

Version: 12/1/14

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Voluntary Euthanasia: A Quantum Theory of Moral Action

Dan Dana

www.dandana.us/atheism/

dan@dandana.us

This article is being prepared in response to a discussion held by the Philosophy Group of Humanists of Sarasota Bay on November 5, 2014. It attempts to formulate the concept that the morality of a prospective act may be determined by estimating the balance between quantifiable positive and negative outcomes resulting from the act.

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"We can often endure an extra pound of pain far more easily than we can suffer the withdrawal of an ounce of accustomed pleasure."

- Sydney J. Harris

"Life sucks, then you die."

- Stephen King (in *Pet Sematary*)

I find myself just wishing that my life would simply cease.

- Stephen Stills (in 4+20 song lyric)

Introduction

This quantum theory of moral action is intended specifically as an aid to individuals contemplating end-of-life decisions, particularly voluntary euthanasia, although it has other potential applications. That is, it addresses the question whether the remainder of one's life is worth living considering the balance of probable cumulative quanta of positive (pleasure and related attributes) and negative (pain and related attributes) experience from the present time until the end of one's natural life. If that balance is negative, then one may rationally and ethically elect to terminate one's life prior to its natural end. If the balance is positive, then one would choose to continue living until such time that the balance may become negative. That balance may be termed the Pleasure/Pain Quotient (PPQ) where the quantitative total of positive experience (Pleasure) is divided by the quantitative total of negative experience (Pain). Borrowing from quantum physics, this article proposes that "Pleasure" and "Pain" are comprised of quanta, carrying both "mass" and "charge," that allow a quasi-mathematical determination of the morality of the choice to end one's life. Mathematical definitions of these quantities follow.

Students of philosophy will recognize this quantum theory of moral action as a derivative of the Utilitarianism of Jeremy Bentham and John Stuart Mill with traces of the Categorical Imperative of Immanuel Kant and other philosophers dating back to Plato who attempted to define "the Good."

Physicists are asked for leniency as I analogize certain elements of quantum theory to this psychological, non-physical, aspect of existence.

Do the math, or not

Some readers will enjoy assigning numerical values to the factors comprising these equations in order to calculate a resultant PPQ value and the measured morality of a considered act. Other readers, less mathematically inclined, may prefer to simply use the narrative descriptions of the equations to organize their thinking about how to make the decision of ending one's life. Regardless of how the equations are used, I hope this quantum theory contributes to the reason and rationality exercised in making such decisions.

Secular humanism, a foundational assumption

I contemplate writing a book on this subject intended for the educated reader, tentatively titled "*My Death, My Choice: A Secular View of Voluntary Euthanasia*" in which this quantum theory may play an integral role. The book assumes that readers hold a secular humanist worldview. That is, secular in the sense that no deities, afterlives, or other supernatural notions are involved, and humanistic in the sense that the wellbeing of human and non-human sentient creatures is the only valid measure of moral virtue. Readers of this article are requested to read my short ebook, "*The Reason Revolution: Atheism, Secular Humanism, and the Collapse of Religion*," available as a free download at dandana.us/atheism, as an atheistic rationale for secular humanism.

Two conclusions regarding ancient metaphysical uncertainties that are inherent to secular humanism are relevant to this discussion:

1. No afterlife exists. One's "experience" following death is equivalent to one's "experience" preceding life, say a year, or a billion years, prior to one's birth. That experience is essentially nothingness, containing no awareness whatsoever, such as sadness, regret, grief, or any other emotions that are commonly associated with death. These emotions may be experienced by the deceased's survivors, but not by the deceased him/herself. Post-death experience is null.
2. No deities exist. There is no divine being that acts as a judge of the morality of human actions or who revealed moral commandments via a "holy book" or other representation of the deity's wishes.

As a consequence of these two conclusions, we secular humanists regard ourselves as solely responsible for our moral actions during this one life, including the act of intentionally ending our own lives. Our lives are not "owned" by deities, nor by churches, nor by the state. The morality, or immorality, of voluntary euthanasia is represented by the PPQ of the act's resultant effects not only on the self, but on loved ones and others who have a relationship with the deceased and whose own PPQ would be affected detrimentally by the loss of that relationship.

Definitions

An adequate understanding of this theory requires definition of several terms and concepts:

Pleasure (with a capital "P") is defined as the total subjective *pleasant* experience of the self as well as of all other human and nonhuman sentient creatures that may be affected by a decided action. Such experience includes not only hedonistic pleasure, but also joy, happiness, wonder, playfulness, humor, meaningfulness, achievement, love, and other forms of experience that "feel good" and may be considered positive.

