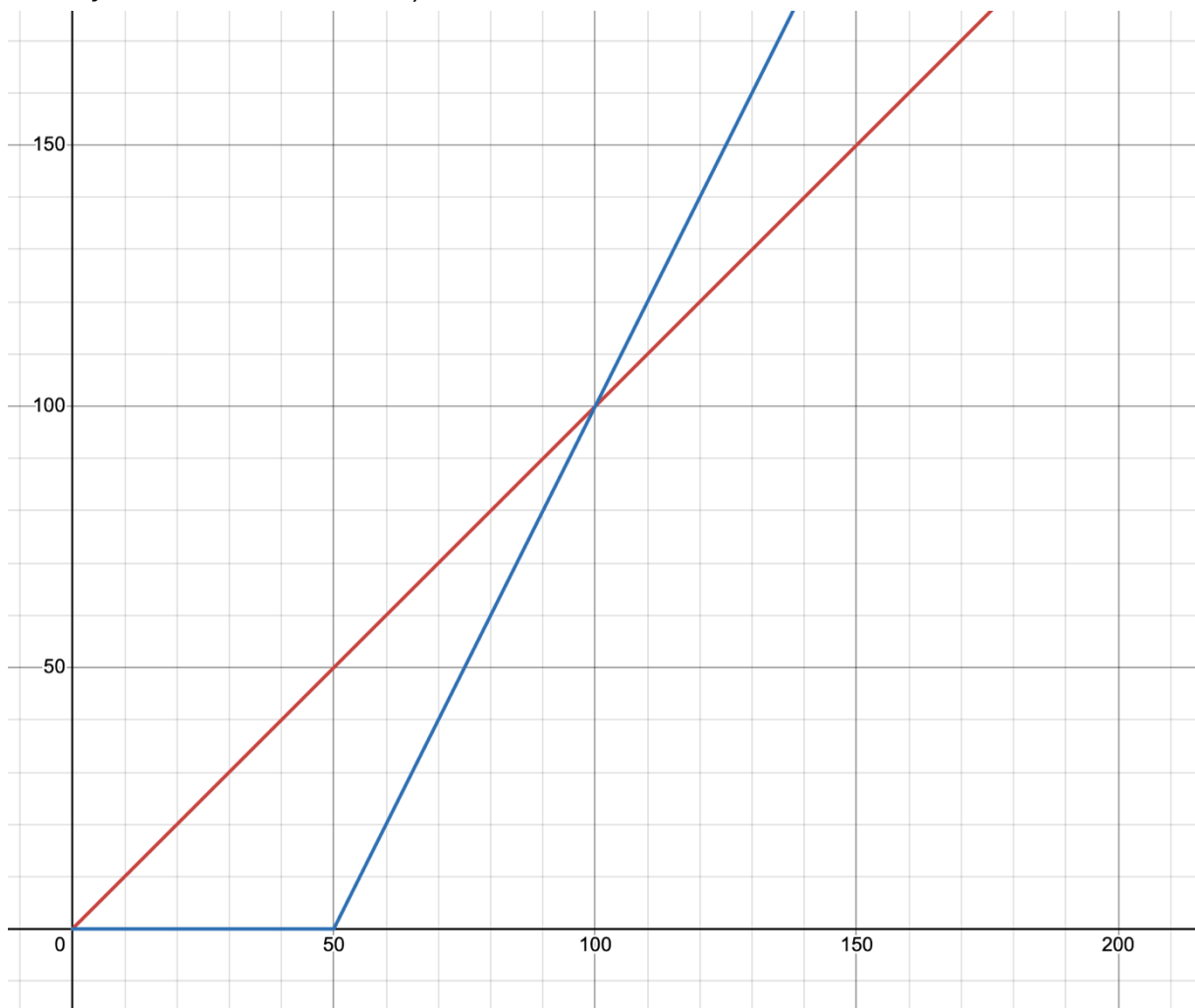


Integrity objection against Mill

Okay I can remember the math again. Let's assume that we incorporate longtermism into utilitarianism (the value of pleasure is equal irrespective of when the pleasure is experienced). Let's assume we have two societies. One society that just enjoys a comfortable lifestyle, and one society that puts all its manpower into making the world a better place. As the second society does not allow time to relax, make friends etc., initially happiness will be lower there. However, when they do decide to relax, their happiness will skyrocket. It can be graphed with the following two functions (see plot, red is the former, blue is the latter and the kink reflects the point at which the second society will decide to relax etc).



The real functions are arbitrary, but I have used:

Red:

$$Y = x$$

Blue:

$$\{ y = 0 \text{ if } x < 50 \}$$

$$\{ y = 2x - 100 \text{ if } x > 50 \}$$

To prove that the blue one will lead to a higher happiness, ill solve the integral (in this case the area under the curve is the total happiness):

$$\lim_{x \rightarrow \infty} \frac{\int_0^x (x) dx}{\int_{50}^x (2x - 100) dx}$$

As both above and under will lead to infinity, we can use l'hopital and differentiate both and just get the functions:

$$\lim_{x \rightarrow \infty} \frac{x}{2x-100}$$

Divide under and above by x and you get:

$$\lim_{x \rightarrow \infty} \frac{x/x}{2x/x-100/x}$$

100/x will go to 0 so it becomes:

$$\lim_{x \rightarrow \infty} \frac{x/x}{2x/x} = \frac{1}{2}$$

So: following the blue line will, ad infinitum lead to double the amount of pleasure.

Therefore, we should devote our entire life to improving the world always and not have friends etc.

However, there please note a few things:

- It does not matter when the kink is.
- It goes in against our intuition/does not allow us to do what it means to be human (whatever that means).

The first is very interesting as it has a few results:

1. Because (if we assume that time is infinite) at any given point in our future, there will always be an infinite amount of people living in the future. Therefore we should always opt for the blue line. However, this will mean that, effectively, we always would stay on the initial part (before the kink) of the blue line. (I guess an argument could be made that from this conclusion we would have to conclude that then we should choose to relax and go past the kink. However, it would still be always better to wait a few units of time before choosing to go past the kink. How long should we wait? It is a paradox as we should always wait longer and therefore, we should not wait and therefore we should wait longer etc.....).
2. Perhaps we should conclude that working with infinities is stupid, goes in against our intuition (pascals mugger and the integrity objection) and leads to paradoxes and therefore just accept that this whole question is stupid. Idk what the answer is. You tell me.

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