University of Miami Law Review

Volume 68
Number 1 *Volume 68 Number 1 (Fall 2013)*

Article 5

10-1-2013

FUTURLAWMA: 21st Century Solutions to 31st Century Problems

Justin S. Wales

FUTURLAWMA: 21st Century Solutions to 31st Century Problems

JUSTIN S. WALES[1]

I. INTRODUCTION

Having been inadvertently frozen in a cryogenic chamber for 1,000 years, Philip J. Fry finds himself facing the all-too-common fictional dilemma of adjusting to life in the distant future. Unequipped for the 31st Century, Fry joins the rag-tag group of humans, mutants, robots, Martians, and anthropomorphic crustaceans that work for Planet Express, one of New New York's less reputable parcel carriers. Led by Professor Hubert J. Farnsworth, Fry's great-great nephew, the Planet Express crew supplies Fry with a job and a

1. J.D., University of Miami School of Law; B.A., University of California, San Diego.

This paper is (not literally) the least I could do. Matt Groening, David X. Cohen, Al Jean, and the (many, many) other writers of The Simpsons and Futurama have shaped the way I think of humor, politics, religion, and culture in a way that is likely not unique to members of my generation. Since (almost literally) my birth, I have been exposed to, and influenced by, their writing, and, as all great art does, it has inspired me both artistically and intellectually. With Futurama having recently come to an(other) end, I wanted to send it off the only way I know how—with a lengthy, esoteric, and likely to-go-unread law review article. I would like to thank the University of Miami Law Review for agreeing to publish this ridiculous paper, my fonfon ru Eva for a lot of things, Dr. John D. Zoidberg and Joshua Plager for a few things, and Joseph Ho for nothing. Ever. He knows what he did.

To find out more about me, including what I do when I am not watching cartoons, visit www.justinwales.com. If by some chance a Simpsons or Futurama writer ends up reading this article, thank you. Your work has made the world smrter.

chance of surviving the post-post[2] apocalyptical world that is the year 3000. Simply stated, that is the plot of Futurama, the second most popular animated series created by Matt Groening.

Much has been written about Futurama's connections to the fields of math and science. Dozens of websites are dedicated to explaining the countless mathematic and scientific in-jokes and references hidden in the series, and the show has even been credited in creating a mathematical proof that proves the properties of an irreversible body swap scenario.[3] That proof was written by Futurama writer and applied mathematics Ph.D. Ken Keeler.[4] Used in the episode "The Prisoners of Benda,"[5] and explained in the episode by fictional Harlem Globetrotters and mathematicians, Ethan "Bubblegum" Tate and "Sweet" Clyde Dixon, "The Futurama Theorem," as it has come to be known, was implemented by the writers to save the Planet Express crew from a body swap conundrum initiated by one of Professor Farnsworth's inventions. That the show's writers are able to so often utilize such high-minded plot devices into each episode led me to consider whether the topics and issues presented in Futurama could be used to explore issues beyond the scope of mathematics and science. Why, after all, should *those* nerds have all the fun?

When viewed through the eyes of a J.D., Futurama challenges many notions regarding the law and how we would expect—or hope—the law to evolve over the next millennium. This article will use the technological and sociological possibilities presented in Futurama as a means of pushing the boundaries of jurisprudential analysis by finding parallels to modern legal dilemmas and exploring how continued technical achievements might have an effect on how we view the law and ourselves. By doing so, I hope to do for this article's readers what I believe Futurama's writers do for its viewers: use the absurdity of the show as a vehicle (likely a spaceship) for discussing important issues about what life will be like in the future.

At 140 episodes, the number of philosophical and jurisprudential issues that could be discussed in this article could produce an anthology of interest. In order to narrow the paper's scope, I decided to explore a

2. *First Destruction of New York City*, INFOSPHERE.ORG (Oct. 24, 2012, 11:33), http://www.theinfosphere.org/First_Destruction_of_New_York_City.

3. Casey Chan, *Futurama Writer Invented a New Math Theorem Just to Use in the Show*, GIZMODO.COM (Aug. 21, 2010, 12:30 PM), http://gizmodo.com/5618502/futurama-writer-invented-a-new-math-theorem-just-to-use-in-the-show; *see also* Dana C. Ernst, *Talk: The Futurama Theorem and Some Refinements*, DANAERNST.COM (Nov. 23, 2012), http://danaernst.com/talk-the-futurama-theorem-and-some-refinements.

4. Chan, *supra* note 3.

5. *Futurama*: *The Prisoner of Benda* (FOX television broadcast Aug. 19, 2010).

duo of issues concerning our existential understandings of life and death in the future and how technological advancements may instigate a perceptional change in human identity.

Part II of our discussion will begin with the legal and moral implications that may arise through advancements in the field of cryonics. Working under the assumption that technology will eventually allow a person to cryogenically preserve oneself for 1,000 years or more, fundamental legal and philosophical principles will require reevaluation. For example, this article will examine whether a cryogenically frozen individual should be deemed alive or dead in the eyes of society and the law. If the law treats those individuals as alive, their existent status will undoubtedly affect estate planning and force the reevaluation of many settled issues of law. If considered dead, a bevy of questions will emerge as to the individual's legal status upon reanimation. Part III of this article will explore the implications upon both society and the law if science is successful at genetically cloning a human being. Among the issues discussed in this section are the rights and responsibilities of both donor and clone, as well as the possible constitutional implications of government regulation of the cloning process. This article will posit that the possibility of human cloning will force drastic changes in our understanding of heirdom, parenthood, and fertility, but not necessarily in our understanding of freedom or autonomy. Finally, Part IV will offer a concluding thought on what it means to be human in a world of rapidly changing technology, and will urge readers to use the pages (or DVDs) of science fiction as a means of challenging our understanding of society and the law. "Interesting Stuff! Stay tuned for more . . . ."[6]

