

The value of a life

16 FEBRUARY 2015

If you have money and want to save lives, you had better put a price on life. Scott Alexander explains it better than I can.

But don't mix up the *price* of a life with the *value* of a life. I see this happen all too frequently. To correct this mistake, I'm going to tell a little story.

Once upon a time, there was a village of peaceful immortal humans. They did not age past their primes, but they could still die from starvation or injury. But perhaps because their lives were so long and full, they all valued each other very highly and lived in peace. Indeed, there were no lengths to which the villagers would not go in order to save one of their fellows from unwanted annihilation.

Or, at least, that's how life was before the dragon came.

Dragons desire two things from people, as I'm sure you know: gold, and flesh. And this dragon, woe be upon the villagers, was powerful indeed — nigh invincible, with a cunning to match. The dragon, easily capable of killing the entire village outright, gave a grim ultimatum:

Each person in this village must pay a tax of gold, every year, in proportion to that person's age. Anyone who cannot pay the tax will be eaten.

The villagers begged and pleaded, they wept and raged, but the dragon was unmoved. It merely showed them a few heaps of rock that looked likely to make good gold mines, and told them to get to work.

The villagers tried their best. They really did. They were not miners, but they were fast learners. They worked themselves ragged, throwing aside stones, digging at the earth with their bare hands until their fingers bled, hunting and gathering as little as possible, letting their shelters deteriorate — yet still, they could not make the dragon's tax. At the end of a year, the dragon returned, and took all the gold they had, and ten of the oldest villagers (for giving up the eldest villagers was the way to save the most lives).

Distraught, the villagers resolved to try harder next time. They pushed themselves to their limits and beyond. They raced against time. They grew gaunt and ragged. Their eyes sank, their skin grew sallow, their arms thinned. They pushed themselves too hard, until they were collapsing in the mines. The next time the dragon came, it took all their gold and fifty of their number.

Their strategy wasn't working.

But these villagers were born of humanity, and ingenuity is humanity's birthright. So in their third year, the surviving villagers came to bitter terms with their situation, and set to hunting and gathering and growing stronger, accepting that they had to take care of themselves before they could take care of their friends. They set to building picks and shovels, realizing that they could not save themselves with their hands alone.

At the end of the third year, the dragon took all their gold and one hundred of their number, for their infrastructure had not yet started paying off.

But by the end of the fourth year, the dragon only took two.

Shortly thereafter, the dragon (delighted by their progress) informed the villagers that the tax would now begin increasing faster; exponentially in age.

This time, the villagers only nodded, and forged their hot fury into cold resolve.

It has been many, many years since the dragon came to the village. In fact, it is not a village any more: the village grew to a city, and the city grew to a civilization.

The population is quite a bit younger now. The elders are wiser and more productive, and can get more gold out of the ground per hour, but there simply comes a time when this increased productivity is not worth the cost in lives. When

that time comes, the elders go willingly to their fate, for these people are not the type to buy their own lives at the cost of two others.

In fact, hard tradeoffs such as these are commonplace. The villagers long ago discovered specialization and economics, and now most of them don't work in the mines. Some of them spend time growing or preparing food, others spend time maintaining shelter, others spend time inventing new tools and mechanisms that can keep pace with the dragon's dreadful tax. Indeed, some spend their lives on art and entertainment — for the villagers have learned the importance of maintaining motivation and morale.

(And some villagers, deep underground, far from the dragon's prying eyes, are designing weapons.)

So you will find, in this civilization, that there are people who dedicate their lives not to mining gold, but to writing books — but if you look closely, you'll notice that this only happens when the author can save *more* lives through increased morale and productivity than they can through working in the mines directly. And so this civilization, hell-bent on saving as many people as it can every year, still produces books and plays and movies.

Which means that in modern times, you can calculate the exact cost of saving an additional life. It turns out that one life goes for about the same price as a thousand movie tickets.

As it happens, two of the citizens of this dragon-ridden world, Alice and Bob, are having a conversation about the value of a life, right now. Let's listen in:

Alice: So you see, the true value of a life is equivalent to about a thousand views on the latest blockbuster.

Bob: Nonsense! A life is worth much more than two thousand hours of movie-viewing! A life is nigh invaluable! You can't put a price tag on a human life!

