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American Catholic Responses to Evolutionary Theories, 1845-75

by

William Joseph Astore

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ABSTRACT

William Joseph Astore

American Catholic Responses to Evolutionary Theories, 1845-75

Historians have often focused exclusively on Orestes Augustus Brownson, the leading Catholic journalist in America from 1845-75, and portrayed his strident anti-evolutionary rhetoric as exemplifying the religiously-motivated extremism of American Catholic responses to evolution. However, American Catholic responses to evolutionary theories from 1845-75 reflected a distinctly American context. Brownson's opposition to evolution was motivated more by his political philosophy than by religious concerns. He abhorred individualism and the idea (which assumed added significance during the Civil War) that governments were self-developing or mutable, and his rejection of evolutionary theories was an extension of this sentiment. The abrupt dismissal of evolution by Clarence Augustus Walworth also reflected an American context. Walworth, a noted Catholic priest and amateur geologist, theorized that saltations, caused by some unspecified internal force or forces, occurred within species, but that species themselves always remained intact. Walworth formed his views on the variability and underlying stability of species in response to debates in ethnology. Polygenist theories in ethnology, in the contexts of ongoing struggles over slavery in America and of the threat they posed to the Catholic dogma of original sin, were simply more relevant to Walworth and other

American Catholics than debates surrounding Charles Darwin's Origin of Species.

Intellectual and social constraints also limited the extent of American Catholic responses to evolution. American Catholics were generally illiterate in science, and those few who were literate were predominantly converts from Protestantism such as Walworth. An overworked clergy preoccupied with parish duties and a laity composed mostly of ill-educated immigrants also constituted a poor audience for science. In addition, Catholics relied on the authority of the Church Fathers and the Church itself to uphold their faith instead of pursuing science as an adjunct to faith as Protestants were wont to do. Conservative Catholics such as Brownson also exploited the anti-Catholic rhetoric of scientists such as John William Draper to stifle discourse between the Church and scientists and to strengthen their hold on the Church.

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Introduction

This thesis details the diversity of American Catholic reactions to evolutionary theories from 1845-75.[1] While the reactions of American Protestants to evolution have been scrutinized at length by historians,[2] reactions of American Catholics have been neglected.[3] Admittedly, in contrast to English Catholics, who wrote lengthy reviews of evolutionary theories which included Jesuit biologist St. George Jackson Mivart's substantial contributions to the scientific debate on evolution, American Catholics wrote little on evolution and produced no commentator of Mivart's stature and influence. One could make a case, then, that responses by American Catholics to evolution have been neglected because 'hey were insignificant.

One would be wrong to do so, however. While recognizing that American Catholic responses represented overall a muted reaction to evolutionary theories, which did not influence the course of scientific debates on evolution, nevertheless there were insightful and significant responses within the Catholic community, which this thesis explicates.

I have divided this thesis into seven sections. The first section summarizes two Catholic critiques made in the 1830s and 1840s of evolutionary theories, one of Lamarckism, the other of Robert Chambers's development theory. This summary reveals the delicate distinctions Catholics had to make in denying evolution while simultaneously permitting organisms to vary widely. These large intraspecific variations, needed by Catholics to account for

the origins of the races of man while maintaining the consanguinity of the species, were explained by adopting some tenets of evolutionary theories. In addition, this summary suggests that Catholic concerns about polygenist theories in ethnology overshadowed concerns about evolution and largely determined Catholic views on development in nature.

The second section outlines the intellectual and social composition of the American Catholic community. The laity was composed predominantly of recent immigrants from Ireland and Germany, guided by an overworked clergy preoccupied with parish and other duties. Few Catholic intellectuals had a solid education in the sciences, only a handful of American scientists were Catholic, and American Catholic university education was nonexistent. In general, American Catholics possessed low levels of scientific literacy, and those who were literate in the sciences were, almost without exception, converts from Protestantism and associated in some way with the Paulists. These social and intellectual constraints seriously limited the extent of American Catholic responses to evolution.

The third, fourth, and fifth sections form the main body of my thesis. They discuss the views of the two leading American Catholic commentators on evolution and science in the 1860s. Charles Darwin (1809-82) reopened the debate on evolution in 1859 with the publication of the Origin of Species. Briefly, Darwin theorized that in the struggle of life, the varieties within species which were best suited to their habitat and circumstances

would prevail over their less well-adapted competitors. Over many generations, selective pressure acting in one direction might create a new species. Darwin termed this process "natural selection" and bolstered his theory with a mass of supporting evidence.

Clarence Augustus Walworth (1820-1900) was the sole American Catholic mediator between Catholic teachings about Genesis and the latest theories of science. He was a well born, highly educated lawyer who converted to Catholicism in 1845 in the midst of the Oxford movement. As a missionary priest, he befriended John Henry Newman and came to lead an elite band of Redemptorists on missions in America during the 1850s. Well read in the sciences, Walworth wrote The Gentle Skeptic (1863), the first Catholic book written in English since 1836 that attempted to reconcile science with religion. His main goal in this book was to convince Catholics that science was a sacred pursuit, a way to give praise to God. With respect to evolution, Walworth, like Mivart, spoke of saltations and internal forces, but he restricted variation to intraspecific limits defined by God. He dismissed Darwinism as fatally flawed, supporting his dismissal by citing Charles Lyell and Louis Agassiz, two of the best known and most respected scientific names in America.

Walworth, however, was far more concerned about the age of the earth, the extent of the Noachian deluge, and the unity of the human species than with evolution. He responded to these older controversies in geology partly because geology was his area of

expertise, but also because these controversies were still relevant to Catholics. Debates in ethnology were especially pertinent to American Catholics, due to the ongoing political struggles over slavery in America and due to their implications for the Catholic dogmas of original sin and redemption. Walworth based his rejection of evolution on Scripture and geology, while he formed his views on development in nature mainly to refute polygenists' theories. It was not that Darwin's theory and debates over evolution were irrelevant to Walworth, but in an American context they seemed to be less relevant than debates in ethnology and geology.

Orestes Augustus Brownson (1803-76) was the best known and most outspoken American Catholic commentator on Darwinism and evolution from 1863-75. Brownson had gained a reputation for erudition and boldness during the 1830s in a Boston intellectual circle which included Ralph Waldo Emerson and Henry David Thoreau, with his writings in favor of radical socialism being particularly noteworthy and explosive. After the Whigs won the presidential election in 1840, Brownson reassessed his political philosophy, and by 1843 he advocated conservatism. His political conversion led him to the Catholic church, and his conversion to Catholicism in 1844 was widely applauded by American Catholics. Bringing his Brownson's Quarterly Review with him, Brownson quickly became the most influential American Catholic writer on politics, theology, and metaphysics. Brownson has been described by previous historians as being uncompromisingly critical of science in

general, and evolution in particular, with his most strident statements interpreted as exemplifying American Catholic thought on evolution and science.[4] But while Brownson was inflexible in his criticism of evolution, he was a friend of science in the early 1860s. Furthermore, Brownson's steadfast opposition to evolution was motivated not just by his religious concerns but by his political philosophy, in which society was viewed as an organic body of cooperating individuals with government serving as a providential arrangement between the State and society. Evolutionary theories, and Darwinism in particular, threatened his politics because they emphasized progress through struggle between individuals and implied that the State was a self-developing entity and not an organism contingent on God. It was Brownson's abhorrence of individualism that underpinned his political views and his unswerving opposition to evolutionary theories.

The sixth section examines American Catholic writings on evolution and science from 1865-70. Brownson remained a vociferous critic of evolution during this period, and in conforming to the Pope's reactionary condemnation of liberalism in the Syllabus of Errors (1864) Brownson also became a vitriolic critic of science. Other American Catholics writing at this time shared Brownson's view that many scientific theories, including evolution, were manifestations of the pervasiveness of secularism and materialism in American life. The Church was also alarmed about the deleterious effects of evolutionary theories on Church authority. Briefly, the Catholic church based the authority of

its priests and its claim that it was the one true Church of Christ on the dogma of Apostolic succession: the unbroken, unchanging transmission of priestly authority from Christ's original commission of the Apostles to present-day priests. However, evolution disturbingly posited variations in the inheritance process in nature, which when summed over generations resulted in complete breaks, that is new species, implying that perhaps breaks could also have occurred over time in the inheritance of Apostolic authority within the Church.

Finally, the seventh section explores American Catholic reactions to evolution in the context of Mivart's evolutionary theory and the anti-Catholic polemics of scientists such as Thomas Henry Huxley and John William Draper. American Catholics were advised in May 1873 for the first time that they could accept some tenets of Darwinism or other evolutionary theories, but this compromise position was quickly overridden and remained an anomaly through 1875. Meanwhile, polemics written by leading scientists stressing Catholic culpability for prior clashes between religion and science strengthened Catholic opposition to evolution. A complex network of motivations underlay the discordant rhetoric, for in their vehement criticisms of each other, Catholics such as Brownson and scientists such as Huxley provoked impudent responses, which they then used to confirm the cogency of their criticisms. For conservative Catholics the rhetoric of conflict further justified their hardline position against science and weakened scientists' claims to objectivity and evenhandedness.

American Catholics were told that evolutionists were their implacable foes, a tactic that tightened the cohesiveness of the Church against unsettling evolutionary theories.

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2. See 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: Cambridge Univ. Press, 1979); Jon H. Roberts, Darwinism and the Divine in America: Protestant Intellectuals and Organic Evolution, 1859-1900 (Madison, Wisc: Univ. of Wisconsin Press, 1988); David Livingstone, Darwin's Forgotten Defenders: The Encounter between Evangelical Theology and Evolutionary Thought (Grand Rapids, Mich: Eerdmans, 1987).

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4. See Richard Hofstadter, Social Darwinism in American Thought, 1860-1915 (Philadelphia: 1945, rev. ed. 1955), 26; Betts, "Darwinism, Evolution...," 165-7; Morrison, History of American Catholic Opinion, 43-58; Paul F. Boller, Jr., American Thought in Transition: The Impact of Evolutionary Naturalism, 1865-1900 (Chicago: Rand McNally, 1969), 38.

Lamarck, Chambers, and Catholic Responses, 1835-59

Before Darwin published the Origin of Species in 1859, Catholics had encountered and rejected the evolutionary theories of Jean Baptiste de Lamarck (1744-1829) and Robert Chambers (1802-71).[1] Prior to the 1830s, the Catholic church had shown scant interest in pursuing any reconciliation between modern science and religion.[2] The first important church figure to demonstrate such an interest was Nicholas Patrick Wiseman (1802-65). Wiseman's Twelve Lectures on the Connection between Science & Revealed Religion were published in London in 1836.[3] These lectures addressed various points of potential controversy between science and religion, including geology and Genesis, philology, the extent of the Noachian deluge, and the consanguinity and unity of the human species. It was with respect to this last topic that Wiseman, in his groundbreaking study, rejected Lamarckism.

Lamarck's evolutionary theory was fundamentally different from the one Darwin would advance in 1859.[4] Lamarck had proposed in his Philosophie zoologique in 1809 not Darwin's idea that all species had evolved from a common ancestor or ancestors, but that each species had progressed by a separate act of spontaneous generation. He asserted that the general trend of this progress was upwards, but it was not strictly linear since environmental changes had often intervened and thwarted the tendency to linear progress by creating new needs in species. Lamarck believed that species could respond to these new needs and adapt to their changed environment, and that these adaptations were then passed

on by generation. This somewhat notorious doctrine of the inheritability of acquired characters would become synonymous with Lamarckism, but it was only one aspect of the theory. Lamarck's ideas that species were inexact, man-made categories and that individuals were mutable were condemned by Georges Cuvier (1769-1832), then the most powerful naturalist in France. Cuvier, who held that species were unchangeable, real units, was instrumental in invalidating both Lamarckism and, in 1830, Geoffroy Saint-Hilaire's alternative evolutionary theory, and subsequently these and similar evolutionary theories fell into disfavor within the scientific community.[5]

Wiseman broached Lamarckism in his more general discussion of man's origins. In this context, Wiseman thought Lamarckism was "degrading" since it endeavored to show "how man's bodily organization sprung from a casual though natural modification of the ape" and also "that the spiritual prerogatives of the human mind are but the extension of the faculties enjoyed by brutes...."[6] Wiseman proceeded to make short work of Lamarckism, remarking that "the experience of thousands of years" disproved it, since in all that time no one had ever witnessed any developments of the type posited by Lamarckism. American Catholics frequently cited Wiseman's argument against Lamarckism to refute Darwinism and other evolutionary theories in the 1860s. Wiseman further cited the "very full confutation" of Lamarckism in Lyell's Principles of Geology (1830-33) in case Catholics might want to read another treatise that exposed the errors of Lamarckism.[7]

Wiseman then proposed his own theory to explain variation, his goal being to refute polygenists and their idea that the races of man were not varieties but distinct species. As Catholics such as Wiseman confronted polygenism, they were forced to explain how the races of man had originated from the original primal pair. In doing so, they sometimes advanced theories that bore a considerable resemblance to evolutionary theories. For example, Wiseman suggested that there existed a "perpetual tendency" or "a striving" in nature that caused accidental varieties to arise in the human species, and that these varieties were often perpetuated, especially under favorable circumstances such as isolation.[8] Wiseman's espousal of accidental (or spontaneous) varieties and his anthropomorphized conception of nature striving were nearly Lamarckian, while the salient role he gave to the direct influence of the environment on preserving new varieties echoed the ideas of Georges Louis Leclerc Buffon (1707-88). However, Wiseman was not an evolutionist, since he believed that species always maintained their underlying stability even while they varied.[9]

Still, the similarities between Wiseman's theory of variation and prior evolutionary theories are meaningful. As Catholics were forced to confront the highly charged issue of the unity of the human species, they tended to propose near-evolutionary theories to account for the origin and preservation of the races of man. We will see further evidence of this tendency in 1863 in Clarence Walworth's writings against polygenism.

