

## The Discount Rate of Well-Being

**1. The Discount Rate:** Say I offer you a \$100 gift certificate to your favorite local restaurant, and you can either have it today, or one year from now. Which will you choose? Probably you prefer to have it today, right?

But now, what if I up the stakes a bit? \$100 today or \$101 a year from now. Which would you prefer? At what point will you prefer to wait a year? \$105? \$110? \$150? How much would I have to offer before you changed your mind? (Ignore inflation, and assume I am referring to purchasing power.) Whatever your answer, it's probably higher than \$100.

Or put it another way: Your favorite restaurant is selling gift certificates – but you won't be able to use them until one year from now. How much would you be willing to PAY today, in order to receive the \$100 gift certificate in one year? \$95? \$90? Less? If you said, \$95, this means that you're "**discounting**" the value of the card in one year by 5%.

And this is a common practice. For various reasons, we value money (and goods) MORE in the present than in the future. That is, we "discount" their value across time.

**Discount Rate:** The rate at which the value of a good obtained in the future decreases over time, compared to the value of obtaining it now.

**2. The Social Discount Rate:** Discounting the values of goods might be fine in economics. After all, the *monetary* value of a thing is typically decided merely by how much people are willing to pay for it.

But, some suggest that *moral* value should be discounted across time as well. Call this the **social discount rate**. And this is sometimes used to calculate how much we should be willing to spend on projects that benefit people in the future. For example, just as you're only willing to pay \$95 today for a \$100 restaurant gift card that you'll receive in one year, perhaps we should only be willing to pay \$950,000 today on a project that will do some good next year, even if we'd be willing to pay \$1 million in order to do the same amount of good right NOW.

If those numbers were correct, we'd be "discounting" the value of that good by 5% over one year. But, a discount rate of merely 5% is still VERY high. It looks like this:

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

If the social discount rate is that high, then we should be willing to pay:

- (a) \$1 million to prevent a disaster right now, but only:
- (b) \$5,900 to prevent a disaster that same kind of disaster 100 years from now.

**Why is this relevant?** Well, solving climate change will require us to make large sacrifices, or reductions in OUR well-being NOW, in order to prevent harms and secure higher well-being for FUTURE generations. So, in order to know how *much* we should be willing to sacrifice for future generations, we need to know whether there is a social discount rate or not.

**3. Against the Social Discount Rate:** In economics, the value of a commodity just IS whatever people are willing to pay for something. (“The free market decides” and all that.) For instance, if people are willing to pay \$2 for an avocado, but only \$1 for an apple, then an avocado JUST IS worth twice as much as an apple, monetarily. In effect, we “vote” on how much something is worth every time we spend money, thus indicating with our purchase the amounts that we are willing to pay for each item.)

And, as a matter of fact, we’re NOT willing to pay as much to receive a good in the future as we’re willing to pay to receive the same good now. For example, in 2010, we spent roughly \$30 million to save 33 miners who were trapped underground in Chile – roughly \$1 million per person. At that price, we should also be willing to spend one THOUSAND TRILLION DOLLARS to prevent a disaster that would save a billion people centuries from now – ten times more than the global GDP.

But are we willing to do that? Probably not. After all, my students frequently report that they oppose spending money on projects that will benefit humanity in the distant future (e.g., terraforming Mars), when we could instead use that money to help people here and NOW. A social discount rate could explain why this is true.

But, if this hesitancy is truly explained by a *social discount rate*, then the moral implications are pretty unsavory: If we're willing to pay \$1 million to rescue someone from a disaster NOW, but only \$1,000 on a project that will save someone's life a century from now, this would imply – just like the avocados vs. the apples – that a person's life a century from now JUST IS only worth one-thousandth as much as the life of a presently existing person. Surely that can't be right. Can it?

**A Preference for Proximity?** We've said that people seem to care more about helping people who are PRESENTLY in need; i.e., *temporally* nearby. ("We need to take care of the problems that we're PRESENTLY dealing with before we help others in far away times!") It may help to consider a similar phenomenon: spatial proximity. For, people also seem have a preference for helping people who are *spatially* nearby. ("We need to take care of our own here at home before we help others in far away nations!")

Intuitively, we can build a case against a discount rate for well-being. Consider:

- (1) **Moral wrongness doesn't diminish across space.** If it were less wrong to harm someone the further away in SPACE they were, then strangling would be worse than sniping them; and sending a missile thousands of miles away to kill them would hardly be wrong at all. That is absurd.
- (2) **Moral wrongness doesn't diminish across time.** If it were less wrong to harm someone the further away in TIME they were, then it would be less wrong to detonate a bomb which kills 100 people today than to set a timer so that it will kill 100 people next year; and hardly wrong at all if I set it to go off in 50 years. That is absurd.
- (3) **Moral value doesn't diminish across space.** If value diminished across space, then someone's life in, say, India would be less morally valuable than my neighbor's life. Their suffering would be less bad than that of my classmate. That is absurd.
- (4) **Moral value doesn't diminish across time?** If value diminished across time, then someone's life in, say, 2100 would be less morally valuable than my neighbor's life. Their suffering would be less bad than my classmates'. Again... Isn't that absurd? [*What do you think?*]

Broome concludes that there is no discount rate for well-being, writing:

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.