Pain (with a capital "P") is defined as the total subjective *unpleasant* experience, including not only

physical pain, but also emotional suffering, distress, grief, angst, sadness, despair, fear, dread, malaise, and other forms of experience that “feel bad” and may be considered negative.

Quanta, in the context of this article, are measurable units of Pleasure and Pain. Although objective measurement of Pleasure and Pain is elusive, subjective measurement may be empirically estimated by self-assessment, self-report, and/or observation of individuals affected by an action. Each quantum is of equal “mass” (weight, importance, impact), regardless of whether it is one of Pleasure or of Pain. Quanta of Pleasure carry a “positive charge” and quanta of Pain carry a “negative charge” (analogous to the charge of subatomic particles).

Sentience refers to the capacity for experiencing Pleasure and Pain by animate beings, both human and nonhuman.

Self (with a capital “S”) is the person considering taking an action, such as ending his/her life. It is assumed the Self is capable of deciding and implementing or directing the action.

Moral refers to the attribute of ethical virtue associated with an action resulting from a decision taken by the Self. As used here, the term “moral” bears no relationship to religion-derived rules of conduct nor to any consensus opinion held by dominant segments of societies. Rather, the term refers to the objectively determined or predicted cumulative impact (PPQ) of a considered action.

Pleasure/Pain Quotient (PPQ) refers to the total quanta of positively charged Pleasure divided by the total quanta of negatively charged Pain experienced by sentient beings affected by an action, including but not limited to the Self.

Equations

Two mathematical equations are provided that produce numerical answers to the two relevant questions: (1) Would my death be to my personal benefit, and (2) Would the burden or trauma of my death on my loved ones outweigh its benefit to me?

Question #1: Is the remainder of my life worth living?

$$Q = (L/N) - 1$$

where:

Q = Pleasure/Pain Quotient (PPQ) of an individual person or other sentient being

L = sum of all positively charged quanta (units of Pleasure)

N = sum of all negatively charged quanta (units of Pain)

Narrative description: PPQ is the quotient of the sum of all Pleasure divided by the sum of all Pain, less 1. Subtracting 1 places the midpoint of the range at zero.

Note that a Q value above zero (\emptyset) suggests that the Self’s life, being a net-positive experience, is currently worth living. Conversely, a Q value below zero suggests that one’s life is a net-negative experience, and that ending it would be an improvement. Consequently, euthanasia would benefit Self and may be a moral act, pending consideration of its impact on others, as calculated below.

Question #2: Would intentionally ending my life be a moral act?

$$M = \emptyset - wQ_s + \sum wQ_o$$

where:

M = the measured morality of a considered act, where a positive M signifies a moral act and a negative M signifies an immoral act

Q_s = PPQ of the Self, presumed to be a negative number since euthanasia is being considered, indicating that it is Self's conclusion that death would raise his/her PPQ from a negative value to null. Hence, in this formula, subtracting a negative number produces a positive result.

$\sum Q_o$ = Sum of the PPQs of all other (non-Self) individuals consequent to Self's death. Others' PPQ's are assumed to be primarily negative, although, for example, the PPQ of a spouse who would be relieved of caregiver duties may contain positively charged quanta.

w = the weight associated with the Self and with each other sentient being whose PPQ would be affected by Self's death. Relative weights reflect Self's estimate of the effect of his/her death on each other person affected. For example, it is likely that one's spouse, children, and dearest friend would be assigned greater weights than would one's neighbor or dog.

Narrative description: The quantitative morality of a considered act is equal to the sum of the PPQ of the Self multiplied by an assigned weight, less the PPQs of all others who would be affected, each multiplied by a weight reflecting the comparative impact of Self's death on each.

Scenarios in which the quantum theory of moral action may be applied

Readers may initially question the quantifiability of Pleasure and Pain, which are entirely subjective experiences, and therefore doubt the usefulness of the PPQ concept itself. However, consideration of some scenarios will demonstrate that there exists a quantifiable dimension of these experiences. Indeed, it is intuitively obvious that there can exist more, or less, Pain and Pleasure, despite the resistance of these quantities to empirical measurement.

Scenario 1: Sarah is suffering from late-stage bone cancer. Her doctors concur that no curative treatments exist, and that she will die within six months accompanied by unrelieved severe pain. Most observers would agree that the quanta of Sarah's Pain will soon exceed the quanta of her Pleasure — her PPQ is, or soon will be, negative. Of course, only her own personal assessment of her PPQ is valid and should be determinative of a decision to end her life. (see discussion below of "who decides.")

