Darwinism and Death: Devaluing Human Life in Germany 1859-1920

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The debate over the significance of Social Darwinism in Germany has special importance, because it serves as background to discussions of Hitler's ideology and of the roots of German imperialism and World War I.[1] There is no doubt that Hitler was a Social Darwinist, viewing history as a struggle for existence among unequal races. All Hitler scholars agree on this point, and it is too obvious to deny when one reads *Mein Kampf*.[2] Whether Social Darwinism contributed to imperialism and militarism is less clear, though some have argued it did, at least as a justification for them.[3] Some Anglo-American writers during and immediately after World War I blamed Social Darwinism for inflaming German militarism.[4]

[1] Richard J. Evans, "In Search of German Social Darwinism: The History and Historiography of a Concept," in *Medicine and Modernity: Public Health and Medical Care in Nineteenth- and Twentieth-Century Germany*, ed. Manfred Berg and Geoffrey Cocks (Washington, 1997), 55-79. In this paper "Darwinism" refers exclusively to the theory of evolution by natural selection, although non-Darwinian theories of evolution, such as Lamarckism, were sometimes compatible with Darwinism.

[2] See Eberhard Jäckel, *Hitler's Weltanschaung: A Blueprint for Power*, tr. Herbert Arnold (Middleton, Conn., 1972), ch. 5; Brigitte Hamann, *Hitler's Vienna: A Dictator's Apprenticeship*, tr. Thomas Thornton (New York, 1999), 82-84, 102, 202ff; Michael Burleigh and Wolfgang Wippermann, *The Racial State: Germany, 1933-1945* (Cambridge, 1991); and (though one-sided and should be used with caution) Daniel Gasman, *The Scientific Origins of National Socialism: Social Darwinism in Ernst Haeckel and the German Monist League* (London, 1971).

[3] Woodruff D. Smith, *The Ideological Origins of Nazi Imperialism* (New York, 1986), 145-52 and ch. 5; Hans-Ulrich Wehler, *Das deutsche Kaiserreich 1871-1918* (Göttingen, 1975[2]), 179-81, and *Bismarck und der Imperialismus* (Cologne, 1972[3]); on Britain, see Bernhard Semmel, *Imperialism and Social Reform: English Social-Imperial Thought, 1895-1914* (Cambridge, 1960).

[4] Paul Crook, *Darwinism, War and History: The Debate over the Biology of War from the "Origin of Species" to the First World War* (Cambridge, 1994); also Vernon Kellogg, *Headquarters Nights* (Boston, 1917), 22-32; Robert Munro, *From Darwinism to Kaiserism* (Glasgow,

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This discussion over both Social Darwinism in general and its German form in particular has reached something of an impasse lately. While some scholars insist that Darwinism contributed to or at least reinforced a competitive ethos in European political and social thought, others have stressed the varieties of Social Darwinism.[5] The latter remind us that, although some Darwinian social thinkers stressed competition, socialists were also avid Darwinists and saw it as support for their vision of a more cooperative socialist society.[6] Some scholars focus so much on the cooperative and peaceful thrust of Darwinian thinkers that one might think that Peter Kropotkin's *Mutual Aid* had carried the day in the late nineteenth century. For example, Paul Crook argues that Darwinism produced pacifist inclinations more than it did militarism.[7]

Another important debate in Darwin scholarship concerns the compatibility or incompatibility of Darwinism with other world views, especially traditional religion. The warfare thesis, which sees religion and science in perpetual conflict (often with science heroically winning the battle), has largely been abandoned by historians of science, who now see greater complexity in the interactions of science and religion.[8] Reacting against the warfare thesis, some have emphasized accommodation, showing how science and religion often work in harmony. As applied to Darwinism the accommodationist view stresses the receptivity of many Christians, including prominent evangelical pastors and

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1919); George Nasmyth, *Social Progress and the Darwinian Theory* (New York, 1916); P. Chalmers Mitchell, *Evolution and the War* (New York, 1915); William Jennings Bryan, *In His Image* (Freeport, N.Y., 1922; rprt. 1971), 124-25.

[5] The former include Richard Hofstadter, *Social Darwinism in American Thought*, rev. ed. (New York, 1955); Hans-Günter Zmarzlik, "Social Darwinism in Germany, Seen as a Historical Problem," in *Republic to Reich: The Making of the Nazi Revolution*, ed. Hajo Holborn (New York, 1972); Mike Hawkins, *Social Darwinism in European and American Thought, 1860-1945* (Cambridge, 1997); Richard Weikart, "The Origins of Social Darwinism in Germany, 1859-1895," *JHI*, 54 (1993), 469-88, and "Laissez-Faire Social Darwinism and Individualist Competition in Darwin and Huxley," *The European Legacy*, 3 (1998), 17-30. The latter include Gertrude Himmelfarb, "The Varieties of Social Darwinism," in *Victorian Minds* (New York, 1968); Evans, "In Search of German Social Darwinism"; and Paul Weindling, "Dissecting German Social Darwinism: Historicizing the Biology of the Organic State," *Science in Context*, 11 (1998), 619-37; Weindling, *Health, Race and German Politics between National Unification and Nazism, 1870-1945* (Cambridge, 1989), ch. 1.

[6] See Richard Weikart, *Socialist Darwinism: Evolution in German Socialist Thought from Marx to Bernstein* (San Francisco, 1999); and Ted Benton, "Social Darwinism and Socialist Darwinism," *Rivista di folosfia*, 73 (1982), 79-121.

[7] Crook, *Darwinism, War and History*.

[8] John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (Cambridge, 1991); Holmes Rolston III, *Science and Religion: A Critical Survey* (Philadelphia, 1987); David Lindberg and Ronald Numbers (eds.), *God and Nature* (Berkeley, Calif., 1986); David N. Livingstone, D. G. Hart, and Mark A. Noll (ed.), *Evangelicals and Science in Historical Perspective* (New York, 1999).

theologians, to evolutionary theory in the nineteenth century.[9] While the warfare thesis was clearly a crude caricature, an overemphasis on accommodationism can render the intensely emotional debates over Darwinism in the nineteenth century unintelligible and ignores the polemical uses of Darwinism by materialists and positivists in their fight against religion.[10]

This essay will attempt to make a contribution to both these debates by focusing on aspects of Darwinism that have been insufficiently explored to date—not the issues of competition vs. cooperation or capitalism vs. socialism or explicitly on religion, as is usual in the discussion over warfare or accommodation, but how Darwinism impacted thinking about the value of human life and the significance of human death. Indeed Darwinism, in harmony with the growth of materialism and positivism, helped alter many people's views on matters of life and death. Many prominent German Darwinists urged their society to reevaluate its stance on what today is known as biomedical ethics—infanticide, euthanasia, suicide, abortion, etc. By focusing on these issues, we will see that leading Darwinists invoked Darwinian science to undermine traditional Judeo-Christian ethical values; this went far beyond merely dismissing the Genesis creation story or even rejecting the supernatural.

