# Many Worlds/Minds Ethics and Argument against Suicide: For Emergencies and Evaluation in Long Term Suicide Prevention and Mental Health Outcome

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Abstract: According to Many Worlds/Minds (MW/M) description, painful survival may be almost certain for the first person observer who attempts suicide. This argument increases the fear of a painful outcome due to the suicide attempt failing. Increasingly, partially supported by the correlation of depression with time spend online, suicides are committed by intelligent and educated people. They reject common arguments against suicide. We recommend that suicide hotlines and first responders then try MW/M arguments. MW/M considerations help with many public health issues, facilitate smoking and gambling cessation and increase care when driving. As a somewhat Zen like worldview, mindfulness (meditation) belongs to it, and these prove beneficial with issues such as depression in many studies. However, long term effects are unknown, and improper MW/M theories become popular anyway. Effects of proper MW/M thinking on suicide rates and rates of mental illness such as depression should be investigated. We suggest long term follow-up observations of students after MW/M ethics lectures.

Keywords: Suicide Epidemic, Suicide Prevention, Rationalizing Thought, Philosophy of Suicide, Ethics and Effects of Many World Theories

#### 1 Introduction

Measures of well-being and positive affect are no longer naïve about people's maintaining happy façades. Nevertheless, suicides rates *inc*rease along with such measures (Daly 2011)<sup>3</sup>. The *ad hoc* conclusion that depression is especially distressing when surrounded by happy people is rather too convenient. A modern person is distinguished by moral relativism and neo-enlightenment about human irrationality. A crisis of the concept of 'responsible agency' is enhanced with the cold utilitarianism that is exercised by functioning in a technologically demanding and socially fluid environment which asks for constant adaptation and re-identification. Modernization is therefore accompanied by isolation, individualization, and a lack of belonging. The attempt to gain control by yet more rationality can drive a positive feedback loop as such rumination decreases happiness (Killingsworth 2010). Especially ruminating about possible futures makes one unhappy. The usual suggestion is staying focused on the present. However, long term goals enrich life with meaning. Thinking *differently* about future may be better. Many Worlds/Minds (MW/M) thinking considers all futures. Three remarks are immediately necessary:

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- 1) Conceivable does not equal possible: Not everything conceivable, for example whether I do or do not commit suicide, is "possible and thus inevitable". MW/M does not claim "all the possible, as according to the physics of today, will happen anyway" regardless of my decision. Only future consistent with past is possible. Decisions matter!
- 2) "Parallel worlds" versus multiple futures: Pierre Fermat suggested considering "parallel worlds" to Blaise Pascal in 1654 (Devlin 2008).<sup>5</sup> It was essential in the development of probability theory and again later for statistical mechanics in the nineteenth century, for example in the work of Boltzmann (Cohen 1997)<sup>6</sup> and Ehrenfest (Ehrenfest 1912). However, traditional approaches usually model each world as a deterministic, independent universe. "Parallel worlds" with differences that are so small as to have been unobservable in the past lead to different futures. If the uncertain mind desires identifying with a certain physical body, it naturally claims that the present can only lead to a *single* future history! It is then called the 'problem of self-location'. The observer cannot know "in which world she really is". In MW/M descriptions, any given present branches into multiple futures. For example, in the quantum physical 'Relative State Description' (Everett 1957), 8 branches are 'orthogonal quantum states', not "parallel". Pasts also merge, indistinguishable.
- 3) MW/M is not quantum mechanics or even modern science: The concept of all alternatives being in one structure may be older than Eleatic philosophy. MW/M is more general than mere "Many Worlds Interpretations" (MWI) (DeWitt 1973; Deutsch 1997)<sup>9,10</sup> of quantum mechanics or the many minds interpretations (Albert 1988; Lockwood 1996). 11,12 Even modern models that branch into multiple futures can be non-quantum. They are quantum only if the statistics of entangled observers' futures violates the Bell inequality (Vongehr 2013). 13 It is a widely held misunderstanding that branching into multiple futures is a quantum aspect. The actual quantum physics, namely the violation of the Bell inequality, depends on how different futures, for example Alice and Bob separately observing outcomes 0 or 1, re-combine (not branch) into 'compound observations' such as (A, B) = (0, 0) versus (0, 1). Only particular MW/M geometries are standard quantum. Our suggestions are not based on interpretations of provisional theories and should not be confused with so-called "quantum suicide" or 'quantum immortality' (Lewis 2001). 14 If quantum mechanics obtained non-linear corrections from general relativistic gravity, most popular MW theories would be proven wrong. Since we may be trapped in Virtual Reality (VR), all empirical science may be based on deception. However, MW/M description is fundamental and always applies.

