

**‘Holding Life As Sacred Property: The Implicit Religion Behind the
Proprietorisation of Living Organisms’**

**Andrew M. Wender, Instructor, Departments of History and Political Science, and
Research Associate, POLIS Project on Ecological Governance,
University of Victoria, Victoria, BC, Canada**

If we accept that the study of implicit religion invites us to consider how human beings can, and do, experience and perceive the Sacred within domains that, “at least in contemporary society, are...usually seen as secular,”¹ then I propose that we turn our attention to a human phenomenon which stands as an extraordinarily sacrosanct pillar of modern, secular society: the act of proprietorship.

In a world today marked – some might say scarred – by the global spread and intensification of neo-liberalism, it is important to note that this ideological doctrine, even as it propounds the earthly salvation offered by untrammelled, free markets, represents nothing so much as a distilled form of modern, liberal capitalism. Neo-liberal dogma utterly exemplifies the notion, traceable in the Anglo–American world especially to such seventeenth–century architects of modern liberalism as John Locke, that the power to acquire and hold property captures the essence of what it means to be human. Once the original, Protestant validation for Lockean property theory became historically interred, and latent within the ethos of post-Enlightenment capitalism, the result was a view of existence that tended to reduce the world to an amalgamation of things to be held and exchanged as property and commodities, with humans acting as godlike masters of that which they own, sell, and buy. In this way, liberal capitalism, and its neo-liberal mutation, inspire in those who are steeped in the creed the implicit sense that transcendence is embodied in the seemingly secular act of human proprietorship and commodity exchange, as well as in the owned and exchanged things that themselves

constitute a sort of sacred totem.²

As modern, liberal property theory unfolded, and became, from the eighteenth century forward, gradually, inextricably intertwined with the ethos of market capitalism, there was a continual broadening in the range of existing things that were understood as being subject to humans' power of proprietorship. Whereas the focal point of seventeenth-century property doctrine had been land, the eighteenth century saw a rising emphasis on diverse forms of movable property, culminating in intellectual property law's reification of intangibles like knowledge and creativity as owned possessions.³ While the quasi-mystical potency of the human effort to transform artistically expressed ideas into material commodities keenly enough indicates that emerging, modern conceptions of proprietorship were verging towards an apotheosis of human control over existence, how much more so might this be said, with respect to the modern world's eventual grasping at the proprietorisation and commodification of life itself? I would suggest that modern, secular society's effective conversion of life – non-human and human alike – to the form of commodified property, especially through the aid of instrumentalist science in our current, biotechnological age, demonstrates with jarring intensity the implicit religious content of liberal capitalist property doctrine.

Some of the most compelling evidence for this analysis can be derived from the increasing willingness of secularist law, occupying as it typically does the role of ultimate guardian for private property rights, to foster the proprietorisation of life that is favoured by profit-motivated, biotechnological research. Notwithstanding such precursors of commodified life-forms (including with respect to the supposedly "priceless" human body) as nineteenth-century English law's infamous facilitating of anatomists'

appropriation of the corpses of the poor, some scholars insist that, within the historical lineage of the common law, “[c]ourts and legal scholars have often said that there can be no property rights in human bodies....”⁴ However, as an expanding group of other recent writers such as Margaret Jane Radin has shown, given the quite radical economism of present-day, modernist civilization, there should be little mistake that the tendency towards reducing human biological entities to commodified property is inexorably surging forward, within all manner of social and cultural venues.⁵ Prime examples include, to name but a few: the active, global trade in human organs (a trade that, while contravening existing laws such as the United States’ prohibition on “sell[ing] organs or other tissue for transplant,” is seen by some commentators, notably in the law and economics movement, as the proper object not of prohibition, but of institutional regulation); the exchange of reproductive material such as eggs and sperm, which is a “booming...business” in the highly developed world; and popular perceptions to the effect of “This is my body,” such as the comment, made by a young North American woman to a newspaper reporter, that she “own[s her] sex,” and “can use it” however she deems fit.⁶