The scientists and physicians most important in embracing, developing, and popularizing Darwinism in late nineteenth and early twentieth-century Germany vigorously argued that Darwinism did have important implications for religion, ethics, and social thought. Darwinism in the nineteenth and early twentieth centuries produced a significant shift in the world views of many who embraced it, and leading Darwinists insisted that their newly-found world view undermined traditional ways of thinking, including traditional ideas about religion and ethics. Ernst Haeckel, the most famous German Darwinist of the late nineteenth and early twentieth centuries, believed the most important aspect of Darwinism was the animal ancestry of humans, which would "bring forth a complete revolution in the entire world view of humanity."[11] The physician Ludwig Büchner, one of the most important popularizers of Darwinian theory in late nineteenth-century Germany, agreed. To Hermann Schaafhausen, the anthropologist who had discovered the Neanderthal fossils, he wrote:

> As the new conception of nature [i.e., Darwinism] gradually prevails, it will produce, I believe, one of the greatest transformations and one of the greatest advances, which human knowledge has ever undergone....

[9] David N. Livingstone, *Darwin's Forgoetten Defenders: The Encounter between Evangelical Theology and Evolutionary Thought* (Grand Rapids, Mich., 1987); James R. Moore, *The Post-Darwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America, 1870-1900* (Cambridge, 1979).

[10] See Alfred Kelly, *The Descent of Darwin: The Popularization of Darwinism in Germany, 1860-1914* (Chapel Hill, N.C., 1981), ch. 5.

[11] Ernst Haeckel, *Natürliche Schöpfungsgeschichte* (Berlin, 1868), 5, 487.

> At the same time a clarity and simplicity never before suspected will enter our entire philosophy.[12]

The search by leading Darwinists for a new world view and especially for a new ethical system to replace Christianity, and its ethics became intense around the turn of the century. Many prominent Darwinists were organizers and/or founding members of organizations designed to propagate a new secularized view of ethics, including the German Society for Ethical Culture, founded in 1892; the Monist League, established by Haeckel in 1906; and the International Order for Ethics and Culture, organized by the famous psychiatrist August Forel in 1908.

Ernst Haeckel was notorious for his hostility to Christianity and his rejection of Judeo-Christian ethics, and he was not alone among Darwinists.[13] He not only wrote extensively on ethical themes in his own books, but he also helped sponsor the Krupp Prize Competition in 1900. The industrialist Friedrich Krupp endowed a lucrative prize for the best book-length answer to the question, "What do we learn from the principles of biological evolution in regard to domestic political developments and legislation of states?"[14] The winner, Wilhelm Schallmayer, after arguing in the preface to his book that Darwinism was the most important event of the preceding century, continued:

> This view [Darwinism] had an especially powerful influence on ethics. It led not only to new views about the origin and evolution of ethical commands and thus to new foundations for them, but also led to the demand for a partial alteration of the presently valid ethical views.[15]

Haeckel and Schallmayer were joined by many other Darwinists in their campaign against Judeo-Christian religious and ethical thought. Alexander Tille, a prominent writer on evolutionary ethics, wrote in an 1894 article on "Charles Darwin and Ethics" that whatever promotes the progress of the species is mor-

[12] Ludwig Büchner to Hermann Schaafhausen, 11 July 1863 (University of Bonn Library, Handschriftenabteilung, S 2620a).

[13] Jürgen Sandmann, *Der Bruch mit der humanitären Tradition. Die Biologisierung der Ethik bei Ernst Haeckel und anderen Darwinisten seiner Zeit* (Stuttgart, 1990); Kelly, *Descent of Darwin*; Peter Emil Becker, *Sozialdarwinismus, Rassismus, Antisemitismus und volkischer Gedanke: Wege in Dritte Reich* (Stuttgart, 1990), esp. 502-4; Frank Simon-Ritz, *Die Organisation einer Weltanschauung: Die freigeistige Bewegung im Wilhelminischen Deutschland* (Gütersloh, 1997), 37-38.

[14] Heinrich Ernst Ziegler, "Einleitung zu dem Sammelwerke Natur und Staat," in *Natur und Staat*, I (bound with Heinrich Matzat, *Philosophie der Anpassung*) (Jena, 1903), 1-2.

[15] Wilhelm Schallmayer, *Vererbung und Auslese im Lebenslauf der Völker. Eine Staatswissenschaftliche Studie auf Grund der neueren Biologie* (Jena, 1903), ix-x.

ally good, and whatever leads to weak or sick individuals is morally bad, despite what Christianity or any other system of ethics may say.[16]

Nowhere was this shift in ethical thought more apparent than in Darwinian views relating to the value of human life. Before Darwinism burst onto the scene in the mid-nineteenth century, the idea of the sanctity of human life was dominant in European thought and law (though, as with all ethical principles, not always followed in practice). Judeo-Christian ethics proscribed the killing of innocent human life, and the Christian churches explicitly forbade murder, infanticide, abortion, and even suicide.[17] The sanctity of human life became enshrined in classical liberal human rights ideology as "the right to life," which according to John Locke, was one of the supreme rights of every individual. Until the second half of the nineteenth century and to a large extent even the twentieth century, both the Christian churches and most anticlerical European liberals upheld the sanctity of human life. It was at this time that significant debate erupted over issues relating to the sanctity of human life, especially infanticide, euthanasia, abortion, and suicide. Darwinism played an important role in this debate, for it altered many people's conceptions of the importance and value of human life, as well as the significance of death. Many Darwinists claimed that they were creating a whole new world view with new ideas about the meaning and value of life based on Darwinian theory.[18]

Nowhere was this shift toward devaluing individual human life more evident than in the eugenics movement, which claimed that its principles were simply applied Darwinian science. Leaders of the eugenics movement, such as Alfred Ploetz, Schallmayer, and Forel often emphasized that their views were established on Darwinian foundations. In organizing the Society for Race Hygiene, the first eugenics society in the world, Ploetz, in 1905, recruited the two most famous Darwinists in Germany, Haeckel and August Weismann, as honorary members. Many other Darwinian biologists joined Ploetz's society, too. Most historians of the eugenics movement acknowledge the debt of eugenics to Darwinism, and some have noted the impact of Darwinian ethics on eugenics, but little analysis of this phenomenon has been done. Peter Weingart, Jürgen Kroll, and Kurt Bayertz, for example, state in their co-authored survey of German eugenics, "The 'ethics' of eugenics practices, which were derived from the theory of evolution and selection, explicitly opposed the Christian ethic of the individual and the Enlightenment principle of equality."[19]

[16] Alexander Tille, "Charles Darwin und die Ethik," *Die Zukunft* (Berlin), 8 (1894), 302-14.

[17] Edward J. Larson and Darrel W. Amundsen, *A Different Death: Euthanasia and the Christian Tradition* (Downers Grove, Ill., 1998).

[18] Some examples are found in Max Apel (ed.), *Darwin. Seine Bedeutung im Ringen um Weltanschauung und Lebenswert* (Berlin, 1909).

[19] Peter Weingart, Jürgen Kroll, and Kurt Bayertz, *Rasse, Blut, und Gene: Geschichte der Eugenik und Rassenhygiene in Deutschland* (Frankfurt, 1988), 18.