Armed with this list, the reader will be able to confirm that basically all talk about these issues, especially rejection of multiple futures, are throughout straw-man arguments, careless confusions of distinct issues such as "multiverse" and MW. Mature MW/M description is based solely on that in a fundamental theory of

everything, by definition, (seemingly conceivable) minds that are not included are *not* possible minds.

Suicides are an increasing problem with many facets such as the poor state of suicide attempt survivors and the associated costs for medical care. The number of suicides increases along with our increasing rationalization and ability for relativizing in this (post)modern, throughout technological world. It is not mostly the poor or sick who attempt suicide but rather intelligent and educated people, often secular and critical, used to and proud of linear thought as an advanced, progressive, and for the modern work-world necessary rational attitude. A rationalizing mental disposition can lead or contribute to depression and suicidal ideation. In growing sub-populations of our modern information technological world, this all correlates positively with loneliness, with isolation from real (rather than virtual) social interaction. Many from family and co-workers emotionally isolated office workers satisfy their social urges with online interactions. Temporarily, this can feel superior to real social interaction, but the need for real social interaction stays unsatisfied and the ability for satisfying social interaction further diminishes. Rational disposition can facilitate emotional decline, and a rational approach to suicide can increase the suicide success rate. The suicidal person then simply wants life to end as quickly and painless as possible, switching all suffering off. There is no motivation for attempting recovery instead, because life is seen as meaningless – the denial of absolute meaning is after all also promoted as rational and even progressive, relativistic, (post)modern. Such "suicidal rationalizers" are immune against many arguments that might be brought forth when they are literally "standing on the ledge" about to jump. They might know that most people who are rescued during a suicide attempt will be thankful for having been rescued. However, people who think that they are rational also easily think that all those thankful people were not as rational, that their own situation would not improve.

In case a rather rational person decided to end their life and prepared their suicide well, little can be done to prevent their free-death, also because they likely operate secretly. More usually however, a sudden occurrence such as a divorce was the proverbial "last straw". Suddenly, a rather rational person is about to jump out of a window. Arguments against suicide that we may now want to put forth must be honest, also scientifically. Otherwise, it may further insult the intelligence of a scientifically educated person who may consider suicide in part because of all the dishonesty in the world. On the other hand, such 'suicidal rationalizers' often merely believe themselves to be scientific and rational and they overestimate their intelligence. Therefore, persons of average intelligence and education should still be able to comprehend the argument, and moreover in a stressed, highly emotional state! The main argument must be concise and be delivered quickly. Nevertheless, it should ideally also draw the patient into a communication where he is taken seriously and respected as a rational person, lifting the underlying loneliness and thus also already lifting the suicidal state of mind.