Variant death-related scenarios are listed below, but need not be elaborated as the one above. The reader can apply PPQ analysis to each, assessing the relative quanta to estimate a PPQ in each instance. Again, many readers may prefer to avoid the effort of assigning numerical values to these variables, instead using their intuitive recognition of "larger" and "smaller" quantities or magnitudes of each one.

Scenario 2: Whether to accept treatment for terminal cancer. Consider the Pain of treatment compared with the Pleasure of one's remaining time before natural death.

Scenario 3: Whether to choose death over living with a severely disabling illness or injury, such as blindness, quadriplegia, or stroke-induced paralysis.

Scenario 4: Upon onset of Alzheimer's disease, whether to choose death over allowing the disease

to progress. Consider the impact of disease progression on the PPQ of one's spouse or other loved ones who would be providing care, perhaps for a period of years. Also consider the risk that one may become mentally incompetent to decide and/or physically incompetent to implement the decision to end one's life.

Scenario 5: Clinical depression. Consider the characteristic illusion typical of depression that one can never be happy again, despite the existence of effective medical treatments.

Scenario 6: Prison populations. Consider whether assisted death should be made available to incarcerated individuals, particularly those anticipating lengthy terms of imprisonment.

Non-death scenarios

More scenarios are presented below to further clarify the potential applications of this quantum theory:

Scenario 7: Whether to end an unhappy marriage. If children are present, consider their PPQ's, estimating the complex and countervailing quanta resulting from either choice as well as the weights assigned to the children's PPQs compared with those of the parents.

Scenario 8: Sport-killing (hunting). Consider the quanta of Pain of the animals being hunted compared with the quanta of Pleasure of the hunter.

Scenario 9: Vegetarianism/veganism. Consider the quanta of Pain of animals who are kept in miserable conditions and are often killed by violent means, as well as the minuscule impact of one person's choice to not eat animal products on the food-animal industry at large.

Scenario 10: Efforts to prevent extinction of a species of sentient creature. Consider that the post-extinction experience of members of that species is nothingness, so their PPQ would be null (no Pleasure, no Pain). Whose PPQ would be affected by the extinction or its prevention?

Scenario 11: A couple's decision to have a child. Consider the PPQ's of each parent as well as that of the child, who will presumably live a full life comprised of unpredictable quanta of Pleasure and Pain.

Scenario 12: A woman's choice to terminate a pregnancy. Consider the PPQ of a fertilized egg (null) as well as that of a nearly full-term fetus. Consider any known fetal abnormal conditions that would negatively affect the future quality of life (PPQ) of the child. Consider the woman's financial and social circumstances that would affect her own and her child's PPQs.

Scenario 13: Dieting. Consider the quanta of Pleasure of eating a meal or dessert compared with the quanta of Pain of being overweight attributable to that particular meal or dessert.

Scenario 14: All life on earth. Consider that most sentient creatures die by being eaten alive by a predator, surely an agonizing experience of intense Pain. What is the sum of all quanta of Pleasure experienced by animals in the wild? What is the collective PPQ of humans, many of whom live in conditions of privation, hunger, displacement, and other forms of Pain? What is the combined PPQ of all sentient life, worldwide? Might it be concluded, based on PPQ analysis, that the appearance of sentient life on earth was an unfortunate byproduct, if not a tragic accident, of evolution?

Illustration

Frank is a 93-year-old World War II veteran living in Florida. He has been diagnosed with macular degeneration and has been told by his ophthalmologist that he will lose all functional sight within two years. Currently, he is unable to read, which has been a life-long favorite activity, but can see blurry images and motion when watching television and is still able to walk in familiar surroundings without hitting objects. Otherwise, he is in good health. His wife of 65 years died two years ago of cancer. He lives alone in the modest home he shared with her since retiring thirty years ago. He has two children and several grandchildren and great-grandchildren who live in other states. A gregarious person, Frank has some devoted friends, although several others of his generation have died in recent years. Being unable to drive, his younger friends transport him to outside-the-home events and activities.

Frank is terrified of going blind, and is currently seeking information about painless methods to end his life.

To calculate his PPQ, Frank would identify current Pleasure and of Pain factors and assign a number to each factor signifying “how many” quanta it contains. This simplified and hypothetical illustration does not attempt to identify all possible factors. Readers may consider others not listed here.