The two leading experts on German euthanasia debates before World War I, Hans-Walther Schmuhl and Michael Schwartz, both note the Darwinian influence on euthanasia discourse. Schmuhl argues that eugenics constituted an attempt to promote a new ethics based on Darwinian science. He then perceptively explained, "By giving up the conception of the divine image of humans under the influence of the Darwinian theory, human life became a piece of property, which—in contrast to the idea of a natural right to life—could be weighed against other pieces of property."[20] Schwartz also mentioned the drive for a new Darwinized ethics as a significant factor in early euthanasia ideology.[21] Another leading scholar of the German euthanasia movement, Udo Benzenhöfer, spends an entire chapter in his book on euthanasia discussing the impact of Social Darwinism and eugenics on the budding euthanasia movement in the late nineteenth century.[22]

Indeed, some Darwinists, including Haeckel, Forel, Ploetz, and Schallmayer, forthrightly challenged the prohibition on killing all innocent human life, though many were not willing to break so radically with traditional morality. A number of prominent Darwinian biologists and social thinkers believed that Darwinism undermined the prevailing view of the sanctity of human life in favor of a view in which some humans are more valuable and have a greater right to life than others. Schallmayer remarked in his prize-winning book, "But the right of the stronger, that manifests itself in the victory of the better adapted forms over the less perfect, reigns not only in nature, but also in human social history."[23] Tille, whose ethical ideas were a synthesis of Darwin and Nietzsche, asserted, "Against the right of the stronger, every historical right is completely invalid."[24] Of course, not all Darwinists and probably not Darwin himself would have agreed with Schallmayer or Tille, but more Darwinists in the late nineteenth century shared Schallmayer's and Tille's views than many now realize.

Even those Darwinists who would have winced at Schallmayer's or Tille's statements generally saw Darwinism as a confirmation that ethics were not timeless truths transcending historical epochs. The famous psychiatrist August Forel, for example, director of the Burghölzli Clinic in Zurich, opened his book, *The Sexual Question* (1905), by explaining the importance of Darwinism for understanding human sexuality and sexual morality. He argued in this book that "our moral duties are only relative, and they cannot unite us to the same extent to all living beings and not even to all humans; otherwise the higher

[20] Hans Walter Schmuhl, *Rassenhygiene, Nationalsozialismus, Euthanasie: Von der Verhütung zur Vernichtung 'lebensunwerten Lebens' 1890-1945* (Göttingen, 1987), 18-19, 106.

[21] Michael Schwartz, " 'Euthanasie'-Debatten in Deutschland (1895-1945)," *Vierteljahrshefte für Zeitgeschichte*, 46 (1998), 623.

[22] Udo Benzenhöfer, *Der gute Tod? Euthanasie und Sterbehilfe in Geschichte und Gegenwart* (Munich, 1999), ch. 4.

[23] Schallmayer, *Vererbung und Auslese*, 213.

[24] Alexander Tille, *Volksdienst* (Berlin, 1893), 36.

would be sacrificed to the inferior."[25] In this passage and elsewhere Forel denied on the basis of Darwinian theory that moral principles are universal. Rather morality is in his view relative to the individual's fitness in the Darwinian struggle for existence. The "higher" individuals have a greater right to life than the "inferior."

Haeckel, Forel, Ploetz, Tille, and Schallmayer were by no means unusual among German Darwinists in arguing that Darwinism overturned commonly accepted ethical principles, including the sanctity of human life. What aspects of Darwinism brought about this transformation in thinking about the value of human life? First of all, Darwinism altered some people's conceptions of the human position in the cosmos and in the organic world. T. H. Huxley had dubbed this the question of "Man's Place in Nature," and many German Darwinists, including Haeckel, regarded this one of the most important aspects of Darwinism.[26] As Haeckel remarked in *The Wonders of Life* (1904), "the value of our human life appears to us today, on the firm foundation of evolutionary theory, in an entirely different light, than it did fifty years ago."[27] How did Haeckel think it had changed? Stated succinctly, Haeckel did not think that human life was particularly valuable, nor did he think that all people had the same value; this point comes through in many of his writings. He expressed this view to his father in a letter in 1864:

> I share essentially your view of life, dear father, only I value human life and humans themselves much less than you.... The individual with his personal existence appears to me only a temporary member in this large chain, as a rapidly vanishing vapor.... Personal individual existence appears to me so horribly miserable, petty, and worthless, that I see it as intended for nothing but for destruction.[28]

Haeckel and many other German Darwinists fought incessantly against body-soul dualism, which endued human life with much greater value than animals. Haeckel and most German Darwinists saw humans as not much different from animals, and they often criticized Christians and other dualists for insisting on significant qualitative distinctions.[29]

[25] August Forel, *Die sexuelle Frage* (Munich, 1905), 440-41.

[26] Haeckel called this the "question of all questions," in "Ueber die heutige Entwickelungslehre im Verhältnisse zur Gesamtwissenschaft," in *Amtlicher Bericht der 50. Versammlung Deutscher Naturforscher und Aerzte in München vom 17. bis 22. September 1877* (Munich, 1877), 14.

[27] Ernst Haeckel, *Die Lebenswunder* (Stuttgart, 1904), 445.

[28] Ernst Haeckel to his father, 21 March 1864, quoted in Heinrich Schmidt, *Ernst Haeckel. Leben und Werke* (Berlin, 1926), 203-4.

[29] Haeckel, *Natürliche Schöpfungsgeschichte* (1868), 546; David Friedrich Strauss, *Der alte und der neue Glaube* (Leipzig, 1872), 200-202.

Haeckel was not alone in these sentiments about evolution devaluing human life. In 1880 the zoologist (and later medical professor) Robby Kossmann explained the implications of Darwinism for the significance of human life to a popular audience in his article, "The Significance of the Life of an Individual in the Darwinian World View." Kossmann argued that Darwinism, because it "tore down the boundaries between the animal and human world," had huge implications for the significance of human life:

> We see that the Darwinian world view must look upon the present sentimental conception of the value of the life of the human individual as an overestimate completely hindering the progress of humanity. The human state (*Staat*) also, like every animal community of individuals, must reach an even higher state of perfection, if the possibility exists in it, *through the destruction of the less well-endowed individual*, for the more excellently endowed to win space for the expansion of its progeny.... The state only has an interest in preserving the more excellent life *at the expense of the less excellent.*[30]

Kossmann was thus attacking the traditional idea of the sanctity of human life, since he thought only some human lives were worth protecting. Later Kossmann wrote an entire book advocating state politics based on eugenics principles.[31]

Not only did the general idea of biological evolution affect the way people thought about the value of human life, but Darwin's particular theory of evolution by natural selection contributed to a devaluing of human life, too. Darwin had emphasized the Malthusian population principle as the basis for his theory. This meant that all species, including humans, tend to reproduce faster than the food supply, resulting in the death of most individuals before they have the chance to reproduce. Many German Darwinists argued that this mass destruction of organisms, including humans, showed that individual human lives were not really so important. In his memoirs Alfred Hoche, professor of psychiatry at the University of Freiburg, explained that to nature,

> the continued existence of the species is everything, the individual is nothing; she [nature] carries on an immense waste of seeds, but the individual, after she has given it—the mature one—opportunity to pass on its seed to the future, she heedlessly lets die; it is for her purposes without value.[32]

[30] Robby Kossmann, "Die Bedeutung des Einzellebens in der Darwinistischen Weltanschauung," *Nord und Süd*, 12 (1880), 420-21; emphasis mine.

[31] Robby Kossmann, *Züchtungspolitik* (Schmargendorf, 1905).

[32] Alfred Hoche, *Jahresringe: Innenansicht eines Menschenlebens* (Munich, 1935), 22.

