

Robert Frost and Darwin's Theory of Evolution

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[Part Two]

ROBERT FROST WAS WELL READ in the extensive literature surrounding Darwin's theory during the late Victorian era, and he was therefore keenly aware of the vast range of conflicting views that obtained regarding evolution among scientists, theologians, and literary writers. Since he absorbed some of the ideas set forth by both critics and defenders of Darwin's theory, a summary review of the literature on evolution helps to clarify his own later convictions about that corpus of thought. Frost knew that between 1859-1870 Darwin's theory had been widely embraced because of the favorable reviews, articles, and public lectures indited by the British scientific establishment, which included such men as T.H. Huxley, Joseph Dalton Hooker, Charles Lyell, W.B. Carpenter, Herbert Spencer, Alfred Russell Wallace, Grant Allen, Ray Lankester, John Tyndall, and George J. Romanes. A similarly well-disposed cadre existed on the Continent, led by Ernst Haeckel in Germany.

But beginning in 1871, when St. George Jackson Mivart (1828-1900) published *Genesis of Spirit*, there developed a steady

crescendo of serious criticism of Darwin's theory, directed mainly against his chief principle of natural selection, but also against the determinism and materialism implicit in his thought. This criticism was so compelling that by 1904, as Peter J. Bowler observed, "there was no longer any need to pay even lip service to the theory of natural selection."⁴² The initiator of the onslaught, Mivart, a Catholic convert, was a former student of Huxley, a friend of Darwin, and a strong believer in evolution. His acknowledged competence as a scientist made his powerful set of critical strictures against Darwin's thought more troublesome to the great evolutionist than those of any other critic.⁴³ Indeed, Mivart provided the chief weapons against Darwin's theory among both scientists and the public for the last three decades of the nineteenth century. Ironically, it was Darwin's chief defender, Thomas Henry Huxley, who made that antagonist aware of the great difficulty in believing in natural selection.

Mivart quoted a long passage from the *Origin of Species* in which Darwin had admitted that he had exaggerated the importance of natural selection. He then struck at the heart of the evolutionist's theory: "...To admit any such constant operation of any such unknown natural cause is to deny the purely Darwinian theory which relies upon the survival of

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the fittest by means of minute fortuitous indefinite variations.”⁴⁴ He argued that this wholly naturalistic conception, based upon adaptive changes of species in reacting mainly to physical environment, was negated by the records of fossils and also by the actual observed conditions of living species.

In place of evolution by chance, Mivart posited a non-Darwinian theory of growth through directed change, an innate, inner-directed source for changes in species, involving the mind, will, and emotions of man, which, he contended, formed “harmonious self-consistent wholes.” In addition to physical environment, as applied to man such changes, he held, could be made through genetics, the creative powers in man, or a God-given directive. Without insisting upon an overall theistic plan or design, Mivart’s criticism of Darwin gave precedence to man’s mind or spirit as elements inherent in organic matter and in the evolutionary process. In effect, he provided a scientific rather than a vague theistic interpretation of the theme in Robert Chamber’s *Vestiges of the Natural History of Creation* (1844), and thereby advanced a non-Darwinian model of evolution, based upon changes in species through separate and independent lines of development, rather than through related forms of species descended from a common ancestor.

Mivart’s stress upon the power of mind and moral sense in man conceived of human cognition as different in kind, not merely in degree, from that of other animals. He was a philosophical dualist, and when Darwin’s successor, George Romanes, defended the materialist theory in an article, “Mind and Monism,” he wrote a rebuttal, affirming that man’s cognition directed matter, not the reverse. It was to refute Mivart’s criticism and case for creative evolution that Darwin added a new chapter in the final edition of the *Origin of Species*.⁴⁵ This

concession was naturally noted by subsequent critics of that work.

As the first important critic of Darwin, Mivart was to make the case for what eventually came to be called “creative evolution.” His dualistic concept of the evolutionary process combined two diametrically opposed elements; on the one hand, the unique role of mind, including will, reason, and creativity; on the other, changes in species induced by determinism and centered in matter. This formulation of Mivart’s, developed by such successors as Samuel Butler, William James, and Henri Bergson, profoundly influenced Frost’s reaction to Darwin’s thought. To understand the full complexity of Frost’s mature response to the revisions in Darwin’s theory, it is necessary to consider his convictions regarding evolution as they developed within an historical context that embraced the late Victorian period and the early decades of the twentieth century. During this period a new range of interpretations of Darwin’s theory was conceived.

As already noted, from 1897 to 1899, Frost absorbed some important elements of creative evolution through his Harvard studies. His reading in William James and in Max Weber’s *History of Philosophy* made him aware that no monistic system based upon matter was ever absolute, that “even the most decided monists advance a relative dualism.” The relative dualism of Darwin was most evident in his use of metaphorical language to describe the evolutionary process and in his strong case for “sexual selection” in *The Descent of Man*, wherein he conceded that human will, reason, and creativity were factors in the evolutionary process. Moreover, toward the conclusion of his *Autobiography*, Darwin stated that he found it hard to believe that the order and beauty he perceived in the universe were the result of pure chance. This was a large concession to the argument for design

and theism; and it ran contrary to the earlier main thrust of his theory.

