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Special Section: Euthanasia and Physician-Assisted Suicide: Murder or Mercy?

Reviving the Swan, Extending the Curse of Methuselah, or Adhering to the Kevorkian Ethic?

GEORGE P. SMITH II

The woods decay, the woods decay and fall. The vapors weep their burthen to the ground. Man comes and tills the field and he's beneath. And after many a summer dies the swan.

A. Tennyson, *Tithonus*, Poems of Tennyson 68 (J. H. Buckley, ed., 1958)

Literary Themes of Immortality

Art Imitates Life

Methuselah, it is said, lived 969 years. His state of health at death is not revealed. It can only be surmised that he was surely not robust and, no doubt, was subject to all of the infirmities of old age and the tragic indignities associated with senility.

Jonathan Swift captured well the "curse" of immortality when, in *Gulliver's Travels*, he created a group of individuals, the Struldbrugs, who, when encountered, dulled what had heretofore been an appetite for perpetual life.² The Struldbrugs were allowed to be born totally exempt from the "calamity of human Nature," in that their minds were free "and disingaged (sic), without the Weight and Depression of Spirits caused by the continued Apprehension of Death." They were thus condemned "to a perpetual continuance in the World." In his travels, Gulliver found some Struldbrugs well over 1,000 years old.⁵

Although immortal, the Struldbrugs were not spared the senile decrepitudes of old age, for they had "no teeth and hair and no distinction of taste," and they were subject to disease, loss of memory, and declining reading ability and thus could not enjoy entertainment. Because of their status, the Struldbrugs lost the ability to discover any form of personal happiness, which Swift suggests is to be found in "Understanding the Difference between Life and Death."

In Aldous Huxley's satirical novel, *After Many a Summer Dies the Swan*, ⁹ Jo Stoyte, a hard-driving, uneducated business tycoon living in Southern California, with the creative scientific assistance of Dr. Sigmund Obispo, undertakes a quest to avoid senility and escape death altogether. This state was thought achiev-

The research and writing of this article was undertaken during the Easter Term 1992, when I was a Visiting Fellow (and Visiting Member of the Faculty of Law) at Wolfson College, Cambridge University. I thank sincerely Professor Sir David G. T. Williams, the President of the College and Vice Chancellor of the University, and Lady Sally Williams for their friendship and for their many kindnesses shown to me during my stay.

able by slowing down the rate of human development by in turn transferring the intestinal flora of carp to the gut of mammals. ¹⁰ In the novel, the only handicap to this search for immortality is by a regression from the human state to the simian state. Thus, although the Fifth Earl of Hauberk—Stoyte's experimental role model—restores his youth and sexual vigor by a regular diet of raw fish guts, and thereby lives for over 200 years, he does so as an ape!

Old Wine in New Bottles?

Unmindful of the lessons that Swift and Huxley were trying to teach, many modern Americans continue to intensify their exploration of avenues that may lead to hoped-for immortality 11 — now, primarily, through continued experimentation 12 and use of cryonic suspension or deep-freeze burials 13 (in spite of the fact that no revival or reanimation has ever occurred from such a suspension). 14 They fail totally to understand that within life is death 15 and that indeed mortality is a blessing. 16

Surely, even the sickest—when life is still prized—would want to continue that life thinking and sensing and not being a mere digestive organism. ¹⁷ To enjoy worthwhile experiences, an individual must have a sense or presence of feeling. ¹⁸

Feeling lies open to pain as well as to pleasure, its keenness cutting both ways; lust has its match in anguish, desire in fear; purpose is either attained or thwarted, and the capacity for enjoying the one is the same as that for suffering from the other. ¹⁹

The general public is becoming more and more accepting of this attitude.