Another notorious pre-Darwinian evolutionary theory was contained in Robert Chambers's Vestiges of the Natural History of Creation (1844).[10] Chambers, an Edinburgh publisher and writer, was a dilettante of science. His Vestiges, which he published anonymously, was an ambitious attempt to explain the origin and history of the universe. In it Chambers held that the organic world was ruled by a law of Development. When he came to specify how species could develop or change, though, Chambers was reduced to positing certain "impulses" which over several generations would "modify organic structures in accordance with external circumstances."[11] Despite this decidedly vague notion of an evolutionary mechanism, and despite the presence of obvious scientific blunders in it, Vestiges captured a large audience thrilled more by the audacity of its claims than by its accuracy or rigor. Conservative scientists such as Adam Sedgwick were apoplectic with rage; Sedgwick wanted Vestiges "pulverized" since it essentially proclaimed, among other calumnies, that "religion is a lie" and that "man and woman are only better beasts!".[12]

Perhaps because the scientific response to Vestiges in England was so overwhelmingly negative, no notice of Vestiges was taken in the English Catholic press.[13] One also has to search long in the American Catholic press for a response, but by May 1847 one is rewarded by a twenty-nine page refutation of Vestiges and its Sequel which appeared in The United States Catholic Magazine.[14] The tone of this review was sharply condemnatory. Vestiges was "essentially atheistical," the anonymous reviewer declared, and

its author was an impious, sacrilegious writer who sought to depose God from His sovereignty and to rob man of his glorious distinction of being made in God's image. The bulk of the review was concerned with Chambers's development hypothesis, which the reviewer oversimplified and misrepresented as a theory that "place[d] man on a level with cats and toads" and made the goose the mother of the human species.[15] Such ill-informed caricatures would also be drawn of evolutionary theories by American Catholics in the 1860s, although Catholics would hardly be unique in this respect.

After this opening censure of Vestiges, the reviewer settled down to a more sophisticated analysis of Chambers's development hypothesis. The reviewer would not stoop to recognize the hypothesis on its own merits; rather, he would only examine it "for its connection with geology...."[16] The reviewer then proceeded to demolish the analogies upon which Chambers had supported his development thesis. For one thing, the reviewer observed, the geological record did not supply evidence that the earth had developed slowly over countless thousands of years, as Chambers claimed; in fact, it tended to confirm Biblical chronology and the traditional age of the earth (about six thousand years) since all the strata were seemingly deposited at the same time, or nearly so. Also, the reviewer declared Chambers's analogy from embryology invalid, observing that even if the embryos of higher animals pass through lower stages of life as they develop, there was no possibility here for new progress or change since the

embryos never exceeded their original capacity for development. Furthermore, the reviewer asserted that fossils representing at least three, and probably all four, of Cuvier's four great archetypes or divisions of the animal kingdom were present in the oldest stratum. Where, then, the reviewer asked, was Chambers's evidence for development in nature?

The reviewer did not restrict his refutation to Vestiges. He also denounced the more scientifically respectable geological theories of the day: catastrophism and the day-age theory of creation (the idea that the six days of creation in Genesis were actually six long geological epochs). Perhaps these theories were not physically absurd, the reviewer admitted, but they were nevertheless historically untenable or at least improbable, and regardless of their probability they were merely hypotheses not warranted by the facts.[17] In short, the reviewer insisted that geologists had found nothing to controvert traditional Biblical chronology, and advised them to stick to amassing more facts before they dared to compare their speculations to the irrefutable evidence supplied to Catholics by the Church and the Bible.

This complete renunciation of theoretical geology was not an atypical American Catholic response. The United States Catholic Magazine had previously run two articles in 1845 and 1846 by a "practical geologist" who had, according to the editors of the magazine, "completely demolishe[d] the fanciful theories of his compeers by the rigid application of syllogisms."[18] Not all Catholics supported such a literal interpretation of Genesis,

however. Wiseman had suggested in his Lectures that there was a deliberate pause in the creation account between when God had created the heavens and the earth and when He created light, and that this pause defined an indefinite period of time in which the changes observed by geologists took place.[19] The Philadelphia Catholic Herald cited this argument as it chastised the "practical geologist," observing that his literal interpretation of Genesis was just as questionable, since a "day" is defined by the rising and setting of the sun, which God had not even set in the firmament until the fourth day of Genesis. Moreover, literal readings of Genesis provoked controversy between religion and science that could be easily avoided. What was needed, the Catholic Herald lectured, was a more liberal reading of Genesis, one which allowed some room for reconciliation so that geological investigations might still remain "subservient to revelation".[20]

However, the reviewer was most outspoken in his defense of the doctrine of the fixity of species. Thus he concluded that Scripture itself, supported by the evidence of history and the unanimous consent of philosophers and naturalists, incontrovertibly proved that species always perpetuated their own kind. The reviewer then speculated about what led men such as the author of Vestiges to defy Scripture, and he had a ready answer: they did so to justify their pursuit of beastly passions. Such passions, when unleashed, were dangerous enough to society, the reviewer warned, but the ultimate danger was that these men would succeed in overthrowing the law of the fixity of the species, and

if that happened, all the other laws of science and morality would topple in succession like so many dominos.[21] This dire warning that evolutionary theories were equivalent to devilry in their debasement of man and in their potential to destroy the moral fabric of society would also be made by many American Catholics in the 1860s and 1870s, including Orestes Brownson.

Sixteen years after Vestiges, Catholics had to confront another popular work that promoted evolution: Darwin's Origin of Species. The Origin was a more difficult work to refute than Vestiges: first because its author was an acknowledged master in natural history, and second because it avoided controversial statements on man's origins. Brief reviews of the Origin appeared as early as 1860 in Catholic newspapers, but a detailed review by an American Catholic writer did not appear until November 1869. However, two important American Catholic intellectuals - Clarence Walworth and Orestes Brownson - criticized Darwinism and other evolutionary theories at some length in the 1860s.

Before I bring these men into bold relief, however, I must inspect closely the mold from which they sprang - the American Catholic church - for clues as to why they dominated the American Catholic response. Briefly, I suggest that Church intellectuals, who, with the exception of Brownson, were clergy, were incapable of responding to evolutionary theories due to their poor knowledge of the sciences and their time-consuming parish duties. In addition, the Church failed to cultivate an intellectual tradition in the sciences for several reasons, including the absence of an

American Catholic university, the small size of the American Catholic intellectual elite, and the demography of the Catholic population in America. Those few American Catholics who did respond were mostly Protestant converts whose superior education and positions gave them the opportunity and capability to respond.

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4. See Pietro Corsi, The Age of Lamarck: Evolutionary Theories in France, 1790-1830 (Berkeley: Univ. California Press, 1988). Also see Bowler, Evolution, 82-8.

5. On the 1830 debate see Toby A. Appel, The Cuvier-Geoffroy Debate: French Biology in the Decades before Darwin (Oxford: Oxford Univ. Press, 1987).

6. Wiseman, Lectures, v. 1, 172.

7. Ibid, 174-5.

8. Ibid, 191.

9. Ibid, 223.

10. See Milton Millhauser, Just Before Darwin: Robert Chambers and Vestiges (Middletown, Conn: Wesleyan Univ. Press, 1959). Millhauser does not mention any Catholic response to Vestiges.

11. Quoted in Derek Gjertsen, The Classics of Science (New York: Lilian Barber Press, Inc., 1984), 348 fn 16.

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13. John David Root, Catholics and Science in Mid-Victorian England (Ph.D. Diss., Indiana University, 1974, Univ. Microfilm 74-22789), 49.

14. "Vestiges of the Natural History of Creation," The United States Catholic Magazine and Monthly Review, VI (May 1847), 229-57.

15. Ibid, 229, 251, 231.

16. Ibid, 241.

17. Ibid, 241-5, 248.

18. Ibid, 243. See "Geology Confirming Divine Revelation," United States Catholic Magazine, IV (July 1845), 431-41; and "Geology at Variance with Scripture," United States Catholic Magazine. V (June 1846), 306-23.

19. Wiseman, Lectures, v. 1, esp. 281 and 295.

20. "Geology," The Catholic Herald, XIII (Philadelphia: 1845), 28 August pp. 276-7, 16 October p. 333. The Herald was founded and edited by Henry Major, a Catholic convert and professor in the diocesan seminary. The influence of Major's Protestant background on the formation of his more liberal views on science is difficult to determine, but it is significant that Protestant converts to Catholicism were often friendlier towards science than most other Catholics.

21. "Vestiges," United States Catholic Magazine, 255-6.

The American Catholic Church: 1845-75

Throughout its early history, the American Catholic church deliberately maintained a low profile in American life.[22] Catholicism had been brought to the colonies in 1634 by Leonard Calvert and about one hundred and forty other English settlers, and one hundred and fifty-five years later John Carroll (1735-1815) was elevated as Bishop of the first American Catholic diocese, located in Baltimore. Up until 1830, the Church remained small (318,000 members), and Catholics in their "staid old Whig church" were glad that they were virtually indistinguishable from their non-Catholic neighbors.[23]

Immigration changed all this. During the 1830s, 250,000 immigrants swelled the ranks of the Church, but the Irish potato famine of 1845-47 and the revolutions of 1848 drove unprecedented numbers of Irish and German emigrants to America. By the First Plenary Council of American bishops in 1852, the Church had quintupled in size in twenty-two years to over 1.5 million members, and this rapid pace of growth continued (with a short lull from 1857-65 due to Nativist opposition to immigration and the American Civil War) through 1875. Between 1852-55 alone, an additional 477,000 Irish immigrants (most of whom were Catholic) and 575,000 German immigrants (about one-third of whom were Catholic) made America their new home.[24] As at least eighty percent of the Irish Catholic immigrants were indigent peasants who often needed food, clothing, and other basic essentials,[25] the Church had to devote much of her resources just to help these newcomers

survive. New churches and parochial schools also had to be built (the number of Catholic churches actually doubled between 1850 and 1860, from 1227 to 2517, as Church membership increased from 1,606,000 to 3,103,000)[26], priests had to be recruited and trained, and immigrants who spoke different languages and hailed from different cultures somehow had to be assimilated into a cohesive body of believers. For the most part the Church was able to meet the challenge, but European priests had to be imported due to the shortage of American-born priests. This foreign-born clergy and the natural tendency of new immigrants to group together, resisting immediate assimilation by maintaining their cultural practices, gave the American Catholic church a decidedly foreign cast. Catholics had to combat a backlash of prejudice and fear from some non-Catholic Americans who saw these "foreigners" as the vanguard of a Popish invasion, with the infamous Know-Nothing political movement against Catholics reaching the height of its influence in the early 1850s. The Nativist movement was reignited as the flow of immigrants peaked again after the Civil War, with the net Catholic immigration from 1861-70 being 741,000, of whom 210,000 came from Germany and 371,000 from Ireland.[27] The American Catholic church, then, was confronted throughout this period (1845-75) with the logistical challenges that arose with rapid expansion due to immigration and the concurrent opposition and bigotry of Nativist groups.[28]

American converts to Catholicism were aware of the opposition they faced: as Walworth observed in 1845, one year after the

bloody anti-Catholic riots in Philadelphia, "In these United States, this Church is misunderstood and hated."[29] Walworth did not lament, though, that the American Catholic church quickly became the Church of the immigrant, but other American-born Catholics did, the most famous example being Brownson. Brownson went so far as to exclaim in 1858 that the Know-Nothing movement was "provoked in great measure by Catholic [sic] themselves" since most of the clergy were "deeply hostile to our American institutions." Brownson, a Yankee, felt like an outsider in his own church, and he observed with some bitterness that, "The distinction here between Catholic and non-Catholic is Catholic or Irish and American."[30]

Brownson's acerbity on this question, rather typical for him, was not common among other American converts to Catholicism; nevertheless, it was indicative of the dominant influence the immigrant had attained in the Church. Again, Brownson perhaps went too far when he claimed "our clergy [are] generally ignorant and scarcely gentlemen,"[31] but his acid remarks were cogent, for most Catholic priests in America were insufficiently educated. In their ignorance they were not alone, for as John Root has shown the same "pitiful state of Catholic education" also existed in England.[32] Education for priests was quite narrow, being almost entirely restricted to seminaries, where theology, canon law, and philosophy were almost exclusively taught, and an American Catholic university for graduate study would not be founded until 1889. Meanwhile, the workload for parish priests due to the

shortage of priests and needs of the immigrants devoured any time or energy these men may have had for further academic study, and regardless the general shortage of funds made buying science books a luxury few could justify.

This deplorable state of Catholic education was why American Protestant converts to Catholicism, although small in number, often played such a large role in the life of the Church, for they often brought superior levels of education and social standing to the Church. Brownson was an atypical convert since he was an autodidact and a layman, but other converts such as Walworth, Isaac Hecker and Augustine Hewit banded together as missionaries and tried to develop a viable American Catholic intellectual tradition as they preached the Catholic faith to non-Catholic Americans.[33] These men were very much celebrities in their day, outspoken in their desire to convert non-Catholic Americans, and at least some of their fame and outspokenness was attributable to their status as converts and the more varied and intensive education they had received prior to becoming Catholics. Walworth and the others went on to establish important "firsts" in American Catholic history, holding the first organized mission to an English-speaking parish in America (1851) and forming the first congregation of priests to be founded in America, the Paulists, in 1858.[34]

The formation of an English-speaking order of missionary priests will be discussed in the next section of this paper, but it is important to note here that those Catholics who responded to

evolution - Walworth, Brownson, Hewit, and others - were either Paulists themselves, close friends and supporters of the Paulists (such as Brownson), or publishing their opinions in a Paulist-run periodical (Catholic World). In an immigrant Church almost devoid of intellectual and social elites, the Paulist community constituted the center of a small group of well-educated and socially distinguished American Catholic converts.