II. "WELCOME TO THE WORLD OF TOMORROW!"[7]

My god! It's the future! My parents! My coworkers! My girlfriend . . . I'll never see any of them again . . . YAHOO!![8]

—Philip J. Fry

It is the curse of the human condition that we live with the knowledge of our own mortality. Our fate is assigned: "[d]eath borders upon our birth, and our cradle stands in the grave."[9] But is the ability to escape death completely out of our reach? According to Futurama's version of the year 3000, the answer is no. In the Futurama universe, there are at least two ways one can go about cheating death. One can either

6. *Futurama: Anthology of Interest I* (FOX television broadcast May 21, 2000).
7. *Futurama: Space Pilot 3000* (FOX television broadcast Mar. 29, 1999).
8. *Id.*
9. HERBERT LOCKYER, LAST WORDS OF SAINTS AND SINNERS 9 (1969).

best the Robot Devil in a fiddle-playing contest,[10] or, alternatively, cryogenically preserve one's body for future reanimation with the hope that whatever life-threatening ailment one currently suffers from will be cured in the future.[11]

While the eventual existence of Robot Hell is suspect, the practice and study of cryonics is very much a real thing. At the time of this article's publication, over 200 bodies[12] have been preserved in one of three non-profit cryopreservatories around the country.[13] The choice to cryogenically freeze one's body is a gamble on future generation's scientific breakthroughs, and an expensive gamble at that. The costs of a full-body preservation at the Alcor Life Extension Foundation, for example, can bear costs exceeding $200,000.[14] Alcor itself admits that cryonics is a "speculative" practice[15] and Alcor's website displays tongue-in-cheek quotes such as "Cryonics is an experiment. So far the control group isn't doing very well."[16] Despite being a gamble, however, it is not hard to imagine why someone with the means would make such a bet. By offering the hope—no matter how small—that death may not be a permanent destination, the thought and acceptance of our own mortality may be easier to accept.

A. *"You can solve all of life's problems by freezing them!"*[17]

We will begin our discussion by comparing the practices and procedures of two cryonics facilities; one real, one imagined. Applied Cryogenics is Futurama's fictional cryonics facility. Originally located in New York City,[18] and dating back to at least 1997, Applied Cryogenics offers its "patients" the chance to suspend their pre-mortem bodies in a deep-freezing cryogenic chamber and provides services to its patients

10. *Futurama: Hell is Other Robots* (FOX television broadcast May 18, 1999).

11. *Futurama: Space Pilot 3000* (FOX television broadcast Mar. 29, 1999). You will, however, have to remember to take your Boneitus pills.

12. *Comparing Procedures and Policies*, CRYONICS.ORG, http://www.cryonics.org/comparisons.html#Existing (last visited Apr. 1, 2013).

13. *Id.*

14. *Cryopreservation Agreement – Schedule A: Required Costs and Cryopreservation Fund Minimums*, ALCOR.ORG, http://www.alcor.org/BecomeMember/scheduleA.html (last updated Jan. 1, 2013).

15. *What is Cryonics?*, ALCOR.ORG, http://www.alcor.org/AboutCryonics/index.html (last visited Apr. 1, 2013).

16. *Notable Quotes*, ALCOR.ORG, http://www.alcor.org/notablequotes.html (last visited Apr. 1, 2013).

17. *Applied Cryogenics*, FUTURAMA.WIKI.COM, http://futurama.wikia.com/wiki/Applied_Cryogenics (last visited Apr. 1, 2013).

18. The facility was relocated to New New York sometime after the city's destruction in 2308. *See Futurama: Bender's Big Score* (FOX television broadcast Nov. 27, 2007).

upon reanimation to help them adjust to their new temporal existence.[19] In contrast, real-life cryonics facilities, like the Alcor Life Extension Foundation, which is located in Scottsdale, Arizona, offers patients the opportunity to preserve their bodies and brains, or even pets,[20] in liquid nitrogen after the patient has been declared "legally dead."[21] Its facility is funded via an irrevocable Patient Care Trust, which was created in 1997.[22] The trust holds the mortgage on Alcor's property, and its remaining investments are held by Morgan Stanley.[23] Included in the fees patients pay to secure Alcor's services is the money that Alcor places in trust for the financial sustainment of the facility's operation.[24]

Because of pesky state laws prohibiting homicide and assisted suicide,[25] Alcor is not a "cryonics" facility in the truest sense of the word, but rather a "cryopreservation" facility.[26] Modern cryonics attempts to preserve a body after the body is pronounced "legally dead," but before the body's organs lose all life sustaining capabilities.[27] Often, this period of time is extremely short—lasting mere minutes—but if a patient is prepared within that time, blood, circulation, and breathing can be artificially restored and the patient can be preserved in liquid nitrogen while still being "biologically viable."[28] In other words, if a patient dies of a heart attack, the "[c]ardiac death isn't a diagnosis of death, it is a prognosis of death."[29]

Alcor's methods of preserving life before "biological death" are based largely on the theories of Dr. Robert Ettinger, as set forth in his influential book "The Prospect of Immortality."[30] While the realities of reanimation are contentiously debated,[31] modern science has advanced

---

19. After defrosting a patient, Applied Cryogenics employees examine the newly-defrosted individual with a device known as the "probulator," and then implant a career chip into the patient's hands which will confine the thawed patient to the job he or she is best suited to perform. *Futurama: Space Pilot 3000* (FOX television broadcast Mar. 29, 1999).