Changing Views of the American Public

The Harris and Harvard-Globe Polls

In 1982, a Louis Harris poll determined that 68% of Americans shared the opinion that physicians should be permitted legally to respect the wishes of their patients regarding terminal illness—even if to do so meant allowing the patient to die. ²⁰ A 1991 poll conducted by the Harvard University School of Public Health and *The Boston Globe* newspaper found a 13% increase in favorable response to this same issue, with some 81% agreeing that here patient autonomy is controlling and directive of all physicians' conduct. ²¹

The Harvard–Globe poll also showed nearly two out of three Americans favored doctor-assisted suicide and euthanasia when terminally ill patients request it. More specifically, 64% of those questioned favored doctor-assisted suicide—with 79% under the age of 35 approving the ideas as opposed to 53% of those respondents over 50. This poll demonstrated clearly that public sentiment has not been swayed by protestations, fears, and warnings expressed by ethicists, moralists, and some healthcare professionals that doctor-assisted suicide and active euthanasia will start society down the slippery slope of death on demand.²²

Perhaps these poll results show also that societal mores, not religious or moral ethical imperatives, are becoming more directive of ultimate societal action in this vital area of concern. ²³ Perhaps this poll shows also that futile medical interven-

tions are viewed by an increasing number of citizens as unloving and inhumane²⁴ for they perpetuate a life void of rehabilitation because of the terminal or vegetative condition of the patient.²⁵

New Judicial Directions

Coincident with growing public tolerance or acceptance of a right to self-determination at life's end has come the United States Supreme Court decision in *Cruzan v. Director, Missouri Department of Health*²⁶ and the national appearance of Dr. Jack Kevorkian's suicide machines.²⁷

Cruzan held that essentially terminally ill or vegetative individuals may be removed from life support systems if the at-risk individual or the guardian or surrogate decision maker can show by clear and convincing evidence that use of continued support systems was against the wishes of the patient. ²⁸ Refusal of medical treatment, then, is recognized as a protected liberty interest encompassed as such within the guarantees of the Due Process clause of the Federal Constitution. ²⁹ Equally important was the specific refinement and application of this interest to encompass the right to refuse medical treatment, including the artificial delivery of life-saving food and water (or nutrition and hydration). ³⁰

The Pivotal Catalyst

With the death of Mrs. Janet Adkins on 4 June 1990, the first public medically assisted suicide in the United States was recorded, ³¹ which in turn has become a strong catalyst for wide societal reaction to this issue. ³² Janet Adkins was a 54-year-old resident of Oregon who suffered from Alzheimer's disease. Not wishing to suffer progressively with the debilitating effects of the disease, while totally competent and with the full support of her husband and children, she decided to travel from Oregon (where it is a felony to assist in a suicide) to Michigan (where no such statutory prohibition existed at that time). ³³

After counseling with Mrs. Adkins and her family, reviewing her medical records, and consulting with her primary care physician in Oregon, Dr. Kevorkian agreed to let her use his "suicide machine." ³⁴ He was subsequently tried and acquitted of murder ³⁵ but was enjoined from using his suicide machine or other

such devices in the state of Michigan.36

The suicide machine consists now—as it did originally with the Adkins case—of three canisters of intravenous solutions, all fed into a common line, held by a single frame, and controlled by a switch and a timer. Initially, an intravenous saline solution is introduced to open the patient's veins. Once the control button is pushed, a valve stops the saline solution and then introduces pentothal (or thiopental) that in turn, within 30 seconds, induces a coma. Within this 30 seconds, the patient can exercise the option to reconsider the original decision and the procedure. If no action is taken, after the expiration of 1 minute, potassium chloride stops the heart, and death results within 5–6 minutes.³⁷

Medicide and the Kevorkian Ethic

To rehabilitate or restructure the taxonomic base meaning of assisted suicide, Dr. Kevorkian suggested that a new stylistic noun, "medicide," be introduced into the medical vocabulary. ³⁸ The word itself means the same—an act of assisted sui-

cide—but "sounds" better. A medical specialist who assists in a suicide, or performs "medicide," is to be described as a board-certified "obitiatrist." This suggested change in vocabulary is just the beginning of Dr. Kevorkian's efforts to structure a fail-safe model for institutionalizing, and thereby validating, the process of assisted suicide.