In 1920 Hoche co-authored the notorious book, *Die Freigabe der Vernichtung lebensunwerten Lebens* (*Permitting the Destruction of Life Unworthy of Life*), which lamented that present moral codes prohibited the killing of those who are "completely worthless."[33]

Several leading Darwinists expressed similar Malthusian pessimism and drew the same kind of conclusions from it. In his 1878 Darwinian diatribe against socialist egalitarianism, Haeckel, basing his arguments forthrightly on the Malthusian element in Darwinian theory, argued that most humans necessarily perish in the struggle for existence. The more fit ones survive and reproduce, while the less fit die. "Many are called," he callously quipped, "but few are chosen."[34] The famous scientific materialist Ludwig Büchner also reflected this Darwinian view of death. In 1882 he wrote, "The individual is nothing in relation to the course [of nature], the species is everything; and history as well as nature mark every step forward, even the smallest, with innumerable piles of corpses."[35] Friedrich von Hellwald, an ethnographer and leading Darwinian social theorist in the 1870s, wrote in a major work on the history of human culture that, based on Darwinism, "The right of the stronger is natural law." The winners of the Darwinian struggle for existence—and he was primarily thinking of humans here—"must stride across the corpses of the vanquished; that is natural law."[36] Thus for these and many other Darwinists death was no longer an enemy, as Christianity portrayed it, but a force for progress.

Though Darwin would not have endorsed all these consequences others drew from his theory, he did directly contribute to this new view that death is beneficial and progressive. In *The Origin of Species* he stated, "Thus, from the war of nature, from famine and death, the most exalted object which we are capable of conceiving, namely, the production of the higher animals, directly follows."[37] He drove this point home with even greater effect with an example from nature:

> It may be difficult, but we ought to admire the savage instinctive hatred of the queen-bee, which urges her instantly to destroy the young queens her daughters as soon as born, or to perish herself in the combat; for undoubtedly this is for the good of the community; and mater-

[33] Karl Binding and Alfred Hoche, *Die Freigabe der Vernichtung lebensunwerten Lebens: Ihr Mass und Ihre Form* (Leipzig, 1920), 49-62.

[34] Ernst Haeckel, *Freie Wissenschaft und freie Lehre* (Stuttgart, 1878), 73-74.

[35] Ludwig Büchner, *Die Macht der Vererbung und ihr Einfluss auf den moralischen und geistigen Fortschritt der Menschheit* (Leipzig, 1882), 100.

[36] Friedrich Hellwald, *Culturgeschichte in ihrer natürlichen Entwicklung bis zur Gegenwart* (Augsburg, 1875), 27; "Der Kampf ums Dasein im Menschen- und Völkerleben," *Das Ausland*, 45 (1872), 105.

[37] Charles Darwin, *The Origin of Species* (London,1968), 459.

> nal love and maternal hatred, though the latter fortunately is most rare, is all the same to the inexorable principle of natural selection.[38]

Though Darwin backed off from applying this directly to humans, others were not so restrained.

The idea expressed by Darwin (in relation to bees), as well as by Hoche and Büchner (applying it to humans, too), that the individual is far less important than the species was a common theme in the writings of German Darwinists around the turn of the century. It resonated with the growing popularity of collectivism and the decline of liberal individualism. This was an important move in devaluing the life of individuals, for their life was now considered valuable only to the extent that it contributed to the well-being of the entire community, which might mean all of humanity or might mean a particular race, depending on the how racist or nationalistic the evolutionist was who applied the principle.

August Weismann gave his own special spin to this when he argued that death itself was an evolutionary adaptation. In an 1881 lecture and essay, "Ueber die Dauer des Lebens" ("On the Duration of Life"), he argued that in examining the duration of biological life, "*only the interest of the species* comes into consideration, not *that of the individual*." Once the individual has reproduced, it "ceases to have value for the species," so it dies.[39] A few years later he wrote "Ueber Leben und Tod" ("On Life and Death"), an extensive essay expounding upon the same idea. Here he again argued that death was beneficent for multicellular species, since it rid the species of injured individuals, who were "valueless and even harmful."[40] Weismann did not directly mention humans in these essays, but his arguments clearly presage the later focus of many eugenicists, for whom the individual's interests are subservient to those of the species. Schallmayer, for example, referred explicitly to Weismann's essay to support his eugenics.

Arnold Dodel, a botanist at the University of Zurich, expressed much the same thought in his popular work promoting Darwinism, *Moses oder Darwin?* (1889). After discussing the Malthusian population principle and the resultant struggle for existence, he stated, "Death is the end of the individual, but it is also the greatest benefactor for the whole. Without death [there is] no progress, and progress is life; so the death of the individual is the condition of life for the whole." He applied this principle to humans as well as other organisms.[41]

[38] *Ibid.*, 230.

[39] August Weismann, "Ueber die Dauer des Lebens," in *Aufsätze über Vererbung und Verwandte Biologische Fragen* (Jena, 1892), 11, 27-28.

[40] Weismann, "Ueber Leben und Tod," in *ibid.*, 183-84.

[41] Arnold Dodel, *Moses oder Darwin?* (Zurich, 1889), 90-91.

The notion that humans only have value in relation to the species or to the extent that they contribute to the progress of the human species led to a radical reconceptualization of the value of human life, especially since many Darwinists stressed biological inequality among humans. Most Darwinists believed that biological traits varied considerably from one individual to another; natural selection could not occur without variation. When they applied this to humans, they emphasized biological differences among humans; some were more "fit" (*tüchtig*) than others. In 1878 Haeckel asserted that Darwinism proved the necessity of inequality.[42] The biologist Wilhelm Preyer agreed that Darwinism demonstrated "that the inequality of humans is a natural necessity."[43] Another leading Darwinian biologist, Oscar Schmidt, argued the same point in an article refuting socialism, asserting, "The principle of evolution is certainly the abolition of the principle of equality."[44] Hellwald, who claimed to base his entire view of history and society on Darwinism, dismissed the notion of human rights and humanitarianism as fictions and spurned the egalitarian idea that "wants to treat everything that lives under the name 'human' on earth in the same way."[45] Heinrich Ernst Ziegler, a Darwinian biologist who wrote extensively on the social applications of Darwinian theory in the 1890s and early 1900s, constantly stressed human inegalitarianism as a logical consequence of Darwinian theory.[46]

The first German Darwinian biologist to apply this view of human inequality to persons with disabilities was Karl Vogt, a political exile in Switzerland because of his participation in the Revolutions of 1848 and professor at the University of Geneva. In 1863 Vogt wrote a two-volume work, *Lectures on Humans*, in which he argued that humans evolved from several different kinds of apes. In two different passages in this book, he asserted that some mentally disabled people ("idiots") were closer to apes in their brain function and mental abilities than they were to the lowest normal humans. He claimed an "idiot" is closer to an ape than to his or her own parents.[47] Vogt stopped short of advocating infanticide, but later in the same book he argued that morality is relative and supports his contention with a telling example: "If it is a capital offense in the civilized world to kill one's old lame father, there are Indian tribes in which this is considered an entirely praiseworthy deed of a son."[48] Vogt's relativizing

[42] Ernst Haeckel, *Freie Wissenschaft*, 72.

[43] Wilhelm Preyer, "Briefe von Darwin. Mit Erinnerungen und Erläuterungen," *Deutsche Rundschau*, 67 (1891), 382.

[44] Oscar Schmidt, "Darwinismus und Socialdemokratie," *Deutsche Rundschau*, 17 (1878), 289-90.

[45] Hellwald, *Culturgeschichte*, 720.