Another aspect that led to the argument in its present form and the expectation that it may be highly effective are the strongest fears of people who contemplate committing suicide: 1) Experiencing a painful and drawn out dying and 2) Failure leading to lifelong disability. The first fear guides especially rational persons toward particular methods that have been recommended (Vongehr 2006). <sup>15</sup> The argument is therefore formulated as if addressing somebody who is about to jump from a tower onto hard ground or aims a gun at the roof of the mouth. These methods exploit the inevitable neural delays such as between the brain's unconscious deciding (to now pull the trigger) and becoming conscious of that decision, or between sense receptor activation and the onset of our being conscious of the sensation (Libet 1979, 1987). 16,17 For example, there are about 200 ms between the eyes receiving light and the occurrence of the neural correlates of consciousness (Reesl 2002)<sup>18</sup> of the experiencing of the seen situation. Falling from 60 meters height, the impact pressure destroys brain function immediately, and the velocity six meters above the ground is over 31 meters per second, *more* than six meters during the Libet delay. The jumper experiences only approaching the ground to about six or more meters above it, and then life ends like a movie cut short (Vongehr 2006). Rejections of such delays have been well countered (Libet 1981, 1989)<sup>19,20</sup> and laid to rest. However, our MW/M argument exploits the second fear mentioned. No method is failsafe, not even assisted suicide. The argument considers sinkholes. Even a backup shooting squat can fail on grounds of a sinkhole opening up.

### 2 The Core Emergency Argument

In order to give a specific and, as argued above, most relevant example, the argument is formulated as if addressing somebody who is about to jump from a tower onto hard ground or aims a gun at the roof of the mouth. We present the argument now as one could in an actual emergency, because the argument must work like that, not in a journal article to be downloaded and studied first. The future is discussed in past or present tense! Future tense sounds as if talking from the present, when failure may seem almost impossible. The suicidal person must consider her future perspectives, when failure must have happened.

"Please let me read to you what some physicists would like to tell you at this moment. We all remember only a single past history, and so we feel as if at any point in time, only a single future is somehow chosen. However, that is an illusion. There are many different futures. In each one of them it feels like as if all the alternative futures do not exist, but they all go on. Do you understand that? ...

If you now attempt suicide, you may die in most of the futures in which I find myself, but none of those futures exist for you. You will find yourself only in those futures that are possible for you. In all those futures, something unexpected will have happened and you survived. In some futures, a sinkhole may have opened up right where you hit the ground, and so you fell instead just soft enough to survive and be

rescued. If you try to kill yourself, you will find yourself only in those futures where you survived and in most of those, you are badly disabled and in pain, perhaps paralyzed for the rest of your life. If you jump now, you must expect horrible pains and sufferings. Do you understand this?"

In case of a shooter, the given example may include "the bullet may have had too little gun powder behind it because the manufacturing machine had a failure, or the gun may have malfunctioned", but a sinkhole is always a possibility. After perhaps repeating sentences in case the first responder feels the need, the argument may be rephrased to continue:

"Moreover, allow me to add this: I will still be in your futures. If you attempt suicide, you will be unconscious in most of my futures. However, your mind must find itself in a future that seemed unlikely. You will find yourself in one of those terrible futures. Those futures also still have me present. So, your suicide will create those futures even for me. You ensure that in a few of my futures, I witness that you survive in terrible pains. I do not want that in any of my futures. So let me repeat: Those are the only futures you have. You will stay conscious or become conscious again in your possible futures. You will not die, but instead be badly disabled and likely in horrible pains for a long time."

# 3 The Extended Argument

Some well established physicists insist on that every microstate allowed by today's standard linear quantum physics is a "real" world. Their so-called "quantum suicide" discussions imply that staying alive has far more horrible futures than suicide, namely all possible accidents, however unlikely, at every moment that we stay alive. The suicidal patient may be aware of such and try to exploit it for argumentative rationalizations, perhaps even starting to partially commit suicide out of spite, to prove a point. Since even celebrated physicists fail, suicide counselors and first responders cannot be expected to argue properly against such. Nevertheless, it can be pointed out that:

"Academic scientists have been quite usually fundamentally wrong at any point in history. We should expect no better still today, because some quite simple questions have still not been answered, and there are already more mature descriptions. One aspect is certain: Your mind is more than the calculation of a brain in one single world. Fundamentally, every mind is intimately correlated with how all possible worlds or minds are mutually correlated. Nobody knows which conceivable futures actually exist for any given mind such as yours right now. This may depend on how many different kinds there are. If you do not attempt suicide, there are many more kinds of possible futures. Yes, there are then also futures conceivable where you have a bad accident, but there are far more possible good futures where you will be fine. So,

firstly, you will not find yourself necessarily immediately in a terrible future. Moreover, very unlikely terrible futures may then actually be impossible. If the number of good futures is far greater than the number of bad ones, the bad ones may not be at all!