**The Button:** Imagine that you were standing in front of a button, and I told you that pushing it would prevent 100 units of pain – say, the subjective equivalent of having boiling water poured onto your arm for an hour. Do you have a strong moral reason to push it? Seemingly, yes.

But note: If there is a discount rate of well-being, then what you SHOULD say is: I'm not sure yet whether I have a strong moral reason to push the button. What YEAR, exactly, is this pain and suffering occurring in? If it's very far in the future, then I have essentially zero reason to push it. (Doesn't that seem absurd?)

[**Side Note: Against The Free Market Democratically Deciding The Value of a Life:** Moral value just simply isn't like monetary value. Perhaps the value of an *avocado* is determined by how much people are willing to pay for it. But surely the value of a *life* isn't determined by how much people are willing to pay to save it. Right? For, that would be some sort of *ethical relativism* – where the value of a life is determined by majority vote.

But, even if the value of well-being, or lives, WAS determined democratically, first: It doesn't seem very democratic to only include PRESENT people's preferences. Most of the people who will suffer the greatest effects of climate change haven't been born yet. Surely FUTURE people's preferences matter with respect to the value their own lives, right? And if their preferential/behavioral "votes" WERE accounted for, they would likely be voting for us to make huge sacrifices now for their sake. [*What do you think? Future people don't vote in present elections, even though they affect the future. Is that fair?*]

Second, it is widely known that we aren't reliable, rational decision-makers when it comes to assessing the value of future well-being. People's preferences regarding the future are notoriously irrational and short-sighted – as evidenced by the fact that we often choose immediate benefits at the expense of making our future selves *much* worse off in the long run (think junk food, smoking, cheating, etc.). We often look back and regret our past decisions for our present selves. (Past-Chad is *always* screwing over Present-Chad!) So why on Earth should we think that our preferences could be reliable indicators of the value of future well-being for OTHER people, when we don't even seem to be very good at assessing the value of our OWN future well-being?

Most importantly, this suggestion has many absurd implications. If it were true, then it would entail that someone's life would literally BE WORTHLESS if no one was willing to spend anything to save them. ]

#### **4. Non-Discount-Based Factors That May Weaken Our Duties to Future People:**

Even so, people still have strong intuitions that our duties to future generations are weaker than our duties to present generations. Perhaps that could still be true even if there is NOT a social discount rate. For instance:

(a) **Uncertainty:** It seems rational to be willing to spend a lot more money to prevent a disaster that is CERTAIN to happen than a disaster that only MIGHT happen. But, then, 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: It does seem true that our moral reasons to make a sacrifice in order to prevent a future disaster DO diminish, the less certain the disaster is – because of the **expected value** formula. For example, you seem to have stronger reasons to take measures to prevent a death that is 100% certain to occur than to prevent a death that is only 50% certain to occur.

(So, uncertainty MAY actually help to explain why our obligations to future people may be weaker than our obligations to present people. Still, it is important to note that this is NOT the same thing as saying that there is a discount rate of well-being. If there IS a discount rate for well-being, then we would still have weaker reasons to prevent some disaster in the distant future rather than some exactly similar disaster in the present, EVEN IF we were 100% certain that they were BOTH going to occur.)

(b) **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. Perhaps our duties to presently existing people are stronger because we have a special relationship with them too, or special duties toward them.

Reply: That's plausible. Perhaps we DO have stronger moral duties to protect, or benefit people whom we have formed special relationships with, compared to total strangers. And, if it's plausible that we have formed special relationships

with all presently existing people, and not with non-existing future people (IS this plausible?), then this WOULD explain why our duties to **benefit** future people are weaker than our duties to help present people.

(Still, it is important to note that this is NOT the same thing as saying that there is a discount rate of well-being. When you save your Mom rather than two strangers, it's not because (I hope) you think that the lives of the other two people are LESS VALUABLE than your Mom's life. Rather, you do so because you have a special DUTY to her that you do not have toward other people.)

