

# Why your drugs are not vegetarian

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First, you'll have to do some research, because it's hard to find out what's in those little pills to begin with, because the label on your prescription of *Drugacil* won't tell you what's in it. You'll probably have to ask your favorite search engine for *Drugacil prescribing information*. On the first or second page, you'll find the list of inactive ingredients.

There are two that are very common: gelatin (the coating of gel-caps), and magnesium stearate (the base for Smarties-type pills). Both can be made from either animal or vegetable.

Next step: call the manufacturer, and ask them the source of these items. [If you actually try this with a specific drug, please leave your results in the comments, as a favor to future search engine users.]

In my own haphazard research, responses about ingredient queries have included pig fat, tallow from cow fat, and our euphemism for the day: "bovine material".

Pig fat is an especially good choice, because it offends a maximal number of people. Vegetarians, Muslims, Buddhists, Jews—close to every religion that is not Christianity—forbids eating pigs.

Now, if you take a quick walk down the non-drug aisles of your supermarket, you'll find little Ks and CrCs and circle-Us on the great majority of products, indicating that the manufacturer has made a sincere effort to ensure that the product is kosher. The reasoning is econ 101: ethics are a valuable facet of a consumer good, and people will pay more for a good they consider to be ethical, clean, or any of a number of other interrelated concepts. At the extreme, there are a host of people (many of whom are not Jews) who simply will not purchase an item that is not kosher—for those of you in micro class, they have lexicographic preferences with ethics as the leading term.

Why are drugs different?

We'll start the figure, which is the (extensive form) game played by the drug company and the consumer. The drug company moves first, and determines whether to mix in a bit of pig's blood with every batch of drugs or to use a veg source. Then, the consumer chooses to buy or not buy the drug. Regardless of the drug company choice, the consumer needs the drug to lead a healthy life, so in both the left and right cases, the consumer will choose to consume the drug, although in the case where it contains pig's blood, the consumer will be miserable about it.

The drug company know this, and can therefore ignore the *Don't consume* choices in both branches of the tree. If I were doing this in front of an undergrad class, I'd cross out the *Don't consume* nodes with a marker—feel free to do the same on your

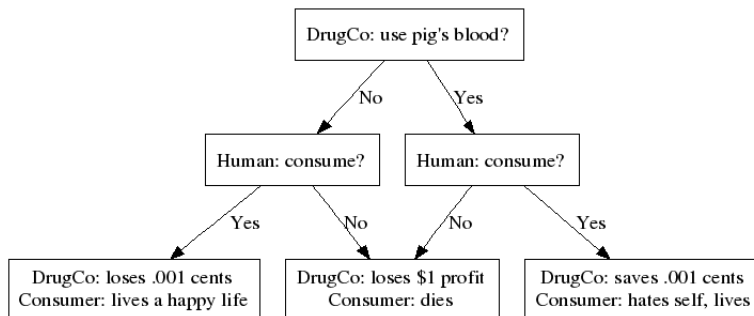


Figure 1: An extensive form game: DrugCo versus the consumer.

monitor—leaving a simple pruned-down tree: if the drug company uses pig’s blood, it saves .001 cents; if it doesn’t, it loses that. So, the outcome will be that DrugCo puts pig’s blood in its drugs despite the consumer’s preferences, and the consumer buys.

[To give you a sense of scale, as of this writing this site<sup>1</sup> will sell you veg-source magnesium stearate, retail, for 3 cents/gram. I weighed a few typically-sized Mg stearate based pills I had on hand, and they weigh about half a gram per. So if they were entirely Mg stearate, that’d be 1.5 cents/pill. At bulk scale, and given that my assumption that 100% of the weight is from Mg stearate is a bit high, we are talking about a fraction of a cent out of a product that will bill you or your insurance company for up to several dollars/pill.]

There are several reasons why we get this outcome with drugs but not food. First, the cost of compromising one’s ethics is fixed—let us call it -100 utils, but the value of consuming a drug is much higher than for food. Maybe a cupcake is worth 5 utils, but being free from physical suffering is worth 1,000. Micro students, you can just say that drug demand is inelastic.

