

Bentham's Hedonic Calculus

Bentham proposed that happiness/pleasure can be measured using seven criteria.
(The following extract has been edited and the language updated to make it more readable.)

Pleasures then, and the avoidance of pains is what the **legislator**¹ is trying to achieve. To do this it is necessary to measure their value.

To an individual person, the value of a pleasure or pain will be greater or less, according to the four following circumstances:

1. Its **intensity**.
2. Its **duration**.
3. Its **certainty** or uncertainty.
4. Its **propinquity** (nearness) or remoteness.

When trying to estimate the tendency of any act by which a pleasure or pain is produced, there are two other circumstances:

5. Its **fecundity**, or the chance it has of being followed by sensations of the same kind: that is, pleasures, if it be a pleasure: pains, if it be a pain.
6. Its **purity**, or the chance it has of not being followed by sensations of the opposite kind: that is, pains, if it be a pleasure: pleasures, if it be a pain.

Note: These last two are not really properties of the pleasure or the pain; they are properties of the act, or other event, by which the pleasure or pain was produced.

Where a number of persons are affected it is also necessary to consider:

7. Its **extent**; that is, the number of persons to whom it extends; or (in other words) who are affected by it.

To calculate the general tendency of any act proceed as follows:

For each individual person take account,

1. Of the value of each distinguishable pleasure which appears to be produced by it in the first instance.

2. Of the value of each pain which appears to be produced by it in the first instance.

and then

3. Of the value of each pleasure which appears to be produced by it after the first. (This constitutes the fecundity of the first pleasure and the impurity of the first pain.)

4. Of the value of each pain which appears to be produced by it after the first. (This constitutes the fecundity of the first pain, and the impurity of the first pleasure.)

then

5. Sum up the values of all the pleasures and pains. The balance, if it be on the side of pleasure, will give the good tendency of the act for that individual and, if on the side of pain, the bad tendency of the act for that individual.

Finally, to take account of everyone affected

6. Sum up the numbers representing the degrees of good tendency, do the same for the numbers representing the degrees of bad tendency. The balance will indicate the general good or bad tendency of the act with respect to the whole community.

This process doesn't have to be strictly followed before every moral judgment or legal decision. It may, however, be kept in view and the closer the actual process comes to following this process the more exact it will be.²

If you want to read this in Bentham's own words you can find the passage in Chapter Four of his *An Introduction to the Principles of Morals and Legislation*.

1. It will be helpful to remember that Bentham is concerned with the basis of the law. This is relevant to one of the criticisms that is often made against Bentham's utilitarianism that it ignores justice. Bentham makes use of fecundity and purity as a way of considering the long term consequences and in particular the need not to undermine the law which guarantees everyone's security. In *The Theory of Legislation*, Bentham distinguishes between evils of the first and second orders. Those of the first order are the more immediate consequences; those of the second are when the consequences spread through the community causing "alarm" and "danger".

It is true there are cases in which, if we confine ourselves to the effects of the first order, the good will have an incontestable preponderance over the evil. Were the offence considered only under this point of view, it would not be easy to assign any good reasons to justify the rigour of the laws. Every thing depends upon the evil of the second order; it is this which gives to such actions the character of crime, and which makes punishment necessary. Let us take, for example, the physical desire of satisfying hunger. Let a beggar, pressed by hunger, steal from a rich man's house a loaf, which perhaps saves him from starving, can it be possible to compare the good which the thief acquires for himself, with the evil which the rich man suffers? ... It is not on account of the evil of the first order that it is necessary to erect these actions into offences, but on account of the evil of the second order.

2. This is relevant to another criticism, the claim that it is too time consuming.