

The Discount Rate of Well-Being

1. The Discount Rate of Future Well-Being: Acting to mitigate climate change clearly means making sacrifices NOW in order to make people in the FUTURE better off. But, how much should we sacrifice for future generations? Is their future happiness worth just as much as our present happiness? Or less? Or maybe more?

Just as many people think that we should help our own GEOGRAPHICALLY before we help others (i.e., we should give priority to impoverished U.S. citizens over impoverished foreigners), many also think that we should help our own TEMPORALLY before we help others (i.e., we should give priority to the needs of present people before we start thinking about future people).

The fact of the matter is that we DO tend to “discount” future well-being/experiences to some extent. For instance, if I offered you a \$1000, and asked if you wanted it now or in one year, almost everyone would say that they would prefer to have it now. But, what if I offered MORE if you chose next year? How much would it take to change your mind? \$1001 a year from now? \$1010? \$1100? Whatever your answer, this is your own personal “**discount rate**” of future well-being. For instance, if I had to offer you \$2000 next year before you would no longer choose \$1000 now, what this means is that you “discount” money at a rate of 50% per year (i.e., you perceive any money received in one year to be worth about half as much as any money received NOW).

But note that a discount rate of 5% seems very high, as it entails that the value of a dollar received in 100 years is worth only a fraction of 1% of a dollar received now (i.e., you’d rather have a penny now than \$1 in 100 years). A 5% discount rate looks like this:

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|----|-------|----|-------|----|-------|----|-------|----|-------|----|------|----|------|----|------|----|------|-----|------|
| 1 | 95.00 | 11 | 56.88 | 21 | 34.06 | 31 | 20.39 | 41 | 12.21 | 51 | 7.31 | 61 | 4.38 | 71 | 2.62 | 81 | 1.57 | 91 | 0.94 |
| 2 | 90.25 | 12 | 54.04 | 22 | 32.35 | 32 | 19.37 | 42 | 11.60 | 52 | 6.94 | 62 | 4.16 | 72 | 2.49 | 82 | 1.49 | 92 | 0.89 |
| 3 | 85.74 | 13 | 51.33 | 23 | 30.74 | 33 | 18.40 | 43 | 11.02 | 53 | 6.60 | 63 | 3.95 | 73 | 2.36 | 83 | 1.42 | 93 | 0.85 |
| 4 | 81.45 | 14 | 48.77 | 24 | 29.20 | 34 | 17.48 | 44 | 10.47 | 54 | 6.27 | 64 | 3.75 | 74 | 2.25 | 84 | 1.35 | 94 | 0.81 |
| 5 | 77.38 | 15 | 46.33 | 25 | 27.74 | 35 | 16.61 | 45 | 9.94 | 55 | 5.95 | 65 | 3.56 | 75 | 2.13 | 85 | 1.28 | 95 | 0.77 |
| 6 | 73.51 | 16 | 44.01 | 26 | 26.35 | 36 | 15.78 | 46 | 9.45 | 56 | 5.66 | 66 | 3.39 | 76 | 2.03 | 86 | 1.21 | 96 | 0.73 |
| 7 | 69.83 | 17 | 41.81 | 27 | 25.03 | 37 | 14.99 | 47 | 8.97 | 57 | 5.37 | 67 | 3.22 | 77 | 1.93 | 87 | 1.15 | 97 | 0.69 |
| 8 | 66.34 | 18 | 39.72 | 28 | 23.78 | 38 | 14.24 | 48 | 8.53 | 58 | 5.10 | 68 | 3.06 | 78 | 1.83 | 88 | 1.10 | 98 | 0.66 |
| 9 | 63.02 | 19 | 37.74 | 29 | 22.59 | 39 | 13.53 | 49 | 8.10 | 59 | 4.85 | 69 | 2.90 | 79 | 1.74 | 89 | 1.04 | 99 | 0.62 |
| 10 | 59.87 | 20 | 35.85 | 30 | 21.46 | 40 | 12.85 | 50 | 7.69 | 60 | 4.61 | 70 | 2.76 | 80 | 1.65 | 90 | 0.99 | 100 | 0.59 |

For instance, if you discount money at a rate of 5%, you’d prefer to have \$60 now rather than \$100 in ten years (since \$100 in ten years is only worth \$59.87 to you).

2. How Much is Future Happiness Worth?: Now as, should **well-being** ALSO be discounted? If so: What “discount rate” of future well-being should we use when making decisions about climate change?

When we assign a positive “discount rate” to future well-being, we are saying that X amount of OUR well-being HERE AND NOW is worth more than that same amount of FUTURE well-being for FUTURE PEOPLE. The higher discount rate we assign to future well-being, the less the happiness or suffering of those future people matters, morally, and so the weaker our duty to consider them when making present moral decisions.