The phenomenon of “patenting life”⁷ that has exploded, over the past several decades, into ethical, legal, and public policy discourse and deliberations offers a vivid illustration of the implicit religion lying behind the proprietorialisation of living organisms. Typical scenarios in the patenting of life involve biotechnological research and innovation that results in humanly-manipulated, or even invented, life forms for which the economic rewards of a patent are sought by the researchers and technicians themselves, as well as by the larger business interests who stand to benefit from their

work. A watershed event in this connection, diagnosed by Leon Kass as embodying “the [US Supreme] Court[’s] [emergence] as the teacher of philosophical materialism”, is the 1980 judicial decision, *Diamond v. Chakrabarty*, in which it was established that it is legitimate for a living organism to be patented.⁸ All that is required is a demonstration that the party seeking the patent did not merely make a “discovery...[of] nature’s handiwork”; but, rather, created by his or her own invention a distinctive organism that is “non-naturally occurring”.⁹

The facts of *Chakrabarty* were as follows: in the early 1970s, Ananda Chakrabarty, later to become an academic, was working as a staff microbiologist at the General Electric Company (GE) in Schenectady, New York.¹⁰ Arising from his research at GE was a

human-made, genetically engineered bacterium...capable of breaking down multiple components of crude oil. Because of this property, which is possessed by no naturally occurring bacteria, Chakrabarty’s invention is believed to have significant value for the treatment of oil spills.¹¹

Following Chakrabarty’s application for 36 patent claims covering the processes and products surrounding his invention, a patent examiner rejected those of his claims asserting rights “to the bacteria themselves”, explaining that, as “products of nature,” and “living things”, the micro-organisms were “not patentable”.¹² The patent examiner’s decision was upheld by the Patent Office Board of Appeals, but then reversed by the Court of Customs and Patent Appeals, “which held that “the fact that microorganisms ...are alive...[is] without legal significance” for purposes of the patent law.”¹³ Subsequent to a series of juridical procedures that led to that court’s decision being vacated, and then reinstated, the Commissioner of Patents and Trademarks, standing fast in opposition to the issuing of patent rights for Chakrabarty’s bacteria, was granted

review by the US Supreme Court.

The Supreme Court held that Chakrabarty's "micro-organism plainly qualifies as patentable subject matter."¹⁴ Informing its audience that, based on a reading of relevant legislative history, "Congress intended [potentially patentable] subject matter to "include anything under the sun that is made by man"", the Court went on to determine that the peculiar, "non-naturally occurring manufacture or composition of matter" created by Chakrabarty fell into this category.¹⁵ Chief Justice Warren Burger explained:

...the patentee has produced a new bacterium with markedly different characteristics from any found in nature and one having the potential for significant utility. His discovery is not nature's handiwork but his own; accordingly it is patentable subject matter....¹⁶

In the course of its reasoning, the Court asserted that, in a case such as *Chakrabarty*, "the relevant distinction" in differentiating that which is patentable, from that which is not, is "not between living and inanimate things, but between products of nature, whether living or not, and human-made inventions."¹⁷ With this observation, Justice Burger indicated that the Court was well aware that commentators would be closely watching the *Chakrabarty* decision for its implications concerning the potential patenting of innumerable higher organisms. Indeed, in its latter portions, the decision directly addressed those who would "[point] to grave risks", to the "gruesome parade of horrors", "that may be generated by research endeavors such as [Chakrabarty's]", and, in their wake, by genetic engineering (or even merely by, as the Court put it, "genetic research and related technological developments").¹⁸ In response to such fears, the Court maintained that the interpretative question before it was a narrow one, limited to the determination of what constitutes patentable material; and that "matter[s] of high policy" surrounding genetics, and the patenting of living organisms, must be debated and

determined through democratic political processes, rather than resolved by the judiciary.¹⁹

Perhaps one of the keenest evaluative verdicts to have been issued on the *Chakrabarty* decision itself is that of none other than Ananda Chakrabarty:

...the Supreme Court decision on *Diamond v. Chakrabarty* appears to have gone beyond what the Supreme Court justices perhaps intended to grant. The subject of “who owns life?” has therefore become a significant, timely, and dominant issue of our times.²⁰