[46] Heinrich Ernst Ziegler, *Die Naturwissenschaft und die Socialdemokratische Theorie* (Stuttgart, 1893), 158; "Zu den Kritikern über das Jenenser Preisausschreiben," *Politisch-anthropologische Revue*, 3 (1904-5), 438.

[47] Carl Vogt, *Vorlesungen über den Menschen* (2 vols.; Giessen, 1863), I, 214, 256.

[48] *Ibid.*, I, 295.

of killing the weak and sick, together with his claim that some mentally ill people are closer to animals than humans, would blossom and bear fruit later in the eugenics movement.

Many German Darwinists translated this focus on biological inequality into the view that the value of human lives are not equal. None was more insistent on this point than Haeckel, who wrote an entire chapter in one of his books entitled, "The Value of Life," in which he argued forcefully that not all humans had the same value. Although the main point of the chapter was to point out racial differences, he also argued that within races the value of human lives varied considerably.[49] The idea that Darwinism undermined equality was a central feature underpinning the eugenics movement as it emerged in the 1890s in Germany. Eugenicists continually assigned different value to humans based on their physical and mental traits.[50] The founding father of the German eugenics movement, Alfred Ploetz, along with many other eugenicists, forthrightly condemned the egalitarian ideals of the nineteenth-century liberals, which, he believed, were not consistent with the Darwinian view of biological variation within species.[51] Schallmayer dismissed egalitarianism with scorn. "Making the unequal equal," he wrote, "can only be an ideal of the weak."[52]

Ideas about human inequality predated Darwinism by centuries, of course, but Darwinism seems to have reinvigorated the idea among the educated elites. The Darwinian emphasis on human biological inequality even infiltrated socialist circles.[53] In fact most of the early leaders of the German eugenics movement—Ploetz, Schallmayer, Alfred Grotjahn, Max von Gruber, and Ernst Rüdin—either considered themselves socialists or were very sympathetic to socialism. Alfred Blaschko, a socialist physician, expressed rather bluntly his views of human inequality in an article on Darwinian social theory in a leading socialist periodical: "Now it cannot be denied that the Darwinian theory is an eminently *aristocratic* theory; aristocratic on the one hand since it proclaims the inequality of everyone bearing a human face, and on the other hand, because, proceeding from this inequality, it preaches the right of the stronger, of the one better equipped for the struggle for existence."[54]

Because of their concern for the collective good and their stress on human inequality, many Darwinists criticized Christianity and humanitarianism for

[49] Haeckel, *Lebenswunder*, ch. 17.

[50] See Weingart *et al*, *Rasse, Blut, und Gene*, 254ff; Sheila Faith Weiss, *Race Hygiene and National Efficiency: The Eugenics of Wilhelm Schallmayer* (Berkeley, Calif.,1987), 158; Gisela Bock, *Zwangssterilisation im Nationalsozialismus* (Opladen, 1986), 61ff.

[51] Alfred Ploetz, *Die Tüchtigkeit unsrer Rasse und der Schutz der Schwachen* (Berlin, 1895), 194-96.

[52] Schallmayer, *Vererbung und Auslese*, 371.

[53] Michael Schwartz, *Sozialistische Eugenik: Eugenische Sozialtechnologien in Debatten und Politik der deutschen Sozialdemokratie, 1890-1933* (Bonn, 1995).

[54] Alfred Blaschko, "Natürliche Auslese und Klassentheilung," *Die neue Zeit*, 13,1 (1894-95), 615.

what they considered its excessive concern for the individual. The world famous hygienist Max von Gruber, Forel, Schallmayer, Ploetz, and a host of other eugenicists thought humanitarian measures in the nineteenth century contributed to the biological degeneration of humans, since helping the weak, sick, and mentally ill would allow them to pass on their "defective" genes. German eugenicists explicitly founded their ideas on a Darwinian base, and their concern with heredity, coupled with a strong sense of biological inequality, produced a world view in which human life was measured in terms of its physical and mental health, or even abilities and talents contributing to economic productivity. The intelligent and strong were, in their eyes, fit and desirable, while the mentally and physically handicapped were far less valuable.

One does not have to read very many writings by German eugenicists before it becomes apparent that they assigned differing values to different people. They constantly refer to the mentally and physically handicapped as inferior, lower, useless, burdens to society, and even worthless. The German term for inferior (*minderwertig*), literally meaning "of lower value," appears frequently in eugenics discourse. Erwin Baur, a prominent Mendelian geneticist and supporter of eugenics, for example, at the end of his widely-used text on genetics, drew distinctions between people who are inferior (*minderwertig*) and superior (*hochwertig*).[55] Similar expressions abound in the writings of biologists, psychiatrists, and physicians. Some eugenicists even claimed that individuals with physical or mental disabilities were not only worthless, but of negative value. For example, Hugo Ribbert, professor of pathology at the University of Bonn, wrote:

> The care for individuals who from birth onwards are useless alike mentally and physically, who for themselves and for their fellow-creatures are a burden merely, persons of negative value, is a function altogether useless to humanity, and indeed positively injurious.[56]

Ribbert's rhetoric may seem shocking to us today, but it was rather commonplace among eugenicists in the early twentieth century and not just in Germany. Alfred Grotjahn, professor at the University of Berlin, a pioneer in social hygiene, and later a socialist politician, also reflected this concern with biologically "inferior" elements, estimating that one-third of the entire population was physically or mentally "inferior" or "defective."[57]

Another measuring rod used by eugenicists to determine human value was economic productivity. Forel claimed that humans should be ranked in value

[55] Erwin Baur, *Einführung in die experimentelle Vererbungslehre* (Berlin, 1914²), 342-45.

[56] Hugo Ribbert, *Heredity, Disease and Human Evolution*, tr. Eden and Cedar Paul (New York, 1918), 57.

[57] Alfred Grotjahn, "Das Problem der Entartung," *Archiv für soziale Hygiene*, 6 (1910),74.

according to their ability to be productive citizens. He defined a fit individual as one who contributes more to society than he or she receives.[58] Many eugenicists lamented the economic burden posed by the mentally and physically handicapped. In 1911 a prominent science journal, *Umschau*, offered a cash prize for the best essay on the topic, "What do the bad racial elements cost the state and society?" The instructions for the contest stressed the burden placed on society by the biologically "inferior."[59]

Many of these Darwinists and eugenicists, of course, assured their readers that society should continue caring for these "inferior" individuals while finding ways to hinder them from reproducing. However, a significant number of them drew more radical conclusions and advocated active measures to eliminate those deemed inferior. These measures included infanticide, abortion, and euthanasia, both voluntary and involuntary. As the leading Darwinist in Germany, Haeckel was a pioneer in this regard. Already in the second edition of his work, *Natürliche Schöpfungsgeschichte* (1870), he favorably mentioned the ancient Spartan practice of killing weak and sickly infants, implying that he advocated this practice. He wrote,

> If someone would dare to make the suggestion, according to the example of the Spartans and Redskins, to kill immediately after birth the miserable and infirm children, to whom can be prophesied with assurance a sickly life, instead of preserving them to their own harm and the detriment of the whole community, our whole so-called "humane civilization" would erupt in a cry of indignation.[60]

In a book dedicated to his friend Haeckel, Hellwald likewise favorably discussed the Spartan practice.[61]