Thus there were enough ambiguities and paradoxes in Darwin's early theory to create serious problems of interpretation for both his critics and his defenders. Indeed, in the history of ideas there are perhaps no ironical contradictions to compare with those that involved the commentators on Darwin's theory of evolution. A strong case can be made that those who argued in favor of creative evolution and who were regarded as Darwin's most severe critics were actually far closer to his theory than those who defended him, such as Huxley, who assumed a wholly mechanistic process of evolution based wholly upon materialistic monism. No writer exemplifies this apparent contradiction more completely than Samuel Butler (1835-1902). Although Frost mentioned Butler during discussions of evolution with me at Bread Loaf, he did not identify which of that writer's works he had read. But the large number of similar and identical beliefs Frost came to hold in common with him regarding evolution is highly significant for any estimate of the poet's understanding of Darwin's theory.

Frost's only recorded notice of Butler was in an important retrospective passage in a letter to Louis Untermeyer (November 25, 1936), in which he noted that against the rival metaphor of the state as head of a peaceful and ideal family, as propounded by Karl Marx, Butler's own view of evolution retained Darwin's basic metaphor of conflict and survival:

...Isn't it a poetical strangeness that while the world was going full blast on the Darwinian metaphors of evolution, survival values and the Devil take the hindmost, a polemical Jew in exile was working up the metaphor of the state's being like a family to displace them from mind and give us a new figure to live by? Marx had the strength not to be overawed by the metaphor in vogue. Life is like battle. But so is it like

shelter. The model is the family at its best. At the height of the Darwinian metaphor, writers like Shaw and Butler were found to go the length of saying even the family within was strife, and perhaps the worst strife of all. We are all toadies to the fashionable metaphor of the hour. Great is he who imposes the metaphor. From each according to his ability to each according to his needs. Except ye become as little children under a good father and mother.⁴⁶

Undoubtedly, Frost had read Butler's *The Way of All Flesh* (1903), his autobiographical novel on the terrible conflicts between Ernest Pontifex (Butler) and Theobald and Christina Pontifex (his parents). Moreover, Frost was certainly aware of what Darwin himself called "The Darwin-Butler Controversy," which raged through Victorian society before and during the years that Frost was most concerned with the great evolutionist's thought.⁴⁷

Following Lawrance Thompson, it has become a commonplace among scholars and literary critics of Frost that William James and Henri Bergson had a profound influence upon his thinking regarding evolution.⁴⁸ But the far more important similarities and identical beliefs that the poet held in common with Mivart and Butler, especially as revealed in the latter's criticism of Darwin and Huxley, have been entirely ignored. Even before comparing Butler and Frost, however, it is worth noting how close Butler was to both James and Bergson in philosophical beliefs. Cyril E.M. Joad, Butler's biographer, has noted the dualistic assumptions common to all three writers, and their intellectual affinities: "There is no evidence that he [Butler] had read William James...but there is plenty of evidence to show that, had he read him, he would have found in him a philosopher after his own heart.... The conclusions of Butler and James were in many ways identical."⁴⁹ Moreover, Joad noted, "...Butler is anticipating Bergson. There

is, indeed, so strong a likeness between the thought of the two men that "Butler may well have been one of the undetected sources of Bergson's philosophy."⁵⁰ Indeed, Bergson's *Matter and Memory* (1896), is so close in its dualistic assumptions, argument, and spirit to Butler's *Unconscious Memory* (1880), and to sections of *Luck or Cunning* (1887), that a plausible case could be made that Bergson may have plagiarized portions of Butler's two works.

Butler's original relationship with Darwin began as that of an enthusiastic disciple. He had personal connections with the evolutionist through family ties: his grandfather was headmaster of the Shrewsbury School, which Darwin had attended, and Butler's father and Darwin were contemporaries at Cambridge University. Like Darwin, he abandoned his Anglican faith and became a "free-thinker." He escaped to New Zealand and while there during 1859-1864, he read Darwin's *Origin of Species*. A friend, E.R. Chudleigh, pronounced Butler "an ultra-Darwinian." He published "Darwin on the *Origin of Species*: A Dialogue" (Christchurch Press, December 20, 1862), in which he reconciled Darwin's theory and Christianity. A character speaks lines that Frost himself could have written: "I believe in Christianity, and I believe in Darwin. The two appear irreconcilable.... Both being undoubtedly true, the one must be reconcilable with the other, and...the impossibility of reconciling them must be only apparent and temporary, not real." Butler sent a copy of his article to Darwin who commended it as "remarkable for its spirit and from giving so clear and accurate a view of [my] theory."⁵¹ After Butler returned to England in 1864, he visited Darwin twice at his home in Down, and became a lifelong friend of his son Francis.