Apart from the Paulists, American Catholics mostly failed to cultivate a distinct literary and intellectual tradition. Catholic newspapers often were busy defending Catholics from slander and otherwise wrote almost exclusively on the Civil War, Irish and other foreign news, domestic politics, and religious issues; and through 1864 Brownson's Quarterly Review was the only American Catholic periodical that probed political, philosophical, and scientific issues at any depth. After Brownson halted his Review in 1864, American Catholics were temporarily without a periodical of any national reputation, but Hecker filled this void in 1865 with Catholic World. The Catholic World remained the sole American Catholic magazine of any note until 1873, when Brownson briefly resuscitated his Review.

What insights does this brief examination of American Catholic church history give us about the American Catholic response to evolution? Simply these: American Catholic immigrants at this time were mostly impoverished and poorly-educated; Americans in general were predisposed by an extensive anti-Catholic propaganda campaign mounted by Nativist groups to regard

these immigrants as a threat to American institutions, and this only caused American Catholics further to close their ranks and isolate themselves from American intellectual life; and Catholic priests were narrowly-educated and often foreigners, and all parish priests were swamped by work. As a result, the Catholic audience for science in America was quite small; the dearth of American Catholic scientists restricted the size of this audience further.[35] To put it bluntly, most American Catholics had little time for, interest in, and exposure to science; nor did they have the educational background to respond knowledgeably to evolutionary theories.

My claim that Catholic clergy just did not have the time to respond to evolutionary theories may sound a bit absurd; after all, Walworth for one managed to publish a book in 1863 that dealt with the conformity of Biblical accounts to science. Yet his effort was exceptional: Walworth in writing his book exhausted himself, and after he assumed parish duties in 1866 his pen for the most part fell silent. Another illustration of an erudite, highly-educated priest who had an avid interest in science, yet unlike Walworth never published anything due to his onerous duties, can be had in the life of Bishop Lawrence Stephen McMahon. One tribute to McMahon explained that while most people did not recognize him as being a profound scholar, McMahon was an infrequent writer and preacher not because he had little to say but because he was overwhelmed by administrative duties.[36]

In conclusion, the few American Catholics who made the time,

had the interest and exposure, and responded to evolutionary theories were exceptional individuals. In the early 1860s, Walworth and Brownson were these exceptions.

References to Section 2

22. On American Catholic history see Jay P. Dolan, The American Catholic Experience (New York: Doubleday, 1985); James Hennesey, American Catholics: A History of the Roman Catholic Community in the United States (New York: Oxford Univ. Press, 1981); John T. Ellis, American Catholicism (New York: Image Books, 1956, 1965); Theodore Maynard, The Story of American Catholicism (New York: Macmillan, 1941).

23. Hennesey, American Catholics, 102.

24. "Emigration," New American Cyclopedia, 16 vols. New York: 1857-63, v. VII, 130-34, on 133.

25. Dolan, The American Catholic Experience, 142.

26. "United States," New American Cyclopedia, v. XV, 712-816, Table XXXII, "Religious Statistics of the United States, 1850," on 813, and Table XXXIII, "Religious Denominations in 1860," on 814. For Church membership figures see Jay P. Dolan, Catholic Revivalism: The American Experience 1830-1900 (Notre Dame: Univ. Notre Dame Press, 1978), 26.

27. Phyllis Anne Gray, A Survey of Catholic Americana and Catholic Book Publishing in the United States 1861-1870 (Master's thesis, Catholic Univ. of America, 1950), 13.

28. Anti-Catholic bigotry was mainly religious and cultural in origin, but it also had political and economic elements, since immigrants formed an almost exclusively Democratic voting bloc and they also often undercut union laborers for jobs. Nativism and anti-Catholicism were also not always synonymous; some native-born Catholics opposed immigration, and some leading Nativists were themselves Catholics. See Hennesey, American Catholics, 119.

29. Ellen Walworth, Life Sketches of Father Walworth (Albany: 1907), 86.

30. Letter from Brownson to Count Charles de Montalembert, 27 December 1858, The Microfilm Edition of the Orestes Brownson Papers, Roll 9.

31. Ibid.

32. John D. Root, Catholics and Science, 14.

33. Jay P. Dolan's Catholic Revivalism contains insightful accounts of the mission (or revival) work of Redemptorists, Jesuits and Paulists in America.

34. See James McVann, The Paulists, 1858-1970, 2 vols. (New York: The Missionary Society of St. Paul the Apostle), 1983.

35. I can find only two American Catholics who were important scientists, and both were converts. James Hall, the geologist and paleontologist of New York State, was a leading figure in American science, serving as President of the American Association for the Advancement of Science in 1856. See John M. Clarke, James Hall of Albany, Geologist and Paleontologist, 1811-1898 (Albany: 1921; reprint New York: Arno Press, 1978). For the most part Hall was not a theorist and he refused to discuss evolution. He was apparently not a pious believer and at some point he ceased to be a communicant of the Catholic church. George Mary Searle (1839-1918) was the other Catholic convert of scientific fame. A Harvard graduate at age eighteen and an assistant at Harvard Observatory from 1866-68, Searle joined the Paulists as a novitiate in 1868, attaining the priesthood in 1871. The fact that Searle, an esteemed astronomer and mathematician, joined the Paulists is further indicative of the high tenor of men the Paulists attracted to their society. See Joseph McSorley, Father Hecker and his Friends (St. Louis: B. Heider, 1952), 147-52, and Charles J. Powers, "Father Searle's Distinguished Career," America, 19 (1918), 378-80.

36. On McMahon see James H. O'Donnell, History of the Diocese of Hartford (Boston: 1900), 166-78.

Clarence Walworth, Geology, and Evolution in the 1860s

As a Catholic priest who demonstrated superior knowledge of science, particularly geology, Clarence Augustus Walworth would come to embody Brownson's 1863 dictum that the Church needed champions who could meet scientists on their own ground. Walworth was born on 30 May 1820 in Plattsburg, New York.[1] Of wealthy Yankee and Presbyterian lineage, Walworth was the first son of Reuben Hyde Walworth, a noted attorney who would fill the highest judicial office in the state as Chancellor of New York from 1828-48. High social standing and superior education were often prerequisites for a serious interest in science in mid-nineteenth century America,[2] and Walworth had both. His budding interest in science and nature was fostered by his education at the Sloan boarding school in Williamstown, Massachusetts and at Union College in Schenectady, New York, a science-oriented college which in the 1830s rivaled Harvard and Yale. After graduating as a Phi Beta Kappa from Union College in 1838, Walworth followed his father's example and studied law, receiving his license to practice as an attorney on 16 July 1841. He then assumed his place in society as a gentleman-lawyer, his future prospects bright, but within a year he felt himself called for the ministry in the Protestant Episcopal church. He entered the General Theological Seminary in New York City in 1842, which was at this time the center of the American Oxford Movement.[3] By 1843 Walworth had become part of a small coterie of Episcopalians who had adopted Tractarianism, and in 1845 he decided to convert to

Catholicism. His conversion disappointed his father and horrified his mother, but Walworth persisted, and on 16 May he entered the Catholic church. He then accompanied Isaac Hecker, a former Transcendentalist and member of the Brook Farm community who had converted to Catholicism under Brownson's tutelage,[4] and James McMaster, a fellow convert from Episcopalianism, to Belgium and Holland. After three years of study, during which he earned the nickname *Brother Pourquoi* for his love of reasoning,[5] Walworth was ordained a priest on 27 August 1848 at Redemptorist College in Wittem, Holland. He then served as a Redemptorist missionary in England from September 1848 through January 1851, during which time he befriended John Henry Newman.[6] Walworth arrived back in America in March 1851, and over the next few years he was part of, and would come to lead, an elite group of highly-educated American Redemptorist missionaries. By 1856 the group consisted of Augustine F. Hewit, a former Episcopalian deacon and an alumnus of Amherst; Francis A. Baker, a graduate of Princeton College (later University) and a former Episcopalian clergyman; George Deshon, who graduated second in his class at West Point and taught natural and experimental philosophy; and Hecker. As they held missions all over the country, seeking American converts to Catholicism, Walworth gained the reputation of being the most eloquent orator of the group. This was no accident, since Walworth, whose favorite Latin author was Horace,[7] had developed his rhetorical skills through his training as a lawyer and through an extensive study of languages and oratory. He was a classic rhetorician: his

gestures, his bearing, his choice of words, his voice were all carefully measured so that he could move his audience to embrace Catholicism. One young woman declared that his sermons were "impossible to describe.... His gestures, his delivery, gave it [the last judgment scene] the appearance of reality, that is, made it pass in imagination before us."[8] Walworth's preaching, then, was passionate, profuse with powerful images, and poetic.[9]

After Walworth and his missionary group were released from their vows as Redemptorists by Pope Pius IX on 6 March 1858, Hecker and the others formed the Society of Missionary Priests of St. Paul the Apostle, or the Paulists, in New York, which Walworth did not join since his friends would not take perpetual vows. Instead, he served as pastor of St. Peter's church in Troy, N.Y., but in 1861 he had a change in heart and became a Paulist. In Hecker's words, the main goal of the Paulists was "to identify Catholicity with American life in a religious association" and to convert Americans to Catholicism,[10] and to this end Walworth toiled ceaselessly. For the next four years his missionary fervor knew few bounds, but by 1865 his feverish activity on some twenty-five missions had exacted a heavy toll on his health. Suffering from malaria and exhaustion brought on by overwork, Walworth was near death. Fortunately, Walworth's father, hearing of his son's plight, spirited him away to the family home in Saratoga Springs, where Walworth slowly regained his strength. In 1866 he was reassigned as pastor of St. Mary's church in Albany, N.Y., a position he would not relinquish until his death in 1900.

Walworth wrote his first book, The Gentle Skeptic; or, Essays and Conversations of a Country Justice on the Authenticity and Truthfulness of the Old Testament Records (1863), while he was a Paulist, although he had gathered the information on geology contained in it somewhat earlier, in cooperation with James Hall (1811-98), a Catholic convert and invertebrate paleontologist who had published "the most comprehensive treatise on American paleontology," according to the New American Cyclopedia (1859).[11] Walworth extracted five chapters on geology and Genesis from The Gentle Skeptic , and they appeared in slightly different form in two articles in Brownson's Quarterly Review.[12] This section is devoted to an analysis of these articles and the book from which they were taken, but before embarking on this analysis Walworth's importance and the context of his writings need to be explained.

Walworth was certainly not alone in his effort to harmonize Scripture with modern science, particularly with regards to geology. Geology was perhaps the science of the day, and as Millhauser has observed, at least sixty volumes were published from 1844-59 that attempted to reconcile geological discoveries and theories with the Mosaic accounts of the Creation and the deluge.[13] Nor did Walworth stand alone in this effort among his fellow Catholics. Wiseman's 1835 Lectures were certainly outdated by 1863 (especially with their espousal of catastrophism), but in 1854 L'Abbe A. Sorignet had published his Sacred Cosmogony (first English translation 1862), which eliminated the problem of reconciliation by denying that geology had any solid evidence that

contradicted Scripture. Moreover, Sorignet told modern naturalists that Scripture must either be accepted in its entirety and literally, or else rejected altogether.[14] In its August 1862 review of this book, the Baltimore Catholic Mirror, which had previously refuted Darwinism in June by quoting Wiseman's argument against Lamarckism, hailed Sorignet as a champion, crowing that he had negated "the baseless attacks of the enemies of revealed truth."[15] For the Mirror, then, another book on Scripture and science was hardly necessary.

Walworth disagreed: he thought Sorignet's Biblical literalism was clearly disproved by science.[16] He cautioned that while well-informed Catholics might easily dismiss such wrongheaded accounts as Sorignet's, perhaps even finding them laughable, a danger existed in that less knowledgeable Catholics might be misled. Granted these accounts did not threaten revealed truth, Walworth admitted, but they did offend scientific truth. For Walworth, the pursuit of scientific truth honored God's holy Word; shoddy science, therefore, was for him tantamount to dishonoring God. Herein lies one aspect of Walworth's importance as a Catholic: he particularly stressed the independent sanctity of scientific truth.

The adroitness of Walworth's attempts to marshal support for science among Catholics was further demonstrated by the literary techniques he employed in The Gentle Skeptic. Walworth established in the first chapter of his book a dialogue between two personae: Jonathan Bird, a Justice of the Peace and a self-

professed "lover of young people," and Walter Manly, introduced as the son of an old friend of Bird's and an earnest seeker after truth. Walter, "the gentle skeptic" of the book's title, came to ask Bird for proof of the veracity of the Old Testament, and the relationship between Bird and Walter became that of a mentor and his charge, with Bird's ultimate goal being to draw out from his student an admission that the Bible was the authoritative source of truth.

Walworth adopted this literary form of a fictional conversation between invented characters with specific goals in mind. First, the characters themselves had carefully calculated functions. It would be difficult to imagine a more credible and reliable witness to testify to the authenticity of the Old Testament than judge Jonathan Bird, the kindly gentleman-bachelor whom Walter quickly adopted as his "Uncle". Walter, the "manly noble youth," represented the main audience to which Walworth was framing his appeal: young, intelligent men who, in Walworth's view, had perfectly understandable doubts about the Bible. In addition, Walworth increased the accessibility of his book by introducing two female personae: Becky, Bird's sister, and Susy Brinn. Becky served as the mouthpiece of conservative Christians; Walworth described her as a "simple" but pious believer, one who did not require intellectual proofs of the Bible's authority. Susy Brinn, in contrast, served as comic relief but also as a character younger women could identify with; she was depicted as a precocious sixteen-year-old who was playful but smart. Second,

the book's conversational form made it a more entertaining read, an important consideration seeing that it was aimed at adolescents and young adults. Third, Walworth strove to eliminate any suggestion of prejudice or undue interest on his part by portraying himself as merely the transmitter of this conversation. In sum, Walworth tailored his book and its personae to appeal to and to sway all segments of his Catholic audience: male and female, old and young, conservative and liberal.

