

ARTICLES

Can Vegans Eat Dessert?

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Abstract

Vegans face a problem, at least if they base their arguments upon principles against causing harm. As Donald Bruckner (2020) has pointed out, these same principles risk ruling out a great many other practices – even eating dessert. Eating dessert risks being impermissible because of the crop deaths associated with agricultural practices, especially the use of insecticides and rodenticides. I suggest that the extent to which this problem emerges depends on the exact principle vegans appeal to. Under some principles against causing harm, the problem indeed stands. I suggest that the vegan has a couple of options for escaping this problem. She might appeal to a principle that doesn't have such implications. Alternatively, she might simply bite the bullet and accept that morality really is much more demanding here than we might have thought. I'll give some reasons why biting this bullet isn't as bad an option as one might suppose.

Keywords: Vegetarianism; moral status of animals; agricultural ethics; veganism; moral demandingness

1 Introduction

Vegans face a problem. One of the best arguments for veganism is that buying and consuming factory farm products makes significant causal contributions towards harming animals (see Engel 2000; Norcross 2004; Huemer 2017).¹ Such arguments are particularly compelling because they rely on commonsensical principles and intuitions against causing harm.² But here's the problem. Harm-based arguments for veganism seem to imply that you should give up all crop-inefficient foods – all foods besides those ones that could meet our caloric and nutritional needs while taking a minimal amount of

¹There might be some exceptions to this general rule. For example, maybe buying peanuts flavored with trace amounts of dairy from factory farms doesn't make a significant causal contribution to harming animals.

²I'll ignore other sorts of arguments for veganism here, such as complicity-based arguments (see Hudson 1993; DeGrazia 2009; Driver 2015). Nevertheless, the same sort of problem that I'll bring up for harm-based arguments will likely carry over to many of these other arguments. As an aside, I suspect that harm-based arguments for veganism have better chances than many other arguments at overcoming such problems.

space to grow.³ This is due to the suffering created by common agricultural practices, especially the use of pesticides. To be consistent, vegans might have to give up eating dessert (see Bruckner 2020). The same arguments also seem to imply that you should engage in scavenging much of the time instead of purchasing food. Call this the Suboptimal Diet Problem.

The Suboptimal Diet Problem is so-called because it's about the implication that those with a suboptimal diet – with suboptimality understood here in terms of the crop efficiency of that diet – are acting impermissibly. It's a problem because this seems like an unintuitive and overly demanding implication of harm-based defenses of veganism. I'll argue that, against initial appearance, harm-based arguments for veganism do not necessarily give rise to the Suboptimal Diet Problem. Whether they do depends on how we parse out the basic moral principle that underlies these arguments.

If, like Bruckner (2020, 351), we interpret the principle as an obligation to minimize harm, then the Suboptimal Diet Problem indeed strikes. But there are other ways of interpreting the relevant principle. One interpretation, the “disproportionate suffering principle,” says that we must not perform actions that cause a great deal of pain and suffering without any proportional benefit. While initially promising, I conclude that this principle still gives rise to the Suboptimal Diet Problem and that various attempts to ward off this implication fail.

As I'll suggest, vegans are left with two options. First, they might simply bite the bullet and accept an obligation to avoid crop-inefficient foods, demandingness objections notwithstanding. This option is not as terrible as you might suppose. Alternatively, they might adopt a principle that it's wrong to inflict a great deal of pain and suffering on others just for the sake of getting *extremely* relatively minor benefits for yourself. This principle condemns eating meat without condemning the consumption of crop-inefficient foods. Thus, the Suboptimal Diet Problem can be averted.

2 Field deaths, harm-based arguments for veganism, and harm minimization

As Bruckner (2020, 350) notes, “one of the most common and convincing arguments” against eating factory farm products has to do with the “harm footprint” consumers of such products create. In other words, veganism seems justifiable as a way of avoiding causally contributing to harm to animals. Bruckner (2020, 351) focuses on a particular variation of this argument, which goes as follows:

Suppose we have a practice P1 that produces massive harm to animals, the environment, and humans. Suppose that the harm that comes from P1 is unnecessary in the sense that another practice P2, which is a suitable alternative to P1, is available and produces less total harm. . . . [In this case,] participation in or support of P1 is morally impermissible.

Bruckner calls this the “harm minimization argument.” This principle might seem plausible on the face of things. After all, factory farm products do massive harm to animals, and there are many suitable alternatives to these products.

³I'll use the amount of space it takes to grow a crop as a rough heuristic for tracking the amount of harm done by that crop. Other factors might also play a part. For example, some crops require more pesticide use per acre than others. All other things being equal, however, we can expect more space to entail more harm.

Let's take chickens as a case study. Broiler chickens live for about six weeks before they're killed (Norwood and Lusk 2011, 128). That's 60,480 minutes. Their welfare during this time is probably quite negative. There are a couple reasons to curb our estimate of the total suffering that we make chickens go through, but they won't make a big difference. First, chickens might have lesser welfare capacities. Duffy and others (2024) recently completed a large study that surveyed the literature for features of various animals that are likely to correspond with welfare capacities. After combining various methods of aggregating the data that they found into a "Mixture Model," the results are that chickens seem to have a welfare range of at least 1/33rd that of humans (Duffy and others 2024, 233).⁴ This is obviously a very rough figure, but it looks like the best guess currently available. So our discounted figure is the equivalent of 1,832 minutes of human suffering.