After Butler had read Mivart's *Genesis of Spirit*, he perceived clearly the determination and materialism in Darwin's

theory that led him to evolve into the evolutionist's most savage and troublesome critic. Because of a serious misunderstanding entertained by Butler over the publication of a biography of Erasmus Darwin in 1879, prefaced by an article in a German journal, *Kosmos*, to which Darwin had contributed, Butler became convinced that Darwin had plagiarized a portion of his *Evolution Old and New* (1879), and had secretly attacked him. Darwin's refusal to prove his innocence merely intensified Butler's antagonism; and for the next twenty-three years he poured forth a steady stream of criticism against the evolutionist. In four editions of *Evolution Old and New*, in *Unconscious Memory* (1880), which was an extension of the thesis advanced in *Life and Habit* (1871), and in *Luck or Cunning* (1887), Butler contrasted creative evolution with the weaknesses he perceived in the determinism and materialism that characterized the thought of those who defended Darwin's theory. Unfortunately, Butler seldom made any distinction between Darwin and his defenders. His culminating criticism, "The Deadlock in Darwinism," consisted of three essays in *Universal Review* (April-June 1890), republished in *Essays on Life, Art and Science* (1904). In his posthumous *Notebooks*, Butler attacked the abuse of science that transmitted it into scientism.

At the core of Butler's arguments in favor of creative evolution was his philosophical dualism, which combined mind or spirit and matter as the basis of reality. In *Evolution Old and New* he approved of Mivart's statement: "The material universe is always and everywhere sustained and directed by an infinite cause, for which to us the word mind is the least inadequate and misleading symbol."⁵² This stance caused Huxley to write to Darwin (4 February 1880): "I am astounded at Butler.... has Mivart bitten him and given him Darwinphobia?"⁵³ In the introduction to *Luck or Cunning*, But-

ler charged that Darwin's defenders were "pitchforking mind out of the universe."⁵⁴ Similarly, he asserted that Huxley was "trying to expel consciousness and sentience from any causative action in the working of the universe."⁵⁵ Among "men like Huxley," he noted, "was a craving after a monistic conception of the universe."⁵⁶

Like Asa Gray, Butler believed that there could be no compromise between a dualism of matter and mind or spirit and any form of monism. Regarding "body and mind," he wrote, "they are two, not one; if, then we are to have our monistic conception...one of these must yield to the other; which, therefore, is it to be?"⁵⁷ According to his assessment, Darwin's theory, as presented by Huxley and his colleagues, was "an essentially mechanical, mindless conception of the universe," in which "animals are automata," and human nature differs only in degree from other forms of animal life.⁵⁸ But, as a philosophical dualist, Butler argued regarding "mind and matter," or "body and soul," that "the two become a body ensouled and a soul embodied."⁵⁹ Like Frost, he believed that there was a qualitative difference between man and other animals, so that their common dualism resulted in a conception of evolution that was creative rather than merely mechanical.

At the time of Darwin's death, Butler admitted that he had been from the beginning a very reluctant critic and that he had found it hard to separate the evolutionist from Huxley and such camp followers as Grant Allen, Ray Lankester, and George Romanes, all of whom attacked him, while Darwin himself never answered his criticism. His sharpest criticism was directed against Huxley, who, he noted, had made himself the official public spokesman for the great evolutionist: "Professor Huxley is the man of all others who foisted Mr. Darwin upon us."⁶⁰ Even while in New Zealand, after

first reading *Origin of Species*, Butler had stated that "mind is the controller of evolutionary direction," so that when Huxley's essay "Physical Basis of Mind" appeared, he replied: "There is no life but protoplasm, and Huxley is its prophet."⁶¹ Again, in the *Fortnightly Review* (November 1874), he condemned that polemicist for preaching "mindless designless luck as the main means of organic modification," and charged that his view of evolution rid the world of "thought and feeling."⁶² He extended his criticism of Huxley in his essay "Mental Evolution," which appeared in the *Athenaeum* (January-June 1884).

Butler correctly sensed that Darwin's theory was based far less on a materialistic monist assumption than it appeared to be in Huxley's exposition of it. Although during his voyage on the "Beagle," the future evolutionist had lost his faith in revealed religion, he still retained respect for the theistic beliefs of others; and he denied that his theory violated anyone's religious faith. Butler noted that, shortly before Darwin died, he had reintroduced design into nature in a circumpect manner, although he had opposed it for many years; and he further observed that this implied the teleological belief that nature had a final purpose. In his *Autobiography*, Darwin confirmed this surmise of Butler's by identifying himself as a theist. No such spiritual element was to be found in Huxley's views on nature or on evolution.