Second, it is important to note that having a special relationship only justifies a weaker duty to HELP others; it does NOT seem to justify a weaker duty to refrain from HARMING others. (Like, even if I have a stronger duty to SAVE my Mom rather than a stranger, surely it would be just as wrong to KILL either of them. Right?) But, arguably, our present climate policies aren't decisions about whether or not we should secure future BENEFITS for future generations. Rather, plausibly, the climate policy debate is about whether or not we should continue HARMING future generations in order to benefit present generations! So, isn't harming them still just as wrong as harming present people? [*ignoring the non-identity problem, of course*]

[Here are some other potential reasons that I probably didn't mention in class:

(c) **Opportunity Costs:** If we spend money on present programs in order to prevent future harms, then we can't use the money for anything else in the meantime. For instance, if you offer me \$100 today or \$105 in one year, I might still prefer the \$100 day because I have a lucrative investment opportunity that will earn me 10% - or \$10 - over the next year, rather than just \$5. If I opt for the \$105 in a year, I won't be able to take advantage of that opportunity.

Similarly, if I invest in researching renewable energies today, I miss out on the opportunity to invest that money elsewhere. (This is an "opportunity cost" of my present investment.) Maybe I could invest that money in the stock market instead, and DOUBLE my money in 5-10 years! Then, I'd have a lot more to invest toward renewable energies later on. For this reason, we should be less willing to presently spend money on the future than on the present.

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 potential opportunity costs into account. (We'll also need to answer questions about non-monetary investments. For instance, what is the "opportunity cost" of, e.g., destroying a pristine landscape in order to build a factory? We'd get to enjoy the goods now, but we'd forfeit the later enjoyment of the landscape's beauty. What is the value of this loss?)

(d) **Future People Will Be Happier:** The phenomenon of “diminishing marginal utility” is: 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. With that in mind, given that the average wealth and well-being each person has steadily risen in recent centuries, we can assume that future people will be much better off than we are. As such, increasing their well-being is less important, morally, 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 entails that we should be less concerned, morally, about making someone happier who is PRESENTLY very happy, compared to someone who is presently very sad.)

Second, it is unlikely that the present trend of increased well-being (more money, better health, longer life-expectancies, etc.) will continue if climate change goes unchecked. Indeed, if we do nothing, future generations will almost certainly be much WORSE off.]

(e) **Demandingness:** If there is no discount rate, then future lives, future deaths, future happiness, and future suffering ARE NOT ANY LESS IMPORTANT, MORALLY, than that of present people. And if that is correct, then it seems that we have some prima facie duty to make MASSIVE sacrifices for future generations. For, they very likely outnumber us thousands to one. But, then, one might object: “Surely morality isn’t that demanding! Surely morality never requires anyone to make huge sacrifices for others! So, our obligations to future people must not be very strong.” Is this a legitimate objection? Or is it really true that we are never morally obligated to make large personal sacrifices in order to secure benefits for others, or prevent harms to others? What do you think?

It is also worth noting that, even though we probably aren’t required to make large sacrifices in order to BENEFIT others, we are probably obligated to make large sacrifices to avoid HARMING them. Like, if you are about to run someone over, and the only alternative is to steer into a tree, totaling your car, you should probably total your car. Right?]

**Conclusion:** Imagine that someone is dying right in front of you – maybe drowning, or starving. How much do you think you’d be obligated to sacrifice in order to save them? Like, if jumping into a muddy pond to rescue a drowning child meant destroying your expensive phone in the process, would you still be obligated to do it?

Now ask, are you morally obligated to make exactly the SAME amount of sacrifice in order to save someone from dying a century or two from now? Is there a moral difference between these two duties? Why or why not?

**5. Optional: A (Complicated) Proof of Broome’s Claim:** If you answered “no” to Broome’s question above, then you are temporally IMPARTIAL. That is, 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. Discounting views, on the other hand, are temporally PARTIAL.

**Temporal Partiality:** The view that the value of a thing is different at different times. (opposing view: **impartiality**)

There is a closely related distinction between temporal relativity and neutrality:

**Temporal Relativity** The view that the value of a thing is dependent upon the time at which it is evaluated. (opposing view: **neutrality**)

Temporal relativity says that the value of well-being at other times is different, depending on which time you’re evaluating it from. Neutrality denies this, saying instead that there is a fact of the matter about, e.g., how much a life in 3000 BC is worth—and this fact doesn’t change over time, but is rather true at ALL times.