Two counterpoints to this. First, most drugs are not a matter of life or death. What is it worth to take a drug that allows you to ignore a certain pain, to be less depressed, or to go to dialysis fewer times a year? Such things may or may not be worth more than 100 utils.

Second, in the case of an inelastic life-or-death choice, forcing a person into the tradeoff is insidious. DrugCo is telling the consumer *you must choose between your ethics or religion, or your life*. We don’t even need to drag out Goodwin’s law on this one. Every religion I know of has stories of past persecutions that fall along exactly this line: in the land of Wherever, the Powers that Be hated our people, and persecuted them; our people had to choose between continuing to practice our faith, or be killed. Some chose to die, others suffered the humiliation and survived. But regardless, the people who forced us into making the choice were evil.

DrugCo is different only in that its actions are ostensibly not out of spite, just disinterest. But the lack of interest in some ways makes it even more insidious. When persecutors force a person to choose between his or her beliefs and life, at least the persecutors were doing it out of equal passion and conviction. The drug companies are doing it to save fractions of a cent per pill. If our ethical beliefs are based on

<sup>1</sup><http://www.akpetrochem.com/products/magnesium-stearate/2397M>

the goal of avoiding things that cause significant pain upon others for minimal gain, DrugCo's forcing a person into the your-beliefs-or-your-life choice is worse than that of persecutors of old, because the perceived gain is so much smaller.

The second reason we see drugs that tread over ethical beliefs, while food does not, is that medicine is given a semi-sacred status: ethics is expected to take a backseat. Jewish law dictates that it is against the law to comply with the law if it risks one's health. Other traditions have similar medical exemptions.

But the medical exemption is malleable. It's downright touching to see people with ambulatory disabilities at a religious service that requires frequent standing and sitting: many will try their darndest to stand. If you're not one for religious services, you see the same sort of dedication at sporting events at the singing of the national anthem. If a drug leads to increased comfort but is not life-saving, does the medical exemption to a religion apply? Some stand at the service and some don't; some fast on some days and some don't; some feel that they should take their synthetic heroin despite its bovine materials and others do without.

Here in the modern USA, the medical exemption to ethical restrictions applies to an even greater extent, because of how hopelessly lacking the USA is in ethical restrictions. Regardless of whether the basic thesis is true, many have claimed that medicine has replaced religion in modern societies, and there's certainly a good deal of evidence indicating as much.

The odds are very good that DrugCo's rank and file were raised in a Christian tradition. Funny thing about Christianity: it is the only religion I can think of that doesn't have dietary restrictions. Your Jews, Hindus, Buddhists, Muslims, and Voodooists all recognize the power of consumption, and thus place ethics-based restrictions upon what a person may consume. [Sorry, I don't count the rule of eating fish on Friday. I don't think even the Christians who observe this see it as much more than custom.]

All food restrictions that I know of are centered around consuming of animals, but beyond that, there's no real pattern. For example, as far as I understand it, food can not be both kosher and halal at the same time: to be halal, the slaughterer must speak the Name of God when killing the animal; to be kosher, the slaughterer must be an appropriately-trained Jew, and Jewish law forbids speaking the Name of God. Meanwhile, Sikhs feel that both kosher and halal slaughtering techniques are inhumane, and therefore don't touch kosher or halal meats. Some folks (including some percentage of Christians) consider alcohol consumption to be unethical, but others (including some percentage of Christians) have laws that alcohol must be consumed on some occasions.

But back my overgeneralizations: I think that the average US citizen has difficulty comprehending the idea of the dietary restrictions common to most of the world's population, and tend to discount them; this is partly an offshoot of how the Christian tradition is the only one with no dietary restrictions. It's hard to explain any ethical restriction to somebody who doesn't buy the basic premise that some sort of action should be grounded in ethics. People who don't comprehend religious observance regarding food will advocate still more strongly that medical need—or even convenience—trumps religious dicta.