The full range of implications spawned by *Chakrabarty* is colossal, as the exponential growth of biotechnology, and rise in the number of those facets of nature that are open to biotechnological manipulation and alteration, has moved apace over the past few years. The activist and environmental thinker Vandana Shiva has, for one, provocatively demonstrated how this decision of the US Supreme Court has helped to open the door to the patenting, and, with this, the commodification, of myriad natural existents, spread across the world’s entire spectrum of ecological biodiversity. In large measure, what Shiva is concerned with revolves around the “new industrial revolution [that is] under way in the form of genetic engineering—the manipulation and engineering of life forms at the genetic level.”²¹ She shows how the *Chakrabarty* court’s notion that a genetically engineered, and therefore invented, life form can be legitimately patented is now in the process of being rapidly applied to a vast array of plants and seeds; and, as well, to “hundreds of genetically engineered animals, including fish, cows, mice and pigs [that] are figuratively standing in line to be patented by a variety of researchers and corporations.”²²

To be sure, I hardly could be more sympathetic to Shiva’s assertion that “Patents on life amount to claiming the role of Creator or God”, where the forms of life at issue

primarily constitute plants and non-human animals.²³ Nonetheless, the apotheosizing of the human proprietor that is implied by the patenting of life is nowhere made more starkly manifest, than where the form of life concerned is human.

As one might imagine, given the enormous, present fluidity of biotechnological research and innovation, legal doctrine concerning the patenting of human genes remains quite unsettled and malleable. For example, in the US, “there have been patents issued on modified human tissues and cell lines, and DNA molecules of human origin.”²⁴ However, in 2004,

Congress enacted a measure effectively prohibiting the issuance of patents on human organisms. The Consolidated Appropriations Act of 2004 provides, “None of the funds appropriated or otherwise made available under this Act may be used to issue patents on claims directed to or encompassing a human organism.” [Pub. L. No. 108-199, 118 Stat. 3].... [T]he manager’s statement for this amendment points to a June 22, 2003, colloquy wherein Rep. David Weldon (the amendment’s sponsor) assured Rep. David Obey (the ranking minority member of the House Committee on Appropriations) that the amendment “would not interfere” with any existing patents on human genes or human stem cells. Weldon further noted that the purpose of the amendment was to affirm that “human life in any form should not be patentable.” The Weldon Amendment thus proscribes the patenting of human organisms at any stage of development.²⁵

Yet, with *Chakrabarty*’s having “laid the all-important legal groundwork for the privatization and commodification” of the genetic material composing the Earth’s flora and fauna, the extension to human genes of the decision’s line of reasoning would not be inconsistent with modernity’s biotechnologically aided “global economic rationalizing of [human] life”.²⁶ Moreover, to adapt Jeremy Rifkin’s words, “the new genetic technologies grant us a godlike power” whose omnipresent reach helps to provide sacred sanction, potentially, for the proprietorisation of all forms of life.²⁷

Indeed, the present neo-liberal age is characterized by an overall “move toward the property model” of the human body, in jurisprudence as well as the civilization at large.²⁸

Certainly, *Chakrabarty* would appear to have acted as a prime catalyst for emerging efforts at converting human genetic material, in particular, to commodified property, as “[a]ttempts to patent human DNA rest legally on” that decision.²⁹ But the extent to which law has recently been tending to accede to the proprietorialisation of human biological entities – even over just the past one to two decades – is markedly broadening.³⁰

The 1990 decision of the Supreme Court of California in *John Moore v. The Regents of the University of California* has emerged as a prime precedent helping to foster a legal milieu within which it seems to be increasingly legitimate to conceive of numerous forms of human tissue as private, commodified property.³¹ The background for the case began to arise in 1976, when Moore commenced treatment for hairy-cell leukemia at the Medical Center of the University of California at Los Angeles (UCLA). From that year through 1983, Moore’s treatment involved the withdrawing from his body of various tissue samples such as blood, bone marrow aspirate, skin, and sperm, and, as well, the removal of his spleen (which organ acted as the source of cells that would prove the basis for legal dispute). Moore had been told by his attending physician, Dr. David W. Golde, that these procedures were “necessary and required for his health and well-being”, and “were to be performed...only under Golde’s direction.”³² However, it was concealed from Moore that, at the same time, Golde and others “were conducting research on [his] cells and planned to benefit financially by exploiting the cells and their exclusive access to the cells by virtue of Golde’s ongoing physician-patient relationship.”³³ As the court’s statement of facts observes, Golde and his colleagues “were aware that certain blood products and blood components were of great value in a number of commercial and