Under his scheme of checks and balances, an administrative network can be designed that allows a state to be divided into zones, according to size and density of population. Within each zone, five or more obitiatrists would be employed and serve an advisory function; namely, to decide which cases of requested medicide are justifiable. 40 Once an official request has been made for medicide to a primary obitiatrist, a comprehensive process of written documentation would ensure careful evaluations of clinical assessments of current and past hospital records of the applicant. During the lengthy evaluative process—in some cases as long as 8 months—a competent sociologist and, if the patient is of a religious faith, a religious counselor would be brought in for consultations. If during this process the patient expresses hesitancy or the primary obitiatrist has doubts about the advisability of going forward, the process would be either halted totally with the patient being forever excluded from the medicide program or the obitiatrist's doubts would be referred back to the total membership of the regional advisory panel for final decisions. 41

The candidate base for participation in the state medicide program would be broadened from the rather standardized "imminently terminal disease" model and would parallel the Dutch standard that includes "patients facing many years of excruciating and severely incapacitating illnesses such as crippling arthritis or emphysema, severe pneumonia and bronchitis, progressive degenerative neurologic diseases and stroke." ⁴² Under the Kevorkian plan, two procedures would be available for assisted suicide: lethal injection, activated by extremely light pressure on a hair trigger switch (as with Janet Adkins) or, if the patient's veins are scarred or fragile, by lethal gas. ⁴³

Seeking to draw a distinction between euthanasia and assisted suicide based on levels of professional responsibility, Dr. Kevorkian suggested that the term euthanasia means that a physician is obligated to be the direct agent of an act of killing, and the term assisted suicide means that the physician is but an indirect agent to the patient who, in fact, is the self-killer. ⁴⁴ Consistent with this posture, Kevorkian also stated that under the "new" practice of suicide (e.g., medicide), only obitiatrists should be exempted from a felonious charge of murder. ⁴⁵ In reality, most states have already decriminalized suicide and are exceedingly lax in enforcing prohibitions against assisting it. ⁴⁶ Nonetheless, Kevorkian maintained that suicide assisted by anyone other than obitiatrists should be prohibited strictly by law. ⁴⁷

Although the law might well stipulate that an official observer be present during the medicide evaluations, ⁴⁸ there is pressure for the medical profession itself to bear the total responsibility for developing the rules and regulations governing the practice of medicide. ⁴⁹ This delegation, sadly, is too casual for the law to assume in this matter. Self-policing by the medical profession—as will be seen in The Netherlands—is not controllable. The law and medicine must be full, cooperative partners in the development and regulation of any successful medicide program.

In summing up the ultimate effect of a medicide program, Kevorkian concluded that its mere availability

will reduce the need, desire and incidence of suicide among ill patients and elderly healthy individuals by relieving the sense of hopelessness in their panic-stricken minds. Rather than increasing the incidence of suicide, the practice of medicide will reduce it substantially and at the same time immeasurably enhance human welfare. ⁵⁰

The Dutch Experience

Since the early 1970s, in The Netherlands voluntary euthanasia has been an inherent part of the practice of medicine—and more or less accepted by Dutch law. The goal of the Royal Dutch Medical Association (KNMG) has long been to control this area rather than seek to prohibit it simply because the Association realized that rigid prohibitions, once established, could not be enforced uniformly or verified. Consequently, to assist those physicians participating in euthanasia the Association promulgated guidelines that tested the voluntariness of the patient's decision to undertake the act itself and whether the request was well considered, the result of a durable death wish, or made because of an unacceptable level of suffering. The primary physician on the case is also required to consult with colleagues to test the need and validity of the patient's request for euthanasia. Criticized as being too loose, additional questions have been raised regarding whether the criteria state necessary, as opposed to merely sufficient, conditions for lawful euthanasia.

Largely in an effort to test the effectiveness of these guidelines and at the same time to conduct its first truly national survey regarding the prevailing practice of voluntary and involuntary euthanasia, in 1990 the Dutch government undertook a retrospective study of the practice of more than 400 physicians in this field. 57 The results were startling. One result was an official admission that active involuntary euthanasia is practiced regularly and at rates higher than ever expected.⁵⁸ The reasons physicians listed for routinely disregarding the guidelines (or rules of careful conduct) were listed as the patient's quality of life and lack of prospects for improvement together with familial concerns of not being able to cope with the medical condition of their loved ones. 59 The survey revealed that of the approximate 130,000 deaths each year in The Netherlands, 25,306 were cases of euthanasia60; and of this number, 14,691 cases (11.3%) were determined to be involuntary in nature. 61 One thousand cases within this figure were listed as examples of active involuntary euthanasia. A further breakdown showed 8,100 cases where morphine was given excessively to end life, and of this figure, 4,941 cases (61%) were administered without consent of the patient. 62