It is significant that Francis Darwin remained sympathetic toward Butler and sought to reconcile his views on evolution with those of his father. There were good grounds for such a reconciliation. Peter J. Bowler, a modern scholar on Darwin's theory, has observed, "But it is by no means clear that Butler's position was as fundamentally anti-Darwinian as he thought. He still accepted that the organisms' efforts to adapt to changes in their environment comprises the driving force of evolution." This meant that But-

ler was “much closer to the spirit of Darwinism” than he supposed, since he admitted that not only the mind or spirit of man, but also external forces, could drive the evolutionary process.⁶³ In short, despite his harshness, Butler’s criticism of Darwin’s theory merely qualified it, but did not destroy it. Such an interpretation of the controversy between the great evolutionist and his principal belletristic critic requires a thorough revision of the conventional Victorian views of Darwin’s theory as well as Frost’s position regarding evolution. There was an element of Lamarck’s theory of evolution in Darwin’s thought, which Mivart and Butler expanded in their criticism of his theory.

As both Mivart and Butler complained, Darwin was far too sensitive regarding personal criticism of his theory. Moreover, he was so eager to secure “converts” to his conception of evolution and so willing to have Huxley and his colleagues defend him that he ignored or was unaware of how far those epigoni differed in thought from his basic principles, or how much the views of his severe critics coincided with his own. His personal dislike of Mivart; his avoidance of all public controversy, including a possible battle with Butler; his almost total dependence upon Huxley for advice and support; and his own serious weakness in philosophy combined to give him an initial strong advantage in having his theory accepted almost as an unquestionable dogma. His enthusiastic backing of Huxley reinforced the enthusiastic devotion that polemicist accorded to him.

Led by Huxley, the numerous and stentorian camp of Darwinians dominated the chief sources of public opinion regarding science. They first marginalized critics of the evolutionist; they then systematically demolished the public reputation of writers such as Mivart and Butler. Huxley took great pains to ruin the former’s career as a scientist; the latter

was dismissed as a radical iconoclast who was emotionally unstable, and unqualified to pass judgment on scientific theory. Frost was well aware of this campaign of vilification. In his Notebook, Number 001714, in the Baker Library at Dartmouth College, he wrote: “Don’t forget how the Christian world hated Darwin for threatening their belief and how the Darwinians hated Lamarck to the point of destroying him by discrediting him for threatening their belief.”

But towards the end of the nineteenth century, as the weaknesses in Darwin’s theory became increasingly apparent, and as Huxley’s materialistic monism came to be seriously questioned, the Lamarckian arguments advanced by Mivart and Butler in favor of creative evolution took on a new life. Design, mind, and purpose were once more evident in the universe. As George Bernard Shaw wrote in 1921: “...We are turning in weary disgust and disillusion from Neo-Darwinism and mechanism to vitalism and creative evolution.”⁶⁴ He praised Butler lavishly in *Back to Methuselah* (1921); moreover, in his private correspondence, he hailed him as the most profound philosophical literary genius of the last half of the nineteenth century.⁶⁵ The recipient of all this adulation insisted that the mind of man was an important factor in scientific studies of matter, a contention that gradually became a basic element in modern theories of physics.

Shaw noted that in the period that followed the first World War, the Victorian tables were reversed: that “now... Butler’s eminence is unchallenged,” and “the bankruptcy of Darwinism” was evident.⁶⁶ According to Shaw, “ever since the reaction against Darwin set in at the beginning of the present century, all scientific opinion worth counting has been converging rapidly upon Creative Evolution.”⁶⁷ Moreover, he contended that “creative evolution is already a religion, and is indeed now unmistakably the religion

of the twentieth century.... It is...a religion that has its intellectual roots in philosophy and science just as medieval Christianity had its intellectual roots in Aristotle."⁶⁸

Frost was keenly aware that the great battle was between adherents of Darwin's theory as set forth by T.H. Huxley and his camp followers, and those writers and scientists within the Christian and humanistic tradition who were defending creative evolution as an important variant of Darwin's theory. By 1920 Frost had clearly allied himself with the latter group, and was becoming a severe critic of the Huxley tradition regarding evolution. The poet had read Butler and he knew Shaw's arguments in favor of creative evolution. He had read that writer's *Arms and the Man* while in Plymouth, New Hampshire, in 1912; he had seen Shaw's *Fanny's First Play* in London in the same year; and he heard Shaw lecture in London in 1913. In his letter to Louis Untermeyer (November 25, 1936), which is cited earlier, he had linked Shaw with Butler as two writers who still accepted the basic Darwinian principle that conflict was at the heart of evolutionary changes in species. But he also noted a basic flaw in Shaw's socialist politics in applying Darwin's principle regarding evolutionary conflicts: "Shaw thinks better knowledge as between nations will bring them together in peace and yet he thinks families from knowing too much of themselves are nests of hate and must be broken up." (Notebook number 001723 in the Baker Library at Dartmouth College.)

Frost's acceptance of creative evolution included Darwin's basic principle that conflict between and within species is always present. In Notebook 001893 in the Baker Library at Dartmouth College, he compared Darwin and Marx, and rejected Marx's belief that "our rivalries could be ameliorated or done away with." He stated this in a couplet: "And Marx

has found a way for us to cease/From doing one another harm in peace." He then discussed at length the conflict for survival between the American Indians and their European rivals. He cited the bravery, nobility, and respectable culture of the Indians, and concluded: "You have to be secretly sorry for their fate because you are a good Darwinian." To Frost, victory in war meant "responsibility for the future." Throughout his life he sympathized with the Indians, yet as a Darwinian he accepted the historical fact of the triumph of European culture in the Western Hemisphere. This too was a part of creative evolution.