We should also curb our estimated welfare impact to reflect inefficiencies in giving up meat. Due to market factors like elasticity in supply and demand, giving up eating chicken only leads to an average production decrease of 0.76 pounds less chicken produced per one pound of chicken given up (Norwood and Lusk 2011, 223). So we can bring our estimated impact down to about 1,392 minutes. We can cut this figure down once more, this time by a third, to account for time spent sleeping. Then we get 928 minutes, or about 15.5 hours. 15.5 hours of suffering per chicken eaten qualifies as a massive amount of harm.⁵

The harm minimization argument is also discussed by Davis (2003), who calls it the "minimize harm principle." Davis (2003, 388) writes of his childhood on a farm, "I remembered riding on farm equipment and seeing mice, gophers, and pheasants in the field that were injured or killed every time we worked the fields." Field deaths also include the animals that are killed by pesticides, such as the "2.7 million birds [that] are killed by pesticides each year in Canada" alone (Fischer and Lamey 2018, 5). Regarding these general sorts of concerns, it might seem reasonable to think that although causing harm is sometimes necessary to survive, we are morally obligated to minimize it.

Bruckner (2020, 354–360) notices, however, that a great many of our practices don't minimize harm to animals. For example, whenever we eat something other than the most basic, efficient crops in meeting our caloric and nutritional needs, we are not

⁴This figure is based on the fifth percentile of the mixture model. The mean of the mixture model is 10% higher.

⁵Due to space restrictions, I simply assume in this paper that some form of the threshold argument succeeds against causal inefficacy objections to veganism. For recent defenses of the threshold argument, see Halteman and McMullen (2019) and Isaacs et al. (2024). Halteman and McMullen (2019, 13), for example, contend that it's still reasonable to believe that "if there is some probability (1/n) that any given purchase will occur on a threshold, then the threshold action will trigger a reduction in production of around n units, yielding an expected impact equal to 1 Correspondingly, there will be a close to 1-to-1 relationship between the purchase of a chicken and the expected impact on production." Importantly, however, even if newer formulations of the threshold argument imply that we have less causal impact on food supply chains than traditional threshold arguments did, it seems reasonable—at least *prima facie*—to assume that these considerations will apply equally to agriculture and factory farming. Therefore, as long as some form of the traditional threshold argument succeeds, my arguments about the difference between harm caused by consuming factory farm products and harm caused by consuming crop-inefficient foods should remain unaffected.

opting for the minimization of harm to animals. This is because inefficiencies in even a plant-based diet will result in more agricultural field deaths (see Davis 2003; Fischer and Lamey 2018). As a result, Bruckner (2020, 360) writes,

It is also unnecessarily harmful to eat any food other than mostly raw freegan or vegan food that provides necessary sustenance but without unnecessary embellishments such as oil, sugar, salt, spices, and herbs, all of which require environmental resources to produce. By the same reasoning, eating dessert is forbidden by morality.

Drinking alcohol, Bruckner thinks, would be impermissible for similar reasons. After all, “the production of alcoholic beverages globally requires about 54 million acres of cropland just to grow the grains and grapes used in alcohol production” (2020, 258).

What Bruckner seems to be getting at is this. There is probably some set of crops that can most efficiently produce the calories and nutrients that we need with the least amount of space. The harm minimization principle seems to imply that we should figure out what these crops are and consume only these crops (and no more than we need). I’ll call such a diet “crop-efficient.” The harm minimization argument might also imply that we should dumpster dive for meat (and other foods), eat roadkill, or eat the occasional large, pasture-roaming herbivore (see Davis 2002; Bruckner 2015). But you get the general idea: to be minimally harmful, our diet ought to be simple and maximally efficient. And that means no dessert, spices, alcohol, or extra helpings. In other words, according to the harm minimization argument, we should forgo what I’ll call “crop-inefficient foods,” which are all plant-based foods that fall outside of a crop-efficient diet.⁶

Before moving on, I’d like to note a general problem with the harm-minimization principle. Notice that the harm-minimization principle restricts any “action that produces massive harm to animals, the environment, and humans” when there “is a suitable alternative” that produces less harm (Bruckner 2020, 351–356). Suppose that there are two practices that produce harm to animals. Practice P1 produces fifty units of harm to animals for a hundred units of human benefit. Suppose, further, that for some practice P2 to count as a “suitable alternative” to P1, it must meet some bare minimum requirement of producing, say, forty units of human benefit. As it turns out, P2 produces forty-nine units of harm to animals for exactly forty units of human benefit. At least *prima facie*, P1 seems like a better choice than P2. While it produces a little more harm, it also produces a great deal more benefit. This suggests that the harm-minimization principle risks ruling out too much.⁷ We should look for a different principle, one that also gives a commonsensical harm-based argument for veganism, but one that doesn’t rule out any practice that produces more harm than alternative practices.

⁶In fact, Bruckner thinks that a great many other things would also be unacceptable: traveling, having children, keeping pets, and so on. These other practices also warrant attention. I focus only on eating practices for two reasons. First, space permits a sufficiently detailed discussion of only one such practice at a time, due to the variety in moral factors and harm-causing processes involved with each practice. Second, other eating practices (like having dessert) will be the most straightforwardly analogous practice to eating meat or other factory farm products, so it seems like a good place to start. Hopefully, my response to Bruckner regarding these food practices will provide a basic model for how one might take up other practices, such as traveling.

⁷Compare Weber (2025).

3 An alternative argument

3.1 The disproportionate suffering principle

Here's a principle that seems to fare better. As Michael Huemer writes, it's wrong to "inflict a great deal of pain and suffering on others, just for the sake of getting relatively minor benefits for yourself" (2017, 26). Let's call this the "disproportionate suffering principle" (DSP), since the principle restricts actions that cause a great deal of pain and suffering without any proportional benefit.