Later Haeckel even more explicitly argued in favor of infanticide. His arguments are quite interesting, for he used evolutionary scientific arguments to support his case. Haeckel believed that ontogeny recapitulates phylogeny, meaning that as organisms develop from a single cell to adulthood, they allegedly traverse the evolutionary stages of their ancestors. Haeckel argued that newborn infants were still in an evolutionary stage equivalent to our animal ancestors; thus killing them was no different than killing other animals. In the case of handicapped infants, he wrote, "a small dose of morphine or cyanide would not only free this pitiable creature itself, but also its relatives from the burden of a

[58] August Forel, *Die sexuelle Frage*, 457.
[59] "Preisausschreiben," *Die Umschau*, 15 (1911), 127-28.
[60] Ernst Haeckel, *Natürliche Schöpfungsgeschichte* (1870²), 155.
[61] Hellwald, *Culturgeschichte*, 276.

long, worthless and painful existence."[62] Though Dodel was not quite as explicit as Haeckel, he agreed that a newborn is not fully human yet, and sometimes babies never develop fully into humans, according to him.[63]

Haeckel used similar arguments to justify abortion, considering it a scientific fact that human life begins at conception. However, since the human embryo is recapitulating earlier stages of evolutionary development, it does not have the full value of adult humans. It is still on the level of other animals from which humans descended. He stated "that the developing embryo, just as the newborn child, is completely devoid of consciousness, is a pure 'reflex machine,' just like a lower vertebrate."[64] In Haeckel's view abortion is thus no different from killing an animal.

Haeckel vigorously opposed the idea that humans have a soul or immortality, so for him suicide was also not immoral. For him this was not just a theoretical question but had practical implications: On all his sea voyages, he carried a dose of poison in case of shipwreck, for he would rather kill himself than wage a protracted struggle with death.[65] He objected to the German term for suicide—*Selbstmord* (self-murder)—for, he argued, suicide is not murder at all, but rather "self-redemption." Murder, Haeckel explained, is only the killing of human life against its will. After noting that we rightly kill animals in their misery, Haeckel also explicitly advocated assisted suicide. He stated: "Likewise we have the right—or if one prefers—the duty, to end the deep suffering of our fellow humans, if strong illness without hope of recovery makes their existence unbearable and if they themselves ask us for 'redemption from evil.' "[66]

Defending suicide was also not merely theoretical for Ludwig Gumplowicz, an Austrian sociologist famous for his theory of racial struggle. Gumplowicz appealed to Darwinism as the basis for his sociology and indeed his entire world view. In his early work, *Race Struggle* (1885), he argued that the Malthusian principle of overpopulation and the resultant struggle for existence result in human conflict. In *Social Philosophy in Outline* (1910) he built upon these Darwinian foundations to argue for the propriety of suicide:

> To comply with the obvious will of nature is the highest morality: With a perceptible voice nature calls back into its bosom those who are sick and weary of life. To follow this call and to make space for healthy

[62] Quote in Ernst Haeckel, *Ewigkeit: Weltkriegsgedanken über Leben und Tod, Religion und Entwicklungslehre* (Berlin, 1917), 33-34; and see Haeckel, *Natürliche Schöpfungsgeschichte*, 152-55; and *Lebenswunder*, 22, 135-36, 371-72, 375.

[63] Dodel, *Moses oder Darwin?*, 72-73.

[64] Haeckel, *Lebenswunder*, 375.

[65] Ernst Haeckel to Frieda von Uslar-Gleichen, 22 January 1900, in Johannes Werner (ed.), *Franziska van Altenhausen. Ein Roman aus dem Leben eines berühmten Mannes in Briefen aus den Jahren 1898-1903* (Leipzig, 1927[6]), 145.

[66] Haeckel, *Lebenswunder*, 128, 132.

> people filled with zeal for life is certainly no evil deed, but rather a good deed, for there are not too few people on the earth—rather too many.[67]

When Gumplowicz wrote this, he was nearing the end of his life, for he was diagnosed with cancer. Before these words were published, Gumplowicz and his blind wife had ended their lives together with cyanide.

Other prominent Darwinian thinkers agreed with Haeckel's and Gumplowicz's view on suicide. Bartholomäus Carneri, a close friend of Haeckel who wrote extensively on evolutionary ethics, wrote: "The right for a person to kill oneself cannot be disputed. It is his life that he forfeits."[68] Though rejecting infanticide and euthanasia, Christian von Ehrenfels, a Darwinian ethical philosopher at the University of Graz best known for founding Gestalt psychology, believed that suicide should be made easier to allow the incurably sick and miserable to end their own lives.[69]

Not only did Haeckel justify infanticide, abortion, and assisted suicide or voluntary euthanasia, but he also supported involuntary euthanasia for the mentally ill. He condemned the idea that all human life should be preserved, "even when it is totally worthless." He complained that many mentally and some physically ill people are burdens to society. We could spare ourselves much pain and money by just giving them a shot of morphine. Haeckel proposed that a commission of physicians make the determination on each case to safeguard against abuse, but the individual being reviewed would have no voice.[70]

Haeckel was not the only Darwinist advocating infanticide and euthanasia. In 1910 Forel made clear what was often implied in many of his earlier works on eugenics by explicitly advocating killing the physically and mentally handicapped. "Is it really a duty of conscience to help with the birth and even the conception of every cripple, who descends from thoroughly degenerate parents?" he asked. "Is it really a duty to keep alive every idiot (even every blind idiot), every most wretched cripple with three-fourths of the brain damaged?" He answered with a resounding, No![71]

In the only major book Ploetz wrote (1895) he described a utopian society in which weak or deformed children would be killed immediately after birth. This eugenics utopia would even kill all twins, all children born after the sixth

[67] Ludwig Gumplowicz, *Sozialphilosophie im Umriss* (1910), in Emil Brix (ed.), *Ludwig Gumplowicz oder die Gesellschaft als Natur* (Vienna, 1986), 272-73.

[68] Bartholomäus Carneri, *Der moderne Mensch: Versuch über Lebensführung*, Volksausgabe (Stuttgart, 1901), 142.

[69] Christian von Ehrenfels, "Gedanken über die Regeneration der Kulturmenschheit" (privately published, 1901; available at the Forschungsstelle und Dokumentationszentrum für Österreichische Philosophie, Graz, Austria), 41.

[70] Haeckel, *Lebenswunder*, 134-35.

[71] August Forel, *Kulturbestrebungen der Gegenwart* (Munich, 1910), 26-27.

child, and all children born to a mother over forty-five or a father over fifty because these people (so Ploetz believed) would likely be physically and mentally inferior.[72] Did Ploetz actually advocate this as policy? Probably not, since this would be an incredibly inflammatory position to take, and as far as I know, Ploetz never expressed these views later on. Furthermore, Ploetz took a more ambiguous position that same year in an article for a technical philosophical journal. In this essay he first stated that getting rid of the weak and sick is beneficial. After making this provocative claim, Ploetz then argued that, despite the advantages, killing the weak in society ultimately would not be beneficial, because it would wreak havoc with our social instincts.[73] Based on his book and article, it is difficult to know whether Ploetz actually supported infanticide. However, the book seems to imply support for it, and even the article demonstrates that Ploetz's primary concern was not the life of the individual, whose welfare does not enter his reasoning at all.