Lesley Francis was perfectly accurate regarding Frost's very enthusiastic response to Henri Bergson's *Creative Evolution* (1911). She noted that her grandfather approved of that philosopher because his "dualistic approach to science and religion appealed to him."⁶⁹ This meant that, in accepting creative evolution, Frost did not reject Darwin's theory, but only modified and supplemented it by including Bergson's *élan vital*, which provided what was most lacking in Darwin.⁷⁰ Frost was aware that Bergson's criticism was directed mainly against the sterile, rigid, mechanistic, and deterministic conception of the material universe as perceived and popularized by Herbert Spencer and Thomas Henry Huxley. Like Mivart, Butler, and William James before him, but unlike Frost, Bergson's neo-Platonic idealism did not distinguish sharply between Darwin's qualified materialism and the materialistic monism of his defenders. His book was not for Frost an original pioneering study, as Thompson and many other scholars have so often assumed. Rather, it was the culmination of all that the poet had learned about evolution from his experience at Harvard, from his reading of James, and from his extensive knowledge of the public controversies over Darwin during the final decades of the Victorian era.

Lesley Francis was right to stress Frost's dualism in discussing both science and religion. Because of his dualism, Frost perceived Darwin's theory as an epical metaphor, combining matter and spirit. Therefore, the evolutionist's materialism did not trouble him, since matter was a vital part of his own philosophy. "Materialism," he wrote, "is not the attempt to say all in terms of matter. The only materialist—be he poet, teacher, scientist, politician, or statesman—is the man who gets lost in his material without a gathering metaphor to throw it into shape and order. He is the lost soul."⁷¹ Yet in setting the neo-Darwinian conception of evolution which was centered in matter alone, against creative evolution which was centered in mind or spirit, Frost recognized that there was a danger of falling into a monism of mind or of spirit. He satirized such a monism in his poem "Etherealizing." Unlike the writers in the tradition of creative evolution, Frost distinguished sharply between Darwin and his principal defenders, such "lost souls" as Spencer and Huxley. His dualism and metaphorical method of reasoning enabled him to retain both matter and spirit or mind as contraries to be reconciled. To Frost creative evolution was much more than simply a matter of adding mind to matter in the discussion of Darwin's theory.

To the poet evolution as a concept is not merely a fabricated construct of man's theoretical reason working upon empirical observation. That was the facile method that abused science into scientism and that dogmatized evolution into a systematic and absolute philosophy. Frost was aware that the abuse of the metaphor of evolution could lead men into monomania, the excessive fondness for explaining all aspects of life through a single analogy. Herbert Spencer was most guilty of that error. In strong contrast to such a method, Frost's view that evolution was an open-ended pro-

cess, like artistic creativity, meant that it involves all of the generative powers and the sensual imagination of man, which he called "passionate preference."

Frost held that the self-conscious creative powers in man combine emotion, reason, intuition, the senses, imagination, and conscious and unconscious memory, free will, and courage—all of which he summarized in the term "*mens animi*." This comprehensive power raised man qualitatively above all other forms of animal life. Moreover, as he conceived it, *mens animi* was as much a "thought-felt thing" as applied to evolution as it was to the creation of a poem. It transcends Butler's belief that "mind is the troller of evolutionary direction,"⁷² and includes more than Bergson's *élan vital* and Pascal's reason of the heart.⁷³ To Frost creative evolution ultimately involves the active and productive achievements of individuals and the human species that give shape and direction to culture and enduring civilization.

During the period of World War I, Frost's acceptance of creative evolution as an improved variant of Darwin's theory is evident in several of his statements written to Louis Untermeyer. On May 24, 1916, he wrote: "...Evolution is like walking on a rolling barrel. The walker isn't so much interested in where the barrel is going as he is in keeping on top of it."⁷⁴ On January 1, 1917, the poet commented to Untermeyer on the practical value of Bergson and J. Henri Fabre to his method of combating the formulated arguments and claims of the defenders of mechanistic evolution. After noting that he was "fond of seeing our theories knocked into cocked hats," he wrote: "What I like about Bergson and Fabre is that they have bothered our evolutionism so much with the cases of instinct they have brought up." He then added: "You get more credit for thinking if you restate formulae or cite cases that fall easily under formulae, but all the fun is outside saying things that