Walworth used these personae to good effect when he came to address scientific questions in The Gentle Skeptic. Again, it was Walter who initiated the discussion, asking about science and the age of the earth. Becky hastily replied with the traditional answer that the age of the earth was about six thousand years, but Bird explained that this was not so, and he embarked on a long discussion of geology (detailed below). Becky at length became vexed by her brother's discourse, remarking to him her fear that "you are leading that young man's mind astray.... I don't see the use of bringing geologists... into religious questions. I never found any difficulties in the Bible."[17] But for Bird, or, in other words, for Walworth, such simple faith, sufficient for pious believers such as Becky, was useless in answering skeptics and their questions, gentle or otherwise. Walworth's implicit message was that Catholics had no alternative but to study science, else young men and women with doubts would be lost to the faith. In the end, he assured his readers of the efficacy of his discourse on science by having Susy Brinn joyfully announce that Walter had

been to communion.

With his skill as a rhetorician, Walworth constructed his account to move Catholics to affirm that science was a worthy pursuit, even a sacred one. Just as he sought, by the power of his oratory, to persuade audiences to take up the cross, so he sought, by the power of his prose, to persuade Catholics to take up science. He wanted converts to science and confessors of the merits of science, but failing that, at the very least he wanted to transform his readers into virtual witnesses of the successes of science.

Walworth commenced his effort to broaden the appeal and thus the support of science among his fellow Catholics with his article in January 1863 on "The Antiquity of the Earth." He immediately piqued his readers' interests with references to recent discoveries in astronomy, which rivaled geology as the most popular science of the day. He quoted Alexander von Humboldt, mentioned Lord Rosse's telescope, and agreed with William Herschel and others that the length of time it took for light rays to reach the earth from distant nebula must be almost unimaginably long. Yet even with this evidence of the great age of the universe obtained from astronomy, Walworth affirmed that the rocks of geology may reveal evidence "of an epoch far earlier than the exodus of any starry ray that visits us."[18]

Walworth then seized upon the imagination of his readers, asking them to conceive how much time it would take for showers and streams to deposit and erode vast masses of sedimentary rock.

He quickly observed that these apparently abstruse questions were not beyond the mettle of common-folk, for "a carman would understand this [process] at once, for it is only loading and dumping on a vast scale and a long contract." He combined this evidence of the slowness of natural processes with the physical evidence of rocks in which he found "*marks of decay and death, and the relics too of organic beings to which the living world affords no counterpart*," to prove "that the earth is ... far older than the Book of Genesis has hitherto been supposed to allow."[19]

Recognizing that such propositions had in the past been rejected by Catholics (including Sorignet), Walworth proceeded to defend his finding. He dismissed as childish both those who claimed that God made the fossils at the Creation, and those who claimed that fossils were nothing but evidence of "*disorder and deception*" in nature. In Walworth's eyes the latter idea was shameful, for God neither created a chaotic, capricious natural order nor did he create such wondrous "creature[s] in a state of death" if they would have been destined to remain "mere model[s] of a thing that never was and was never to be."[20]

The most interesting aspect of this article, though, was Walworth's emotional and aesthetic response to fossils, and the methods he used to transmit his wonder so that it might resonate in his readers' minds and captivate their imaginations, thereby leading them to pursue science. In this effort, he turned his private study into a virtual public museum of natural history for his readers:[21]

> We invite the reader to examine a few specimens of this sandstone, and for that purpose will suppose him to be sitting in the writer's study... Honestly! my friend, have you ever seen a snail or any spiral shell, from land or sea, more perfect in shape than this little petrifaction?

Walworth used such ardent prose to transfer his fervor for science to his Catholic readers. He continued to appeal to his readers' imaginations by personifying his fossils, describing a Trilobite as "this fierce little pirate of the Silurian seas." He also made analogies between the past and presently-observed natural events, comparing a Spirifer's appearance to a "crowded nest of little birds just fledged, and spreading their wings to fly."[22] He was also quite careful to use precise geological terms, to mention his close friendship with James Hall, and to refer to his private geological collection, <u>the</u> mark of the serious student of geology;[23] in this way he validated his authority in a community that included everything from nimrods hunting fossils and rocks to professional geologists of international reputation such as Hall.

To further clinch his argument that the earth was far older than most Catholics believed, Walworth transformed his private recollections of his geological explorations at Hanson's mountain into a public field trip for his readers, concluding the journey with a metaphor that aped Darwin's own rich imagery: "Hanson's mountain is a vast mausoleum, a thousand times older, larger by far, and every way more interesting than the great pyramid." And he analogized that just as the Egyptian pyramids show signs of being built slowly over time, and just as mummies are found in pyramids, remains of people who had once lived, so do mountains

show signs of great age, and so are fossils found in the rocks, remains of species which had once lived.[24] Walworth could not have more carefully chosen this metaphor, for Americans had had an obsession with everything Egyptian, especially in the 1840s and early 1850s. He wisely tapped into this fascination as he tried to make geology even more accessible and captivating to his readers than Egyptology.

Walworth went even further in his attempt to sanctify science in The Gentle Skeptic. First, he turned the Bible into a repository of natural history, calling the author of Job "a close observer of nature," claiming that "King Solomon could have handed in valuable contributions to our American Congress of Science," and quoting Humboldt's praise of the descriptions of nature found in the Bible. Next, he compared the appearance of certain fossils to rosaries, a private and sacred Catholic devotion, and to the mosaic tiles on church floors. Finally, he consecrated the underground world, declaring that the geological ruins which reside there are "sublimer" than the ruins of ancient civilizations.[25]

To summarize, Walworth constructed his account to appeal to his readers on several levels in order to gain their assent that science was sacred. He appealed to the imagination as he personified extinct species, he appealed to emotion with his exclamations on the beauty of fossils, he appealed to the intellect with his authoritative references to Humboldt, Herschel, and Lyell (he quoted the first five pages in chapter 1 of Lyell's

Elements of Geology *in extenso*), and he especially appealed to the spiritual with references to science in the Bible and comparisons of fossils to sacred Catholic artifacts. In effect, Walworth's rich, vivid descriptions of geological phenomena were meant to transform Catholics into virtual witnesses of geology's successes, to make them acolytes of geology.

That he succeeded with at least one Catholic is evident from a letter sent to Brownson in response to this article. A certain Mary A. O'Donoghue wrote that she had read the article "with vivid interest" and that she had found it "irresistably convincing." She looked forward to the next article "with anxious expectation," since she was "puzzled" about several aspects of the Genesis, including whether the six days of creation were real, consecutive days or not.[26]

In his April 1863 article, "The `Six Days' of Genesis," Walworth answered this concern and reconciled the Mosaic testimony with the geological record. He affirmed that in the Genesis account, "The Prophet [Moses] could have had no intention to instruct in questions of natural science," and therefore the best interpretation was to recognize that Genesis was "a theological [rather] than an historical account of creation." More specifically, he proposed that the literal interpretation of Genesis - that God created the universe in six calendar days - was not imperative since it was not a matter of faith or dogma; this allowed him to assert that the "days" were not literal days or any measure of time but "figurative or symbolical expressions under

which the works of creation are classified."[27]

To defend his conclusion, Walworth adopted a fourfold strategy. First, he asserted that his theory was spiritually superior to literal readings of Genesis, since it "gives us a more noble and strictly religious view of the first [chapter] of Genesis." Second, he observed that his theory was far simpler, and thus aesthetically more pleasing, than complex correspondences between the days of Genesis and geological epochs. Third, he assured his fellow Catholics that his theory was not only quite ancient but also supported by the writings of Origen and St. Augustine, among other legendary savants of Catholic orthodoxy, since they also argued against literal readings. In addition, he shrewdly pointed out that with this support from the ancients, who "could have had no thought of harmonizing their views with geological data when they wrote," there was no way the Church could be construed by her critics as bowing before the authority of science. And fourth, as a Catholic geologist himself, Walworth observed that his theory created a protected social space wherein a Catholic scientist might "freely follow the light of his science without exposing himself to ignorant charges of infidelity; and excellent Christians have suffered sorely and needlessly in this way."[28]

Walworth, then, dismissed prior conciliatory theories for his own, purely metaphorical interpretation of the Genesis creation story. With his theory, Walworth purchased the maximum amount of leeway possible so that he could reconcile his uniformitarian

views on geology and natural history with Scripture. In effect, by refusing to force his science into an exact correspondence with Genesis, he demonstrated the strength of his fidelity to his science.

Walworth carried his analysis of Genesis further in The Gentle Skeptic. With regards to the Mosaic account of the deluge, he maintained that natural history and geology provided evidence that proved the deluge was localized. He cited Darwin's Origin on the geographical distribution of species to show that species could not have spread out from a common center. He observed that the Church had never authoritatively ruled on the extent of the deluge, and he concluded from scientific evidence and from an analysis of the intent and language of the Scriptural passage in question that the deluge was indeed localized, and that possibly only some men were affected by it.[29]

But although Walworth successfully fused science and Scripture to yield scientific accounts of the earth's creation and the deluge that were acceptable to Catholics, he at first was unsure how to reconcile natural history with Scripture. Thus he failed to specify his objection to re-creation theories and Darwinism in his initial, cautionary "confession" in January 1863:[30]

> We confess to a certain repugnance for the notion of successive creations ... and to still more decided objections to Darwin's theory ... nor are we ... convinced that geology limits our choice to these two. The [extinct] fossil types seem really to fill up chasms in the living world, and we should welcome any well sustained theory to show that they all belong to one creation.

The idea that fossils of extinct species filled the chasms

between living species had been proposed by Henri M. D. de Blainville (1777-1850).[31] Blainville, a French naturalist who succeeded Cuvier in the chair of comparative anatomy at the Jardin des Plantes (Paris) in 1832, believed (as did Walworth) that all species had been created at Genesis. I do not know if Walworth took this idea of fossils of extinct species plugging gaps in the Great Chain of Being in nature from Blainville, but he clearly preferred a theory that would explain the extinctions of species in a manner more consistent with Genesis than re-creation theories or Darwinism.

Four months later Walworth specified his objections to Darwinism in "The `Six Days' of Genesis." After observing that geologists still had more fact-gathering to do before science could decide the actual succession of organic creatures, Walworth made another confession about Darwinism, and this time he bolstered it with an authoritative reference to Lyell:[32]

> We confess to some doubt even (without putting forward any opinion) whether, the entire globe considered, there has been any succession of types. Old types have sometimes become extinct, but the coming in of new is not so clearly proved. The whole argument of Sir Charles Lyell against a progressive development of organic life at successive geological periods, is equally applicable to all theories of successive creations (or transmutations) of species.

So despite his parenthetical expression of relative disinterestedness, it is clear that Walworth was casting doubt on Darwinism. Perhaps Walworth was just being a thoroughgoing Lyellian here, but his questioning of the succession of types represented a significant departure from Wiseman and James Hall. Wiseman had dissented from Lyell in 1836, asserting that fossil

evidence "tended to confirm" the succession of types, while Hall had written in 1861 that "we have everywhere the most palpable evidence" of the succession of new species.[33] Walworth, then, contradicted his friend Hall and Wiseman on this point, and he was plainly motivated to do so by his dislike of re-creation theories and Darwinism.

Walworth cleared up any doubts about where he stood on Darwinism further on in this article when he referred to a lecture he attended on "The Position of Man in Natural History" at which Louis Agassiz traced the development of vertebrates. Walworth quoted Agassiz as arguing against Darwin's view of historical development, that "geology proves the contrary.... No species ever departs from its own type...."[34] Walworth himself then proceeded to criticize Darwinism directly for the first time by making a curious analogy. As mentioned previously, Walworth refuted literal interpretations of Genesis, agreeing with St. Augustine that the plan of development in the "six days" of Genesis existed only in God's mind, not in the temporal realm. In other words, God did not create the universe in six days; rather, the creation was an atemporal, instantaneous actualization of a plan conceived in God's mind. Analogously, Walworth agreed with Agassiz that the plan of development of species also existed in God's mind, not (as Darwin claimed) in nature's realm or historical time. In other words, God's plan of development for species was successive in God's mind, but in nature it was actualized instantaneously. Thus Walworth adopted St. Augustine's and Agassiz's Neoplatonism and

cleverly equated Darwin's mistake to the mistake Biblical literalists made in interpreting Genesis, rejecting both Darwinism and literalism because they confounded the order of plans that were successive only in God's mind with their seemingly successive (but falsely so) manifestations in nature. Darwin's error, then, was twofold for Walworth: he wrongfully posited that species were mutable, and he mixed up the atemporal succession of God's plan for species with the historical order of time.[35]

In his articles, Walworth specifically referred to Darwin, but in The Gentle Skeptic he used the term "Progressionists" in place of Darwin's name to extend his refutation to all evolutionary theories. The next section of this paper further details Walworth's views on evolution in the context of polygenism. We will see that he came close to advocating views that are now associated with Mivart. The one key difference, though, was that while Walworth, like Mivart, proposed variation by saltation that was most likely caused by some inner force, he upheld the fixity of species.

References to Section 3

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2. On the social composition of American science see Robert V. Bruce, The Launching of Modern American Science 1846-1876 (Ithaca, New York: Cornell University Press, 1987), esp. 15-16, 82, 89, 226-7.

3. See Clarence A. Walworth, The Oxford Movement in America (New York: 1895; reprinted New York: United States Catholic Historical Society, 1974) and Reminiscences of Edgar P. Wadhams, First Bishop of Ogdensburg (New York: 1893). The Oxford Movement in England and America resulted in an infusion of formidable Protestant intellects into the Catholic church at a time when Catholic university education was nonexistent in both countries.

4. On Hecker see Vincent F. Holden, The Yankee Paul: Isaac Thomas Hecker (Milwaukee: Bruce Publishing Company, 1958).

5. Ellen H. Walworth, Life Sketches, 91.

6. Walworth's own recollections of this period of his life appeared in Catholic World from June 1899 through January 1900 as "Reminiscences of a Catholic Crisis in England Fifty Years Ago."