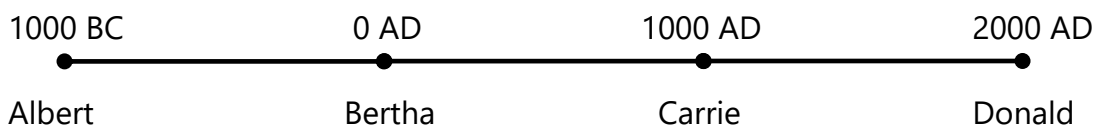
**All temporally impartial theories are also temporally neutral.** [*Do you see why?*]

But, **temporally *partial* views can be either *relative* or *neutral*.**

(And remember: Discounting REQUIRES a partial view.) Let’s look at both versions:

**If Discounting is Partial+Neutral:** Consider a temporally partial theory which discounts future happiness and suffering at a rate of 1% per year. If this theory is ALSO temporally neutral, then it means that this discount rate also extends into the PAST. In that case, the suffering of one person in 500 BC would be FAR FAR worse (disvaluable) than the suffering of EVERY SINGLE person alive today.

To put it more simply, consider the timeline below. On it, you will find 4 individuals. Assume that all of them lived 75 very happy and fulfilling years of life:





A partial/neutral view would deem that—even though the lives of these four individuals are the same length, and all full of equal amounts of happiness and fulfillment, Albert’s life is by far the most valuable, morally, and Donald’s is by far the least valuable; and this is true MERELY in virtue of the fact that Albert’s life occurs earliest.

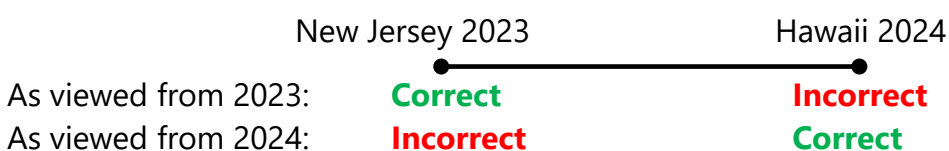
This result is temporally **partial** because it assigns different values to different lives based on the time at which they occur, but it is also temporally **neutral** because those value assignments do not change, depending on what time they’re evaluated at—rather, if Albert’s life is deemed to be the most valuable, it will ALWAYS be deemed the most valuable, no matter WHAT time the assessment is made.

This is absurd. Imagine yourself saying, while eating a delicious meal, “This meal is good, but it could never be as good as the one I had a year ago, even though that one tasted exactly the same. For, the meal I had last year will always be better than this one SIMPLY BECAUSE IT OCCURRED A YEAR AGO.” Absurd! But, a partial/neutral view entails it.

So, we should reject a temporally partial/neutral theory of value. Perhaps, instead, the values assigned to experiences CHANGE over time. Let’s look at that option:

**If Discounting is Partial+Relative:** You are temporally partial, so well-being is discounted over time. You are also a temporal relativist, so HOW the value of well-being gets assessed will CHANGE, depending on the time of the judgment. Now imagine you are deciding between a vacation to New Jersey now or Hawaii next year. The trip to Hawaii would be WAY more fun. However, from the perspective of the present, the value of the fun of visiting Hawaii is discounted. In fact, it is far enough in the future that the mediocre time you’ll have in NJ is correctly judged to be far more valuable than the amazing time you’d have later in Hawaii. So, you correctly conclude that you ought to go to New Jersey now. You go there and do in fact have a mediocre time.

But, there’s more! The next year, you consider your past decision. From the perspective of ONE YEAR LATER, the happiness you would experience by going to Hawaii at that time is WAY more valuable than that of your trip to New Jersey a year ago. You correctly judge that your past decision to go to NJ was the wrong decision, and you ought to have waited and gone to Hawaii instead. Like this:



This is a temporally **partial** view because it assigns different values to different decisions based on the time at which they occur, but it is also temporally **relative** because the values that get assigned to those decisions VARY depending on the TIME at which they are evaluated. This is very implausible. As Broome puts it,

“A theory that says you can act rightly even though you know that you will later correctly judge that you acted wrongly is not consistent with living a coherent life.”

So, we should reject all temporally partial/relative theories of value.

But, then, we have now rejected BOTH types of temporally partial views. That means that value must be temporally IMPARTIAL (i.e., there is NOT a discount rate for well being)!

### **In Argument Form**

1. The value of well-being is either temporally partial, or temporally impartial.
2. There is a discount rate of well-being if and only if the value of well-being is temporally partial.
3. If the value of well-being is temporally partial, then this temporal partiality of value is either (a) temporally relative or (b) temporally neutral.
4. (a) is absurd. (For instance, it entails that a single death in the distant past was MUCH worse morally than the death of millions today.)
5. (b) is absurd. (For instance, it entails that you can make what is the CORRECT decision at one time while simultaneously recognizing that it WILL HAVE been the WRONG decision from the perspective of some future time.)
6. Therefore, well-being is NOT temporally partial (i.e., there is no discount rate of well-being).

Broome concludes that we **should be making sacrifices for future people**. We should not conclude that our well-being is more important, morally, than that of future people merely because they are located somewhere else in time (just as someone’s location in space ALSO makes no difference to the value of their life or well-being).