This argument renders the conclusion that it's wrong to buy factory farm products (at least food products). The enjoyment people get from products from factory farms is an extremely minor benefit relative to the terribleness of the effects of factory farming (see Engel 2000; Norcross 2004; Huemer 2017; Singer 2023). Recall that, after discounting, broiler chickens suffer an average of around 15.5 hours. Clearly, chickens don't produce this much pleasure for those who eat them. Eating a meal provides, on average, somewhere around twenty minutes of gustatory pleasure. Presumably, the meat in that meal doesn't contribute all that pleasure. But let's assume that eating a dish containing meat makes the meal 25% more pleasant. So we're assuming that meat provides the equivalent of an extra five minutes of pleasure compared to eating a vegan meal. Even if one chicken could provide the basis of four meals, this would equal around a mere twenty minutes of gustatory pleasure. Given our assumptions, eating a factory-farmed chicken produces serious pain and suffering for a benefit whose magnitude is a mere 2% of that suffering. This is all assuming, by the way, that the average minute of a broiler chicken's suffering is no worse (compared to a welfare state of zero) than a minute of enjoying that chicken is nice for a person (compared to eating, say, Impossible® Chicken). Clearly, then, this practice is ruled out by the DSP. Similar considerations will presumably hold for other factory farm products.⁸

But what do these arguments have to say about crop-inefficient foods? To see, we first need some general data about crop efficiency and field deaths to work with. First, we ought to consider just how much more efficient a crop-efficient meal might be when compared to a crop-inefficient meal. Let's first consider an example involving a crop-efficient food (rice). Rice yields 14 million calories per acre (Smith 2023). But humans can't live on rice alone, however efficient it would be to do so. Humans need to eat a variety of foods that supply calcium, vitamin D, fatty acids, iron, protein, and vitamin B₁₂ (Tuso et al. 2013, 63–64). Soy seems to be a crop-efficient crop, yielding 8 million calories per acre, at least relative to the variety of nutrients it contains (or its derivatives contain), such as iron, calcium, and protein (see Schnitkey et al. 2022, 2). Leafy greens are a far less efficient crop calorically, with spinach yielding around just 1 million calories per acre (Smith 2023). Nevertheless, they are still an important part of a healthy diet (see Yan 2013). Walnuts and tomatoes also seem to be relatively crop-efficient sources of important nutrients, yielding around 10 and 7.5 million calories per acre, respectively (Smith 2023). Let's imagine our crop-efficient, 500-calorie meal as containing (calorically) equal parts rice, walnuts, tomatoes, and soybeans, in addition to around ten calories' worth of leafy greens. The result is a meal with an efficiency of a little under 10 million calories per acre, taking only 0.00005 acres to grow.

Now let's consider a simple vegan mousse with a glass of wine as an example of a crop-inefficient meal. I'll make a very rough estimate based on the caloric efficiency of

⁸Of course, there might be a few exceptions to this, such as the aforementioned dairy-flavored peanuts. However, I don't take the possible existence of such exceptions to be a serious problem.

the ingredients: grapes, chocolate, soy, and sugar. Grapes produce around 4 million calories per acre, which we'll use as our estimate for the wine. As noted, soybeans yield around 8 million calories per acre (Schnitkey et al. 2022, 2). Dark chocolate produces about 0.3 million calories per acre.⁹ Sugar yields around 7 million calories per acre (Molitor 1990, 215). Assuming a mousse contained calorically equal parts of these ingredients (and only these ingredients), the average caloric efficiency of mousse would be around 5 million calories per acre. Meanwhile, wine would be around 4 million calories per acre. So 500 calories of mousse and wine would take about 0.00011 acres of land to make. That's roughly half as efficient as our efficient meal.

The next question to ask is how many field deaths occur per acre of land. This is an extremely difficult question to answer. Davis (2003, 390) has estimated that six field deaths occur annually per acre. Archer (2011, 980), focusing on mice, estimates that at least forty field deaths occur annually per acre. Fischer and Lamey (2018, 3) point out that, although "Steven Davis and Michael Archer have offered the most extensive empirical information about animal deaths in plant agriculture . . . [this] isn't saying much," as there are many problems with these estimates, such as generalization problems and calculation errors. Moreover, issues like predation, the relative value of different animal lives, and the non-identity problem produce even more complications in evaluating the impact of agriculture on wild animals.

I'll start with the lower estimate of six deaths per acre but will raise it a little. That's because Davis' estimate is only about one type of animal and one cause of field death (see Cahoon 2009, 80–81). Davis' annual death rate also doesn't take multiple litters into account, even though animals like "field mice . . . have three to four litters per year, each of four to six young, and they're hardly exceptional" (Fischer and Lamey 2018, 4). For this reason, I'll raise the estimate to ten per acre. That would mean that our plant-based treat would cause 0.0011 of a field death, while our crop-efficient meal would cause 0.0005, for a difference of 0.0006.

Under these conservative assumptions, would the DSP rule out crop-inefficient foods like wine and vegan mousse? To see, let's consider what the suffering and harm of an average field death amounts to. For simplicity, I'll just consider field mice, who are common victims of field deaths.

3.2 *How bad is the death of a field mouse?*

While some field mice are quickly crushed (or slowly injured) by practices like tilling, many are poisoned. Rodent poisoning is an extremely common practice in agriculture. A U.S.A. survey by Paisley-Jones and Ranville (2023, 1–7) found that around two-thirds of "trusted-expert agricultural advisors, consultants, and extension agents . . . [used] rodenticides on one or more operations," with zinc phosphide being the most popular poison at "(58 percent of rodenticide users), followed by diphacinone (49 percent of rodenticide users), chlorophacinone (32 percent of rodenticide users), and strychnine (27 percent of rodenticide users)." Anticoagulants like diphacinone and chlorophacinone can take up to ten days to kill rodents, who typically die from internal bleeding (National Parks Service 2019). Zinc phosphide takes between an hour and a few

⁹Poore and Nemecek (2018, 988) give a mean figure of 3.4 square meters of land to produce 50 grams of dark chocolate. From 50 g of dark chocolate, we get about 275 calories (U.S.D.A. 2019). There's 4046.86 square meters in an acre. Dividing 4046.86 by 3.4, then multiplying the result by 275, we get 327319.559. That's roughly 0.3 million.

days, depending on the amount ingested (Gupta 2018, 622). Animals who ingest zinc phosphide show signs such as “vomiting and painful retching. These signs progress to anxiousness, ataxia or uncoordinated movements, weakness, labored breathing, thrashing, muscle tremors and convulsions” (Gervais et al. 2010). Strychnine often kills within hours of ingestion (NIOSH 2011). It causes “all voluntary muscles [to] contract simultaneously,” with death typically occurring from the contraction of respiratory muscles (Gupta 2007, 614).