Only a few other eugenicists broached the subject of infanticide. Schallmayer did not explicitly advocate infanticide, but he insisted that Europeans' criticism of Chinese infanticide was misguided.[74] The leading woman eugenicist in Germany, the physician Agnes Bluhm, encouraged obstetricians to rethink their life-saving procedures in births involving "imbeciles," who represent, she averred, a "loss to the nation." In such cases the obstetrician "must no longer blindly seek to produce for the mother a living child, but must ask himself, in individual cases, whether he can take the responsibility as regards the [human] race."[75] She thus considered the killing of some infants a beneficent deed and hoped that physicians would stop trying to save the lives of handicapped infants.

The first significant published debate in Germany over the ethics of euthanasia occurred in the journal of the Monist League, an organization founded by Haeckel in 1906 to promote his Darwinian monistic world view and to fight against dualistic philosophies, above all Christianity. Roland Gerkan, in the last throes of a terminal illness, wrote an article requesting that the Monist League support a euthanasia bill he had drafted, since the organization was destroying belief in an afterlife that would provide meaning for suffering. Gerkan's proposal supported only voluntary euthanasia after the petition of an individual to the proper legal authorities, and only after a panel of three physicians verified that the patient's illness was terminal.

[72] Ploetz, *Die Tüchtigkeit unsrer Rasse*, 144-45.

[73] Alfred Ploetz, "Ableitung einer Rassenhygiene und ihrer Beziehung zur Ethik," *Vierteljahresschrift für wissenschaftliche Philosophie*, 19 (1895), 370.

[74] Schallmayer, *Vererbung und Auslese*, 210.

[75] Agnes Bluhm, "Eugenics and Obstetrics," in *Problems in Eugenics: Papers Communicated to the First International Eugenics Congress* (London, 1912; rprt. New York, 1984), 395.

Gerkan's article prompted responses by fellow Monists on the issue of euthanasia. Wilhelm Ostwald, a Nobel Prize-winning physicist whom Haeckel recruited as president of the Monist League and editor of its journal, vigorously, defended Gerkan's proposal.[76] Eugen Wolfsdorf likewise supported euthanasia, which he considered a logical consequence of Ostwald's ethical postulate, the energetic imperative, which stated, "Waste no energy, but utilize it!" Caring for suffering family members in Wolfsdorf's view, is economically damaging and thus wastes energy. Thus he believed that Ostwald's energetic imperative superseded the principle, "God has given life, God must take it back."[77] Two other physicians in the Monist League, A. Braune and Friedrich Siebert, expressed their support for euthanasia, too.[78] The only Monist to publish a rebuttal to Gerkan's views was Wilhelm Börner, but even Börner was not arguing for the sanctity of human life. Börner merely argued that defining who should be eligible for euthanasia was too slippery, so his objection focused on the practical implementation of euthanasia, not on the worth or dignity of human life.[79] No Monist argued in this debate that the life of a suffering individual had intrinsic value.

The early debate over abortion in Germany was, of course, not always overtly linked to Darwinism, though sometimes it was. The jurist Otto Ehinger recycled Haeckel's argument that the human embryo is recapitulating its evolutionary development and is therefore equivalent to a more primitive animal before birth. He used this line of reasoning in an article in Helene Stöcker's journal, *Die neue Generation*, to call for the government to lift legal prohibitions on abortion. He further argued,

> Nature shows us with thousands of examples, even in the process of conception, that it wastes millions of seeds [*Lebenskeime*], in order to allow one of them to develop fully [*kräftig*]. Isn't a mother, especially under present economic relations, merely following its example, if she—perhaps with distress of conscience and pain—destroys her seed, because the children she already has must starve and waste away with an enlargement of the family.[80]

[76] Roland Gerkan, "Euthanasie," *Das monistische Jahrhundert*, 2 (1913), 169-74; Wilhelm Ostwald, "Euthanasie," *Das monistische Jahrhundert*, 2 (1913), 337-41.

[77] Eugen Wolfsdorf, "Euthanasie und Monismus," *Das monistische Jahrhundert*, 2 (1913), 305-9.

[78] Dr. A. Braune, "Euthanasie und Arzt," *Das monistische Jahrhundert*, 2 (1913-14), 871-73; Friedrich Siebert, in Heinrich Schmidt (ed.), *Was wir Ernst Haeckel verdanken* (2 vols.; Leipzig, 1914), I, 339-51.

[79] Wilhelm Börner, "Euthanasie (Eine Erwiderung)," *Das monistische Jahrhundert*, 2 (1913), 249-54.

[80] Otto Ehinger, "Der Grund der Abtreibungsbestrafung," *Die neue Generation*, 8 (1912), 237-38.

The biggest impact of Darwinism on the abortion debate came more indirectly through eugenics discourse, which, as we have seen, was largely based on Darwinism. Eugenics provided important impetus for those promoting the legalization of abortion. Most of the leading abortion advocates—Helene Stöcker, Adele Schreiber, Henriette Fürth, Grete Meisel-Hess, Oda Olberg, and others—were avid Darwinian materialists who saw abortion not only as an opportunity to improve the conditions of women, but also as a means to improve the human race and contribute to evolutionary progress. A socialist physician and eugenics advocate (who became a member of the Reichstag for the SPD during the Weimar Republic), Eduard David, in an essay on "Darwinism and Social Development," argued that eugenics was the proper social response to Darwinism, and he approved of abortion as one eugenics measure among others.[81]

Lily Braun, a leading figure in the German women's movement and in the Social Democratic Party before World War I, likewise embraced a world view heavily influenced by Darwinism. She became a strong advocate of both eugenics and abortion. She apparently favored infanticide, too, for once she scolded a doctor for not preventing the beating of a child with Downs syndrome with the following words: "If you physicians are not compassionate enough to free such children from the burden of life on this earth, you should at least protect them against cruelties."[82]

Even those Darwinists who did not favor complete legalization of abortion often did not do so because of any regard for the life of the individual fetus. Most eugenicists who fought against abortion did so because they thought that easy access to abortion would lead to a population decline and would contribute to the biological degeneration of society. Their concern was not with the individual life, but with improving the biological quality and thus strength of the German population as a whole. Agnes Bluhm, the most prominent woman physician in the German eugenics movement, opposed abortion under most circumstances, since she believed that population growth was healthy for society. She further acknowledged that the fetus was not merely part of the mother but deserved protection as a unique individual. However, she favored the legalization of abortion under certain conditions, such as a mother's health problems, rape, or in case the offspring might be expected to be "inferior." She persuaded the League of German Women's Organizations to adopt her position on abortion.[83] Julius Tandler, a Viennese physician, agreed with Bluhm that developing embryos are not part of the mother, but rather unique individuals. However, he also favored legalization of abortion, but only if a commission of

[81] Eduard David, "Darwinismus und soziale Entwicklung," in Max Apel (ed.), *Darwin*, 59.

[82] Alfred Meyer, *The Feminism and Socialism of Lily Braun* (Bloomington, 1985), 147.

[83] Agnes Bluhm, "Frauenbewegung, Strafrecht, und Rassenhygiene," *Archiv für Rassen- und Gesellschaftsbiologie*, 6 (1909), 134-39.

physicians (not the mother) determined the offspring is unworthy to live; thus society should decide on the life or death of the fetus.[84] Ernst Rüdin, psychiatrist at the University of Munich, was another leading figure in the eugenics movement to support abortions, but only for eugenics purposes.[85] Even opposition to abortion by many eugenicists was thus conditional, and women who were suspected of possibly having "defective" offspring would be allowed or even encouraged to abort their children.