Involuntary Acts of Euthanasia

Eight thousand seven hundred fifty cases were reported as ones where life-extending treatment was either withheld or stopped to end the patient's life without consent. 63 However, 6,700 requests for euthanasia are rejected each year. 64 Without this figure, the overall statistical profile could be interpreted as showing a progressive slide down the slope from voluntary, self-determined euthanasia to death by unilateral medical determination. 65 Two points must be made: 1) the rate of refusal for voluntary euthanasia shows clearly the level of serious consideration given requests for this procedure, 66 and 2) the principal reasons given for involuntary euthanasia are of the highest level of professional reasoning—

medical futility and low quality of "life" together with general medical com-

passion.67

The validity of the reasons for directing the use of involuntary euthanasia is shaped by the situation in which they are raised and thereby tested. Of necessity, the reasons are fluid and flexible and involve a balancing of costs (human and economic) versus benefits (human, emotional, spiritual) of maintainingwith either ordinary or extraordinary efforts - the life of an extremely ill or terminal patient.68

Dr. Edmund D. Pellegrino, Director of The Georgetown University Center for Advanced Ethics, acknowledged that the definition of futility involves the testing of a ratio of which the components are effectiveness (i.e., does the proposed medical action favorably affect the natural history of the disease) benefit (judged not to be beneficial to the at-risk patient based on all medical evidence presented) and burden (e.g., pain to the patient and costs of maintenance). 69 The ultimate goal of every medical intervention should be simply to minimize suffering and maximize the social good or value inherent in continued life.70

Conclusion

The Kevorkian ethic is one that respects autonomy of self-determination in all final healthcare decisions. It is designed to restrain the limits of excruciating human suffering and is, thus, not only humane but compassionate. It is a contemporary ethic of great moment for it captures well the emerging public attitudes about death. Although the right to death with dignity may not be acknowledged uniformly as a fundamental right by all states, it is at least being recognized more and more as a humane and enlightened policy.

Competent persons should be recognized as having both a moral and a legal right - acting for whatever purposes - to determine their life plan, either to sustain it or end it; only through self-determination is the full meaning of liberty

acknowledged.71

Fears of slippery slopes invariably accompany every new release of knowledgescientific or otherwise. Such fears discount the rationality of human beings and demean the ability to meet and resolve personal crises. In the present context of analysis, this fear discounts totally the attitudes of the medical profession. Ensuring that a medical program is effective would mean forging a strong partnership between the legal and the medical professions. Before advancing plans of this nature, obviously more dialogue and debate must occur. One thing is certain: the time is now ripe to confront anew—and finally to resolve—this grave contemporary conundrum that in essence is but one aspect of determining the limits of self-determination.

Notes

- 1. Genesis 5:20.
- 2. Swift J. Gulliver's Travels (Turner P, ed.). Oxford, England: Oxford University Press, 1971:208-14. 3. See note 2. Swift 1971:208.
- 4. See note 2. Swift 1971:213.
- 5. See note 2. Swift 1971:214.
- 6. See note 2. Swift. 1971:213. 7. See note 2. Swift. 1971:213.
- 8. See note 2. Swift. 1971:209.

