski 1997 and Pluhar 1995, 1-123.

²⁶We may need to limit *all human beings* to exclude, for example, early fetuses or the permanently comatose. I shall not try for complete precision, but it is important that the phrase

be interpreted to include at least all the human beings that it would *uncontroversially* be wrong to eat—which surely includes babies, the handicapped, the senile, and Alzheimer’s victims.

²⁷Different theorists who endorse the argument from marginal cases take it in somewhat different directions, but almost all agree that it has important implications for dietary choices. See Singer 1975 and 1980, Regan 1983 and 2004, and Rowlands 2000 and 2002.

²⁸See Harman 2012.

²⁹Documentation of the typical treatment of food animals is widely available. Good recent surveys can be found in Singer and Mason 2006, Foer 2009, Carlin and Martin, et al. 2008, and Matheny and Leahy 2007. For what goes on in slaughterhouses, there is nothing to compare to Eisnitz 1997.

³⁰See Engel 2000 and DeGrazia 2005.

³¹There are 32 permutations ($2^5 = 32$). In 31, at least one of the arguments is sound.

³²At least, most philosophers start out as meat-eaters prior to encountering the arguments for ethical vegetarianism. A significant portion change their practice after encountering the arguments.

³³The chance that all are wrong is 90% raised to the fifth power, or about 59%—yielding nearly a 41% chance that at least one is right. This assumes probabilistic independence of the arguments. See also note 34.

³⁴When would the threshold *not* be met? For there to be less than a 25% chance that it is wrong to eat meat, so far as these arguments go, there must be a greater than 75% chance that *all* the arguments are wrong. The fifth root of 75% is about 94.4%, so, unless each of these arguments has less than about a 5.6% chance of being right, the threshold will be met. I have assumed probabilistic independence, but even if the arguments are only partially independent, it remains true that a 25% threshold can be reached, even if none of the separate arguments has as much as a 25% chance of being correct by itself.

³⁵A recent study conducted by Joan Sabate and Samuel Soret found that “Vegans’ GHG [Green-House Gas] emissions . . . were 41.7% lower than non-vegetarians.” (Watson 2013)

³⁶Most philosophers who have disagreed with moral vegetarianism have argued only that it is not wrong, or not clear that it is wrong, to eat meat rather than that it is wrong not do so. See, e.g., Li 2002. In 1980, Callicott argued that universal vegetarianism would be ecologically disastrous and therefore wrong (Callicott 1980, 335-336), but has since changed his mind (Callicott n.d.). Occasionally, one comes across health-based objections, such as Planck 2007. For a more balanced perspective, see Hoyt 2007. Those who reject the official position of the American Dietetic Association, North America’s largest organization of nutrition professionals, are unlikely to be persuaded by anything I could add. See Craig and Mangels 2009.