scientific efforts and that access to a patient whose blood contained these substances would provide competitive, commercial, and scientific advantages.”³⁴

“Sometime before August 1979, Golde established a cell line from Moore’s T-lymphocytes (a type of white blood cell)”, which went on to become the object of a 1981 patent application filed by UCLA, “listing Golde and [researcher Shirley] Quan as inventors.”³⁵ The sought-after patent was issued in March 1984. Following a lucrative “[c]ommercial exploitation of the cell-line [that] was negotiated between the University and two biotechnology companies[,]...Moore discovered the uses to which his body tissue had been put and sued” the parties involved for causes of action including a breach of fiduciary duty, for not having informed him of these uses, and the tort (or civil wrong) of conversion.³⁶ Conversion, the court explained, “protects against interference with possessory and ownership interests in personal property.”³⁷ Thus, under this particular claim, Moore asserted that he had a proprietary interest in his cells that was violated by the “defendants’ unauthorized use”.³⁸

The court held that Moore had a legitimate cause of action for the fiduciary breach, but not for conversion. Under the court’s reasoning, any ownership interest that Moore might once have had in his cells was undone, in significant measure, by the fact that he “clearly did not expect to retain possession of [them] following their removal”.³⁹ Further, relying on *Chakrabarty*, the court determined that “the subject matter of the...patent--the patented cell line and the products derived from it--cannot be Moore’s property”, because this material comprised a patentable “product of ‘human ingenuity’” distinct from “the cells taken from [his] body.”⁴⁰ In other words, consistent with *Chakrabarty*, the Supreme Court of California effectively indicated in *Moore* that Golde and his colleagues had

successfully transformed the natural material of Moore's bodily tissue into a unique, human invention, which therefore served as the basis for a private property interest.

In a case such as *Moore*, whose dissatisfied plaintiff is one of an increasing number of people who are being turned into "potential [biological] treasure troves",⁴¹ as well as in the broader civilisational tendencies towards the proprietorialising of human biological life that the case bespeaks, we can see the imaginable advent of a new, radically modernist account of earthly creation. Seated at the pinnacle of this creation narrative would be the emergent, human lords of genetic engineering.⁴²

Once we move on from situations like *Moore*, to scenarios involving not merely the manipulation of pre-existing human tissue, but biotechnological intervention into the initial formation of life, the legal precepts become murkier, while the implicit religious significance becomes ever more pronounced. It is not only with respect to the genetic engineering of humans where relevant law is today in a state of ferment. For instance, there is in the US, for one, a marked vacuum of cohering federal regulation on "[c]ommercer in gametes, embryos, and assisted reproductive services".⁴³ Accordingly, "the present regulatory system...sets no uniform, enforceable limits on the buying and selling of human gametes and embryos."⁴⁴

Upon arriving at what is today the singularly urgent matter of the potential proprietorialisation and commodification of human genetic material, we enter onto ground that is continually shifting, in terms of the ongoing development of laws and policy statements. Moreover, this ground is covered with a multiplicity of contending rationales for scientific and economic "progress", vis-à-vis defenses for the "foster[ing] and encourag[ing] [of] respect for life".⁴⁵ However, even given the changeable and contested

character of this ground, a provisional observation or two can be offered about the emerging lay of the land. For one, it does appear that, within the modern West as a whole:

Gene patenting has exposed a conflict and, possibly, an incompatibility in patent policy between the United States and the European community. Even though the former does not impose ethical constraints on the patentability of products, the latter does, with the consequence that what may be patentable in the United States may not be so in Europe.⁴⁶