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- 9. Huxley A. After Many a Summer Dies the Swan. New York: Harper, 1939.
- 10. See note 9. Huxley. 1939:74-76.
- 11. Smith GP. The province and function of law, science and medicine: leeways of choice, patterns of discourse. *University of New South Wales Law Journal* 1987;10:103–27.
- Smith GP. The Frankenstein myth and contemporary human experimentation: spectre, legacy, curse or imperative. BioLaw 1990;S463–82.
- 13. Smith GP. Medical-Legal Aspects of Cryonics: Prospects for Immortality. New York: Associated Faculty Press, 1983. The California Court of Appeals determined recently that a terminally ill patient's request to have his body cryogenically preserved before his illness causes death (premortem) would violate his state's prohibition against aiding and abetting suicide. See Donaldson versus Van De Kamp. No. B055657 (Cal. Ct. App. 2d Dist., 1 Jan. 29 1992), 60 United States Law Week 1992 Feb. 25:2521.
- 14. Smith GP. Cryonic suspension and the law.
- 15. Jonas H. The burden and blessing of mortality. Hastings Center Report 1992;22(1):34-40.
- 16. See note 15. Jonas. 1992:40.
- 17. See note 15. Jonas. 1992:37.
- 18. See note 15. Jonas. 1992:36.
- 19. See note 17. Jonas. 1992:37.
- Anonymous. Euthanasia favored in poll. The New York Times 1991 Nov. 4;sect. A:16. Smith GP.
 All's well that ends well: toward a policy of assisted suicide or merely enlightened self determination? California-Davis Law Review 1989;22:275–419.
- 21. See note 20. Anonymous. 1991:sect. A:16.
- See note 20. Anonymous. 1991; sect. A:16. Smith GP. Re-thinking euthanasia and death with dignity: a transnational challenge. Adelaide Law Journal 1990; 13:480–92.
- 23. Kevorkian J. A fail-safe model for justifiable medically assisted suicide (medicide). American Journal of Forensic Psychiatry 1992;13:7–41. A 1990 Roper religious affiliation poll showed that of a nation-wide cross section of 1,978 men and women, 64% were of the opinion that in those cases of painful terminal illness, upon request, a physician should end a patient's life. This figure was a composite of Protestant, Catholic, Jewish, and other belief holders. Jezewski S. Can a suicide machine trigger the murder statute? Wayne Law Review 1991;37:1921, 1944 n. 131.
- 24. Smith GP. Stop, in the name of love! Anglo-American Law Review 1990;19:55-71.
- Smith GP. Death be not proud: medical, ethical and legal dilemmas in resource allocation. Journal
 of Contemporary Health Law and Policy 1987;3:47–63.
- 26. 110 Sup. Ct. 2841 (1991).
- 27. See note 23. Jezewski. 1991;37:1921-50.
- 28. See note 26. Cruzan v. Director, Missouri Department of Health.
- See note 26. Cruzan v. Director, Missouri Department of Health. 1990:2852, per Rhenquist CJ; 2856-57, per O'Connor J, concurring.
- 30. See note 26. 1990:2852 per Rhenquist CJ; 2856-7, per O'Connor J, concurring.
- 31. See note 23. Jezewski. 1991;37:1924 n. 14.
- Begley S, Starr M. Last rights. Newsweek 1991 Aug. 26:40–8. Smith GP. Final Choices: Autonomy in Health Care Decisions. Springfield, Illinois: Charles C Thomas, 1989. Elliott C. Dying rites: Ethics of euthanasia. New Scientist 1992(134); Jun. 20:25.
- 33. See note 23. Jezewski. 1991;1922 passim.
- 34. See note 23. Jezewski. 1991;37:1923.
- 35. See note 23. Jezewski. 1991;37:1925.
- 36. See note 23. Jezewski. 1991;37:1926. Because of his assistance in the subsequent deaths of Sherry Miller and Marjorie Wantz on 23 October 1991 40 miles outside of Detroit under circumstances similar to those surrounding the Janet Adkins case, on 28 February 1992, an Oakland County District Judge in Michigan ruled Dr. Kevorkian should stand trial for murder. Walsh E. Judge order Kevorkian to trial in two deaths: confrontation set up on right-to-die issue. The Washington Post 1992 Feb. 29;sect. A:3. On 22 July 1992, the murder charges were dismissed. Brown D. Murder charges dismissed in suicide-doctor case: judge advises Kevorkian not to assist others. The Washington Post 1992 Jul. 22;sect. A:3.
- 37. See note 23. Jezewski. 1991:n. 5, 6.
- 38. See note 23. Kevorkian. 1992;13:10.
- 39. See note 23. Kevorkian. 1992;13:11.
- 40. See note 23. Kevorkian. 1992;13:12.
- 41. See note 23. Kevorkian. 1992;13:14.
- 42. See note 23. Kevorkian. 1992;13:19-20.