7. Ellen Walworth, Life Sketches, 359.

8. Archives of the Paulist Fathers, Baker Papers, Letter of Chessie (Morse) to her sister, 5 April 1853, quoted in Dolan, Catholic Revivalism, 69.

9. In fact he wrote poetry, and poetry was akin to oratory in classical rhetorical theory. His collection of poems was published as Andiatorocte, or the Eve of Lady Day on Lake George and Other Poems, Hymns and Meditations in Verse (New York: 1888).

10. "Letter from Hecker to Father Rouquette," 24 July 1859, in John T. Ellis, ed., Documents of American Catholic History 3 vols. (Wilmington, Delaware: Michael Glazier, 1987), v. 2, 341.

11. "Hall, James," New American Cyclopedia, v. 8, 655-6.

12. "The Antiquity of the Earth," Brownson's Quarterly Review (January 1863), 29-55; "The `Six Days' of Genesis," Brownson's Quarterly Review (April 1863), 204-27. These articles comprise chapters xx-xxiv in The Gentle Skeptic, pp. 221-300.

13. Millhauser, Just Before Darwin, 47. Also see Davis A. Young, "Nineteenth Century Christian Geologists and the Doctrine of Scripture," Christian Scholar's Review, 11 (1982), 212-28.

14. Sacred Cosmogony; or, Primitive Revelation demonstrated by the Harmony of the Facts of the Mosaic History of the Creation, with the Principles of General Science (St. Louis: 1862), 5. The translator was Peter Richard Kenrick, Archbishop of St. Louis from 1847-95. For those American Catholics that could read Italian, P. Giovan Battista Pianciani's Cosmogonia Naturale Comparata Col Genesi (Roma: 1862) was another alternative.

15. The Catholic Mirror first reviewed Darwin's Origin on 18 February 1860, p. 5. The review was brief and treated the Origin as just another natural history book, "from which the naturalist may derive a mass of useful information." The unfavorable notice mentioned above appeared on 28 June 1862, p. 4, in an article entitled "Revelation vs. the World's Philosophy," which was later reprinted on p. 4 of the 24 June 1865 Mirror. In this article, Darwin was compared "to the Heathen sages of antiquity." The review of Sorignet appeared on 30 August 1862.

16. Brownson also took a dim view of Sorignet, stating he was "pedantic and pretentious" and that his book was "of no practical value as a medium of harmony" between science and religion. See "Literary Notes and Criticisms," Brownson's Quarterly Review, October 1862, 546-7.

17. Walworth, The Gentle Skeptic, 286.

18. Walworth, "The Antiquity of the Earth," 30-1.

19. Ibid, 34, 44, 29 (italics in original).

20. Ibid, 45, 50 (italics in original).

21. Ibid, 48.

22. Ibid, 45.

23. As J.M. Clarke observed, in the mid-nineteenth century "a student of natural science not fortified by a collection of his own making was a sort of foot-loose socialist with little to tie to." In Clarke, James Hall, 86.

24. Walworth, "The Antiquity of the Earth," 47.

25. Walworth, The Gentle Skeptic, 147-8, 246-8.

26. Letter from O'Donoghue to Brownson, 5 Feb. 1863, The Microfilm Edition of the Orestes Brownson Papers, Roll 6.

27. Walworth, "The `Six Days' of Genesis," 224. Also see The Gentle Skeptic, 289.

28. Ibid, 218-9, 224.

29. Walworth, The Gentle Skeptic, 301-24.

30. Walworth, "The Antiquity of the Earth," 41-2.

31. Sorignet, Sacred Cosmology, 269, 427-9, 456.

32. Walworth, "The `Six Days' of Genesis," 214-5.

33. Wiseman, Lectures, v. 1, 302; Hall, "Paleontology," New American Cyclopedia, v. XII, 681-85, on 685.

34. Walworth, "The `Six Days' of Genesis," 223.

35. Ibid.

Walworth, Evolution, and Polygenism

Walworth specified his views on development in nature in greater detail in The Gentle Skeptic. The unity and consanguinity of the human species had been hotly debated topics in American science in the 1840s and 1850s.[1] The ideological implications of the debate were considerable, whether to the institution of slavery in the South or to the Catholic dogmas of original sin and redemption. Walworth constructed his views on the mutability of species primarily in response to this debate and not to Darwinism; therefore, a closer look at this debate is required to understand the context of Walworth's views on evolution.

Wiseman had faced polygenist arguments when he wrote his Lectures in the 1830s, but he was fortunate in that the two leading ethnologists then, Johann F. Blumenbach (1752-1840) and James C. Prichard (1786-1848), were monogenists who affirmed "that all human races are of one species and one family."[2] Meanwhile, America was slowly becoming the hotbed for ethnology research in the 1830s, mainly due to the efforts of Professor Samuel George Morton (1799-1851). With help from around the world, Morton assembled the largest museum of comparative craniology then in existence, which at his death contained 918 human crania.[3] His first important work was the Crania Americana (1839), in which he asserted that man's historical record proved "the unalterable permanency of the characteristics of race, within the limits of human records." He then explained the origin of the different races by theorizing that God had impressed "the marks of Race ...

upon the immediate family of Adam."[4] This theory could be tolerated by Catholics since it did not contradict Scripture, but by 1846-48 he came to theorize that races "have originated from several, perhaps even from many pairs," which had been created by God in several, or many, creations. This theory was quite obviously contrary to Genesis, but Morton himself anticipated little difficulty with any reconciliation, stating that Genesis would be "just as manageable in Ethnology as it has proved in Astronomy, Geology, and Chronology."[5]

Morton's most dedicated critic was John Bachman (1790-1874), an associate of John James Audobon and the pastor of the German Lutheran church in Charleston, South Carolina. Bachman's The Doctrine of the Unity of the Human Race (1850) upheld monogenism, sending the polygenists scurrying back to their pens. Morton died before he could publish a suitable rejoinder, but his notes were further amplified by the polygenists Josiah C. Nott (1804-73) and George R. Gliddon (1809-57) and published as the Types of Mankind (1854), a formidable, 738-page tome that passed through ten editions. Nott and Gliddon unequivocally insisted that "the diversity [in the origins] of races must be accepted by Science as a fact,"[6] and that the facts further pointed to numerous centers of creation. Although they attempted to disavow any insinuations of a proslavery bias on their part, their very definition of ethnology contained the notion of a racial hierarchy, since for them ethnology should seek to determine "what position in the social scale Providence has assigned to each type of man." They

naturally placed their own race (Caucasian) at the top of this scale, observing that some races were born to rule, others to be ruled.[7]

Also included in Types of Mankind was Agassiz's "Sketch of the Natural Provinces of the Animal World and their Relation to the Different Types of Man." In what became known as his "realm-theory" in the literature of the day, Agassiz in his "Sketch" divided the earth into eight realms, to which he believed God had assigned eight distinct types of man. Agassiz clearly thought these eight types of man had been created by God as distinct species, for he maintained "that the differences observed among the races of men are of the same kind and even greater than those upon which the anthropoid monkeys are considered as distinct species."[8] In the process of coming to this conclusion, he rejected any definition of species based on interfertility, knowing that such definitions underpinned monogenists' arguments, and he adopted instead Morton's definition of species as primordial organic forms.

Nott and Gliddon's book only intensified the struggle between the monogenists and polygenists, and the debate raged on between the "two great schools," as the New American Cyclopedia termed them in 1859.[9] In The Gentle Skeptic, Walworth allied himself with the Prichard-Bachman-Cabell monogenist school against the Morton-Nott-Agassiz polygenist school.[10] But in championing the consanguinity of the species, Walworth had to explain how the races of man had emerged, that is he was forced to explain the

apparent plasticity of the human species, just as Wiseman had had to do in 1835. Walworth did this by positing two general types of causes of variation: gradual and sudden. His list of gradual causes was no different from Wiseman's; it included environmental causes, moral and social condition (including the level of civilization), and, in Wiseman's words, "a modifying influence in constant action" in nature that enabled some variation within species to occur.[11] Where Walworth parted from Wiseman and, more radically, from his own uniformitarian framework, was in his emphasis on sudden causes:[12]

> Nature does not always work gradually and openly. Sometimes ... she springs forward to her purpose by a single bound.... There is, it seems, in the nature of animals, a certain force... There is doubtless some wise provision in it [the sudden change] to aid them [the new varieties] in the struggle of life.... [That] such varieties are sometimes produced suddenly in the process of gestation [is] .... proved by facts of actual occurrence in modern times.

This hidden capacity of nature to create sudden, large changes within species helped Walworth refute the polygenists. He could now explain the origin of the more pronounced differences between the races without having to abandon his faith in "wise" design for the waste and randomness of Darwinian variation. But he had to depart from his uniformitarian structure to do so, and in the end he could only speculate that some internal "force" caused these sudden changes.

Yet even though he proposed that development, driven by some unknown innate force, occurred within species, Walworth did not modify his belief that species were permanent units. Variation, he explained, was limited by God; in fact, he suggested that if a

new species appeared it would be a miracle on the same level as the raising of the dead.[13] Nevertheless, by accepting a certain force or law of variability that acted throughout nature for the good of species, saltations within varieties, and the validity of animal-to-man analogies, Catholics such as Walworth, as they refuted polygenism, approached evolutionary theories. Although Walworth himself rejected evolution (he simply could not reconcile it with Genesis), a small minority of Catholics (led by Mivart) would come to accept it.

What impact did The Gentle Skeptic have? Besides Brownson's lengthy review of it in July 1863, the Catholic Mirror included a short notice that complimented the book but recommended to its readers that Sorignet's work was to be preferred.[14] McMaster's Freeman's Journal expressed perhaps an all too typical preoccupation when it explained in its review that, "We are too much engaged in trying to settle foundations of things on the upper side of the crust of the earth, to suffer our head to be bothered about what is hid in the mud!".[15] The Boston Pilot, though, did not share this lack of interest in science, stating that since geological studies "are essentially connected with the history of the World's Creation, they bring the mind of the student in contact with the study of the Bible' and that such students are often led by their studies "into a more feeling and devout appreciation of the workings of Providence." The Pilot then complimented The Gentle Skeptic for its "captivating" style, declaring that "we find it excellent."[16] Other Catholic newspapers

were similarly profuse in their praise: the Cincinnati Catholic Telegraph called it "a book for the times," remarking that it "is, perhaps, more apropos, more direct and pertinent, and, therefore, more satisfactory in grappling with these old objections in their new dress" than Wiseman's Lectures,[17] while the New York Tablet applauded it as a "work of rare genius and learning ... noble in design, skilful in execution, graceful and charming throughout."[18] There were also two letters sent to Walworth, one by Oliver Wendell Holmes, the other by John Henry Newman, which contained comments on the book. Newman's letter is particularly important, for it tells us much about the Catholic church's position on science at this time.

The leading figure in England's Oxford movement, Newman drew gasps when he left the Anglican church and converted to Catholicism in 1845. He subsequently became a leading figure in the English Catholic church, attaining the cardinalate in 1879.[19] In his 1866 letter to Walworth, Newman wrote that he had read The Gentle Skeptic, but that he was too rplexed by science to make any worthwhile comments on the book. Moreover, he confessed that his perplexity was due to "the continually shifting condition of physical discoveries, and the indeterminateness of what is Catholic truth as regards their subject-matter, and what is not, *in a province in which the Church has not laid down any definitions of faith.*"[20] Newman, in short, was somewhat befuddled by the rapidity of change in science, and he lacked an authoritative Church proclamation by which he might order his

thoughts.

Furthermore, Newman added that even if he had an informed response, he would not disseminate it, since he felt it would needlessly cause a scandal and embroil him in controversy. John Root has shown in his study of Catholics and Science in Mid-Victorian England that the papal Munich Brief made public in 1864 squelched the discussion of science among Catholics in England.[21] Newman himself stated that he thought the Brief implied that "we are simply to be silent while scientific investigation proceeds - and say not a word on questions of interpretation of Scripture...."[22] He commented in his letter to Walworth that American Catholics were more outspoken on science than their English counterparts, and he asked Walworth what reaction his book had provoked. In sum, Newman's letter makes manifest the perplexity and perhaps even trepidation of Catholics in the 1860s as they tried to come to grips with science. If a Catholic of Newman's erudition and reputation for independent thought felt he could not and should not publicize his views on science, then we perhaps should not be surprised to find that most other Catholics kept silent as well.

And perhaps this was just as well for the Church, since the classical world view still persisted within her ranks. An example of this was Father Louis Heylen's lectures on "The Progress of the Age, and the Danger of the Age," delivered during the winter of 1862-63. Heylen, the Professor of Philosophy at St. Xavier college in Cincinnati, asserted in these lectures that zoology and

botany[23]

> have revealed a new evidence of design, where formerly the plan of creation seemed less complete. They have made it clear that in the animal and vegetable worlds, there exists link on link, a complete chain of beings ... just as faith reveals, in the world of intelligences, another chain of beings, extending from man ... up to the highest seraph that burns before the throne of God.

Heylen, then, was still operating in the natural theology tradition and the classical world view, espousing design and the hierarchy of the Great Chain of Being. This tendency to conceal the more radical implications of the new science by attempting to comprehend them in terms of the past was a common practice among Catholics in the 1860s and a reflection of the different perspective and ideology they brought to bear on science. These Catholics sought to maintain the existing ideology that saw science as a servant of religious and political stability, and the traditional, transcendentally guaranteed order of existence inherent to the "Great Chain" metaphor. Many Catholics (especially Catholic priests) could not contemplate that this metaphor might be obsolete, partially because this rigid hierarchy legitimated and lent prestige to their role as mediatory agents between man and God. The questioning of this hierarchy was seen to lead only to instability, uncertainty, and the devaluation of man, which was why Heylen could so confidently preach that, "Few men in any age will so far abdicate the dignity of manhood, as to choose to rank merely as the first in the scale of the brute creation."[24]

Walworth was not so sanguine about the tendency of modern

science to confirm the traditional, hierarchical view of the natural and supernatural realms, but he himself taught in a homily on 14 September 1863 that "*Everything in nature shows design*" and that God was the "great architect" or designer.[25] Again, though, Walworth went beyond the usual Catholic rhetoric on science, declaring that the Book of Nature, like the Bible, "comes from the hand of God," but that the Book of Nature was superior since it was older than the Bible and decipherable by everyone. He then supported the study of nature with the highest authority - Christ - by proclaiming that "our Lord Himself" recommended it since "its lessons are sublimely religious."[26] To appreciate the full importance of such claims, one must remember that in Christianity nature was thought to have been corrupted when Adam and Eve sinned against God in the garden of Eden.