suggest formulae that won't formulate—that almost but don't quite formulate.”⁷⁵

Early in 1919, when Untermeyer boasted that his socialism, and therefore by implication his socialist friends, were of a higher order than the free enterprise economic system that Frost defended, the poet turned his friend's claim into the delicious humor in an evolutionary joke: “When I think of all the human pains that went to uplifting *Pithecanthropus Erectus* into the Piltdown man and the Piltdown man into the Neanderthal and the Neanderthal into the Heidelberg and him into the likes of me and Woodrow Wilson...why by osteopathic manipulation ...couldn't you for instance effect the next great change of me into Max Eastman or Jack Reed.”⁷⁶ Frost liked to say that he was never more serious than when he was joking, so that in deliberately violating the geological chronology of prehistorical man, in placing the Piltdown man ahead of the Neanderthal, he made his mock-serious bantering tone doubly effective in his deprecatory retort to Untermeyer. An added touch of humor lies in his rather low opinion of Woodrow Wilson's politics. His witty *reductio ad absurdum* joke is based upon his serious belief that the process of creative evolution gives man the power and right to hold fast to a given position. This was Frost's conviction in 1919; and in an interview on September 29, 1959, he reiterated this belief.⁷⁷

Frost's response to an important article by Theodore Baird, a colleague at Amherst College, provides good evidence that he continued to think well of Darwin long after he had accepted creative evolution. Baird sent a copy of his article, “Darwin and the Tangled Bank” (*The American Scholar* 15, 1946), to Frost, who was pleased to have confirmed his long held belief that the evolutionist's theory was in essence a great contribution to Western man's metaphorical inheritance, and that his view was also held by Dar-

win himself:

...I find it hard to decide which to put your essay into (*The Voyage of the Beagle* or *Origin of Species*)....We are considering one of the three best prose books of the nineteenth century....I am away over on the side of Darwin as you depict him. My accusation that he was only adding to our metaphorical heritage falls to the ground when you make me realize that he said so first himself. My accusation becomes a citation for bravery. You make him even more what I like to think he was.

The poet then concluded his letter by distinguishing Darwin's theory from that of the literal-minded “lost souls” with no sense of metaphor, whose defense of Darwin separated science from the humanities in order to make evolution into a self-contained, absolute, closed system of materialistic monism:

Those straight-laced humanists had better be careful about whom they read out of the party. I got a dose of them in Cincinnati last week—bush leaguers. It takes too long to dawn on them that science is merely one of the humanities.⁷⁸

Frost's very favorable view of Darwin rested upon his belief that, in presenting his theory, unlike many of the defenders of his views, he did not exceed the empirical evidence he had acquired by stretching his metaphor of evolution beyond the breaking point. Alfred North Whitehead held exactly the same view: “Darwin's own writings are for all time a model of refusal to go beyond the direct evidence, and of careful retention of every possible hypothesis.” Whitehead then added the same important distinction with which Frost had ended his letter to Baird: “But those virtues were not so conspicuous in his followers, and still less in his camp-followers.”⁷⁹ During the last four decades of his life, much that Frost had to say about evolution, Darwinian and non-Darwinian alike, turned upon his belief “that science is merely

one of the humanities.”

But the theory of evolution that engaged Frost from around 1920 to his death in 1963 was radically different from the one that had concerned him up to the period of World War I. At the end of the nineteenth century, the prophecies of Butler, Shaw, and other writers that Darwin's theory would soon be extinct proved to be wholly wrong. Ironically, at exactly the time that it was being relegated to the dust bin of history, a revival of his theory began. That rejuvenation eventually rehabilitated Darwin's theory in a highly strengthened form.

One of the greatest weaknesses in Darwin's case for natural selection was his ignorance of genetics. He had tried to explain genetic phenomena through what he called “pangenesis,” but his argument had been ably refuted by Francis Galton. Although the laws of genetics had been discovered by the Austrian botanist and monk Gregor Mendel (1822-1884), his experiments were published by the obscure provincial Society for the Study of Natural Science in 1866, so that neither Darwin nor the scientific community of Europe in general knew anything of his work. But in 1900, Hugo De Vries (1848-1935), a Dutch botanist, discovered Mendel's work, and his publication of *The Mutation Theory* (1900-1903) began to revitalize Darwin's theory through valid principles of genetics and heredity.⁴⁰ His studies and that of other scien-

tists revolutionized biological theory as much as the quantum theory later revolutionized physics. It provided a new basis for Darwin's principle of natural selection that explained changes in species through heredity rather than merely through the interaction of the organism and the physical environment. The culmination of this development is effectively described by Ronald Fisher in *The Genetic Theory of Natural Selection* (1930).

The revival of Darwin's theory was also reinforced by new discoveries in the geological records of extinct species and by the synthesis of genetics and biological studies with botany, chemistry, and the physical sciences. As Julian Huxley showed in *Evolution: The Modern Synthesis* (1942), these developments took about forty years. Frost was well aware of this congeries of scientific advances; they shaped his views on Darwinian and non-Darwinian evolution for the last forty years of his life, ideas formulated with particular attention to what he called “three generations of Huxleys.” From around 1920 to 1963, in poetry and prose, Frost's philosophical dualism; his faith in metaphorical thinking, and his acceptance of creative evolution as a vital variant of Darwin's theory provided the essential basis for both his affirmative statements on evolution and his critical views on social Darwinism and the scientific positivism of those three generations of Huxleys.