Based on these figures, let’s say that it takes about five days for a field mouse to die from poison. If we assume that half of field mice are crushed quickly and half are poisoned, then we can assume that it takes around 2.5 days for an average field mouse to die. That’s about 216,000 seconds of what we can assume is a painful death. Generalizing our figure to other field deaths, this would mean our plant-based treat would cause 238 seconds of pain, while our crop-efficient meal would cause 108 seconds of pain, for a difference of 130 seconds, or around two minutes. Earlier, however, I mentioned the research of Duffy et al. (2024, 233) indicating that an average chicken’s welfare range is at least 1/33rd that of humans, and we might assume that a similar figure holds for field mice. That would convert our figure to the equivalent of four seconds of human agony.¹⁰ Note, by the way, that the fact that so many field deaths are caused by intentional poisoning will block any potential attempt to appeal to the distinction between intending harm and merely foreseeing harm in avoiding the Suboptimal Diet Problem.¹¹ Nevertheless, it should be kept in mind that a significant amount of such field deaths – particularly when it comes to birds – are the unintended consequence of poisoning insects, which birds then consume (see Fischer and Lamey 2018, 5–8). Let’s now turn to the harm done to insects themselves.

3.3 What about insects?

So far, I’ve only considered vertebrates. Insects, however, will probably make the biggest difference to our field-death estimates. How many insects per acre are there? As Fischer and Lamey write, “a conservative estimate is well over 250 million insects per hectare, and some judge that it’s over a billion per hectare” (2018, 12). Here, Fischer and Lamey cite Curtis Sabrosky (1953) and Pearse (1946).¹²

Pearse’s (1946, 131) figure of about 124 million per acre came from a study that focused on Duke Forest. Sabrosky (1953, 35) derives a figure of 425 million per acre from another study that looked at “apparently . . . richer forest litter” than that of Pearse’s study. It’s worth noting that insect biomass and richness may significantly vary between forests and agricultural areas.¹³ While consuming plant-based goods will sometimes contribute to deforestation, it’s plausible that it will also sometimes come from preexisting cropland without contributing to the growth of that cropland. As an aside, future researchers may want to pay special attention to the distribution and

¹⁰Other rodents, such as rats and voles, are also targeted by rodenticides.

¹¹One might nevertheless respond that, even if we are poisoning animals, we’re not treating them as mere resources as we are when we raise them for food. But treating animals as mere obstacles or hindrances could hardly be better, more respectful, or less objectifying than treating them as mere resources.

¹²The two largest groups of creatures, collembolans (i.e., springtails) and mites, which together make up about 95% of the creatures in Pearse’s (1946, 131) estimate, are not actually insects. But I’ll ignore this distinction, since there’s no apparent need for our purposes to distinguish, for example, insects from arachnids.

¹³See, e.g., Uhler et al. (2021, 5).

agricultural density of springtails and mites, which “far out-number all other animals in most soils and forest litter” (Sabrosky 1953, 35).¹⁴

Pedigo and Rice (2014, 1), meanwhile, write that the figure is around 40 million per acre, and Vincent Brian Wigglesworth (2024) estimates 4 million insects per acre of “rich moist surface soil.” This might seem like a lot, with even the estimate of 40 million insects per acre implying that there are about 6.4 insects per square inch of land. Recall, however, that many insects are found within soil and that creatures like mites and springtails are very tiny. And, as Curtis Sabrosky (1953, 33) points out, “As many as 40,000 cicadas may emerge from the ground under a large-sized tree. Sometimes the emergence holes are so close together that 84 of them can be counted in a square foot of soil surface.” Still, I’ll go with the most conservative assumption of 4 million insects per acre.

We should next ask how many of those insects are affected by our agricultural practices. The primary hazard for insects is insecticides. To guess at what percentage of cropland is treated with insecticides, I looked at U.S. statistics. In particular, I took an average from the 2022 and 2023 figures provided by the U.S.D.A. National Agricultural Statistics Service regarding agricultural chemical use per acre on crops such as wheat, potatoes, apples, peaches, blueberries, oats, barley, soybeans, and so on. The resulting figure was about 31% of cropland (U.S.D.A. 2024b, 2024c, 2024d, 2024e, 2024f). If 75% of insects in treated areas are killed by pesticides, this would place around 930,000 insects as being killed by insecticides per acre. This would mean that our 500-calorie, crop-efficient meal would require killing 465 insects, while our vegan mousse and wine would kill around 1,023 insects. That’s a difference of 558 insects.

According to the United States Environmental Protection Agency, “The most commonly used insecticides are the organophosphates” (Suter et al. 2024), which tend to kill insects within 4–8 hours (Paraboss 2024). This chemical was used as nerve gas in World War II, inducing “overstimulation of muscarinic and nicotinic receptors . . . leading to seizures, agitation, and centrally induced respiratory arrest” (Adeyinka et al. 2023). So we might expect our plant-based treat to produce around 133,920 extra minutes of insect suffering.¹⁵ But we can curb this figure a little. I’ll do this by using the estimates of Duffy et al. (2024, 233–4) about the welfare ranges of black soldier flies, which I will take to generalize to other insects. Judging from Duffy and others’ research, a reasonable guess (adjusted for probability of sentience) for black soldier flies is at least 1/10,000th that of humans.¹⁶ That would mean that the equivalent of 13 minutes of human agony might be a reasonable expected result of a plant-based treat. This suffering, again, cannot be explained away as merely foreseen harm; insofar as it’s caused by poisoning, it is intended harm.¹⁷

¹⁴See also: Pearse (1946, 131).