The discrepancy between the US and Europe in law and policy concerning the patenting of human genes highlights a vital, historical and ideological reality that points us back to the acute, sacred significance imbuing, in particular, the Anglo–American conception of proprietorship. US law, with its peculiar, neo-liberal embodiment of the common law’s historic fixation on private property, represents an unparalleled economism that tends to privilege unfettered, market dynamics over non–economic, ethical considerations. This sheds light, in turn, on a chief paradox inherent in the variety of implicit religion that lies behind the proprietorialisation of living organisms, at least insofar as this species of implicit religion finds expression in the US. Because, in the present–day US, where it would seem that the dual forces of evangelical Protestantism (which, in at least one Baptist formulation, regards “DNA [as] sacred, inseparable in value from the image of the divine”) and neo-liberalism have never been stronger, conflicting impulses abound where the proprietarization of human genes is concerned.⁴⁷ On the one hand, we hear President George W. Bush propound, in the course of speaking out against the cloning of human embryos as a means of deriving stem cells for biotechnological research, that “Life is a creation, not a commodity.”⁴⁸ On the other hand, there is the framework established by such instruments of law as the legacy of

Chakrabarty; and, from the same year as *Chakrabarty*, the Bayh-Dole Act (also referred to as the Patent and Trademark Laws Amendment), a landmark piece of Congressional legislation that, by codifying “the explicit U.S. policy of allowing grantees to seek patent rights in government-sponsored research results”, is “predicated on the idea that the traditional concept of “ownership” has an important role to play in promoting the technological revolution.”⁴⁹ The Bayh-Dole Act placed universities that receive US federal funds for such endeavours as biomedical research in the commercial business of pursuing huge patenting bounties for biotechnological development, while at the same time granting the institutions wide latitude for determining what materials it is appropriate to patent. In this way, the Act helped to set in motion a process whereby there are relatively few legal restrictions on the patenting of genetic information and material such as DNA sequences and stem cells.⁵⁰

Whatever the precise extent to which the proprietorialisation and commodification of human genetic material has been, or promises to be, placed under the aegis of institutionalised law and public policy, I would maintain that the overall movement towards a proprietary model of biological life, human and otherwise, acts as an exceptionally fertile setting for a particular variety of implicit religion. There hardly could be a more profound example of apotheosized proprietorship, than the notion that life, and above all, the human body, is an utterly manipulable, material object; and that organisms are, as such, subordinate to the quasi-divine power of the scientific mind, as exercised through the instrumentation of “genetic technologies”, to “[conquer] *fortuna* by technological mastery of nature,” and thereby to “seize hold of fate, destiny, luck, chance”.⁵¹