20. *Frequently Asked Questions: Membership Questions*, ALCOR.ORG, http://www.alcor.org/FAQs/faq06.html (last visited Apr. 1, 2013).

21. *Frequently Asked Questions: General Questions*, ALCOR.ORG, http://www.alcor.org/FAQs/faq01.html (last visited Apr. 1, 2013).

22. *Frequently Asked Questions: Membership Questions*, *supra* note 20.

23. *Id.*

24. *Id.* ("Alcor places $25,000 into the Trust for each neuropatient and $115,000 for each whole body patient.").

25. *See generally* Adam A. Perlin, *"To Die in Order to Live": The Need for Legislation Governing Post-Mortem Cryonics Suspension*, 36 SW. U. L. REV. 33 (2007).

26. *Frequently Asked Questions: Membership Questions*, *supra* note 20.

27. *Frequently Asked Questions: General Questions*, *supra* note 21.

28. *Cardiopulmonary Support in Cryonics*, ALCOR.ORG, http://www.alcor.org/Library/html/CardiopulmonarySupport.html (last visited Apr. 1, 2013).

29. *Id.*

30. ROBERT C.W. ETTINGER, THE PROSPECT OF IMMORTALITY (1964).

31. *See, e.g.*, Robert L. Steinback, *Frozen in Time*, MIAMI HERALD, Sept. 17, 2002, at 1E.

to the point where scientists can successfully cryogenically preserve organs, blood, and embryos,[32] and even revive a person after as long as three-and-a-half hours of being declared clinically dead.[33] While it is uncertain whether Dr. Ettinger's theories on immortality are scientifically valid, such a discussion is beyond both the scope of this article and the intelligence of its author. What we can say with some confidence, however, is that "[a]lthough no one can quantify the probability of cryonics working . . . certainly *nobody* can say it is zero."[34]

B. *"Why must you analyze everything with your relentless logic?"*[35]

Continuing under the assumption that Dr. Ettinger's theories will eventually be vindicated by science, fundamental beliefs concerning mortality, death, and religion will need to be reevaluated. For the purposes of this article, however, we will limit the scope of our inquiry to two fundamental questions: What does it mean to die, and how must society adapt to a fundamental change in that meaning? As we will see, such questions are not easily answered.

Beliefs about death are deeply personal. Often rooted in faith and religion, the confidence or uncertainty about what becomes of our soul or spiritual life-force at death is not of our immediate concern. Philosophers and religious leaders will certainly struggle with such questions if cryonic reanimation becomes a reality, much as they have struggled with such questions from time immemorial.

Compared to such divine inquiries, defining the moment life ceases seems simple. According to medical standards, death occurs when a body experiences "the permanent absence of respiration and circulation."[36] Under such a definition, however, technologies that leave open the likelihood of future reanimation could fundamentally alter our concept of death. Because we can never be certain that at some point in the future a scientific resurrection of our vitality will occur, permanence no longer can be considered the deciding factor in determining death.

Bioethicists have struggled with the meaning of death and have, throughout modern history, offered different biological definitions for

32. Ryan Sullivan, *Pre-Mortem Cryopreservation: Recognizing a Patient's Right to Die in Order to Live*, 14 QUINNIPIAC HEALTH L.J. 49, 55–56 (2010).

33. *Cardiac Resuscitation After 3.5 Hours on 'Autopulse' Support Pump*, ARWATCH.CO.UK, http://arwatch.co.uk/2011/02/cardiac-resuscitation-after-3-5-hours-on-%E2%80%98autopulse%E2%80%99-support-pump (last visited Apr. 1, 2013).

34. *Notable Quotes*, *supra* note 16.

35. *Futurama: The Cryonic Woman* (FOX television broadcast Dec. 3, 2000).

36. PRESIDENT'S COMM'N FOR THE STUDY OF ETHICAL PROBLEMS IN MED. AND BIOMEDICAL AND BEHAVIORAL RESEARCH, DEFINING DEATH: MEDICAL, LEGAL AND ETHICAL ISSUES IN THE DETERMINATION OF DEATH 3 (1981), *available at* http://bioethics.georgetown.edu/pcbe/reports/past_commissions /defining_death.pdf.

the term.[37] What remains constant in the various explanations of death, however, is the idea of permanence. In this sense, "death is not an event, nor even a process, but rather a prediction; a prediction that such and such an individual will not be seen alive again."[38] If technology could allow a legally or biologically "deceased" individual to be reanimated, that individual's suspended state cannot truly be classified as "dead" according to any accepted definition and must, at least semantically, be distinguished.

C. *"No! I want to live! There are still too many things I don't own!"*[39]

To better illustrate the problems with defining the present status of a cryogenically preserved individual, let us create our own hypothetical. Let's say a woman, we will call her Catherine, suffers from a terminal illness that will undoubtedly cause her death within six months of diagnosis. Catherine is forty years old, has two young children, was predeceased by her husband, and is the owner of a considerable estate. Wishing to avoid the indignity of a slow death, Catherine contacts a cryogenics facility and agrees to have her body cryogenically frozen before both her legal and biological death in the hope that medical science will eventually be able to cure her illness and she will be able to resume her life in the future. In other words, according to a modern understanding of the terms, Catherine "wishes to die in order to live."[40]

Under the current state of the law, Catherine faces a number of challenges. While an individual may legally have his or her body cryogenically stored,[41] pre-mortem preservation still implicates pertinent state interests in preventing homicide and suicide.[42] The California Court of Appeals, in a 1992 decision, rejected a declaratory petition by mathematician Thomas K. Donaldson that would have recognized his constitutional right to pre-mortem cryonic suspension.[43] Donaldson, like our fictional character Catherine, was diagnosed with a terminal condition—an inoperable brain tumor—that would ultimately result in his death.[44]

Arguing that his "right to privacy and self-determination are para-

37. *See generally id.*

38. Thomas A. Robinson, *Stop! Are You Sure You Want to Throw Grandpa's Body Away?*, 63 U. MIAMI L. REV. 37, 54 (2008).

39. *Futurama: The Honking* (FOX television broadcast Nov. 5, 2000).