¹⁵Again, future studies might benefit from a focus on the effects of pesticides on springtails and mites in particular (e.g., Konestabo et al., 2022). Special attention might also be paid to population differences caused by reproductive effects versus deaths.

¹⁶I base this figure on the fifth percentile of the distribution of the Mixture Model (0.00011), a model that aggregates other models, such as the Neurophysiological Model, Equality Model, and Simple Additive Model, with the authors assigning a particular credence to each of these other models (see: Duffy et al. 2024, 233–4).

¹⁷As an aside, even harms to insects that are merely foreseen, such as those caused by tilling, might still be unjust insofar as we don’t make proper efforts to mitigate them (compare Abbate 2023).

3.4 Revisiting the disproportionate suffering principle

Recall that for the DSP, it's wrong to "inflict a great deal of pain and suffering on others, just for the sake of getting relatively minor benefits for yourself" (Huemer 2017, 26). It is plausible that 13 minutes of poison-induced suffering counts as a great deal of suffering. Granted, crop-inefficient foods (especially things like mousse and wine) *do* produce a lot of pleasure. It might be argued that crop-inefficient foods like mousse and wine are ultimately bad for us, but I think this objection trades on a slight ambiguity in the term "bad for." Assume – although this isn't obviously true – that a life without any mousse and wine would be better for one's *health* than one with some mousse and wine (although many other crop-inefficient foods won't be unhealthy). Even so, it's clear that one's well-being in a broader sense can benefit from certain trade-offs in health for things like the desire-satisfaction, social goods, aesthetic goods, and pleasure associated with crop-inefficient foods.¹⁸

Nevertheless, it's also plausible that such goods are still relatively minor benefits, especially when compared to the suffering produced by poisoning. After all, it seems reasonable to assume that however much nicer it is to have a plant-based treat (even mousse and wine) rather than a crop-efficient meal, it's much worse to be in the throes of poisoning. For that reason, even if a plant-based treat gave you twenty minutes of pleasure, this pleasure is probably insufficient to counterbalance 13 minutes of poison-induced suffering (recall that we've already adjusted this figure to account for estimated differences in welfare capacities).¹⁹

Let's assume that poison-induced suffering is 100 times worse for mice and insects (compared to the absolute value of their average welfare states) than eating a crop-inefficient meal is nice for the person (compared to eating a crop-efficient alternative). That seems like a conservative estimate. But in that case, if we adjusted our figures to account for differences in intensity of pleasure and suffering, we'd be weighing twenty minutes of pleasure against 1,300 minutes of equivalent suffering. So, the DSP – like the harm minimization principle – implies that we should stick to crop-efficient diets. The Suboptimal Diet Problem stands.

3.5 Implications for scavenging

Another aspect of the Suboptimal Diet Problem has to do with food that isn't scavenged. Scavenging involves getting food from free food pantries, salvage grocery stores, dumpsters, and the like. Different considerations will go into using different sources. Considerations related to income and social class, for example, might reasonably weigh into one's decision about whether to use free food pantries. There will, however, be some core factors in common between different scavenging sources. Most notably, there will be similar counterfactual considerations: would someone else have taken some item if I had not?

We can imagine cases where taking an item doesn't deprive someone else of the item, or where depriving someone else doesn't in turn have negative consequences (perhaps that person simply scavenges a substitute). In such ideal conditions, the expected

¹⁸For discussions of the aesthetic value of food and wine, see Nguyen (2024) and Korsmeyer (1999).

¹⁹Earlier, I assumed that factory farm products only contributed about five minutes of pleasure to a meal. So I'm here assuming that giving up crop-inefficient foods would be four times the sacrifice. That seems reasonable to me, since this would entail giving up much more than factory farm products, which also seem easier to substitute.

suffering resulting from one's meal would approach zero. In these cases, going by our pet figures from the previous sections, switching from a crop-efficient diet to an ethical scavenging diet would reduce about as much suffering as would switching from a crop-inefficient diet to a crop-efficient diet. So whatever considerations speak in favor of crop-efficient diets will recommend ethical scavenging.²⁰

One might respond that conditions are never that ideal; there aren't often cases where one can be totally sure that someone else won't have taken some item that one took oneself. Nevertheless, it seems plausible that having a sufficiently high degree of confidence about this matter will yield a positive expected outcome. For example, imagine that I'm deciding whether to buy our crop-efficient meal (rice, walnuts, tomatoes, and soybeans, and ten calories' worth of leafy greens), to scavenge an equivalent crop-efficient meal, or to scavenge a crop-inefficient meal (vegan mousse and wine). Let's say that I think the chances of someone else scavenging either of the scavenged meals, if I don't do it, is 10%. Assume also that if someone else doesn't get such a meal who would have otherwise gotten it, that person will go out and buy an equivalent meal. Then, I'd expect 0.0005 of a field death to result from my crop-efficient meal, 0.00011 to result from my scavenged, crop-inefficient meal (10% of 0.0011), and 0.00005 (10% of 0.0005) to result from my scavenged, crop-efficient meal.

When it comes to scavenged meals, the efficiency will make less of a difference. But it will still often make a significant difference. In the present case, the difference between the scavenged meals is the equivalent of about 1.3 minutes of human agony (or perhaps 130 minutes, if we adjust for differences in intensity in pain and suffering). This means that commonsensical arguments for veganism will sometimes entail that we ought to scavenge. Moreover, they'll sometimes entail that we ought to scavenge for crop-efficient meals in particular. Although I'm quite fond of salvage grocery stores, one must admit that this adds another layer of potentially burdensome demands on us.

Stepping back for the moment, let's consider the sorts of things our harm-based principles will probably rule out in a great many cases: going to bars, going out to dinner, using spices and condiments, and making dessert and gourmet food (compare Bruckner 2020). In the next subsection, I'll consider two possible ways of avoiding the Suboptimal Diet Problem, both of which seem flawed.