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42. Bowler, *The Non-Darwinian Revolution*, 103. 43. In his *Autobiography*, Darwin forgave all of the critics of his theory “except Mr. Mivart.” See Charles Darwin, *The Autobiography of Charles Darwin: 1809-1882*, ed. Nora Barlow (New York, 1958), 125-126. 44. St. George Jackson Mivart, *Genesis of Spirit*, 76. 45. For a detailed account of Mivart's conflict with Darwin's theory, see Richards, *Darwin and the Emergence of Evolutionary Theories*, 353-363. For a

study of his life as a scientist, and his religion, see Jacob Gruber, *A Conscience in Conflict: The Life of St. George Jackson Mivart* (New York, 1960). 46. *The Letters of Robert Frost to Louis Untermeyer*, 284-285. It is important to note that in his preliminary remarks before this passage, Frost took strong issue with social Darwinism, by remarking that in the recent re-election of Franklin D. Roosevelt, because of the economic suffering resulting from the Great Depression, it was “humanity...to feel the suffering of others,” and that “the national mood is humanitarian. Nobly so.” Frost's acceptance of Darwin's principle, the survival of the fittest, did

not mean an abandonment of traditional ethics in favor of the kind of *laissez-faire* that justified social Darwinism, as has been claimed by some critics of Frost. 47. Frost read the early version of Darwin's autobiography, edited by his son Francis. The later complete version, edited by Nora Barlow in 1958, includes "Part Two," a long appendix, "The Darwin-Butler Controversy," 167-219. In cooperation with Francis Darwin, Butler's first biographer, Henry Festing Jones, published a pamphlet, "Charles Darwin and Samuel Butler: A Step toward Reconciliation." (1911) 48. Thompson, *The Early Years*, 231-232; 294-295; 381-382; 536-537; 555; and 579-582. See also Thompson, *The Years of Triumph*, 300-304; 325; 506; 624; 643; 691 and 700. John F. Sears, in "William James, Henri Bergson and the Poetics of Robert Frost," *New England Quarterly* 48 (1975), 341-361, has described how James and Bergson provided a basis for Frost's aesthetic theory, and how Bergson's ideas and imagery are reflected in some of Frost's poems, particularly in "West-Running Brook." 49. Cyril E. M. Joad, *Samuel Butler* (1924), 107 and 140. 50. *Ibid.*, 142-143. 51. Peter Raby, *Samuel Butler* (Iowa City, 1991), 83 and 88. See also 103, 135 and 138. Although Butler called himself a "free thinker," like Frost he was a theist, and held that "God is a spirit," but not in the conventional image of a deity in "a flowing beard." 148-149. 52. Samuel Butler, *Evolution Old and New*, 351. See also 352 and 326-327. 53. Quoted by Raby, *Samuel Butler*, 310. It is noteworthy that Darwin reproduced Butler's remark in his *Autobiography*. 54. Butler, *Luck or Cunning*, 18. 55. *Ibid.*, 140-141. 56. *Ibid.*, 135. 57. *Ibid.*, 137. 58. *Ibid.*, 140. 59. *Ibid.*, 76. 60. *Ibid.*, 89. 61. *Ibid.*, 121. 62. Butler, *Fortnightly Review* (November 1874), 140. 63. Bowler, *The Non-Darwinian Revolution*, 98. 64. George Bernard Shaw, *Back to Methuselah: A Metabiological Pentateuch* (New York, 1946), preface, xxxv. First published in 1921. 65. For Shaw's defense and praise of Butler, see *Back to Methuselah*, preface, xiii, xlvii, lii, and lv. In a letter to Archibald Henderson (10 February 1905), he praised Butler's "reaction against the materialism of Marx and Darwin" and recommended that Henderson "must read the works of that man of genius." George Bernard Shaw, *Collected Letters, 1898-1910*, ed. By Dan H. Laurence (New York, 1972), 511. For other of Shaw's comments on Butler's criticism of Darwin's theory, see 301; 303; 413; 670; 672 and 873. 66. Shaw, *Back to Methuselah*, preface, lii and lxxxv. For Shaw's review of Butler's *Luck or Cunning*, see "Darwin Denounced," *Pall Mall Gazette* (May 31, 1887), 4-5. 67. *Ibid.*, 91. 68. *Ibid.*, preface, xc and 91. 69. Lesley Lee Francis, "Robert Frost and Susan Ward," *The Massachusetts Review* (1985), 347. 70. For a thorough review of Frost's complex responses to Bergson, see Frost, *The Early Years*, 381-382; 386-388; and 579-581; Frost, *The Years of Triumph*, 300-304; 325 and 624. See also Hildegard Hoeller, "Evolution and Metaphor in Robert Frost's Poetry," *The South Carolina Review* 23,