Progress in physics shows how what was previously thought to be possible may be impossible, for example on grounds of quantum entanglement. Please do not judge according to today's unfinished theories of physics. Progress will likely reveal that scenarios with a very small probability actually have zero probability. Please do not increase the otherwise very small probability of very terrible futures by trying to commit suicide."

This is easily misinterpreted as if assuming a "real physical MW universe" and everybody having a fixed number of parallel "souls" that distribute around the most likely future worlds so that no souls remain available for very unlikely states, all as naïve as the concept of a single soul. Suicidal patients may never discuss such, let alone then still jump, but to boost the confidence of those preparing to use MW/M arguments against suicide, we should add:

"Considering conceivable minds, very strange conceivable situations vastly outnumber commonly expected situations. Therefore, a world apparently ordered according to physical laws could not be observed at all if very strange conceivable situations were not somehow suppressed; this is precisely what makes them unlikely.

We do not need hidden assumptions of philosophically naïve physical reality. The self-consistent logic relevant to minds includes dual descriptions such as self-consistent MW space-time geometry of the apparent physics that is the necessary content of possible minds either indirectly (hallucinating brains, VR computers) or more directly.

Present branching into futures is modeled by quantum superposition states turning into distinguished worlds, quantum entanglement "disentangles". Every disentanglement leads to other states entangling (such as in quantum teleportation). Differences that were distinguishable disappear, become indistinguishable. Previously distinguishable and partially excluded pasts merge and become possible pasts of the new present. It is as if the number of distinctions is finite. Hence, a further lowering of the number of otherwise seemingly possible distinguishable futures is reasonable. [In a large "real" universe, global entanglement could not possibly avoid terrible accidents happening to us a minute from now. However, the MW geometry around our apparent brains is, in effect, small (Vongehr 2020),<sup>21</sup> the popular models of infinite universes with unrestrained branching suffer from infinite redundancy."

Explaining any more detail is far beyond the scope of this article, but this much is the minimum required for completeness, for showing that the argument is nowhere based on hidden assumptions that cannot be confidently argued more reasonable and scientifically grounded than traditional alternatives. Death is fundamental. It is not unreasonable to demand from a self-described rational person who contemplates suicide partially due to frustration with overwhelming hypocrisy all around, to step from the window ledge and prove that they indeed take fundamental considerations, unpopular or not, seriously, and this far.

## 4 MW/M Ethics, Dangers and Testing

The use of the suggested argument is justified in emergency situations, certainly as a last ditch effort. If the suicide hotline counselor feels that after quite some time of talking a case will nevertheless result in suicide, there should be an alternative approach especially if the person seems too rationally set on ending their life. However, MW/M can conceivably increase suicide rates long term in the general population. What does it do to different personalities, thinking about different future copies of oneself, about worlds that have small probabilities but are nevertheless physically possible and therefore, according to standard linear quantum mechanics, equally "real" and unavoidable, no matter how terrifying the scenarios? Although MW/M has entered serious academic discussions, it is underappreciated, and instead of careful considerations such as our extended argument above, we find nonchalant dismissals such as

"Rejection of parallel universes. To the individual who decides whether to purchase a ticket in the lottery, it is irrelevant how he may fare in a parallel universe." (Peters 2011)<sup>22</sup>