3.6 Two unpromising solutions: disregarding insects and discounting insects

One might be more skeptical than I have been about the welfare capacities or probability of sentience of insects (e.g., Budolfson and Spears 2019). One might even think that the figures representing these possibilities are negligibly small. In this case, one would only need to compare the pleasure of eating a crop-efficient meal to the suffering of vertebrates like field mice. It's at least possible, in this case, that the human benefit could outweigh the costs to field mice (although this is uncertain). I don't put too much faith in this solution, however. The figure of insects having a probability-of-sentience adjusted welfare capacity of 1/10,000th that of humans was based on the most comprehensive research of which I am aware. Taking this to be an overestimate, therefore, at least

²⁰Bob Fischer (2019, 77–80) also points out that harm-based arguments for veganism might entail that scavenging is sometimes morally required. Fisher, however, focuses on the possibility that we might be required sometimes to scavenge meat rather than the possibility that we might be required to scavenge vegan meals.

requires making some controversial assumptions regarding the underlying mechanisms for welfare capacities.²¹

It would likewise require controversial assumptions to assign insects a negligibly small probability of sentience. At the very least, one would have to contend with the substantial body of literature that suggests there's a significant probability that many insects are sentient (e.g., Barrona and Klein 2016; Birch et al. 2021; Gibbons et al. 2022; Elwood 2023). For these reasons, it's far from clear whether this strategy will succeed.

Another solution to the Suboptimal Diet Problem would be to discount the suffering of insects based on their lower status if they indeed have lower status. This is not just to acknowledge differences in welfare capacities but rather to posit a difference in the moral importance of identical welfare states in different individuals. Kagan (2019, 109) takes a stance like this, suggesting that "other things being equal, the greater the status of a given individual, the more value there is in any given unit of welfare obtaining for that individual." If we assumed that insects had a hundredth the status of humans, then a plant-based treat would only produce the moral equivalent of 7.8 seconds of human suffering. Going with the previous figure we used to adjust for differences in intensity of suffering, then we would end up weighing about 13 minutes of suffering against 20 minutes of equivalent pleasure. Then, if adding in the status and intensity-adjusted suffering of field mice doesn't raise our figure by 7 minutes or more, we'd have a justified plant-based treat.

One might worry that appeals to moral status differences could also justify purchasing factory farm products. Kagan (2019, 303) tries to avoid this implication. He expresses the worry that his

position will be misconstrued and taken to be a defense of something like current attitudes and practices toward animals. After all, people count more than animals do, right? I hope it is clear that any such interpretation would be a gross misunderstanding of my actual view. Animals count for less than people do, but they count for far, far more than we ordinarily acknowledge.

Nevertheless, as Kagan recognizes, whether a hierarchical view of moral status will justify factory farming depends on the moral status animals turn out to have. So, to maintain his position while allowing for crop-efficient foods, the numbers will have to turn out right regarding the moral status of insects and the moral status of chickens, cows, pigs, and fish.

It's also likely that insects will have to be assigned a significantly lower moral status than these other animals. This doesn't strike me as an entirely far-fetched position, but it is one that should be approached with caution. There are a few factors that likely distort our evaluations of the moral worth of insects, such as status quo bias, size differences, disgust, and self-interest (Mikhalevich and Powell 2020, 12–23; Sebo 2023, 254–255). Since we often dislike insects, it's probable that speciesism will negatively distort our intuitive judgments concerning their worth (see Caviola and Capraro 2020). Moreover, not all the commitments involved in hierarchical views about status are unproblematic. For example, some qualities in hierarchical views purportedly function as status-enhancing without necessarily being status-conferring (e.g., certain cognitive capacities). This raises challenges concerning the moral relevance of purportedly status-enhancing

²¹One example is those assumptions underlying the decision to focus only on factors like neuron count (see Budolfson and Spears 2019; Shriver 2024).

qualities (see Wendler 2023). In general, attempts to ground moral status on features other than welfare capacities – especially accounts that can’t appeal to human levels of rationality (recall that we’re presently simply trying to distinguish chickens from insects) – are notoriously controversial (see, e.g., Singer 2015; Gardner 2023; Perry 2024).

There are some who nevertheless think that discounting the importance of animals’ welfare based on hierarchical accounts of moral status is the only way to avoid other unintuitive implications. For example, it’s been thought that hierarchical accounts of moral status can help us avoid unintuitive implications concerning who should be the primary beneficiaries of our duties of beneficence (see Kagan 2019; Vallentyne 2005).²² Recently, however, some alternatives have been considered that might allow us to avoid such implications without relying on hierarchical accounts of status (e.g., Clatterbuck and Fischer 2024). Although I take no strong position on this issue, I nevertheless think it’s worth finding a solution that doesn’t rely on the idea that a given unit of suffering or negative welfare is better or worse depending on the species of the creature suffering.

4 Two promising solutions

4.1 The *extremely disproportionate suffering principle*

Is harm-based veganism cooked? Not necessarily. One might adopt a revised version of Huemer’s (2017, 26) disproportionate suffering principle:

It’s wrong to inflict a great deal of pain and suffering on others, just for the sake of getting *extremely* relatively minor benefits for yourself.

Call this the “*extremely* disproportionate suffering principle” (EDSP). The EDSP can rule out eating factory farm products without ruling out eating crop-inefficient foods. Causing something the equivalent of 15.5 hours of human suffering to enjoy eating it is inflicting a great deal of suffering for an *extremely* relatively minor benefit to oneself. That’s for two reasons. First, the sacrifice involved in giving up this benefit would be relatively minor. Normally, the amount of gustatory enjoyment I would get from eating meat isn’t that much more than the pleasure I would get from an alternative, “fake” meat. Meat alternatives like Impossible™ Meat are at least almost as good as the real thing.²³ Going from vegan mousse and wine to a crop-efficient meal is a bigger sacrifice than going from chicken to Impossible™ Chicken. More generally, giving up all crop-inefficient foods is a much larger sacrifice than giving up factory farm products for substitutes. Second, as we’ll soon see, it’s a bigger sacrifice to avoid a much smaller amount of suffering.