And if the discount rate is high enough, then disasters that will occur several decades from now should hardly concern us in the present at all. For instance, if well-being is discounted at a rate of 5% per year, then when given the choice between spending...

- (a) \$1 billion (\$1,000,000,000) to prevent a disaster that will cause 1,000 deaths this year
- (b) \$6 million (\$6,000,000) to prevent a **future** disaster that will cause 1,000 deaths 100 years from now

...we ought to spend the \$1 billion (because the death of someone 100 years from now would only be 0.59% as morally significant as the death of someone today).

Whether this is correct or not, note that we DO in fact adopt policies as if there IS a discount rate of well-being. For instance, a common reason that politicians give for not wanting to reduce greenhouse gas emissions (e.g., by investing in renewable energy sources) is that, despite the fact that unchecked emissions will lead to millions of deaths and severely impoverished well-being in 100 or 200 years, reducing emissions to avoid that result is not worth it, because it is expensive, and so would slow our economy down NOW. In other words, we’re not willing to make minor sacrifices of our own present well-being in order to avoid MAJOR sacrifices of the well-being of future generations.

But, what justification is there for discounting human well-being across time in this way? Derek Parfit examines six reasons:

- (a) **Democracy:** Most economists suggest that we let the market decide how much something is worth. For instance, if people are willing to pay \$1.00 for an orange, but only \$0.50 for an apple, then an orange JUST IS worth twice as much as an apple. In effect, we “vote” on how much something is worth every time we spend money, thus indicating with our purchase that we are willing to pay that amount for that item.

Regarding well-being, the fact is, people just AREN'T willing to spend as much on future people as they are on present people. So, since we ARE willing to pay more to prevent present harms than future harms, economists take this to indicate that there present harms actually ARE more important (or worth spending more \$ to avoid). Thus, on this suggestion, the value of well-being is just its "market value"; i.e., we let the free market determine how much happiness/suffering are worth.

Reply: First, the above assumes that what the majority of people WANT is automatically morally correct. But, this seems clearly false. For instance, there was a time when the majority WANTED slavery, and BELIEVED it to be morally acceptable. But, we now know that they were mistaken. Simply put, morality is not decided by majority vote.

Consider it another way: This proposal treats value as a subjective matter, as if how much someone's life or well-being is worth were a matter of taste. But, how much someone's life is worth is not a matter of taste. For, then, if our preferences really did determine the value of a life, then someone's life would actually BE WORTHLESS if it turned out that no one was willing to spend very much to save them (in which case, apparently the lives of starving children in third world nations are not very valuable, since the market has indicated that we're not willing to spend very much to save them). It does not seem that the value of a life should be determined in this way.

Second, we should keep in mind that the people who will be most affected by climate change are FUTURE people, most of whom have not even been born yet. As such, their "votes" are not even accounted for by the present market. If they WERE accounted for, it is certain that they would be voting for us to make huge sacrifices now for their sake. (For that matter, not even many PRESENT people's "votes" are accounted for, since many global citizens are too poor to participate in this supposed market. It seems that, if the value of lives is controlled or determined by the market, then it is controlled or determined by the RICH, since they are the ones spending most of the money, and therefore the ones with the largest votes.)

Finally, people's preferences regarding the future are notoriously irrational. We often act in a short-sighted way where we will accept immediate pleasures over long-term ones, even though doing so is often detrimental to our future well-being (e.g., consider smokers, or people who eat poorly, or do not exercise, or even criminals, cheaters, and adulterers who choose immediate gratification rather than thinking about their futures—but then later regret their past decisions). So, while people DO seem to discount future well-being, it is unclear that it is rational to do so, even when it is one's OWN future.

(b) **Probability:** It seems rational to be willing to spend a lot more money to prevent a disaster that is CERTAIN to happen than to prevent a disaster that only MIGHT happen. But, then, perhaps we ought to be less concerned about future people because, the more remote into the future some event is, the less certain we can be that it will actually happen.

Reply: This suggestion is confused. This is NOT what is meant by a discount rate. Sure, if we only think that some catastrophe (present or future) just MIGHT happen, then we should be less willing make sacrifices to avoid it than we would to make sacrifices in order to avoid a similar catastrophe that certainly WILL happen if we do nothing. But, the social discount rate suggests something very different. If well-being is discounted across time, then, even if we are 100% certain that one disaster is going to happen this year AND 100% certain that another exactly similar disaster is going to happen in 50 years if we do nothing, that we should be willing to make much larger sacrifices to prevent the one this year **because the well-being of the future people is actually less important, morally, than the well-being of present people.**

(c) **Opportunity Costs:** If we spend money on present programs in order to prevent future harms, then the money is spent. However, if instead we simply invested it and allowed it to draw interest, it would increase over time. When we invest it now, we forfeit this interest (this is called an "opportunity cost"). As such, we should be less willing to spend money on the future than on the present. For instance, if we thought that someone who lost an arm at work deserved \$20k in compensation, we ought to only be willing to invest less than \$10k toward compensating someone who loses an arm in 35 years, if we could invest that \$10k in a savings account that earned 4% interest (for then, in 35 years, that \$10k would be have grown to over \$44k).