In summary, Walworth believed that evolutionary theories, including Darwinism, were not supported by the geological record. As we have seen, Walworth buttressed his rejection with references to the pillars of the scientific community - Lyell and Agassiz - and to the ancient Catholic fathers. He also offered his own critique of the fundamental flaw of evolutionary theories, that is that they incorrectly extend the atemporal blueprint of the progression of species which exists only in the mind of God into the temporal realm of nature, and he equated these theories to Biblical literalism since literalists made the same flaw with respect to the Genesis creation story.

In my efforts to detail Walworth's rejection of evolution, I

have had to exaggerate the importance of evolution to Walworth. It is significant that in his Gentle Skeptic, a work dedicated to answering problems raised by modern science with respect to the Old Testament, Walworth devoted five chapters to geology and one long chapter to ethnology but only a few scattered comments to evolutionary theories. This muted response to evolution raises several important issues. It is clear that Walworth was familiar with Darwin's Origin: he owned the first American edition of the book, and he quoted from it on the geographical distribution of species. He also attended at least one of Agassiz's lectures on development, during which Darwin's theory was discussed. Despite this familiarity with Darwin's theory, Walworth abruptly dismissed the theory as unthinkable. From our modern perspective, in the context of the industry and the aura of greatness that have grown up around Darwin and his work, Walworth appears at least rash, and more likely foolhardy, to denounce in only a few sentences the revolutionary theory of the "great man". But in Walworth's estimation, it was geology with its discovery of the high antiquity of the earth, and ethnology with its debate on the origins of the races of man (which took on added significance during the Civil War), which posed graver threats to Catholicism and the Genesis account. Walworth's dismissive attitude concerning Darwin's theory, I suggest, was indicative of the nearly negligible influence the theory had on American Catholics in the early 1860s.

Walworth's dismissive attitude was also attributable to his

confidence that evolutionary theories faced insuperable difficulties. These difficulties included the geological record, which Walworth believed had far too many gaps in its exposition to countenance any evolutionary theory, and the creation account in Genesis, which he believed ruled out evolution. Furthermore, Walworth gained confidence in his determination that Darwinism was devoid of value from Darwin's critics in the scientific community, and on the whole the American scientific community was ambivalent about the theory.

Ultimately, though, Catholic dogma formed the bedrock which underlay Walworth's opposition to evolution. He was first and foremost a Catholic missionary priest, and he simply would not compromise Church teachings on the origin of species. He professed his fealty to the faith by explaining that while one might interpret Scripture liberally where no certainty, that is, where no Catholic dogma, existed, one must "first of all ... save the great doctrines,"[27] and one of these was the doctrine that God had created all species at Genesis and restricted their variability so that they always reproduced their own kind.

On the other hand, Walworth was hardly a dogmatic theologian. He recognized the increasing divergence of traditional interpretations of Scripture from scientific discoveries, and as a devotee of science he attempted to compensate for this by leaving the maximum room possible in his Scriptural interpretations for new reconciliations. In addition, he chastised those who thought nothing less than a one-to-one convergence between Scripture and

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science was acceptable, explaining that

> We are guaranteed, not that every word [of Scripture] is literally true, but that nothing in it, fairly interpreted, can mislead us *in religious belief or moral conduct*.... To insist upon more may be satisfactory to such as would have the Bible to serve as a cabinet of historical curiosities, or of natural science, but they have no right to stake all the interests of religion upon their opinion.

In Walworth's view, literalists who insisted on the plenary inspiration of the Bible reduced the Bible to cabinets of curiosities - mere constructs of man. This was even more deplorable to Walworth than it might first appear, since he found man's cabinets to be aesthetically deficient when contrasted with nature's cabinets, whose shelves (fossil strata) he felt were "far more tastefully arranged" than man's fabrications.

In the end, Walworth's main goal in writing his articles and book reflected his position as both priest and amateur scientist. As a priest, he sought to assure Catholics that the advance of science posed no threat to faith, while as a scientist he sought to show the native worth and excellence of science. Nature, clearly superior to man's works, was a source of pleasure, beauty, and the sublime for Walworth, and since nature's works were accessible to all, the pious contemplation of them was potentially more fruitful than the Bible itself. In concluding his book, he consciously compared his wanderings in science with the solitary

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pursuit of religious truth by anchorites, hoping thereby to convince Catholics that science itself was a sacred pursuit. That his message was heard is confirmed by the fact that his book passed through three editions; that it caused at least one

important American Catholic intellectual to probe science at a greater depth is confirmed in the next section of this paper on Orestes Brownson.

References to Section 4

1. See William Stanton, The Leopard's Spots: Scientific Attitudes Toward Race in America 1815-59 (Chicago: Univ. Chicago Press, 1960).

2. James C. Prichard, Natural History of Man (London: 1845), in Josiah C. Nott and George R. Gliddon, Types of Mankind (Philadelphia: 1854), xliv.

3. Nott and Gliddon, Types of Mankind, xxx.

4. Ibid, xlvii, xlviii.

5. Letter to Mr. Bartlett from S.G. Morton, 1 Dec. 1846; Letter to Dr. Nott from S.G. Morton, 29 Jan. 1850, in Nott and Gliddon, Types of Mankind, xlix, l.

6. Nott and Gliddon, Types of Mankind, 56 (italics in original).

7. Ibid, 49. I point out these racist remarks because Walworth used them to raise questions about the true intentions of Nott and Gliddon's polygenist theories. Thus he observed that "here and there" in their book Nott and Gliddon had clearly tried "to press science into the service of negro slavery." See The Gentle Skeptic, p. 334 fn 1.

8. Ibid, lxxv.

9. "Ethnology," New American Cyclopedia (1859), v. 7, 306-11, on 306.

10. James L. Cabell (1813-89) served as chief surgeon of the Confederate hospitals in Charlottesville during the Civil War. He wrote one book, The Testimony of Modern Science to the Unity of Mankind (1858), which upheld monogenism. Walworth quoted at length from this book.

11. Wiseman, Lectures, v. 1, 178

12. Walworth, The Gentle Skeptic, 341-43.

13. Walworth, The Gentle Skeptic, 171.

14. Baltimore Catholic Mirror, 2 May 1863, 5.

15. New York Freeman's Journal, 30 May 1863, 4.

16. Boston Pilot, 2 May 1863, 2.

17. Cincinnati Catholic Telegraph, 22 April 1863, 132.

18. New York Tablet, 2 May 1863, 10.

19. For a short introduction to Newman see Americo Lapati, John Henry Newman (New York: Twayne Publishers, 1972).

20. Ellen Walworth, Life Sketches, 193-4. Emphasis added.

21. John David Root, Catholics and Science in Mid-Victorian England, 136-39.

22. Wilfrid Ward, The Life of John Henry Cardinal Newman, 2 vols. (London: 1912), v. 1, 642, quoted in Root, 150.

23. Louis Heylen, The Progress of the Age, and the Danger of the Age: Two Lectures Delivered before the St. Xavier Conference of the St. Vincent de Paul Brotherhood in the Hall of St. Louis University (Cincinnati: 1865), 25.

24. Ibid, 65.

25. Walworth, "The Book of Nature," pp. 269-84 in Sermons Preached at the Church of St. Paul the Apostle, New York, During the Year 1863 (New York: 1864), 270, 276 (italics in original). I confirmed Walworth was the author of this sermon from a record book in the Paulist Archives entitled Record of Sermons Preached in the Church of St. Paul, an invaluable source since it lists the title, date, and preacher for all sermons given at St. Paul's. Another useful source which unfortunately does not list works by Walworth is John Joseph Kirvan's A Bibliography of Paulist Writings to 1895 (Master of Science thesis, June 1959, Catholic Univ. of America).

26. Ibid, 269. Walworth cited Matthew 6:26,28 for this assertion.

27. Walworth, The Gentle Skeptic, 274.

28. Ibid, 189. See also Orestes Brownson, "Walworth's Gentle Skeptic," Brownson's Quarterly Review (July 1863), 312-41, on 340.

29. Ibid, 366.

Orestes Brownson, Science, and the Political Implications of Darwinism, 1840-65

Orestes A. Brownson (1803-76) epitomized the diversity of religious and political life in America in the second and third quarters of the nineteenth century.[1] Before his permanent conversion to Catholicism in 1844, Brownson had been a Presbyterian (1822), a Universalist (1824), an Owenite socialist and a member of the Workingmen's Party (1829), an independent minister (1831), and a Unitarian (1832) who in 1836 began his own church (dedicated to the moral, physical, and social amelioration of the poor) by denouncing both Catholicism and Protestantism. From 1828 to 1842, Brownson was, by his own admission, a socialist who sought the equality of man through world reform.[2] Nominally a Democrat, Brownson was at odds with the ethos of the Whig business community. That ethos was that society progressed through industrialization, and it assumed its ideal form in factory towns. In the 1830s and 1840s, these production centers were advertised as being republican communities, near-utopias made possible by the advance of technology.[3] Everyone supposedly prospered from them: the workers gained a decent salary and moral virtues for their toil, the owners gained commercial capital, and the government gained revenue and more obedient citizens. But if this was a vision of utopia for some, it was a nightmare for others, particularly for Brownson. He condemned the rank materialism and the hopeless servitude that he felt were characteristic features of industrialism, observing that the female factory workers at Lowell were slaves of their employers and that they received

meagre wages, suffered moral depravity, and learned no skills by which they might later support themselves.[4] He identified the factory owners as rapacious, capital-seeking Whigs, stating in 1839 that their true goal was to make "our whole agricultural population subordinate to our business population.... to give dominion to capital rather than to Man."[5] In contrast, Brownson declared his mission was to make each working man a proprietor, that is each laborer would own sufficient capital to enable him to be his own boss.

To promote his vision further, Brownson published in 1840 a radical socialist essay, "The Laboring Classes," in which he urged the abolition of banks, the system of wages, the hereditary descent of property, and the Catholic and Protestant clergy. This essay became a significant issue in the 1840 presidential campaign, with the Whigs distributing it as proof of the Democrats' un-American views. When the Whigs trounced the Democrats in the election, Brownson was crushed. In his own words, the conduct and result of the campaign "disgusted me with democracy as distinguished from constitutional republicanism, destroyed what little confidence I had in popular elections, and made me distrust both the intelligence and the instincts of `the masses'."[6] He also abandoned as "wholly impracticable" his idea that a universal brotherhood was obtainable through class warfare. A disillusioned man, Brownson began to search for a way to save Americans from themselves.

Brownson sat down to a scientific study of politics, and he

soon decided to seek not equality but justice, which he thought could only be supplied by a strong, legitimate government. "I became henceforth a conservative in politics, instead of an impracticable radical," he observed, "and through political conservatism I advanced rapidly towards religious conservatism."[7] Inspired by the French socialist Pierre Leroux's writings, Brownson became convinced that man was only able to progress by interacting with God. Brownson explained this interaction in Newtonian terms, stating that God as object and man as subject "mutually act and react on each other." Since God as object was supernaturally elevated, "the life of the subject [man] will be elevated also, and his progress secured."[8] Brownson then questioned how man was able to think, and he concluded that just as man was unable to progress in the political realm without God, so was he unable to think without God. It was this political and epistemological search for progress and certainty that led Brownson to the Catholic church.

Although he had shown signs of drifting ever more closely to the Catholic camp in 1843-44, his conversion to Catholicism in October 1844 came as somewhat of a shock to his friends and the readers of his periodical, Brownson's Quarterly Review, whose articles were mostly authored by Brownson himself. He knew that by becoming a Catholic he would not only lose most of his readers and estrange himself from influential friends, but he would also be associating with an institution that most non-Catholics believed was an unwelcome intrusion on American soil.[9]

Nevertheless, he felt he had found both his personal salvation and the means to national salvation in the body of the Church.

Brownson, in short, was a man of extremes. From an atheistic, communistic socialism he overhauled his political philosophy and emerged with near-Hamiltonianism (in that he adopted Hamilton's belief in a strong central government and his distrust of the political wisdom of the common man) supported by Catholicism. Furthermore, he no longer held that priesthoods were the original source of inequality in man's history; indeed, he now asserted "that the present deplorable condition of the laboring classes is due to the rejection, in the sixteenth century ... of the authority of the Catholic Church."[10]

To his contemporaries, Brownson had the appearance of a man of protean principles, but one principle he held fixed was his opposition to an economy based on industry and commerce. Throughout his life, he lectured that people had to return to the land and either make their living by agricultural or mechanical pursuits or in a "real home" or cottage industry.[11] His nostalgia for a near-feudalistic economy was partly due to his upbringing: he was raised in rural Vermont on a small family farm. More importantly, though, this nostalgia was the one aspect of his thought that he could dovetail into both socialism and Catholicism. In socialism, in Catholicism and in his economic views Brownson consistently placed the interests of society (or the Church) over the wants of the individual, and he never accepted any philosophy or theory that stressed or was compatible

with individualism. It is in this context that we must understand his rejection of Darwinism.