ENDNOTES

1. Edward Bailey, ‘Implicit religion’: what might that be?’, *Implicit Religion*, vol. 1 (1998), pp. 9-22.
2. This line of analysis is more fully developed in my Ph.D. dissertation, ‘The Juridical Prism: Modernity’s Transmutation of the Religious, As Refracted Through Secularist Law’, University of Victoria, 2006.
3. *Ibid.*
4. See, in turn: Leon R. Kass, ‘Organs for Sale? Propriety, Property, and the Price of Progress’, pp. 153-75 in Jean Bethke Elshtain and J. Timothy Cloyd, eds., *Politics and the Human Body: Assault on Dignity* (Nashville and London: Vanderbilt Univ. Press, 1995), p. 170; Ruth Richardson, *Death, Dissection and the Destitute* (London: Penguin, 1988); Wender, ‘The Juridical Prism’, pp. 151-8 and corresponding endnotes; Polly J. Price, *Property Rights: Rights and Liberties under the Law* (Santa Barbara, CA: ABC-CLIO, 2003), p. 157; and Arthur L. Caplan, *If I were a rich man could I buy a pancreas?: and other essays on the ethics of health care* (Bloomington, IN and Indianapolis: Indiana Univ. Press, 1992), p. 115.
5. Consult, for instance: Margaret Jane Radin, *Contested Commodities* (Cambridge, MA and London: Harvard Univ. Press, 1996); Lori Andrews and Dorothy Nelkin, *Body Bazaar: The Market for Human Tissue in the Biotechnology Age* (New York: Crown Publishers, 2001); E. Richard Gold, *Body Parts: Property Rights and the Ownership of Human Biological Materials* (Washington, D.C.: Georgetown Univ. Press, 1996); Pilar N. Ossorio, ‘Property Rights and Human Bodies’, pp. 223-42 in David Magnus, Arthur Caplan, and Glenn McGee, eds., *Who Owns Life?* (Amherst, NY: Prometheus Books, 2002); James Ridgeway, *It’s All for Sale: The Control of Global Resources* (Durham, NC and London: Duke Univ. Press, 2004), pp. 167-90; and Wesley J. Smith, *Culture of Death: The Assault on Medical Ethics in America* (San Francisco: Encounter Books, 2000), pp. 155-87.
6. Refer to, respectively: Robert Jablon, ‘Cadavers are big money in the U.S.’, *Seattle Post-Intelligencer*, March 11, 2004, p. A6; Nicholas Kristof, ‘Psst! Sell Your Kidney?’, *The New York Times*, November 12, 2002, p. A31; Arthur L. Caplan, *Am I My Brother’s Keeper?: The Ethical Frontiers of Biomedicine* (Bloomington, IN and Indianapolis: Indiana Univ. Press, 1997), pp. 95-100; Stephen R. Munzer, ‘An Uneasy Case Against Property Rights In Body Parts’, pp. 259-86 in Ellen Frankel Paul, Fred D. Miller, Jr., and Jeffrey Paul, eds., *Property Rights* (Cambridge, UK: Cambridge Univ. Press, 1994); Ridgeway, *It’s All for Sale*, pp. 176-81 [*cf.* also Eric A. Posner and Richard A. Posner, ‘The Demand for Human Cloning’, pp. 233-61, and Richard A. Epstein, ‘A Rush to Caution: Cloning Human Beings’, pp. 262-79, in Martha C. Nussbaum and Cass R.

Sunstein, eds., *Clones and Clones: Facts and Fantasies About Human Cloning* (New York and London: W.W. Norton & Co., 1998)]; Lori Andrews, 'People As Products: the Conflict Between Technology and Social Values', *The Hedgehog Review: Critical Reflections on Contemporary Culture*, vol. 4, no. 3 (2002), pp. 45-65; and Peter Cheney, 'Liquor, lights, mobs of men: Girls Gone Wild', *The Globe and Mail*, February 26, 2005, p. A9.

7. Cf. Leon R. Kass, *Toward a More Natural Science: Biology and Human Affairs* (New York: Free Press, 1985), pp. 128-53; and Jeremy Rifkin, *The Biotech Century: Harnessing the Gene and Remaking the World* (New York: Jeremy P. Tarcher/Putnam, 1998), pp. 37-66.

8. Consult, respectively: Kass, *Toward a More Natural Science*, p. 149; Mark J. Hanson, 'Patenting Genes and Life: Improper Commodification?', pp. 161-74 in Magnus, Caplan, and McGee, *Who Owns Life?*, pp. 169-70; and *Diamond v. Chakrabarty* (1980), 447 U.S. 303, 65 L. Ed. 2d 144, 100 S. Ct. 2204.

9. *Ibid.*, 447 U.S. at 309-10.

10. In addition to the printed case, *ibid.*, an excellent resource for information about the events surrounding *Chakrabarty* is an essay by the now well-known central figure himself: A.M. Chakrabarty, 'Patenting of Life-Forms: From a Concept to Reality', pp. 17-24 in Magnus, Caplan, and McGee, *Who Owns Life?*

11. *Chakrabarty*, 447 U.S. at 305.

12. *Ibid.*, at 305-6.

13. *Ibid.*, at 306.

14. *Ibid.*, at 309.

15. *Ibid.*

16. *Ibid.*, at 310.

17. *Ibid.*, at 313.

18. *Ibid.*, at 316.

19. *Ibid.*, at 316-18.