On the contrary, MW/M description impacts especially the willingness to gamble, risk taking behavior. MW/M can be beneficial for many important public health issues. For example, smokers know that they may cause cancer, but the probability is easily thought to be small and in turn dismissed. It is quite natural and reasonable to focus our attention on those scenarios that are to be expected rather than unlikely scenarios. This psychology is one main obstacle hindering smoking cessation. MW/M improves this, because the futures of mine that suffer harsh consequences can no longer be dismissed as unlikely, even if they are few compared to the total of all my futures. Instead, my smoking creates them with certainty. Lucky smokers who do not yet suffer cancer do not feel much guilt under traditional ethics. However, under MW/M ethics, I will always feel guilty for smoking, because I cannot dismiss the copies of mine who will suffer and who already suffer. Dismissing their suffering on the grounds of that they are relatively few is a bad case of discriminating against minorities. People are more motivated to stop smoking if in addition to the likely cancer in their future there is the realization of that smoking creates such futures with certainty. "They will suffer if I light this cigarette", and "there already are parallel copies of mine suffering right now for every of my cigarettes before".

MW/M collides with traditional religious thought such as my single continuous "soul" that can be held responsible and judged for its actions. MW/M supposedly

brings complacency with it, that people will over-emphasize that no action changes totality, that all possible evils exist anyway, that suicide cannot subtract from it, nor can the decision to stay alive add the impossible, for example a future that remembers a successful suicide. How does it matter what I do? The philosopher can counter this (Vongehr 2013)<sup>23</sup>: A waiter has likely mistaken my order; I do not think "well, modal totality is what it is and I eat everything possible in all worlds anyway". Instead I think "that future me who remembers having not clarified once more will be consistent with getting undesired food, which would not arrive unexpectedly", thus I clarify once more to the waiter.

But philosophers are not suicidal lab technicians, and the MW/M description, especially in the depressed mind, can be spun into interpretations that emphasize the feeling of having no control, that all the merely conceivable also is and that I can do nothing about it; that my actions are meaningless and I may as well end it all. Philosophies that are related to the MW/M interpretations, such as Eleatic ancient philosophy, do facilitate a more relaxed attitude toward death. MW/M leads to the philosophy of personal identity (Parfit 1976; Lewis 1976). Nozick promoted the "closest successor/predecessor" (Nozick 1981)<sup>26</sup> as being the proper "me" inside the totality of all possibilities of conscious states. All these philosophies make it obvious that "we die every moment anyway". You are presently not the same person that read the previous sentence. That person is dead in this present and will never go to heaven, because she is the one who is squarely on earth a moment ago reading the previous sentence. Therefore, MW/M may increase rational suicides in the long term. We suggest two ways of testing our MW/M argument against suicide:

- 1) Emergency Use Trials: Several versions of the MW/M argument should be distributed to select suicide hotlines and first responders near suicide hot spots in order to gather those experts' input, their experiences with the argument's versions.
- 2) Long Term Suicide Prevention: We suggest teaching the MW/M argument in select schools to about one million students. It should be packed in a general discussion of the benefits of MW/M, including how smoking creates suffering futures with certainty and much more. Such lectures are already being prepared by the present author and contain directly personally helpful MW/M models understandable to a common lay audience, never abandoning scientific rigor, as well as reformulating concepts such as 'responsible agency' and 'causality/evolution' so that they do no longer clash with fundamental, "timeless" science. Follow-up interviews of these students should continue for 10 years. Suicide rates are commonly one per ten thousand people-years, for example a little less than half of this for Cornell university students (Jeffreys 2000)<sup>27</sup> and at the high end a little more than double for high school students in China. A significant effect of MW/M on suicide rates would then be obvious in comparison to the future suicide rate of similar students that were not exposed to MW/M. The students should be interviewed on how the lessons have influenced them, whether they increased rumination and depression, whether MW/M may have

prevented them from attempting suicide or other risky behavior, and any other impact on their thinking, on their feelings of being in control and attitude about their own status as responsible actors and the meaning of life for them.