Of course, not all Darwinists opposed the doctrine of the sanctity of human life, and by no means did all support the legalization of abortion, infanticide, nor euthanasia. In fact some eugenicists like Alfred Grotjahn, who estimated that one-third of the German population was "inferior," opposed all forms of killing: war, euthanasia, and even capital punishment. He hoped that eugenics measures would be able to eliminate the "inferior" elements in the coming generations, not in the present one.[86] Ehrenfels, whose zeal for eugenics led him to campaign for polygyny (but only for the "best" men, of course), also insisted that all humans have a right to life, so selection must occur before birth to benefit the next generation.[87]

We must also remember that in Germany there were strong intellectual currents opposing all applications of Darwinism or other scientific principles to ethical and social thought. Neo-Kantian philosophers and liberal theologians, both dominating the academy in their respective fields, stressed the radical disjunction between scientific and social thought, as in Wilhelm Dilthey's distinction between the *Naturwissenschaften* (natural sciences) and *Geisteswissenschaften* (human sciences). They could accept Darwinism as a scientific theory, while denying that it should influence religion, ethics, or any practical affairs of life.[88] However, the figures we have focused on in this essay, which included most of the biologists and popularizers most closely identified with Darwinism, generally steered in the opposite direction, insisting that science, particularly Darwinian theory, should transform our entire world view and impact ethical ideals.

It was not merely Darwinism, of course, but increasing secularization, together with the rise of scientific materialism in late nineteenth-century Ger-

[84] Doris Byer, *Rassenhygiene und Wohlfahrtspflege: Zur Entstehung eines sozialdemokratischen Machtdispositivs in Österreich bis 1934* (Frankfurt, 1988), 121-23.

[85] Ernst Rüdin, "Rassenhygiene und kommunaler Schutz der Minderwertigen," *Archiv für Rassen- und Gesellschaftsbiologie*, 5 (1908), 153-54.

[86] Alfred Grotjahn, "Wahre und falsche Euthanasie," n.d. [c. 1919], in Alfred Grotjahn papers, 303, at Humboldt University Archives.

[87] Ehrenfels, "Gedanken," 41.

[88] Klaus Christian Köhnke, *The Rise of Neo-Kantianism: German Academic Philosophy between Idealism and Positivism*, tr. R. J. Hollingdale (Cambridge, 1991); Frederick Gregory, *Nature Lost? Natural Science and the German Theological Traditions of the Nineteenth Century* (Cambridge, 1992).

many, that contributed to the assault on Judeo-Christian morality, including the right to life. Darwinism was such an integral component of late nineteenth-century materialism, however, that it is difficult to disentangle the two ideas. The leading scientific materialists of the pre-Darwinian era, including Karl Vogt and Ludwig Büchner, enthusiastically embraced Darwinian theory and became its chief apostles, along with Ernst Haeckel, whose monistic philosophy was kin to scientific materialism despite its pantheistic language. Darwinism also provided materialists with a specific theory of the origins of ethics that helped undercut Judeo-Christian ethics and the right to life. Darwinism both benefitted from and contributed to the growth of scientific materialism in late nineteenth-century Germany.

In sum, many leading Darwinian biologists and popularizers in the late nineteenth and early twentieth centuries led the attack on existing moral standards, on body-soul dualism, and on the sanctity of human life. This placed them in direct conflict with traditional religious values. They saw the battle they waged as a contest between religion and science, and it was not just about the extent of supernatural intervention in nature. These played a role, of course, but the Darwinists' assault on other cherished values, including the sanctity of human life, intensified the conflict considerably. Historians in the future should include discussions about ethics, body-soul dualism, and the sanctity of human life in their accounts of the science-religion interface.

My study also reveals a new dimension of the debate over social Darwinism. Much ink has been spilt debating whether Darwinism contributed to a competitive ethos in the late nineteenth century, but to date no scholars have examined other ways that Darwinism influenced nineteenth and early twentieth-century thought about humanity. Yet Huxley, Haeckel, and other prominent Darwinists trumpeted the new theory as having finally brought revelation about "Man's Place in Nature." Darwinists did not always agree on what those implications were, but those with a naturalistic bent often argued that Darwinism stripped humans of their special status in the cosmos.

Another reason this line of investigation is so important is because it provides crucial background to the Nazi period. The ideology of Hitler and many of his closest associates was heavily influenced by Social Darwinism, eugenics, and euthanasia in the first decades of the twentieth century, as just about all scholars of Nazism recognize. Once the Nazis came to power, they implemented these ideas with sterilization laws and later euthanasia and mass extermination. Also the Darwinian devaluing of human life may help explain why so many physicians, scientists, and other Germans cooperated with the Nazis. Of course there was no direct path from Darwinism to the Nazi's mass extermination, but Sheila Faith Weiss is surely right when she asserts that "to categorize people as 'valuable' and 'valueless,' to view people as little more than variables amenable to manipulation for some 'higher end,' as Schallmayer and all German

eugenicists did, was to embrace an outlook that led, after many twists and turns, to the slave-labor and death camps of Auschwitz."[89]

It is important to understand, however, that the Darwinian devaluing of human life was not a uniquely German phenomenon, and it did not lead to an active euthanasia program in any other country of the world. It did, however, contribute to the euthanasia movement elsewhere. Bruce Fye has shown that Darwinian thought was influential in the early Anglo-American euthanasia movement,[90] and Ian Dowbiggin's forthcoming book on the American euthanasia movement substantiates this.[91] The euthanasia movement, however, remained small throughout the twentieth century, and concerns over the value of life for the disabled led not to infanticide or euthanasia, but rather to preventive measures, such as compulsory sterilization, in many places.[92] Only in Germany did this Darwinian devaluing of human life produce an active euthanasia program, and there it was not a popular measure but provoked popular opposition. Rather it occurred in Germany because a radical adherent of a naturalistic Darwinian world view, in which individual human life had little value, gained the reins of power and—together with the support of sympathetic physicians[93]—could override the scruples of those upholding the value of every individual's life.

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[89] Weiss, *Race Hygiene and National Efficiency*, 158.

[90] Bruce Fye, "Active Euthanasia: An Historical Survey of Its conceptual Origins and Introduction into Medical Thought," *Bulletin of the History of Medicine*, 52 (1978), 497-500.

[91] Ian Dowbiggin, *Mixed Motives: The Euthanasia Movement in Modern America* (Oxford, forthcoming).

[92] Joachim Müller, *Sterilisation und Gesetzgebung bis 1933* (Husum, 1985); Gunnar Broberg and Nils Roll-Hansen (ed.), *Eugenics and the Welfare State: Sterilization Policy in Denmark, Sweden, Norway, and Finland* (East Lansing, Mich., 1996); William H. Schneider, *Quality and Quantity: The Quest for Biological Regeneration in Twentieth-Century France* (Cambridge, 1990); Diane B. Paul, *Controlling Human Heredity, 1865 to the Present* (Atlantic Highlands, N.J., 1995).

[93] See Robert Proctor, *Racial Hygiene* (Cambridge, 1988); Arthur L. Caplan (ed.), *When Medicine Went Mad: Bioethics and the Holocaust* (Totowa, N.J., 1992); Michael H. Kater, *Doctors under Hitler* (Chapel Hill, N.C., 1989); Robert Lifton, *The Nazi Doctors: Medical Killing and the Psychology of Genocide* (New York, 1986).