Reply: Again, this does not show that someone's suffering is actually WORTH less, morally, merely because it occurs further away in time. Rather, it only shows that, when investing money, we need to take the possibility of growth due to interest it into account.

Furthermore, as Parfit points out, many decisions do not involve the consumption of money. For instance, what is the "opportunity cost" of destroying a pristine landscape in order to build a factory? We will get to enjoy the goods now, but we forfeit the enjoyment of the landscape's beauty. If we hold off on building the factory, the aesthetic enjoyment is not the sort of good that can be re-invested to produce future returns.

(d) **Future People Will Be Rich:** There is a phenomenon known as “diminishing marginal utility” which says that, the more someone has of something, the less each additional unit of that thing is worth to them. For instance, if I give \$100 to someone who has nothing, this will be of much more value to them than it would be to someone who already has \$1 billion. Similarly, if I give you one Reese’s cup, it will bring much more pleasure to you if you’ve eaten zero than it would if you’ve already eaten 100 of them. With that in mind, given the constant trend of economic growth that we’ve seen (the average amount of wealth that each person in the world has now is much greater than the average amount of wealth each person had 200 years ago), we can assume that future people will be much better off than we are. As such, we ought to be less concerned about giving them more happiness or less suffering, because, simply put, each unit of happiness will be WORTH LESS to them than it will be to us (due to diminishing marginal utility).

Reply: Again, this is not a justification for the claim that future happiness MATTERS LESS, morally, than present happiness. For, it also applies to present people. If someone PRESENTLY is very happy, then we should be less concerned, morally, about making them happier than we should be about someone who is presently very sad.

Second, it is probably not true that the present trend of increased well-being (more money, better health, longer life-expectancies, etc.) will continue forever into the future. Indeed, if climate change goes unchecked, future generations will almost certainly be much WORSE off.

(e) **Special Relations:** Most of us think that we have special, stronger obligations to certain people over others. For instance, if you only had time to rush into a burning building and save either your mother or two strangers, most think that you ought to save your mother. This means that you believe your moral obligations to be (at least) twice as strong as your obligations to a stranger. Similarly, perhaps our obligations to those nearby in space are stronger than they are to those far away. For instance, people feel a special sense of duty to people on their own street, or citizens of their own nation. “We should look out for our own first before we start helping other countries” is a common thing that people say. Perhaps the same could be said about distance in time. “We should look out for our own (present people) before we start helping future people.”

Reply: Perhaps it is true that we have special, stronger moral obligations to our loved ones, or that governments have special, stronger moral duties to its own citizens. But, this would not justify all instances of the discount rate. At the very least, even if we do not have a moral duty to BENEFIT those with whom we have no relationships, we still have a moral duty not to HARM them. For instance, it is not morally permissible to

bomb some distant person in a foreign nation, simply because you have no relationship with them. Their death is still morally significant. Simply put, if you are about to make a decision that makes someone much worse off than they otherwise would have been, it does not make it less wrong to harm them if they are a stranger, or live far away in space, etc. Similarly, if they live far away in time.

- (f) **Morality Cannot Be That Demanding:** If there were no discount rate, then some of our obligations to future generations would be rather large. But, surely, morality cannot be that demanding. In short, it is not the case that, in order to live rightly, we must constantly make huge sacrifices for others.

Reply: Parfit notes that this would not justify a discount rate. At best, it would justify the claim that we never have to make HUGE sacrifices for future generations. But, this would apply equally to the present (i.e., we never have to make HUGE sacrifices for present people). For instance, you could probably save someone's life right NOW by donating your extra kidney to them (over 3,000 people die each year waiting for a kidney transplant). But, surely you are not morally required to do so. This is not at all a claim about discounting well-being. It is simply a claim that, discount rate or not, we are not required to make huge sacrifices for others.

3. Conclusion: Consider this passage from John Broome's book, *Climate Matters*:

Take a person who is now living a life of a particular quality, and compare her with someone who will live a life of exactly the same quality a century from now. ... Should we attach less value to the future life than the present one, just because it is in the future? If, somehow, there was a choice between these lives—either a person could live now or a person could live a life of exactly the same quality a century later—should we favor the existence of the present person rather than the future one? I think most of us would naturally answer no to this question.

If you agree that the answer is "no", then you do not think that one life has more value than another merely because one is in the present, while the other is in the future. If that is right, then the implications are radical: For, it means that future happiness and future suffering ARE NOT ANY LESS IMPORTANT, MORALLY, than present happiness and suffering. And if that is right, then we have moral obligations to be making sacrifices for future people, so that we can bring about a world worth living in for them.