The doctor who originally prescribed to me a drug made from bovine materials, the esteemed Dr. LZ of Baltimore, MD, has a South Asian background, and is herself vegetarian. [Hi, Dr. Z! Thanks for reading!] However, she had put limited thought into the

source of gelatin and magnesium stearate, being that she'd been distracted by things like memorizing the Latin name for every part of the human body. I asked her whether she would inform other vegetarian patients of the fact that their drugs are not vegetarian, and she said she wouldn't: their health is more important.

Whether Dr. Z is doing the Right Thing is an unanswerable question, rooted in another unanswerable question: is an action unethical if it is committed with complete ignorance of its lack of ethics? There's a cliché about how ignorance of the law is no excuse under the law, but some religions forgive sins made out of ignorance—but some don't. I'm not even going to pretend to have an answer here.

But Dr. Z is clearly demonstrating a belief in the medical exemption to ethics. It makes sense that she'd place focus and priority on the medical, because she chose medicine for her life's work, and spent several years memorizing the Latin names for every part of the body. The same will hold for most of the decisionmakers at DrugCo. Getting back to the question of why food manufacturers care about kosher certification and drug makers don't, the consumer choosing a food is basically doing it alone; the consumer choosing a drug has a legion of medical authorities inserting their opinions. This is how it should be, because drug choice involve specialized knowledge and has potential consequences that are not relevant to the choice of cake batter. But it is hard to unbundle the amoral factual information with opinion on the medical exemption question. Hey, at the extreme, Christian Scientists are often required by law to accept a medical exemption to their religious beliefs.

Having an agent makes feedback difficult. The cake batter company can directly ask consumers—the people holding wallets—what their preferences are regarding ingredients. But DrugCo does not care about what consumers want: they care about what doctors choose for their patients. The game regarding cake batter is an infinite back-and-forth, where the company chooses its ingredients, consumers choose to buy or not buy, the company responds to that choice, et cetera. For drugs, the loop is one way: DrugCo chooses its ingredients, and gets only limited and filtered feedback regarding whether the consumer at the other end is happy or not.

In this respect, those annoying consumer-targeted ads about how people should ask their doctor for Pillizene are good, because it indicates that DrugCo wants patients as well as doctors to like the drug.

But it is of limited good news, because of the information problem. The US Food and Drug Administration requires that consumers be informed of what's in their food in a clear, standardized label, but has no such requirements at all for what's in their drugs or booze. I have no idea how the FDA reconciles the several standards, but that's the law, and it's a simple fact that it is much more difficult to ascertain whether a drug follows a person's dietary restrictions than a food.

And, of course, DrugCo wants it that way, because knowledge in the hands of consumers can only reduce demand. [So does everybody else: those labels are a constant battle between information revelation and information hiding. E.g., the European Union has the amusing compromise that food manufacturers must list all ingredients, but may do so in an encoded form.]

Summary paragraph. I think it is unethical that drug companies are putting boiled pig bones in their drugs: it gains them little benefit at the cost of distress for those with certain ethical beliefs, like adherents to almost every known religion. Some of our most powerful stories, both fiction and real human history, are about people who

force others to choose between their religion and their life—and the person forcing the choice is never cast as very nice.

On a less subjective note, there are systematic reasons for why this is the case with drugs, but not with food. People are *expected* to compromise their beliefs for the sake of improved health. Information about how drugs are made is kept close to DrugCo's chest, while federal law requires that other manufacturers of comestibles reveal such information. Oh, and there's room on the market for both kosher and non-kosher cake batter, but the patent literature indicates that it is good and beneficial that drug manufacturers are typically monopolists, who can present a single take-it-or-leave-it option for drugs people may be dependent on to live. All of the above leads to a lack of the sort of feedback other healthy markets rely upon when they choose how to make products that make consumers happy. As long as a drug company knows that it can force consumers to eat boiled pig bones (and that doctors will back them up on it), it will continue to source ingredients from boiled pig bones.