40. Donaldson v. Lungren, 4 Cal. Rptr. 2d 59, 60 (Cal. Ct. App. 1992).

41. *See* Perlin, *supra* note 25.

42. *Id.* at 51.

43. *Donaldson*, 4 Cal. Rptr. 2d at 61, 65.

44. *Id.* at 60.

mount to any state interest in maintaining life," Donaldson asked the court to allow him to do with his body as he wished.[45] Relying on then-recent right-to-die cases that held that patients possess a constitutional right to refuse life-saving medical treatment,[46] Donaldson argued that such case law creates a legal fiction that authorizes a form of suicide that is essentially indistinguishable from the type he wishes to commit.[47] Recognizing that Donaldson makes a "persuasive argument that his specific interest in ending his life is more compelling than the state's abstract interest in preserving life in general,"[48] and that Donaldson "may take his own life,"[49] the Court rejected his right to die by another's hands, because, by doing so, it would prevent "public officers from performing official acts that they are required by law to perform."[50] Under California law, "[t]he coroner is required to inquire into deaths involving suicide or homicide and to carry out his or her inquiry, may take custody of the remains and examine the body of a homicide or suicide victim."[51] The Court, unwilling to grant Donaldson's petition, stated that such a matter was better suited for the state's legislature.[52]

No legislation currently exists that would specifically address the needs of people like Donaldson or our fictional Catherine.[53] Supposing such legislation was passed, however, the question of how to classify a cryonic patient's present status must be answered. The next section will analyze how such a patient's rights and duties would differ according to the legal status of pre-mortem cryogenically preserved individuals.

1. "THE CAT, IS IT ALIVE OR DEAD? ALIVE OR DEAD?!"[54]

In 1935, physicist Erwin Schrödinger developed his now-classic thought experiment as a critique of the Copenhagen interpretation of quantum mechanics. The experiment involved a hypothetical cat trapped in a steel chamber along with a Geiger counter containing a small radioactive substance. Within an hour, the small radioactive substance had an equal probability of decaying or of remaining constant. If the atomic substance decays, the counter tube will discharge, and through a relay, release a hammer that shatters a flask filled with hydrocyanic acid that

45. *Id.* at 61.

46. *Id.* (citing Cruzan v. Director, Mo. Dep't. of Health, 497 U.S. 261, 278 (1986)).

47. "As is often true in times of social transition, case law creates fictions to avoid affronting previously accepted norms." *Id.* at 63.

48. *Id.*

49. *Id.*

50. *Id.* at 64.

51. *Id.*

52. *Id.*

53. Perlin, *supra* note 25, at 37, 52.

54. *Futurama: Law and Oracle* (Comedy Central television broadcast July 7, 2011).

will kill the cat. If the substance does not decay, the cat will remain unharmed. Schrödinger argued that, according to quantum-mechanic theorists, the cat is both alive and dead, in equal parts, until the box is opened and the true state of the cat becomes known.[55] The Schrödinger's Cat thought experiment, though absurd by design, presents a scenario not completely unlike our hypothetical with the fictional character Catherine.

If Catherine's cryogenically preserved body is deemed "alive" in the eyes of society and the law, the implications of her existence are undoubtedly many. For one, how do Catherine's heirs' (or heirs apparent, perhaps) rights change because of Catherine's supposed "life"? The law has typically limited the rights one has to control one's assets or property after they meet his or her worldly end. The policy against dead hand control can be plainly seen by analyzing the Rule Against Perpetuities. The Rule Against Perpetuities, as all law school graduates will recall, requires that a "contingent future interest must vest, if at all, within twenty-one years after the expiration of some *life in being* when the interest was created."[56] The Rule Against Perpetuities thus restricts dead hand control by requiring that some required event occur within a set amount of time after the death of all parties to the contract. Such a restriction poses a philosophical, although not necessarily a practical, obstacle for Catherine supposing she wishes to financially provide for her family after her cryonic suspension while wishing to keep open the possibility of reclaiming her residual assets upon reanimation.

As a practical matter, with proper preparation, Catherine could avoid the imposition of the Rule Against Perpetuities from spoiling her estate plan. An antiquated and difficult to understand relic of feudal law,[57] the Rule Against Perpetuities has been significantly modified or repealed in about one-third of the states.[58] In states that have abrogated the Rule, courts have upheld the creations of dynasty trusts that allow a trust to last for centuries, or even, in perpetuity.[59] If Catherine did not have the foresight to relocate to a state that has abandoned the use of the Rule Against Perpetuities, the question of whether Catherine will be able

55. John D. Trimmer, *The Present Situation in Quantum Mechanics: A Translation of Schrödinger's "Cat Paradox" Paper*, 124 PROC. OF THE AMER. PHIL. SOC'Y 323, 328 (1983).

56. Igor Levenberg, *Personal Revival Trusts: If You Can't Take It With You, Can You Come Back to Get It?*, 83 ST. JOHN'S L. REV. 1469, 1478 (2012) (quoting Jesse Dukeminier & James E. Krier, *The Rise of the Perpetual Trust*, 50 UCLA L. REV. 1303, 1304 (2003)).