Brownson's legacy in the first fifteen years of his life in the Church was decidedly mixed. His chief accomplishments were the aggressive, polemical articles he wrote in defense of the Church for his now-Catholic Brownson's Quarterly Review. One admirer affirmed that, "Many even of our clergy have I heard say, that until they read Brownson, they never were thorough, manly, high-toned Catholics."[12] For his eloquent efforts on behalf of the Church Brownson received a letter of approbation from the American Catholic bishops in 1849, and later an apostolic benediction from Pope Pius IX in 1854.[13] Yet Brownson's combativeness could be counterproductive; he lacked subtlety and tact, unnecessarily embroiling himself in several controversies within and outside the Church. His writings on the supremacy of the spiritual realm over the temporal (1853) managed to both worry Protestants and offend Irish Catholics, and he again offended the Irish in 1854 when he suggested in his article on Nativism that they should conform more to American culture.[14] Writing in a city where the Church was composed almost entirely of recent Irish immigrants (Boston), Brownson was certainly undiplomatic, and after he received word that a less tense atmosphere existed in New York, he moved there in 1855.

Once again, though, Brownson got involved in controversy, this time for espousing "liberalism" at a commencement speech in 1856. Brownson had boldly stated in 1849 that, "The salvation of

the American republic depends on Catholicity," and he felt that American converts such as himself were uniquely qualified to spread the Catholic gospel across America since they knew better the objections people had to Catholicism and the proper ways to overcome them.[15] Furthermore, Brownson had begun to suggest that the Church would be more attractive to non-Catholics if her message was "adapted to the peculiar character and wants of the age, or class of persons addressed."[16] This doctrine, known as "liberalism" in the Catholic literature, was rejected by Archbishop of New York John Hughes, then the most powerful Catholic prelate in America, as being speculative and dangerous.[17] Brownson refused to renounce liberalism, though, and as he adapted the Church's message to the age he adopted a more conciliatory tone in the early 1860s towards Protestants and towards Catholics whose theories he had previously denounced.

Thus Brownson explained in a private letter in 1862 that, "I am attempting to gain, what I lost when I became a Catholic, the ears of my own countrymen.... To succeed in this it is necessary to recognize the modern spirit, & accept it as far as possible."[18] A conservative reaction was swift in coming: by 1863 Brownson complained that his review had been "interdicted by the Bishop of Richmond, denounced by the Bishop of Wheeling, and officially declared by the Bishop of Philadelphia and the Archbishop of Cincinnati to be no longer a Catholic Review,"[19] and in 1864 William G. Ward in the Catholic Dublin Review devoted thirty-seven pages to explaining Brownson's theological errors.[20] By the end of 1864

Brownson, at least temporarily, was a beaten man. He had lost two of his sons in the Civil War, he had supported General John C. Fremont in that year's presidential election only to see him withdraw, and he was sick with the gout. With support for his periodical almost gone, he suspended publication of his review with the September 1864 issue. He would not begin publishing it again until 1873.

This sketch of Brownson's career forms the necessary backdrop to his views on science and his initial reaction to Darwinism. Prior to 1862, Brownson had made precious few and mostly negative comments on science. In his review of Samuel Elliott Coues's Outlines of a System of Mechanical Philosophy (1851), Brownson admitted that he had studied the physical sciences when he was young, but that he gave them up in despair because they changed too often. While he conceded that modern scientists had, perhaps, collected data that the ancients had never known, he nevertheless believed that no advances had been made in "science proper," or philosophy, since Aristotle.[21] In short, Brownson in 1851 was almost a medieval throwback, a man who treated even the heliocentric theory as just another hypothesis of science.

Brownson maintained his sceptical, critical attitude towards science in a little-known article on "Atheism" which he wrote for the New American Cyclopedia in 1857. In this article, Brownson identified four distinct classes of speculative atheists, one of which was the ideal atheists, represented by "large numbers of distinguished modern naturalists." These naturalists were

atheists since they "substitute for God the laws and principles of the universe."[22] Brownson extended his uncompromising definition of atheism further, putting Positivists in a separate class of material atheists.

Brownson's estimation of the value of science increased dramatically, though, when he recast his rhetoric in the late 1850s and early 1860s to broaden its appeal outside the Church. By 1862, he wrote that although true faith is infallible, "our reasonings upon faith are not," and he criticized those who thought that naturalists were fools, and Biblical students sages, insisting that such views "will never form a basis of reconciliation between revelation and science."[23]

Brownson's plan for reconciling Catholicism with science rapidly took shape in 1863. Besides publishing Walworth's articles on geology and Genesis in January and April, Brownson himself ruled in January that "we see no objection on the side of faith to giving the geologist as long a series of ages as he can ask for to explain the phenomena he discovers.... It may be that in historical and geological science our theologians have committed mistakes, as they did in condemning Galileo...."[24] He then wrote two articles and two short book reviews on scientific issues. The first article, "Faith and Reason - Revelation and Science," appeared in April 1863. In this article, Brownson upheld the infallibility of the Church with regards to revealed dogma, but he also left an opening for science, in the sense that theologians sometimes erred in the true application of these

dogmas to science. The main problem in Brownson's view was that scientists had denied any role for revelation in their science; consequently, he believed that science had been reduced to a mere collection of sensible phenomena. This decline of science was already manifest in Brownson's eyes in the way that man had "lost all his distinctively human attributes" and was now "classed as an animal at the head of the order mammalia."[25]

To pull science up from its decline into the quagmire of uncertainty and irrelevance, Brownson offered the helping hand of his epistemology. Brownson had earlier adopted Vincenzo Gioberti's (1801-52) ideal epistemological formula that Being, or God, creates existence. Thus he believed that God, through His creative act, dialectically unites the realms of the natural and the supernatural. Brownson posited that although God can exist by Himself, nature cannot; only through the nexus formed between God and His creatures by God's creative act can nature exist at all. This divine creative act served as the middle term or the synthesizing element in Brownson's dialectic uniting being and existence, God and creature, revelation and science. It followed from this dialectic that a positivistic science, one that rejected revelation, was invalid by definition. The only way to save science, Brownson warned, was to reunify faith, ideal philosophy, and science "as integral parts of one indissoluble whole."[26]

As I stated previously, Brownson's epistemology was inseparable from his political philosophy. He observed in April 1863 that "the assertion that science is independent of revelation

is only another form of asserting that civilization is independent of religion."[27] Such an assertion, Brownson taught, was wrong since the dialectic whole formed by revelation and science, or religion and civilization, was "a real living whole, an organism, and not a mere aggregation."[28] Just as science was reduced to a sterile aggregation of facts without revelation, so was society reduced to a mass of isolated, selfish individuals without religion. For Brownson a political constitution, like nature, was God-designed, and only by studying God's creative act and His holy word could one attain proper knowledge of politics and science. There was an intimate connection, then, between Brownson's religious epistemology and his political philosophy. Both were his sacred concerns, yet his political philosophy was perhaps more sacred since he had adopted it prior to developing his epistemology, and since he wrote more extensively on politics.

Brownson's second article on the relationship between faith and science came as a lengthy review of Walworth's Gentle Skeptic in July 1863. In this review, Brownson was quite explicit that his purpose was "to guard against any hostility or indifference to the sciences on the part of Catholics...."[29] He began by criticizing a guideline that had been advanced by the New York Tablet, a Catholic newspaper, which stated that science was categorically wrong whenever it conflicted with the Catholic faith. Brownson did not deny that faith was infallible, but he nonetheless rejected the Tablet's guideline, citing three disadvantages: 1) Such dogmatic guidelines were repulsive to

scientists as well as to other potential converts to the Church; 2) The opposite guideline - that whenever faith contradicts science, faith must be wrong - could just as easily be asserted by scientists; 3) Intelligent Catholics were leaving the Church precisely because such guidelines in no way quieted the doubts raised in their minds by science.[30] Thus Brownson took the Tablet to task for not considering the wider implications of its facile guideline, especially its potentially devastating effects on those Catholics who were wavering in their faith. But more than anything else, Brownson feared that the broader audience he was courting would be put-off by such a blatant appeal to traditional authority.

In contrast to the Tablet, Brownson put the burden of proof on the Church, stating that she must prove there is no real disagreement between faith and science, "either by showing scientifically that what is alleged as science is not science, or by showing theologically that what science contradicts is not any part of faith." In this effort, "We must make ourselves masters of science... as it is now... and thus gain the ability to meet the scientific on their own ground." And Brownson clinched his argument by referring to non-Catholics again, insisting that Catholics owe outsiders this effort since "public opinion grew up and remains uncorrected through our fault."[31]

Brownson, then, was not anti-science in 1863. He reassured scientists that he saw revelation only as a guide for science, and he praised naturalists, including Darwin, for their hard work and

dedication.[32] Yet while Brownson stressed the importance of science to his fellow Catholics, he remained deeply worried about the social, moral, economic, and political impact of the sciences. Brownson, like the anonymous Catholic reviewer of Vestiges, felt that scepticism, or a denial of God's direct involvement in nature, led to moral turpitude and societal decay. For many Catholics, Brownson included, scientific theories such as Darwinism threatened the social order because they explained man's relationship to nature without reference to God.

Along with these almost stock social and moral fears were Brownson's more novel fears of the political and economic implications of Darwinism. Indeed, Brownson was a political animal; four volumes of his Works are devoted to his political writings, he actively corresponded on politics with, among others, Charles Sumner and Montalembert, and he even ran (unsuccessfully) for Congress in 1862. As we have seen, Brownson was a lifelong conservative in economics, and from 1842 on he was conservative politically. In economics, he preferred an agrarian economy because of its stability, because of the moral values it inculcated in society, and because he felt all real wealth was in land and labor.[33] In politics, by 1844 he had rejected individualism and socialism for a constitutional republic backed up by Catholicism. In some respects his political views were a revival of the political Romanticism popular in Germany in the early nineteenth century. Like the German Romantics, Brownson saw society as an organism and looked to the Middle Ages for those

halcyon days when Catholicism and the State were on good terms and Protestantism nonexistent. In contrast to this age of Church ascendancy, it seemed to Brownson that the Church had been in decline in Europe throughout the eighteenth and well into the nineteenth centuries, and that liberals in Europe were, "almost to a man, bitterly anti-Catholic...."[34] Even in America, he noted, the Church was under fire from non-Catholics as being un-American, and most of his fellow Catholics were content to keep a low profile. Brownson, though, charged forth and bellowed that the Church was the savior of the republic. His original contribution to American politics was to suggest that "Catholics are better fitted by their religion to comprehend the real character of the American constitution than any other class of Americans...," and that no other government was better suited for the Catholic church than the American constitutional republic.[35]

Brownson's political vision is embodied in his American Republic: Its Constitution, Tendencies, and Destiny, which he published in 1865 but which was essentially an elaboration of his political thought circa 1843. In a letter to his friend George Bancroft, to whom he had dedicated his book, Brownson explained that "I maintain ... that nations are founded, not by compact, are not self-created, but are providentially created and constituted...."[36] Providence, Brownson held, gives every living nation an idea or germ to realize. This idea or germ is the real constitution of a State and is anterior to its written constitution. For Brownson the goal of the State, its government,

and its organic society was to explicate this original, God-given idea.[37]

Darwinism entered into the American Republic since its idea of self-development contradicted Brownson's political philosophy. Brownson used his denial of Darwinism and self-development to refute those who saw government as a creation of man or a spontaneous development. He therefore refuted Locke's view that man, by his own power, rose above his brutal nature to form a social compact, Emerson's view that the best social order arose spontaneously from a group of self-reliant individuals, and the positivists' view that governments were, in Brownson's words, simply "positive development[s] of nature."[38]

An additional link connecting Brownson's politics to his response to Darwinism was an analogy, tacit in his thought, between societies and species. Brownson believed that the generation of individuals created no new species but only explicated what was already in the germ or divine archetype of the species; analogously, he asserted that progress in society produced no new societies but only brought forth what was already in the germ or providential constitution of the society.[39] In Darwinism, though, a species or society is a group of individuals in harsh competition with one another, and new species arise by self-development and diverge in a process similar to the division of function (or labor) in physiology (or industry). Darwinism, therefore, was consistent with a rapidly-changing, individualistic, secular, industrial society: a society that

Brownson loathed.

Another aspect of modernity that Brownson loathed was the denial or omission of God's role in politics. He observed in The American Republic[40] that

> For nearly two centuries the most popular and influential writers on government have rejected the divine origin and ground of civil authority, and excluded God from the state. They have refused to look beyond second causes and have labored to derive authority from man alone.

Brownson objected to the declining presence of God in intellectual thought, the predominance of Enlightenment rationalism in politics and science. Darwinism, for Brownson, was an especially pernicious manifestation of this trend since it coupled the authority of science to political theories that denigrated or denied God's role.

One political theory that played a leading role in Brownson's thought was states' rights. From 1828-61 Brownson held that states were individually sovereign, and although he personally disapproved of slavery he was an enthusiastic and outspoken supporter of John C. Calhoun's states' rights theory.[41] He shifted his political philosophy, however, in response to the Civil War. Brownson had never thought the South would actually quit the Union, but when the unthinkable happened he almost immediately became outspoken in his call for the immediate emancipation of all slaves and a vigorous prosecution of the war, even suggesting that the North should arm the slaves so that they might carry the fight to the homes of the rebels.[42] Meanwhile, he modified his political philosophy, strengthening its organic structure. He still

believed that sovereignty resided in the states, but now only in the states united. Brownson did not link this change in any way to Darwinism, but his denial that the Confederate states could ever constitute a valid government was another example of his denial of self-development.