No. 1 (Spring 1990), 127-134; Jay Parini, *Robert Frost* (1999), 109-111. For Frost's annotations and marginalia comments in his own copy of Bergson's book, see Ronald Bieganowski, "Robert Frost's *A Boy's Will* and Henri Bergson's *Creative Evolution*," *The South Carolina Review* 21 (Fall 1988), 9-16. 71. Robert Frost, "Education by Metaphor," *Selected Prose of Robert Frost* (1949), 41. 72. Samuel Butler, *Luck or Cunning*, 168. 73. For an excellent account of what Frost meant by *mens animi*, see Lisa Abshear-Seale, "What Catullus means by *mens animi*: Robert Frost's 'Kitty Hawk,'" *The Robert Frost Review* (Fall 1993), 37-46. 74. *The Letters of Robert Frost to Louis Untermeyer*, 34. See also Louis Untermeyer, *From Another World* (New York, 1939), 220. 75. *Ibid.*, 47. In addition to reading Bergson, who provided him with the basic imagery in "West-Running Brook," Frost had read J. Henri Fabre's *The Hunting Wasps* (New York, 1915), which gave him his central metaphor in "The White-tailed Hornet." Fabre was a popular botanist and had corresponded with Darwin, and visited him, but remained silent about his conception of evolution. 76. *The Letters of Robert Frost to Louis Untermeyer* (May 6, 1919), 86-87. In 1891-92, Eugene Dubois's discovery of "Java man," named "Pithecanthropus Erectus," stressed the primary importance of man's upright posture long before the supposed separate development of the human brain over that of apes. According to Marcellin Boule, the Neanderthal specimen, discovered in France in 1909-11, was far too crude to be the recent ancestor of modern man. Arthur Smith Woodward claimed to have discovered the Piltdown man in 1912, but doubts about its authenticity were raised by Arthur Keith in 1915. It was proved a hoax in 1953. 77. Edward Connery Lathem, *Interviews with Robert Frost* (1966), 213. 78. Quoted by permission of the Robert Frost Library in Amherst College and the Estate of Robert Frost. It is noteworthy that whereas Frost praised Darwin's metaphorical thought, Butler objected that natural selection was "too charged with metaphor for purposes of science." Butler, *Luck or Cunning*, 66. See also 146 and 206. 79. Alfred North Whitehead, *Science and the Modern World*, 140. Although Shaw was one of Darwin's most severe critics, he too praised him for his careful methods of research. In a letter to E.C. Chapman (29 July 1891), Shaw wrote: "Darwin searched with extraordinary diligence for facts to support his theory of natural selection.... Writers like Samuel Butler have had no difficulty in convicting him of gross partiality towards his own theory. And yet you will not easily find a more unquestionably honest investigator than Darwin." George Bernard Shaw, *Collected Letters, 1874-1897*, 301. 80. For a detailed account of how Mendel's laws of genetics were made a vital element in the revival and revisions of Darwin's theory, see Bowler, *The Eclipse of Darwinism*, 182-213.

Ahistorical Histories: Ideological Persuasion in Cooper's European Novels

Udo Nattermann

IN *AMERICAN INCARNATION*, Myra Jehlen gives an instructive account of the significance of the land for the American national consciousness. American ideology, she points out, is informed by a belief in natural law, which was reinforced in America because the very presence of (presumably) empty land, a vast continent stretching from ocean to ocean, made "Americans [see] themselves as building their civilization out of nature itself, as neither the analogue nor the translation of Natural Law but its direct expression."¹ As a consequence, since God created Nature and Nature was embodied in America, Americans came to regard their country as the perfection of human society, a belief which in turn affected the American attitude towards other societies. Jehlen writes, "By comparison..., the histories of most other nations seem to have just grown, first prehistorically over indistinct and indefinite lapses of time before time, then through multiple incomplete versions whose coherence and meaning are produced afterward, by retrospective interpretations."² This perspective is precisely what we find in James Fenimore Cooper's European novels—*The Heidenmauer* (1832), *The Bravo* (1831), and *The*

Headsman (1833)—which are "retrospective interpretations" of events occurring in three "incomplete" Old World societies. The three romances are grounded in Lockean concepts of natural law and natural right, and reflect their author's attempt at participating through his narratives in the shaping of an emerging national consciousness.

Like the Leatherstocking tales and the Littlepage trilogy, Cooper's European novels constitute a chronological sequence, giving us snapshots of crucial moments in the historical development of three Old World societies. The defects of these societies, i.e., their unnatural features, lead to various kinds of societal ills, or abuses of nature. *The Heidenmauer* depicts Reformation-torn Germany in the early sixteenth century; a Bavarian count seizes the moment of a power vacuum and, supported by a mayor, uses military force to get rid of a Benedictine abbey. *The Bravo* concerns the ordeal of several characters of different social provenance in early eighteenth-century Venice, which is threatened by external and internal foes and protected by a totalitarian political apparatus. *The Headsman* describes an episode in the (relatively) enlightened, tolerant, and peaceful Switzerland of the early eighteenth century; the happiness of a motley group of people is endangered by the tradition of heredi-

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