Alice: What hollow indignation! If your actions are inconsistent with putting a price tag on life, then there are ways you could shuffle money around to save more lives. If you want to save as many people as possible with a limited amount of money, then you *must* put a price on life!

Bob: But a thousand viewings of a movie simply isn't worth the same as a life! If I got to choose between a thousand people watching another blockbuster and the life of my mother, I'd choose the life of my mother any day!

Alice: Yes, but this intuition is inconsistent. The market for lives here is effecient, and the market has spoken, and the market says that a life is equal to about a thousand views of the latest blockbuster. Your mother's life *isn't* worth more than the accumulated pleasure that a thousand people experience when watching the latest blockbuster! The viewing experience and your mother's life just turn out to have the

same value, and if your intuition disagrees, you'll have to fix your intuition!

Do you see the errors here?

Alice and Bob are both right, and both wrong.

Alice is correct in that the villagers *must* treat a life as equivalent to a few thousand hours worth of watching movies. Given that the villagers are all still trying to save each other, those thousand people only go to the movies if the resulting boost in motivation and morale leads them to collectively generate enough additional wealth to save *more* than one additional person. If you stopped those people going to the movies, and put their money towards producing gold instead, then *less* gold would be produced overall, and more people would die. Bob *must* trade off two thousand movie-hours against one life, if he wants to maximize lives saved.

But Bob is correct in that the value of a life is worth much more than two thousand hours of viewing movies!

Alice's claim is that the *sum experience* of two thousand movie-hours is equal to the intrinsic value of a life. The market has spoken, and so you must not protest, if you want to save lives.

But in fact, the very reason that Bob must treat the thousand movie-viewings as equivalent to a life is because those viewings lead to increased morale, which leads to *more than one life being saved*. This fact *does not* equate the experience of a life lived to the pleasure of the viewers.

What Alice has forgotten is that the village is *plagued by a dragon*.

Were it not for the dragon, these villagers would go to almost any lengths to save each other from unwanted death. There might be *some* lengths to which they would not go, *some* price they would not pay, in pain, sorrow, and decreased quality of life among the rest of the villagers, in order to save a friend. But, in the absence of a dragon, this cost would be a *hell of a lot higher* than two-thousand hours worth of watching movies.

Enough analogies. Let's look at our universe, now. Our economy is *not* efficient — it costs a few million dollars to save a life in developed nations, and a few thousand dollars to save a life in underdeveloped nations (where "save a life" really only means "push death back a bit", in these dark times). Furthermore, our economy is *not* maximizing for lives: humans are prone to scope insensitivity and a whole slew of other biases that dampen their ability to care about other humans dying against their will. Furthermore, it is impor-

tant to care not only about the lives we save, but about the lives we *live*.

Despite all this, we are not all that different from those villagers in the lengths we would go to save each other if death was not inevitable.

I don't know how the future will turn out. I don't know how we'll end up trading off the preservation of a life against the improvement of a life against the creation of a life, if and when we make it past this phase of scarcity. But I can tell you this: *There may well come a day when humanity would tear apart a thousand suns in order to prevent a single untimely death.*

That is the value of a life.

You still have to put a price tag on lives, and that price tag still has to be somewhere between a few thousand dollars and a few million dollars.

Imagine a button which, when pressed, picks a random number between 1 and a million. If that number is 1, it kills a randomly selected person. How much would somebody have to pay you to press that button?

Many people react with disgust, saying they wouldn't press such a button at any price. They say that the value of a life is nigh inconceivable.

And this intuition is correct!

But when somebody offers you ten dollars to press that button, press it anyway. Press it, and worry about it less than you worry about driving a car for a year (which, if I did my math right, is like pressing a button that has a one in ten thousand chance of killing somebody each year, in return for the convenience of driving [1] [2]). If you want to save the most lives, then you press that button for \$10, and you put the money towards saving lives.

But don't confuse the cost of a life with the value of a life!

In some parts of this world, it costs as little as a few thousand dollars to save a life. If you act like the price on a life is higher than a few thousand dollars, if you *actually* refuse a million dollars to press the button, or pay a billion dollars to save a single life, then there were other things you could have done to save more lives. If you want to save the most people, you *must* put a price tag on life according to the *actual* cost of saving a life.