57. *See* Lucas v. Hamm, 364 P.2d 685, 690 (Cal. 1961) (holding that an attorney has not committed legal malpractice by inadvertently violating the Rule Against Perpetuities while drafting a will because the Rule is so difficult to apply).

58. Dukeminier & Krier, *supra* note 56, at 1314.

59. Note, *Dynasty Trusts and the Rule Against Perpetuities*, 116 HARV. L. REV. 2588, 2591 (2003).

to create a trust which provides for her estate to pass through her lineal heirs but will return to her if she is reanimated becomes uncertain. Under the Rule Against Perpetuities, a contingent interest must vest within twenty-one years of all lives in being.[60] The difficulties of classifying Catherine's cryogenic state as a "life in being" have already been discussed in this article and whether she is or isn't considered a life will likely be a question left to state legislatures. If she is considered a "life in being," the trust would be valid under the Rule Against Perpetuities. If not, then Catherine must seek to secure her estate scheme through the use of a trust instrument.[61]

"Personal Revival Trusts,"[62] as coined by Igor Levenberg in an article penned for the *St. John's Law Review*, would allow, in theory, for Catherine, or those in similar positions, to achieve their estate planning goals, but the law and the legislature may forestall such instruments for other, practical reasons. Maintaining a trust until science catches up with science fiction would not only be expensive, but could also potentially place holds on large sums of wealth for hundreds of years. Such use, or rather nonuse, of wealth may be deemed against public policy, and with the ever-increasing uncertainty of the value of U.S. currency, coupled with inflationary concerns, the creation of such a trust may not, in reality, be a viable option for cryogenically frozen patients.

2. "It's a Superposition of Both States Until You Open It and Collapse the Wave Function."[63]

In addition to estate planning problems, there are a host of other issues that arise from the questionable status of a cryogenically preserved person. A full review of such dilemmas is beyond this author's imagination, but to illustrate how complicated life and the law could become in a futuristic world, consider how age-dependent restrictions, duties, or benefits would vary based on what would necessarily be a new concept of age. Assume that our forty-year-old Catherine was remarkably reanimated a mere fifty years after being frozen. Assume also that her daughter, age eleven, was also frozen at the same time because of her own health issues. May Catherine, who upon reanimation is legally ninety years old, collect Social Security Benefits?[64] May her daughter, legally aged sixty-one, go to a bar for an alcoholic drink? Would coital relations with a man she met at the bar be considered a sexual offense?

60. *See* Levenberg, *supra* note 56, at 1478.

61. *See generally* Levenberg, *supra* note 56.

62. *Id.*

63. *Futurama: Law and Oracle*, *supra* note 54.

64. It may be science fiction to assume for this hypothetical that Social Security Benefits will be available in 50 years.

If the daughter murdered this man after a tryst, would the daughter be tried as an adult?[65]

Such questions are innumerable. I challenge my readers to spend a few minutes in thought to come up with their own absurd results of such technologies. No matter what question the reader poses, the answer is undoubtedly unanswerable. Differentiating between legal, biological, mental, and social ages creates a quandary that will, if such technology ever becomes viable, undoubtedly be the bane of future generations of legislatures. However unlikely such technology's existence becomes, nevertheless, we should not fail to ponder the results. After all, to paraphrase the words of Professor Farnsworth: Nothing is impossible! Not if you believe in it. That's what science is all about![66]

III. "A CLONE OF MY OWN"

"Look, Professor, I may be identical to you in every possible way but that doesn't mean I'm anything like you."[67]

—Cubert J. Farnsworth

As a scientific reality, cryonics is in its infancy. Though accepted in some scientific circles, the idea of bringing a person from a lengthy state of "not-living" to a state of "living" is, with respect to Dr. Ettinger, at this point still science fiction. The same cannot be said about its theoretical polar, cloning. Cloning is the scientific creation and reproduction of an organism, and, unlike cryonics, which implicates principles that are unknown to mere mortals—such as what, exactly, happens to "us" when we pass—cloning deals almost entirely with the genetic creation of life, a topic well understood by the medical and scientific communities.

As a basic primer, humans are made up of a unique set of deoxyribonucleic acid, or DNA.[68] When a male's sperm cell enters a female's unfertilized egg, chromosomes from each are transmitted in equal parts to the newly fertilized egg, or zygote.[69] That zygote eventually forms an embryo, which, you guessed it, contains genes in equal portion from both its father's sperm cell and mother's egg.[70] For our purposes,[71] clon-

65. In my home state of Florida, the answer is likely yes, either way.

66. *Futurama: A Clone of My Own* (FOX television broadcast Apr. 9, 2000).

67. *Id.*

68. *See* Lowell Ben Krahn, Comment, *Cloning, Public Policy and the Constitution*, 21 J. MARSHALL J. COMPUTER & INFO. L. 271, 273 (2003).

69. *Id.*

70. W. R. PICKERING, COMPLETE BIOLOGY 132 (2000).

71. Reproductive cloning is not the only type of cloning being researched, studied, and attempted by modern science. Therapeutic cloning, for example, is the process of creating clusters of blastocyst cells through the replacement of the nucleus of an egg with DNA taken from a somatic cell in order to grow or repair tissues or other organs. Thus, the goal, rather than create a

ing describes "reproductive cloning," or the artificial replication of conception. Reproductive cloning allows scientists, through a process called somatic cell nuclear transfer, or "SCNT," to "take a newly fertilized egg and inject it with DNA from a somatic cell (a cell other than a sperm or egg) and thus produce a clone."[72] Through chemical or electrical stimulation, the reconstructed egg divides, and is then transferred to a female host's uterus, where it incubates until birth.[73] The result of this process is the creation of an organism that is genetically identical to its donor, creating a child that is, technically, the twin of its donor.[74]