- 43. See note 23. Kevorkian. 1992;13:16.
- 44. See note 23. Kevorkian. 1992;13:17.
- 45. See note 23. Kevorkian. 1992;13:25.
- 46. See note 20. Smith. 1989;22:283.
- 47. See note 23. Kevorkian. 1992;13:25.
- 48. See note 23. Kevorkian. 1992;13:25.
- 49. See note 23. Kevorkian. 1992;13:25.
- See note 23. Kevorkian. 1992;13:20. Kevorkian J. Prescription: Medicide. The Goodness of Planned Death. New York: Prometheus Books, 1991.
- 51. Keown IJ. The law and practice of euthanasia in The Netherlands. Law Quarterly Review 1992;108:51-78.
- 52. See note 51. Keown. 1992;108:78.
- 53. See note 51. Keown. 1992;108:58-60.
- 54. See note 51. Keown. 1992;108:60.
- 55. See note 51. Keown. 1992;108:70.
- 56. See note 55. Keown. 1992;108:70.
- 57. See note 51. Keown. 1992;108:66 passim.
- 58. Fenigsen R. The report of the Dutch Governmental Committee on Euthanasia. Issues Law & Medicinel 1991(6);339-49, 342, 344. Nowak R. The Dutch way of death. New Scientist 1992 Jun. 20:28. In the state of Victoria, Australia, a recent survey revealed physicians and nurses are practicing active euthanasia, and a majority of them favor the introduction of guidelines here similar to those presently used in The Netherlands. Id. at 30.
- 59. See note 58. Fenigsen. 1991:343.
- 60. See note 58. Fenigsen. 1991:340, 341.
- 61. See note 60. Fenigsen. 1991:340, 341.
- 62. See note 58. Fenigsen. 1991:341.
- 63. See note 58. Fenigsen. 1991:342.
- 64. See note 63. Fenigsen. 1991:342.
- Dawson J. Last rites and wrongs euthanasia: autonomy and responsibility. Cambridge Quarterly of Healthcare Ethics 1992;1:81–6.
- 66. See note 58. Fenigsen. 1991(6):342.
- 67. See note 58. Fenigsen. 1991(6):343.
- 68. See note 25. Smith. 1987;3:47-63.
- 69. Pellegrino ED. Remarks, Symposium on the Ends of Life: The Legal, Medical and Spiritual Dimension, 23 Feb. 1992. Washington, D.C. Pellegrino ED. Rationing health care: the ethics of gate-keeping. Journal of Contemporary Health Law and Policy 1986;2:23–37. It has been urged that the judicial acceptance of the medical profession's presumption in favor of continued treatment is unwise and should be replaced by a presumptive right of families to exercise discretion over treatment decisions. Rhoden NK. Litigating life and death. Harvard Law Review 1988;102:375–446. See also Gibbs N. Love and let die. Time 1990 Mar. 19:62–70.
- 70. See note 24. Smith. 1990;19:70–1. See note 32. Smith. 1989. Smith GP. The New Biology: Law Ethics and Biotechnology. New York: Plenum, 1989. The majority view of the British Institute of Medical Ethics working party on The Ethics of Prolonging Life and Assisting Death on assisted suicide is that if the need to relieve intense and unnecessary pain or distress caused by incurable illness that cannot be relieved by other means—pharmacological, surgical, psychological, or social—outweighs greatly the benefit to the patient of the further prolongation of life, a physician who acts in good conscience to effectuate the wish of his or her patient here is justified ethically in assisting death. Boyd KM. Assisted death: Institute of Medical Ethics working party on The Ethics of Prolonging Life and Assisting Death. The Lancet 1990 Sep. 8:610–3.
- 71. Efforts to place a voter initiative on the November 1992 general election in California permitting physician aid-in-dying under a proposed Death with Dignity Act have been duplicated by similar proposed legislative measures in Maine, New Hampshire, Iowa, and Michigan. A state of Washington referendum item similar to that in California was defeated last year. Prodgers J. Matters of life and death: debate grows over euthanasia. *American Bar Association Journal* 1992;78:60-3.