## 5 Further Discussion including Natural Death

The argument should work well in emergencies, mainly because of 1) the great fear of pain during suicide and 2) the way the argument respects and talks to the rational part of the patient's mind, thus gaining access to the otherwise emotionally closed mind and buying time, lifting the person out of the emotional isolation via involving in an interesting argument, a novel, interesting way to see the world even. The MW/M argument may therefore, counter intuitively, suppress suicides that are not carefully planned but rather irrational over-reactions, sudden mental breakdowns, say for example in response to a break-up. For truly rational, planned suicides, the argument may only increase stress levels. Take for example oxygen deprivation by breathing pure nitrogen or "balloon time" helium (Humphry 1992).<sup>28</sup> The hypercapnic alarm response due to carbon dioxide blood levels is completely avoided. The patient loses consciousness already after 12 seconds. The body dies after a few minutes. Failure, say due to an earthquake disrupting the setup, may result in brain damage and a life constrained to a wheel chair. However, consider a terminally ill cancer patient already constrained to a bed and attempting to shorten his life by about one blurry week of pain. It is unreasonable to suggest that his assisted suicide attempt could add more painful life beyond the natural death approaching anyways. Natural death and what may come after needs discussing that VR is fundamentally indistinguishable from "real reality", which is beyond the scope of this article and suicide prevention. It has been sufficiently worked out to claim with confidence that those issues do not change the core argument against suicide (Vongehr 2020).

<sup>&</sup>lt;sup>1</sup> Jean M. Twenge, Thomas E. Joiner, Megan L. Rogers, et al.: "Increases in Depressive Symptoms, Suicide-Related Outcomes, and Suicide Rates Among U.S. Adolescents After 2010 and Links to Increased New Media Screen Time." Clinical Psychological Science (2018), Vol. 6(1) 3 –17

<sup>&</sup>lt;sup>2</sup> Holly B. Shakya and Nicholas A. Christakis: "Association of Facebook Use With Compromised Well-Being: A Longitudinal Study." Am J Epidemiol.; 185(3): 203-211 (2017) doi: 10.1093/aje/kww189

<sup>&</sup>lt;sup>3</sup> Daly, M.C.; Oswald, A.J.; Wilson, D.; Wu, S.: "Dark contrasts: The paradox of high rates of suicide in happy places." Journal of Economic Behavior & Organization 80(3), 435-442 (2011)

<sup>&</sup>lt;sup>4</sup> Matthew A. Killingsworth, Daniel T. Gilbert: A Wandering Mind Is an Unhappy Mind. Science 330(6006): 932 (2010), DOI: 10.1126/science.1192439

<sup>&</sup>lt;sup>5</sup> Devlin, K.: "The unfinished game." New York, NY: Basic Books (2008)

<sup>&</sup>lt;sup>6</sup> Cohen, E. G. D.: "Boltzmann and statistical mechanics." Accademia Nazionale dei

Lincei 131, 9–23, (1997)