Though controversial, this process has netted positive scientific results. Since 1997, scientists have successfully been able to clone animals such as sheep, pigs, cows, mice, cats, and rabbits.[75] Using these same principles, scientists are currently researching and, in some cases, actively attempting, human cloning.[76] With breakthroughs in the fields of genetics and reproductive technologies bringing us closer and closer to the reality of human cloning, we must reexamine the laws, ethics, and philosophies implicit to the creation of human life and the ownership of one's genetic materials.[77]

Cubert J. Farnsworth, the fictional, cloned Futurama character, may provide an accurate illustration of what such scientific advancements could mean for society, ethics, and the law. As the self-described greatest invention of Professor Hubert J. Farnsworth, Cubert was formed from cells taken from one of the 159-year-old Professor's "shapelier growths on [his] back."[78] Twelve-year-old Cubert is unique to Professor Farnsworth in both appearance and intellect, and possesses none of the sterile or robotic characteristics so often imagined when human cloning

---

genetically identical organism, is to create cells, tissues, or other materials that contain the same genetic identity of a host. This would make it possible for organ transplantation and other therapeutic treatments that pose the risk of a body's rejection of outside material to be much more efficient and likely of success, as the transplanted organ or material would be identical to the host. A discussion regarding the legal and moral implications of such type of cloning is not within the scope of this paper and will not be contemplated further. For more information, see PRINCIPLES OF CLONING (Jose Cibelli, et al. eds., 2002).

72. Krahn, *supra* note 68, at 273.

73. *Id.*

74. Learn.Genetics, *What is Cloning?* UNIV. OF UTAH, http://learn.genetics.utah.edu/content/tech/cloning/whatiscloning/ (last visited Sept. 9, 2013).

75. Krahn, *supra* note 68, at 274.

76. *Maverick Doctor Claims to Have Implanted Women with Cloned Human Embryos*, THE TELEGRAPH (Apr. 22, 2009 6:33 AM), http://www.telegraph.co.uk/news/uknews/5197424/Maverick-doctor-claims-to-have-implanted-women-with-cloned-human-embryos.html (last visited Apr. 1, 2013).

77. For a recent Supreme Court opinion about the ownership of genetic material that will surely be the subject of much debate, see Ass'n for Molecular Pathology v. Myriad Genetics, Inc., 133 S. Ct. 2107 (2013).

78. *Futurama: A Clone of My Own*, *supra* note 66.

is discussed.[79] Through Cubert, the professor is provided with not only an heir to the Planet Express fortune, but also the emotional fulfillments of fatherhood, as well as a viable source of organs, if needed.[80]

A. *"Illegal copies never hurt anybody"*[81]

In the Futurama universe, cloning is a seemingly legal and, if not mundane, certainly uncontroversial activity.[82] The same cannot be said in our modern era, where the legality of human cloning is not necessarily clear and certainly not uncontroversial. Human cloning implicates matters of religion, privacy, reproductive rights, and access to scientific research, among others, and, as such, it is unsurprising that a consensus on the issue has not been reached among the States and Federal Government.[83]

At the time of this writing, no federal legislation has been passed that would directly prohibit scientists from attempting or researching human cloning.[84] Legislation that would impose such a ban, however, has been introduced in the past. In 2003, for instance, The Human Cloning Prohibition Act of 2003 was introduced, and approved, by the House of Representatives.[85] Openly supported by then President Bush, the Bill proposed to ban all human cloning "either to bring [a] child to live birth or to use [a] cloned human embryo for experimental research that necessarily results in the death of the young embryo."[86] Despite strong support by House Conservatives, the 2003 Bill failed to gain support in the more centrist Senate and was never put to a vote.[87]

In 2007, another Bill, The Human Cloning Prohibition Act of 2007,

---

79. *See, e.g.*, THE STEPFORD WIVES (Paramount Pictures 2004); STAR WARS: EPISODE II - ATTACK OF THE CLONES (20th Century FOX 2002); INVASION OF THE BODY SNATCHERS (United Artists 1978).

80. *Futurama: A Clone of My Own*, *supra* note 66.

81. *Futurama: I Dated a Robot* (FOX television broadcast May 13, 2001).

82. *Futurama: Rebirth* (Comedy Central television broadcast June 24, 2010).

Fry: Fetal stem cells? Aren't those controversial?

Professor Farnsworth: In your time, yes, but nowadays, shut up! Besides, these are adult stem cells, harvested from perfectly healthy adults, whom I killed for their stems cells.

83. Susan K. Kendall, *Laws and Public Policy about Cloning*, MICH. STATE UNIV. LIBRARY, http://staff.lib.msu.edu/skendall/cloning/laws.htm (last visited Apr. 1, 2013).

84. While the Federal Government has never outright prohibited stem cell research, a Bush directive prohibited the use of federal funds to support stem cell research in 2001. In 2009, President Obama changed course, announcing that he and his administration "will vigorously support scientists who pursue this research." *See Obama Ends Stem Cell Research Ban*, CBS NEWS (June 18, 2009, 6:27 PM), *http://www.cbsnews.com/2100-503767_162-4853385.html*.

85. Kendall, *supra* note 83.

86. *Human Cloning Prohibition Act*, NCHLA.ORG, http://www.nchla.org/datasource/idocuments/hr534.pdf (last visited Apr. 1, 2013).