20. Chakrabarty, 'Patenting of Life-Forms', p. 23.

21. Vandana Shiva, *Protect or Plunder?: Understanding Intellectual Property Rights* (London and New York: Zed Books, 2001), p. 40.

22. *Ibid.*, p. 41.

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23. Such is the case in *ibid.*, p. 42.
24. Leon Kass, ed., *Reproduction & Responsibility: the Regulation of New Biotechnologies* (Washington, D.C.: President's Council on Bioethics, 2004), p. 158 <www.bioethics.gov/reports/reproductionandresponsibility> (December 31, 2004).
25. *Ibid.*, pp. 162-3.
26. Rifkin, *Biotech Century*, p. 43; Kate Cregan and Paul James, 'Stem-Cell Alchemy: Techno-science and the New Philosopher's Stone', *Arena journal*, no. 19 (2002), pp. 61-72.
27. Rifkin, *Biotech Century*, p. 226.
28. Lori Andrews and Dorothy Nelkin, 'Propriety and Property: The Tissue Market Meets the Courts', pp. 197-222 in Magnus, Caplan, and McGee, *Who Owns Life?*, p. 209.
29. Ari Berkowitz and Daniel J. Kevles, 'Patenting Human Genes: The Advent of Ethics in the Political Economy of Patent Law', pp. 75-97 in Magnus, Caplan, and McGee, *Who Owns Life?*, p. 75.
30. Andrews and Nelkin, 'Propriety and Property', p. 209.
31. *John Moore v. The Regents of the University of California* (1990), 51 Cal. 3d 120, 93 P.2d 479, 271 Cal. Rptr. 146 <www.carthage.edu/~brent/305moore.htm> (January 13, 2005). Especially helpful analyses of the case and its subsequent impact may be found in Gold, *Body Parts*; Andrews and Nelkin, *Body Bazaar*; James Boyle, *Shamans, Software, & Spleens: Law and the Construction of the Information Society* (Cambridge, MA and London: Harvard Univ. Press, 1996), pp. 97-107; and Margaret Davies and Ngaire Naffine, *Are Persons Property?: Legal debates about property and personality* (Aldershot, UK: Ashgate, 2001).
32. *Moore*, p. 1.
33. *Ibid.*
34. *Ibid.*
35. *Ibid.*
36. Davies and Naffine, *Are Persons Property?*, p. 11.
37. *Moore*, p. 2.
38. *Ibid.*
39. *Ibid.*

40. *Ibid.*, p. 3.

41. Andrews and Nelkin, *Body Bazaar*, p. 2.

42. I owe the thrust of this observation to William Leiss's two-session seminar presentation, 'Biotechnology, Religion and the Body' held at the University of Victoria's Pacific Centre for Technology and Culture, and co-sponsored by UVic's Centre for Studies in Religion and Society, in January 2005.

43. *Reproduction & Responsibility*, p. 169.

44. *Ibid.*, p. 171.

45. Cf. George W. Bush, 'Remarks by the President on Stem Cell Research', pp. 307-12 in Glenn McGee and Arthur Caplan, eds., *The Human Cloning Debate*, 4th ed. (Berkeley, CA: Berkeley Hills Books, 2004) [comprising the text of an August 9, 2001 statement by the President]. President Bush's statements on these matters, as represented here, as well as in the immediately preceding, 2002 selection in this volume, 'Remarks by the President on Human Cloning Legislation', at pp. 303-06, peculiarly underscore the tensions existing among these rationales, as the President navigates between his strong constituencies in industry, on the one hand, and the evangelical Protestant community, on the other.

46. Berkowitz and Kevles, 'Patenting Human Genes', p. 92. See also Steven P. McGiffen, *Biotechnology: Corporate Power Versus the Public Interest* (London and Ann Arbor, MI: Pluto Press, 2005), pp. 6-92.