- <sup>7</sup> Ehrenfest, P. & Ehrenfest, T.: "Begriffliche Grundlagen der statistischen Auffassung in der Mechanik." Leipzig, Germany: Teubner (1912). [Transl. by J. Moravcsik: "The conceptual foundations of the statistical approach in mechanics." Ithaca, NY: Cornell University Press, (1959)]
- <sup>8</sup> Everett, H.: "Relative State' Formulation of Quantum Mechanics." Rev Mod Phys 29, 454-462 (1957)
- <sup>9</sup> DeWitt, B. S., Graham, N.: "The Many Worlds Interpretation of Quantum Mechanics." Princeton University Press, Princeton NJ (1973)
- Deutsch, D.: "The Fabric of Reality." Allen Lane: New York (1997)
- <sup>11</sup> Albert, D. Z., Loewer, B.: "Interpreting the many-worlds interpretation." Synthese 77, 195-213 (1988)
- <sup>12</sup> M. Lockwood: "Many minds" interpretations of quantum mechanics. Brit. J. Phil. Sci. 47(2), 159-188 (1996)
- <sup>13</sup> Vongehr, S.: "Against Absolute Actualization: Three "Non-Localities" and Failure of Model-External Randomness made easy with Many-Worlds Models including Stronger Bell-Violation and Correct QM Probability." arXiv:1311.5419 (2013) <<a href="http://arxiv.org/abs/1311.5419">http://arxiv.org/abs/1311.5419</a>>>
- David Lewis: How Many Lives Has Schrödinger's Cat? The Jack Smart Lecture, Canberra, 27 June 2001. Australasian Journal of Philosophy. Vol. 82, No. 1, pp. 3-22; (2004) pp 21; also in Lewisian Themes: The Philosophy of David K. Lewis, F. Jackson and G. Priest, eds., Oxford: Oxford University Press. (2004)
- Vongehr, S.: "Live stops Six Meters above the Ground" <<www.science20.com/alpha\_meme/suicide\_life\_ends\_six\_meters\_above\_ground-78 133>>, as downloaded on 4.4.2020
- <sup>16</sup> Libet, B., Wright, E.W., Feinstein, B., and Pearl, D. K.: "Subjective referral of the timing for a conscious sensory experience." Brain 102, 193-224 (1979)
- <sup>17</sup> Libet, B.: "Are the mental experiences of will and self-control significant for the performance of a voluntary act?" Behavioral and Brain Sciences 10, 783-786 (1987)
- <sup>18</sup> Reesl, G., Kreiman, G., Koch, C.: "The Neural Correlates of Consciousness in Humans." Nature Reviews of Neurosciences 3, 261-270 (2002)
- <sup>19</sup> Libet, B.: "The experimental evidence for subjective referral of a sensory experience backwards in time: reply to P. S. Churchland." Philosophy of Science 48, 182-97 (1981)
- <sup>20</sup> Libet, B.: "The timing of a subjective experience." Behavioral and Brain Sciences 12, 183-185 (1989)
- <sup>21</sup> Vongehr, S.: "Many Minds Logic Virtual Reality Probability Limit & Pruned Plenitude." Vixra:2007.0131 (2020) <<a href="https://vixra.org/abs/2007.0131">https://vixra.org/abs/2007.0131</a>>
- <sup>22</sup> Peters, Ole: "The time resolution of the St Petersburg paradox." page 4920, Phil. Trans. R. Soc. A (2011) 369, 4913–4931
- Vongehr, S.: "Rational Suicide and Global Suicide in the amor fati of Modal Totality." Chapter 12, pages 229-268 of Death and Anti-Death, Volume 11: Ten Years After Donald Davidson (1917-2003). Charles Tandy (Ed.), Ria University Press (2013), Distributor: Ingram (Hardback: ISBN 978-1-934297-17-9, Paperback edition:

ISBN 978-1-934297-18-6)

- <sup>24</sup> Parfit, D.: "Lewis, Perry and what matters." in A. Rorty, ed.: "The Identity of Persons." University of California Press, Berkeley (1976)
- <sup>25</sup> Lewis, David. K.: "Survival and identity." in A. Rorty, ed.: "The Identities of Persons." University of California Press, Berkeley (1976); Reprinted in David Lewis, Philosophical Papers, Volume I, Oxford University Press, Oxford, (1983)
- <sup>26</sup> Nozick, Robert: "Philosophical Explanations." Harvard University Press (1981)
- <sup>27</sup> Jeffreys, Katharyn: "MIT Suicides Reflect National Trends." *The Tech*, Feb. 18. 2000, <<a href="http://www-tech.mit.edu/V120/N6/comp6.6n.html">http://www-tech.mit.edu/V120/N6/comp6.6n.html</a>>, as accessed on 12.12.2017
- <sup>28</sup> Humphry, Derek: "Final Exit: The Practicalities of Self-Deliverance and Assisted Suicide for the Dying." Delta Trade Paperback, (1992), 3rd updated edition (2002)