87. Kendall, *supra* note 83.

was introduced in the House.[88] Unlike its 2003 counterpart, however, the 2007 version was rejected by House members who feared the Bill only placed a "phony ban" on human cloning and would not, in actuality, prohibit all forms of cloning, such as therapeutic cloning related to stem cell research.[89]

At the state level, only fifteen states have passed legislation regarding the legality of reproductive cloning.[90] Of the fifteen, thirteen states, California, Rhode Island, Massachusetts, New Jersey, Connecticut, Arkansas, Indiana, Iowa, Maryland, Michigan, North Dakota, South Dakota, and Virginia currently have placed bans on reproductive cloning.[91] Two states, Arizona and Missouri, allow reproductive human cloning, but prohibit the use of state funds to finance research that seeks to develop human embryotic production.[92] Six states, California, Connecticut, Maryland, Massachusetts, Missouri, and New Jersey, permit cloning for the limited purpose of scientific research.[93] Rhode Island passed legislation prohibiting human cloning, but it lapsed in 2010.[94]

Evidently, because the states' laws vary as to what exactly is permitted in terms of human embryotic cloning, the legality of this process is largely dependent upon where the creation of the cloned embryo takes place. Because there currently exists a schema in at least some states that places regulations on the right to artificially conceive a cloned child, and because the Federal Government has previously tried to place an outright ban on such activity, we must analyze whether either an outright or even a limited ban on reproductive cloning is permissible under the U.S. Constitution.

B. *"I happen to know a place where the Constitution doesn't mean squat!"*[95]

The Supreme Court has declared there to be a protected, fundamental right of an individual's privacy in matters of procreation, contraception, and family.[96] Guaranteed under the Due Process Clause of the Fifth and Fourteenth Amendments, neither the state nor the Federal Government may deprive an individual of "life, liberty, or property without due

88. *Id.*

89. *House Turns Back 'Phony' Cloning Ban*, BAPTIST PRESS (Jan. 7, 2007), http://www.bpnews.net/bpnews.asp?id=25810.

90. *Human Cloning Laws*, NCSL.ORG, http://www.ncsl.org/issues-research/health/human-cloning-laws.aspx (last updated Jan. 2008).

91. *Id.*

92. *Id.*

93. *Id.*

94. *Id.*

95. *Futurama: A Taste of Freedom* (FOX television broadcast Dec. 22, 2002).

96. Roe v. Wade, 410 U.S. 113, 152 (1973). *See also* Krahn, *supra* note 68, at 288.

process of law."[97] As the Supreme Court explained in *Eisenstadt v. Baird*, the constitutional guarantee of privacy as related to matters of procreation and family planning, protects "the right of [an] individual, married or single, to be free from unwarranted governmental intrusion into matters so fundamentally affecting a person as the decision whether to bear or beget a child."[98] This is because, as the Court said in *Skinner v. Oklahoma*—where the Court declared a law requiring the mandatory sterilization of certain felons unconstitutional—"[m]arriage and procreation are fundamental to the very existence and survival of the race."[99]

The Court has never directly addressed whether the rights guaranteed under the Constitution or Bill of Rights to "bear or beget a child" exclude such "artificial methods" as cloning. It is likely, however, that the Court's precedent is not intended to be construed as such. Absent from any of the Court's decisions interpreting the right to procreate is language that would act to limit or directly omit human reproductive cloning, or other "unnatural" forms of procreation, from constitutional protection.[100]

Although legal commentators are not in agreement as to whether the Court has implicitly given scientists and would-be-donors the green light when it comes to such artificial means of genetic replication,[101] distinguishing such fundamental constitutional rights based on the medical process involved might be contrary to the very guarantees recognized by the Court. The Supreme Court, in its right-to-procreate line of cases, guaranteed the *result* of conception, that is, the right of parenthood and procreation. The Court said nothing to suggest that those rights are, in any way, dependent on the *process* employed to achieve those results.

It is the opinion of this author that, if the time comes, the Court will hold that the right to have and raise a child is not dependent on whether the child was conceived by natural or artificial means. Regardless of any decision by the courts, there very well may come a day where, because either (a) the right to reproductive cloning was constitutionally upheld; (b) clones were produced in the United States illegally; or (c) clones created internationally were brought or moved to the United States, that the law and society may be forced to deal with the consequences of having such "individuals" among us.

---

97. US CONST. amends. V, XIV.

98. 405 U.S. 438, 453 (1972).

99. 316 U.S. 535, 541 (1942).

100. Krahn, *supra* note 68, at 292. *See also* Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833 (1992); Stanley v. Illinois, 405 U.S. 645 (1972).

101. *See, e.g.*, Clark D. Forsythe, *Human Cloning and the Constitution*, 32 VAL. U. L. REV. 469 (1998).

C. *"My little clone"*[102]

As addressed in Part II, a complete discussion of a technological advancement's—in this case, human cloning—impact on modern society is unfathomable. As such, this section is intended to serve more as the start of a discussion about cloning's consequences on law and society, rather than a comprehensive dialogue.

To begin this analysis, let us consider Cubert and set up some basic parameters for our discussion. Cubert, like all children, is an individual with rights and responsibilities. In other words, he is autonomous and his freedom is protected just as any other individual's freedom is protected under the U.S. Constitution. We are, therefore, not contemplating the possibility that our society will somehow view clones as, in any way, the "property" of their donor. As such, our notions of individuality and autonomy will remain unchanged on a legal level, though perhaps not on a philosophical level.[103]

I hypothesize that a clone will be, for all intents and purposes, viewed by society and the law as the child of its donor, and its donor will be responsible for his or her clone in the same way parents are responsible for their children.[104] Under this rubric, and allowing the assumption that clones are entitled to the same constitutional protections and rights to life, liberty, and the pursuit of happiness that all individuals are entitled to, the more absurd implications of human cloning are avoided. A donor will not be permitted to create an army of slaves from his or her genetic material,[105] will be unable to use clones as a source of forced organ donation, and will not, as described in the Futurama episode "Overclockwise," be able to escape criminal liability under principles of Double Jeopardy.[106] The impact of human cloning, I suggest, rather than affecting a societal understanding of individuality and freedom, will force practical changes in how society and the law address issues related to fertility, parenthood, and heirdom.[107]

---

102. *Futurama: A Clone of My Own*, *supra* note 66.