47. The quoted phrase is borrowed from Hanson, 'Patenting Genes and Life', p. 165.

48. Bush, 'Remarks by the President on Human Cloning Legislation', p. 304.

49. Jack Wilson, 'Patenting Organisms: Intellectual Property Law Meets Biology', pp. 25-58 in Magnus, Caplan, and McGee, *Who Owns Life?*, p. 50; Arti K. Rai and Rebecca S. Eisenberg, 'Bayh-Dole Reform and the Progress of Biomedicine', *Law and Contemporary Problems*, vol. 66, nos. 1&2 (2003), pp. 289-314, p. 290; and David Magnus, 'Introduction', pp. 11-16 in Magnus, Caplan, and McGee, eds., *Who Owns Life?*, p. 12.

50. Rai and Eisenberg, 'Bayh-Dole Reform and the Progress of Biomedicine', *passim*.

51. Craig Holdrege, *Genetics & the Manipulation of Life: The Forgotten Factor of Context* (Hudson, NY: Lindisfarne Press, 1996), p. 159; Benjamin Wiker, *Moral Darwinism: How We Became Hedonists* (Downers Grove, IL: InterVarsity Press, 2002), p. 303.

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22. *Ibid.*, p. 41.
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29. Ari Berkowitz and Daniel J. Kevles, 'Patenting Human Genes: The Advent of Ethics in the Political Economy of Patent Law', pp. 75-97 in Magnus, Caplan, and McGee, *Who Owns Life?*, p. 75.
30. Andrews and Nelkin, 'Propriety and Property', p. 209.
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32. *Moore*, p. 1.
33. *Ibid.*
34. *Ibid.*
35. *Ibid.*
36. Davies and Naffine, *Are Persons Property?*, p. 11.
37. *Moore*, p. 2.

38. *Ibid.*

39. *Ibid.*

40. *Ibid.*, p. 3.

41. Andrews and Nelkin, *Body Bazaar*, p. 2.

42. I owe the thrust of this observation to William Leiss's two-session seminar presentation, 'Biotechnology, Religion and the Body' held at the University of Victoria's Pacific Centre for Technology and Culture, and co-sponsored by UVic's Centre for Studies in Religion and Society, in January 2005.

43. *Reproduction & Responsibility*, p. 169.

44. *Ibid.*, p. 171.

45. Cf. George W. Bush, 'Remarks by the President on Stem Cell Research', pp. 307-12 in Glenn McGee and Arthur Caplan, eds., *The Human Cloning Debate*, 4th ed. (Berkeley, CA: Berkeley Hills Books, 2004) [comprising the text of an August 9, 2001 statement by the President]. President Bush's statements on these matters, as represented here, as well as in the immediately preceding, 2002 selection in this volume, 'Remarks by the President on Human Cloning Legislation', at pp. 303-06, peculiarly underscore the tensions existing among these rationales, as the President navigates between his strong constituencies in industry, on the one hand, and the evangelical Protestant community, on the other.

46. Berkowitz and Kevles, 'Patenting Human Genes', p. 92. See also Steven P. McGiffen, *Biotechnology: Corporate Power Versus the Public Interest* (London and Ann Arbor, MI: Pluto Press, 2005), pp. 6-92.

47. The quoted phrase is borrowed from Hanson, 'Patenting Genes and Life', p. 165.

48. Bush, 'Remarks by the President on Human Cloning Legislation', p. 304.

49. Jack Wilson, 'Patenting Organisms: Intellectual Property Law Meets Biology', pp. 25-58 in Magnus, Caplan, and McGee, *Who Owns Life?*, p. 50; Arti K. Rai and Rebecca S. Eisenberg, 'Bayh-Dole Reform and the Progress of Biomedicine', *Law and Contemporary Problems*, vol. 66, nos. 1&2 (2003), pp. 289-314, p. 290; and David Magnus, 'Introduction', pp. 11-16 in Magnus, Caplan, and McGee, eds., *Who Owns Life?*, p. 12.

50. Rai and Eisenberg, 'Bayh-Dole Reform and the Progress of Biomedicine', *passim*.

51. Craig Holdrege, *Genetics & the Manipulation of Life: The Forgotten Factor of Context* (Hudson, NY: Lindisfarne Press, 1996), p. 159; Benjamin Wiker, *Moral Darwinism: How We Became Hedonists* (Downers Grove, IL: InterVarsity Press, 2002),

p. 303.