But you don't have to confuse the *current cost of saving a life* with the *intrinsic value of a life*.

There is a gap there. There is a gap between how much a life is *really worth*, and the price tag that you *must assign*. That gap is not there because your intuitions are wrong. That gap is there because *our village is being plagued by a goddamn dragon*.

That gap is a direct measure of the difference between the universe that is, and the universe that should be.

That price difference, the difference between a few thousand dollars and a few thousand suns, is a direct measure of how fucked up things are.

Most people start with an intuition that they should refuse to press the button at any price, because lives are nigh invaluable. You can go to these people, and show them that in order to save as many lives as possible with a bounded amount of money, they must put a price on life. Most people, at that point, react one of two ways.

Some accept the logic and reject their intuitions. They see that, to save the most lives, they *must* use a price tag. It sounds repugnant to say that the pleasure experienced by a few million people drinking a can of soda is equivalent to the value of a life, but (they think) that's exactly the sort of reasoning that leads someone to thinking that life is invaluable, which is a deadly misconception. And so, wanting to

save as many people as they can with the money allotted to life-saving, they bite the bullet, and conclude that lives were never worth all that much anyway.

Others reject the logic, and continue to claim that life is invaluable, and then try to back up their intuitions with some strange version of ethics where saving as many lives as possible with the money available is not the right thing to do, for convoluted reasons.

But there's a third option here! All these people have forgotten about the dragon!

It is possible to live in a universe where it is *both* the case that (1) lives are nigh invaluable, and (2) people are being annihilated constantly, against their will, in ways that can be prevented using relatively small sums of money.

The universe is not fair! Pressing the button for \$10 is the way to save the most lives, *and this very fact is a horrible thing*. Lives are nigh invaluable, *but you have to treat them as if they're worth only a few thousand dollars*.

This gap between price and value is *unacceptable*, but physics wasn't written according to what we would accept. We live in a cold, uncaring universe; a universe beyond the reach of God.

One day, we may slay the dragons that plague us. One day we, like the villagers in their early days, may have the luxu-

ry of going to any length in order to prevent a fellow sentient mind from being condemned to oblivion unwillingly. If we ever make it that far, the worth of a life will be measured not in dollars, but in *stars*.

That is the value of a life. It will be the value of a life then, and it is the value of a life *now*.

So when somebody offers \$10 to press that button, you press it. You press the hell out of it. It's the best strategy available to you; it's the only way to save as many people as you can. *But don't ever forget that this very fact is a terrible tragedy.*

Don't ever forget about the gap between how little a life costs and how much a life is worth. For that gap is an account of the darkness in this universe, it is a measure of how very far we have left to go.

I don't want to turn this into a sermon. But some of you, seeing the great abyss between cost and worth clearly for the first time, may decide that this gap is worth closing, that our dragons are dragons worth slaying. Some of you may be wondering, what now? What next? This last part is for you.

Know that there are those of us who fight.

Some of us work in the mines to make the dragon's tax. Others prepare for the day we will confront the dragon — for the weapons we must bring to bear will be powerful indeed, and may prove difficult to aim.

And this is a fight you can join. For some of you, fighting means joining an effective cause. But for most of you, fighting means putting a low price tag on lives, and then honoring it — by purchasing lives wherever they are cheapest; by donating to highly effective causes. Remember that just as courage is about doing the right thing even though you're afraid, caring is about doing the right thing even when you're not overwhelmed by emotion.

If this is a fight you wish to join, then I urge you to remember the first lesson that the villagers learned: you must care for yourself before you care for others. You do not need to become destitute to struggle against the darkness in this universe. Any small amount of money or effort you can put towards saving lives is money and effort well spent. Pledging 10% of your earnings to an effective cause is a difficult achievement worthy of great acclaim.

If you are going to stand beside us in this fight, then I will welcome you no matter what — but I would rather you join us filled with hot fury or cold resolve, rather than with guilt or shame.

Oh, Death was never an enemy of ours!

We laughed with him, we leagued with him, old chum.

*No soldier's paid to kick against his powers.
We laughed, knowing that better men would come,
And greater wars; when each proud fighter brags
He wars on Death, for lives; not men, for flags.*

— Final stanza of *The Next War*, by Wilfred Owen