Presumably, demandingness objections will be more *prima facie* plausible the less weight we need to give to our own interests above those of others. So, other things being equal, it’s more plausible to say that it would be too demanding to have to donate 50% of my income to charity than it would be to say that it would be too demanding to have to donate 10% of my income to charity. Defending the consumption of crop-inefficient foods on grounds of demandingness, the idea goes, requires giving less extra weight to

²²But see Sebo (2023).

²³Indeed, a recent study by Giovanni Sogari and colleagues (2023) even showed subjects preferring Impossible™ Burger patties to actual beef patties in both blind and informed taste tests.

one's own interests than would defending the consumption of factory farm products. Buying factory farm products produces more suffering than crop-inefficient foods do. And, as noted, giving up crop-inefficient foods is plausibly a bigger sacrifice than only giving up factory farm products, especially with all the meat, dairy, and egg substitutes now available.

Let's again assume for the moment that crop-inefficient foods provide twenty minutes of pleasure and that poison-induced suffering is 100 times worse (compared to the absolute value of an insect's average welfare state) than that pleasure is nice for the person (compared to that of eating a crop-efficient alternative). That would mean, if crop-inefficient foods do really cause the equivalent of 13 minutes of poison-induced human suffering, we'd have to weigh our interests over 65 times higher than the interests of others to justify consuming these treats.²⁴

It doesn't seem implausible that we could *sometimes* weigh our interests around 65 times higher than the interests of others. This is, after all, a possible explanation for why we aren't required to constantly donate our money to charity. Importantly, this solution doesn't lead to the same conclusion about consuming factory farm products. When we only take the suffering of the chicken into account, we'd have to weigh our interests over 50 times higher than that of the chicken.²⁵ But we also must consider all the field deaths associated with raising the chicken.

On average, a five-pound broiler chicken will consume at least 500 pounds of feed (see Jacob and Pescatore 2012). For simplicity, let's assume that's all corn. That's around nine bushels of corn, which can take anywhere from 0.04 to 0.1 acres (more or less) to grow (see Lindsey 2018; U.S.D.A. 2024a). So let's say that's 0.07 acres of corn. Based on my previous figures, that's going to be the death of 0.7 field mice and 280,000 insects. Recall that our vegan mousse and wine produced an estimated 558 insect deaths above that of the efficient alternative. The chicken will cause about 500 times more field deaths than the vegan mousse and wine with an expected equivalent of 108 hours of human agony.²⁶

Again, we need to adjust these figures to account for differences in intensity between the enjoyment of the person eating and suffering of the poisoned insects. I've assumed so far that eating crop-inefficient meals is four times as beneficial for people (compared to crop-efficient ones) than eating factory farm products (compared to alternatives like Impossible® Meat). I've also been assuming, conservatively, that the suffering of insects and field mice from poisoning is 100 times worse for them than the enjoyment people get from eating crop-inefficient meals. Under these assumptions, our 108 hours of insect suffering produced by raising a chicken would be 43,200 hours of intensity-adjusted suffering. Even if a chicken provided 80 minutes of gustatory pleasure, one would have to count one's interests 540 times higher than that of others to see this as justifiable – 590 times higher once we add in the expected suffering of the chicken itself.

²⁴I get the 65 figure by multiplying 13 minutes by 100 (for differences in intensity) and dividing the result by 20 (to factor in the minutes of pleasure enjoyed by the person eating).

²⁵This is because, as we saw in section 3.1, the benefit to the person seems to be somewhere around 2% that of the cost to the chicken.

²⁶Whether the EDSP will rule out crop-inefficient foods, of course, will depend partially on how many insects there really are per average acre of cropland. Nevertheless, since most of the suffering from factory farming plausibly also comes from field deaths, we can safely assume that factory farming will generally turn out to cause vastly more harm than crop-inefficient vegan foods in any case.

That's much less plausible, and it's nearly 10 times higher than we'd have to count our own interests to justify eating the vegan mousse and wine.

Thus, the EDSP may help accommodate the intuition that giving up crop-inefficient foods is too demanding while maintaining that it isn't too demanding to give up buying factory farm products. This might be because either morality or all-things-considered rationality allows us to give our own interests extra weight compared to the interests of others – but only to a limited extent. Still, problems lurk. Astute readers will have noticed that the EDSP doesn't itself imply that eating crop-inefficient foods is permissible. It merely doesn't say that doing so is impermissible. Vegans still need some further principle to think that it's permissible to eat crop-inefficient foods – some “permissibility principle.” And this principle will have to imply that it's sometimes okay to inflict a great deal of pain and suffering on others for relatively minor benefits to oneself (perhaps, for example, when there's no suitable alternative).

Such a permissibility principle needn't imply that it's okay to inflict a great deal of pain and suffering on others for a benefit that's minor *full stop*. One might say that the benefit must be significant, even if it's minor relative to the cost imposed on others. Indeed, it seems implausible that the benefit could simply be a minor one. Here, one might defend the buying and consumption of crop-inefficient foods only when doing so carries significant emotional benefits (such as comfort or nostalgia for the foods that one's parents used to make), social benefits (such as drinking alcohol with others at a special party), or cultural benefits (such as carrying on a tradition).