Pleasure factors and their quanta:

- Social time with friends = 5
- Time with children and grandchildren during their visits and phone conversations = 4
- Listening to audiobooks in lieu of reading = 9
- Eating meals = 4

TOTAL PLEASURE QUANTA: 22

Pain factors and their quanta:

- Loneliness = 12
- Boredom, being unable to read or engage in other activities requiring sight = 13
- Frustration about being unable to do things for himself = 16
- Fear of being forced to move to a care facility once he loses all sight = 12
- Fear of losing the autonomy to end his life, once his vision is entirely gone = 9

TOTAL PAIN QUANTA: 62

Frank's PPQ at the present time:

$$\begin{aligned} Q &= (L/N) - 1 \\ &= (22/62) - 1 \\ &= 0.35 - 1 \\ &= - 0.65 \end{aligned}$$

Assuming Frank's self-assessment is reasonably accurate and complete, his PPQ is negative. Therefore, death would increase his net PPQ, that is, raising it from a negative to null (nothingness).

To measure the morality of ending his life, Frank would identify all others who would be affected by his death and calculate the PPQ of each individual consequent to his death. He would then assign a weight to each, signifying the magnitude of the impact of his death on each person relative to his

own PPQ. Others' PPQs reflect the impact on them if Frank elects to end his life. To assess the morality of ending his life, Frank is determining the extent to which his personal benefit of dying (i.e., raising his PPQ from negative to null) is offset by the sum of the negative effects of his death on the PPQs of all others.

Son: PPQ = -0.37, weight = 6, result = -2.22
Daughter: PPQ = -0.52, weight = 7, result = -3.64
Each grandchild (4): mean PPQ = -0.28, weight = 3x4, result = -3.36
Each friend (8): mean PPQ = -0.19, weight = 2x8, result = -3.04

The sum of the impact of Frank's death on all others' PPQs is -12.26

Frank assigns a weight of 50 to his own PPQ, which signifies, for example, that his own well-being is 25 times the impact of his death on each friend.

Therefore,

$$\begin{aligned} M &= \emptyset - wQ_s + \sum wQ_o \\ &= \emptyset - 50(-0.65) + (-12.26) \\ &= \emptyset + 32.5 - 12.26 \\ &= 20.24 \end{aligned}$$

Narrative explanation: Frank's personal benefit of dying exceeds the sum of the negative effects of his death on all others. Therefore, choosing to die is a moral act.

Discussion of illustration

The reader will recognize that a full quantum analysis of Frank's (or one's own) choice of voluntary euthanasia would be a far more tedious exercise than the simplified calculations in this illustration. Many more Pleasure and Pain factors would be included, and many more people would be affected than shown here. It is unlikely that most readers would devote the time and attention to a full analysis unless, perhaps, one is considering applying this quantum theory to one's own choice to die.

The purpose of the above illustration is to demonstrate that both questions being examined in this article (Is the remainder of my life worth living? and Would intentionally ending my life be a moral act?) may be considered in a reasoned and rational manner. Listing and thinking about the relative importance of numerous Pleasure and Pain factors, and balancing the benefit of one's own death with the impact on others, would no doubt be a worthwhile exercise, even without performing the mathematical calculations.

Who decides?

Inherent to the definition of secular humanism defined above is the concept that each individual is responsible for his/her own life, and death. So, in principle, no one should decide whether another should die. However, some situations may introduce ambiguity into this principle:

[each of the following will be elaborated in due time]

Advance medical directive

Health care power of attorney

Law enforcement (shooting apparent perpetrators who are imminent threats)

Military combat (sending soldiers into non-survivable situations)

Capital punishment by the state (is capital punishment really punishment?)

Severe mental disability (aging parents of a severely disabled child)

Others?

TO BE CONTINUED

topics:

- the instinctive “will to live” as a gene-driven imperative, not a rational choice, hence the natural but irrational fear of death (PPQ is null, a state of nothingness, not a negative “experience”)
- the evolutionary (natural selection) function of pain as a deterrent to successful predation
- religion’s definition of life as “holy” and “sacred”, which usurps personal choice
- modern vestigial forms of primitive mystical practices of body/life preservation, e.g., embalming
- political obstacles to returning choice to the dying individual (infusion of religion into governmental policies and law)

===== Anticipated structure of ebook =====

Title: *My Death, My Choice: A Secular View of Voluntary Euthanasia*

Introduction

Part 1: Life, Death, and Choice

- Evolution, natural selection, and death-related instincts
- Secular humanism, a foundational assumption
- How religion usurps personal choice
- Who decides?
- Political obstacles to choice
- Call to action

Part 2: Euthanasia: A Quantum Theory of Moral Action