103. The author imagines it would be quite an identity crisis to realize that you are—biologically, at least—not unique. As a society we tend to believe that our existence was predetermined and that we, individually, are special. Biological reproduction serves to enforce this notion. If not for the two individuals that happen to be our parents meeting and getting together, we would not exist. The odds in favor of our existence, in such a view, are astronomical. If it were discovered that the exact genetic makeup of what makes us "us" were not only predetermined, but also concocted in a lab, one may begin to question the value of his or her life. Such a discovery is a commonly used plot device in science fiction. For my favorite example, see MOON (Stage 6 Films 2009).

104. As discussed below, however, such a postulation creates its own practical problems.

105. No more so than any parent has the right to control his or her minor child.

106. *Futurama: Overclockwise* (Comedy Central television broadcast Sept. 1, 2011).

107. The implications of cloning may be far more reaching than this author can imagine; however, for this article, I will limit cloning's implications to the boundaries of my imagination.

1. "THERE GOES MY DNA. WHAT A DISGUSTING AND BEAUTIFUL PROCESS."[108]

Whether the desire to procreate is solely or partially the result of evolutionary biology, societal pressure, or religious mandates, human cloning will, at its most basic level, help people achieve this goal. As a reproductive technology, human cloning would allow those traditionally shut out of parenthood to not only become parents, but biological parents.[109] Political debates concerning the make-up of the ideal family aside, for many, because of infertility, sexuality, or the desire to raise a child without a partner, the current available parenting options may not be ideal.

With the availability of new procreative technologies, however, come new concerns regarding parental rights and responsibilities. Biological procreation has a physical barrier to entry, and requires at least some active participation by would-be parents. This required participation makes the current schema of, let's call it, "no-fault parenthood" possible. Whether a couple intends to become pregnant or not is of no concern to modern courts when determining parental responsibility. The mere act of sexual intercourse creates the possibility that a child may be conceived, and as modern society cannot punish the child for the unintended consequences of his or her parents' intended actions, responsibility flows, uncontroversially, from biology. However, with the advent of human cloning, a person can parent a child biologically without any participation in the child's procreation.

As humans we discard our DNA with abandon. Unintended, we shed hair and skin cells, and leave saliva and other forms of genetic materials around our inhabited world. From a theoretical standpoint, any of these discarded forms of DNA could, if properly preserved, be used to produce a human clone. This potentially leaves the entire population subject to parental extortion. As such, the regularly used means of determining paternity—a DNA test—may not be the best means of delegating parental responsibility in the future. As a society we must attempt to find a solution that allows children to be provided for, regardless of whether their birth was planned by their parents, but also protects parents from being financially responsible for children they created due to no other reason than their discarded DNA was targeted for nefarious purposes.

What the solution to this problem is, this author cannot contemplate. The concept of bastard children, not recognized under the law, has

108. *Futurama: Kif Gets Knocked Up a Notch* (FOX television broadcast Jan. 12, 2003).

109. *See* PRINCIPLES OF CLONING, *supra* note 71, at 478.

long been abandoned, and treating illegitimate children differently from their legitimate siblings has been found to violate the Equal Protection Clause.[110] However, to not recognize the passive nature of such children's conception, and to allow these children to demand support, and possibly an intestate share of their biological parent's estate, seems unfair to not only their biological parent, but also to the other benefactors of their parent's estate.

IV. CONCLUSION: A BIG WARNING

Good science fiction should leave its reader with more questions than answers. Such is the nature of a genre that attempts to address moral and ethical quandaries realistically through plot devices that are intended to be otherworldly, futuristic, or decidedly unrealistic. In keeping with theme, therefore, it is this author's hope that his readers feel, at least a little, unfulfilled. The topics dealt with in this article—cryonics and cloning—are fantastical in nature, but are being studied by serious minds in the hope that such technologies become realities. As they are not realities, discussions concerning the consequences of such technologies are, in a sense, hyperbolic. That the problems may be exaggerated, however, does not mean there is no value or fun in contemplating solutions.

Literature and research regarding the hypothetical eventualities of scientific discoveries are necessary for if or when such discoveries become realities and the government and society have to address the changing realities of modern life. That this paper was centered on Matt Groening's Futurama, a ridiculous little cartoon about the 31st Century, is of little consequence. The show is merely a framing device used to present topics generally not discussed in modern society.[111] The discussion is by no means complete, and undoubtedly, will never be complete. I urge likeminded readers to continue to explore the annals of science fiction and contemplate what they see as the possible results of their own favorite authors or creators. How useful such exercise will be, and in fact, this exercise has been, will be determined by future generations. But "[w]ith a warning label this big, you know they gotta be fun."[112]

110. *See generally* Lili Mostofi, *Legitimizing the Bastard: The Supreme Court's Treatment of the Illegitimate Child*, 14 J. CONTEMP. LEGAL ISSUES 453 (2004).

111. Also, a not-so-unintended consequence of using Futurama as a framing device for a law review article was that it became a convenient way for me, an adult with a graduate degree, to justify spending hundreds of dollars and hours on and watching DVDs of a cartoon.

112. *Futurama: Three Hundred Big Boys* (FOX television broadcast June 15, 2003).