Still, it does seem weird to think that it's okay to inflict harm on others for a relatively minor benefit to oneself. But if you think that's weird, you might also wonder whether the demandingness objections against the harm minimization principle or the DSP were worth taking seriously in the first place. After all, demandingness objections traditionally work against duties of beneficence rather than against duties not to do harm (see York 2024, 153). Even if I can sometimes weigh my interests higher than a needy stranger in deciding whether to give money to her, that doesn't mean I could harm that stranger to promote my own interests. You might think that this only seems strange because such a stranger – unlike animals or insects – has special rights as a person. That's possible, but consider someone who tortures a bee for about ten minutes before every meal to extract a flavor-enhancing chemical from the bee (compare Norcross 2004, 229–230). It would hardly seem *too demanding* for morality to forbid this behavior. It might, on the other hand, be too demanding to expect someone to forgo a tasty treat to instead donate the money they would have spent on that treat to prevent ten minutes of bee suffering. And crop-inefficient foods seem more analogous to the former case than the latter case.

These are indeed problems for the view. But insofar as one wishes to make demandingness objections against giving up crop-inefficient foods, one will face such problems. Presumably, vegans and non-vegans alike will both find it tempting to make such objections. The demandingness of giving up things like dessert and wine were, after all, what motivated Bruckner (2020, 354, 361) to object to harm-based arguments for veganism. And if one does choose to embrace demandingness objections for this reason, doing so won't entail giving up on the principles of harm-based veganism. Demandingness considerations might rule out the harm minimization principle and the DSP, but they won't rule out the EDSP. Alternatively, if one doesn't want to embrace demandingness objections in this way, then one should have no problem with the next solution: biting the bullet.

4.2 Biting the bullet

Vegans might just bite the bullet. Biting the bullet is not appealing from a prudential perspective, but it might make good theoretical sense. Donald Bruckner (2020, 361) rejects this sort of conclusion. As he writes, “although the proponent of the harm minimization argument can save it by biting these bullets, doing so amounts to giving up . . . that it is consistent with common-sense morality.” The implication is seemingly that common-sense morality itself sets limits on how demanding its principles can be. This seems false. Indeed, common-sense morality can sometimes be quite demanding. As I write elsewhere, “even from a commonsensical perspective, there are some cases in which [moral] requirements hold despite extreme costs” (York 2024, 155). I illustrate with some examples:

Perhaps you are at the airport, and terrorists attack. You are between your helpless child and the door. You can see a terrorist start to approach. Presumably, you are obliged to collect your child before running away, even if doing so puts your life at a greater risk. Likewise, if your mother is hit by a car and paralyzed but still capable of living a good life, then you will likely be obliged to help take care of her (at least if no one else can), even if doing so is very costly to you. Finally, consider a case loosely based on the Chernobyl divers Alexei Ananenko, Valeri Bespalov, and Boris Baranov. Imagine that in order to prevent a disaster that could kill millions, a nuclear power plant worker needs to enter the plant during a meltdown to flip a certain switch. Only this worker can find the switch, which is why the responsibility falls on him. He could, if he wanted, instead choose to escape to safety before the plant explodes. It seems plausible that the worker really is required to take on this task even if it means a high chance of death. (York 2024, 166)

The fact that a principle has very demanding implications doesn’t imply that it isn’t commonsensical. And this isn’t just to say that anti-demandingness intuitions are unreliable, as have some other philosophers (Braddock 2013; Berkey 2016). It’s to say that these intuitions are demonstrably false *from a common-sense perspective*.

The bullet might also be easier to swallow if we keep in mind that, due to widespread social conditioning regarding our eating habits, eating crop-inefficient foods might often count as an *excusable* moral failure (compare Abbate 2020). Plausibly, much of our enculturation regarding eating crop-inefficient foods is even deeper than our enculturation regarding factory farm products. It’s easier, after all, to imagine an ordinary life as a vegan than one with no crop-inefficient foods at all. Nevertheless, biting the bullet would still involve regarding buying and consuming crop-inefficient products as a wrong that we should strive to avoid. If biting the bullet still strikes the reader as an implausible option, she presumably still has this reaction on grounds related to demandingness. Although I’ve given reasons for resisting this reaction, these intuitions can also be accommodated by adopting the EDSP and some permissibility principle.

As a final note, even if one does wish to bite the bullet, the EDSP might still have uses. For example, it might be best to publicly advocate for a principle like the EDSP, even if one suspects that it’s overly permissive. This would be the case if advocating for a completely vegan and crop-efficient diet demotivated and dissuaded many people from even trying to morally improve their diets. Over and above advocating for ordinary veganism, the EDSP would show people why vegans who don’t perfectly cut out crop-inefficient foods from their diets aren’t necessarily being hypocritical; they may cause

more suffering than they need to, but they are still cutting out those behaviors that cause the greatest suffering for the smallest benefit. It's also plausible that failures to abide by the EDSP are less excusable than failures to abide by the DSP. This would be due to the greater harm and lesser benefit involved in breaking the EDSP.

5 Conclusion

Bruckner (2020) has pointed out that vegans face a problem; the harm minimization principle implies that we should give up such things as wine and dessert. Indeed, as I've shown, Huemer's (2017, 26) disproportionate suffering principle likewise implies that we should give up crop-inefficient foods. That's because of the suffering created by common agricultural practices, especially the use of pesticides. I've called this the Suboptimal Diet Problem. I've suggested that discounting or disregarding the moral status of insects isn't a promising solution. However, the harm-based vegan can respond to the Suboptimal Diet Problem by offering two options. On the one hand, we might think that the Suboptimal Diet Problem is a problem because giving up crop-inefficient foods would be too demanding. However, the harm-based vegan can plausibly accommodate this intuition by offering a new principle: the extremely disproportionate suffering principle (plus some principle of permissiveness towards consuming crop-inefficient foods).²⁷ But perhaps one distrusts the demandingness considerations that support the EDSP. If so, this distrust should also undermine one's trust in the demandingness considerations supporting the Suboptimal Diet Problem in the first place. Although Bruckner (2020) suggests that vegans face a dilemma, it seems like vegans can have their cake and eat it too.

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²⁷This is true, at least, under the tentative and conservative empirical assumptions I make here. Whether the EDSP really rules out crop-inefficient foods, again, depends on factors like the real number of insects per average acre of cropland.

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