Related to Brownson's stance on states' rights and slavery was his stance on the unity of the human species. Here again, political concerns played a formative role in his thought. Religious concerns were important too, for Brownson observed that "all that has hitherto been regarded as distinctively Christian, would have no meaning if the unity of the human race were not a truth."[43] What made his monogenist views novel, though, was their political meaning to him. He stated that one of the "grand" errors of the Greco-Roman civilization had been "its denial or ignorance of the unity of the human race." Since Brownson believed that the rights of society were founded on the unity of man, the United States, whose providential mission it was "to continue and complete in the political order the Greco-Roman civilization,"[44] had to eliminate slavery and uphold the solidarity of the human species. This belief took on added significance in the context of the Civil War, since Brownson asserted that it was the South that tended to individualism and to overlook the unity of man.[45]

The political importance Brownson attached to the question of man's unity as a species explains his continued efforts to refute the arguments of polygenists. In a short critique of Darwinism

which came in a review of Lyell's Antiquity of Man in July 1863, he denied that man developed from animals or that environmental changes modified "the specific human type," and he also declared that the Negro "is a man no less than Sir Charles Lyell himself...."[46] Furthermore, in the same issue of his quarterly (in a review of Charles L. Brace's The Races of the Old World), he thanked Brace for upholding the unity of mankind, and he explained that savages were evidence of the Fall or degradation of man and not evidence of a primitive condition from which man developed.[47]

Brownson's last comments on science before he stopped publishing his journal came in January 1864 in a review of David Ansted's book The Great Stone Book of Nature (1863). Once again Brownson made it clear that the unity of the species was an issue where science had to bow before religion: "Now, in this case," Brownson cautioned, "we contend that revelation, sustained by incontestable historical documents, gives the law to the scientific... and as this unequivocally teaches the unity of the race, the scientific cannot deny it."[48] Otherwise he adopted a conciliatory tone towards scientists, praising them for their great discoveries and valuable correctives to ancient science and recognizing their right to rely on their own laws and logical conclusions.

I shall conclude this section on Brownson's early reaction to Darwinism by comparing and contrasting it with Walworth's reaction. Both men accepted geology's findings on the high antiquity of the earth, but while Walworth, as an amateur

geologist, found physical evidence sufficiently conclusive, Brownson qualified his acceptance, stating he did not hold this view "precisely for geological reasons."[49] More importantly, both men accepted the independence of science from Church domination. For Walworth geology was a lifetime passion; it is understandable that he would recognize the need for a social space in which scientists and Christians could experiment and theorize without having their work or views subjected to religious litmus tests. Brownson also conceded that scientists should enjoy some autonomy, and that revelation is only a helpful assistant, not a dictator, but there were cases for both men when religion had to dictate to science, and one of these was Darwinism.

As we have seen, both men rejected Darwinism, and their motivations for doing so reveal the diversity of the American Catholic response to Darwinism. Walworth invoked the authority of science; he trotted out Lyell and Agassiz and attempted to locate Darwin in a fringe element where Biblical literalists resided. Brownson, as I have shown, rejected Darwinism because it promoted individualism and self-development, which were inconsistent with his politics and epistemology. This is not to say that Brownson did not condemn Darwinism for its atheistic reliance on secondary causes or for its implications concerning the Catholic dogma, for he did. Even so, his response was largely determined by his belief that America was not a "mechanical aggregation" of individuals and that her government was not comparable to the English antagonistic model; rather, America was an organism of

unified states and her government drew its authority and inspiration from an unwritten, providential constitution that went hand-in-hand with the supernatural mission of the Catholic church.

References to Section 5

1. On Brownson see Thomas R. Ryan, Orestes A. Brownson: A Definitive Biography (Huntington, Ind: Our Sunday Visitor Press, 1976); Americo D. Lapati, Orestes A. Brownson (New York: Twayne Publishers, 1965); Theodore Maynard, Orestes Brownson: Yankee, Radical, Catholic (New York: The Macmillan Co., 1943); Arthur M. Schlesinger, Jr., Orestes A. Brownson, A Pilgrim's Progress (Boston: 1939); and Henry F. Brownson: Orestes A. Brownson's Early Life: From 1803 to 1844; Orestes A. Brownson's Middle Life: From 1845 to 1855; and Orestes A. Brownson's Latter Life: From 1856 to 1876 (Detroit: Brownson, 1898, 1899, 1900).

2. Orestes Brownson, The Convert; or, Leaves from my Experience (1857) in Works, v. 5, 43.

3. John F. Kasson, Civilizing the Machine: Technology and Republican Values in America, 1776-1900 (New York: Penguin Books, 1976), 64-94.

4. Orestes Brownson, "The Laboring Classes," (1840), pp. 174-204 in Joseph L. Blau, ed., American Philosophic Addresses 1700-1900 (New York: Columbia Univ. Press, 1946), 184.

5. "Brownson's Oration," 20 July 1839, The Microfilm Edition of the Orestes Brownson Papers, Roll 8, Brownson's Scrapbook of Newspaper Clippings, italics in original.

6. Brownson, Convert (1857), 121.

7. Ibid, 122.

8. Ibid, 134.

9. The United States Catholic Magazine proclaimed in an article on "Brownson's Quarterly Review" in January 1845, pp. 152-64, on p. 155 that "At a period when a dark cloud of slander and persecution is overhanging our church in this country, ... it must be consoling that such a man as Mr. Brownson has ... embrace[d] our holy religion."

10. "Literary Notices and Miscellanies," Brownson's Quarterly Review, April 1844, 279.

11. Brownson, Convert, 118.

12. "Letter from `A Roman Catholic' to the Editor," Baltimore Catholic Mirror, 15 July 1854, 2.

13. Brownson used these letters as proof of his orthodoxy and to silence his critics. The letter of approbation first appeared in

July 1849 on p. 412 of Brownson's Quarterly Review, while the apostolic benediction appeared in October 1854 on pp. 538-9 of the Review.

14. Brownson was censured in at least nine Catholic journals for promoting anti-Irish sentiment. Schlesinger, Orestes A. Brownson, A Pilgrim's Progress, 215.

15. Brownson, "The Catholic Press," Brownson's Quarterly Review, January 1849, 1-24, on 14; Brownson, Convert, 175.

16. Brownson, Convert, 175.

17. "Letter from Hughes to Brownson, 29 August 1856," in H.F. Brownson, Orestes A. Brownson's Latter Life, 71-2. Brownson wrote in 1862 that Hughes "is determined to ruin me" and that "It will take half a century to repair the evils he has done & is doing to the cause of Catholicity in this country." Letter from Brownson to Montalembert, 11 April 1862, Brownson Papers, roll 5.

18. Letter from Brownson to Montalembert, 11 April 1862, Brownson Papers, roll 5.

19. Brownson, "Are Catholics Pro-slavery and Disloyal?", Brownson's Quarterly Review, July 1863, 367-79, on 372.

20. "Theological Errors of the Day. - Brownson's Review," Dublin Review (January - April 1864), 58-95. Ward claimed (pp. 58-9) that "during the few past years, his [Brownson's] mind has swung completely round ... from having been the ardent and uncompromising champion of authority, he has come to assume towards it a tone often captious and disrespectful, sometimes even bordering on the defiant and disloyal."

21. "Literary Notes and Criticism," Brownson's Quarterly Review, April 1851, 269-70, on 270. Emphasis in original.

22. Brownson, "Atheism," New American Cyclopedia, v. 2, 265-6.

23. "Literary Notices and Criticisms," Brownson's Quarterly Review, October 1862, 546-7.

24. "Faith and Theology," Brownson's Quarterly Review, January 1863, 1-29, on 18.

25. Brownson, "Faith and Reason - Revelation and Science," Brownson's Quarterly Review, (April 1863), 129-60, in Works, v. III, 565-95, on 584.

26. Ibid, 572.

27. Ibid, 592.

28. "Orthodoxy and Unitarianism," Brownson's Quarterly Review, July 1863, 257-89, on 263.

29. Orestes Brownson, "Walworth's Gentle Skeptic," Brownson's Quarterly Review (July 1863), 312-41, on 328. The first half of this article is contained in Works, v. IX, 254-268, under the title "Science and the Sciences." I will refer to the version in Works whenever possible.

30. Works, v. IX, 255.

31. Ibid, 258-9.

32. Ibid, 266.

33. Henry F. Brownson, Latter Life, 167-9.

34. Brownson, Convert, 200-1.

35. Brownson, The American Republic, 1865 (reprinted in the Masterworks of Literature Series, ed. Americo Lapati, New Haven, Conn: College and University Press, 1972), 225, 244. For a book-length review see Hugh Marshall, Orestes Brownson and the American Republic (Washington, D.C.: Catholic Univ. of America Press, 1971).

36. "Letter from Brownson to George Bancroft, 21 October 1866," in H.F. Brownson, Latter Life, 455.

37. Brownson, American Republic, 32.

38. Ibid, 75.

39. "Orthodoxy and Unitarianism," Brownson's Quarterly Review, July 1863, 257-89, on 275.

40. Brownson, American Republic, 94.

41. Ibid, 27.

42. "Slavery and the War," Brownson's Quarterly Review, October 1861, 510-46, in Works, v. 17, 144-78, on 171.

43. "Faith and Reason," Brownson's Quarterly Review, April 1863, 129-60, on 137.

44. Brownson, American Republic, 212, 232.

45. Brownson, American Republic, 212.

46. Brownson, "Review of *The Geological Evidences of the Antiquity of Man... by Sir Charles Lyell*," Brownson's Quarterly

Review, July 1863, 381-2.

47. Brownson, "Review of C.L. Brace's *The Races of the Old World*," Brownson's Quarterly Review, July 1863, 382.

48. Brownson, "Review of *The Great Stone Book of Nature*, by David Thomas Ansted," Brownson's Quarterly Review, January 1864, 124-5, on 124. It is interesting to note how Brownson supported the authority of revelation with references to historical documents, and how he carefully described them as being "incontestable," which was probably intended to preempt any attempts at alternative Scriptural interpretations.

49. Brownson, "Review of Lyell's *Antiquity of Man*," Brownson's Quarterly Review, July 1863, 381.

American Catholics and Evolution: 1865-70

So far, this thesis has depicted American Catholic responses to evolutionary theories through 1864 with a special emphasis on the views of two prominent Catholics: Brownson and Walworth. This section reviews the response of Catholics to evolution from 1865-70. Throughout this period, Brownson's writings contained comments on evolution, and from 1865 until November 1869 he largely determined American Catholic reactions to evolution.

On 8 December 1864, Pope Pius IX issued the encyclical Quanta cura with its attached "Syllabus of Errors." The Syllabus listed eighty erroneous statements condemned by the Church, with the last statement condemning the view that, "The Roman Pontiff can and ought to reconcile himself to, and agree with, progress, liberalism, and civilization as lately introduced."[1] Liberals in the Church were dismayed. Montalembert wrote Brownson on 17 December that "all the most glorious or hopeful [Catholic] names of the present day have been more or less excommunicated, just like you and me,"[2] and among the names he listed was the German liberal Johann Joseph Ignaz von Dollinger, who later was excommunicated by the archbishop of Munich in 1871.[3] Brownson chose to conform to the Pope's ruling, and he abandoned his attempt to adapt the Church's message to the "spirit" of the age and quickly became a staunch conservative. From 1865 on, Brownson's writings on science and its relation to faith became increasingly shrill. Despite his claims to the contrary, he began to see only an antagonistic relationship between faith and

science, with faith ruling and controlling science.

Lacking his own personal forum in which he could air his views, Brownson wrote articles for Catholic World, Ave Maria, and the New York Tablet. The Catholic World was founded as a monthly periodical by Isaac Hecker, who served as its chief editor, in April 1865, and it was originally planned as a vehicle through which articles of interest to American Catholic readers could be reprinted from other journals and disseminated. The first few articles that appear in Catholic World that touch on evolution are reprints from foreign journals, hence to use these articles as a measure of the American Catholic response to evolution is problematic. However, based on the evidence of three articles reprinted in Catholic World in 1865, Morrison asserted that "the initial Catholic reaction was varied and, on the whole, tolerant." He singled out one article as being moderate since its author recommended that the Church should "show great tolerance toward sciences which are still in their infancy, which require their elbows free for development...."[4] Morrison failed to mention that this same author warned Catholics to avoid "all theories or hypotheses which do not agree with the sacred text" and that "every assertion which would be contrary to the clear and certain sense of a passage in it should ... be rejected as untrue."[5] Morrison also failed to indicate that this article was a translation of a book review that had appeared in a French journal. He later quoted another author as having a tolerant attitude towards Darwinism, but again he failed to note that the

article was reprinted from The London Quarterly Review.[6]

My goal here is not only to refute Morrison's claims that the Catholic reaction to evolution in 1865-66 was "reasonably tolerant" and that Brownson was chiefly to blame for its increasingly harsh tone in 1867 and later, but also to question his methodology. The reprinted articles he cites obviously have some value, for their contents must have been reviewed by Hecker or Hewit, but to assert that they represent a tolerant American reaction to evolution is dubious.[7] In writing this paper, I have disregarded articles reprinted from foreign journals to concentrate on original writings by American Catholics. From 1865 to late 1869, though, Brownson wrote all of the articles in Catholic World that discussed at any length Darwinism or other evolutionary theories.

While Brownson played the leading role in the American Catholic response to evolution, he was not the only actor on the stage. The Baltimore Catholic Mirror published two articles from 1865-66 which included comments on Darwinism. The first article was reprinted from the London Universe, but the second was an original piece on scepticism in which the author portrayed Darwinism as a form of atomism, saying the "absurdity of this theory is transparent" since if "chance" could have improved a tadpole into a man, as Darwin claimed, then "the same chance would still continue to improve him until he would become a God."[8]

Another source that included references - although scattered and infrequent - to evolution was the published sermons of the

Paulists. Hewit had exclaimed in a sermon in 1864 that "Of what use is it to reason ... on God and immortality with one who traces his descent from the ape and the oyster?"[9] while the Paulist Alfred Young declaimed on 17 June 1866 against the arrogance of a science that would deny the unity of the human species.[10]

My point is that Catholics in the 1860s believed that scepticism and irreligion pervaded America, that this atheistic trend had had its origin in the Protestant Reformation, and that the so-called progress of their age was only the advance of this heresy. Most of these Catholics also ignored Darwin, Spencer, and other evolutionists; the "heretics" they most often mentioned were religious ones: Protestants, Spiritualists, "higher" critics of Scripture such as Theodore Parker in America and David F. Strauss in Germany who denied Christ's divinity; the list went on.[11] One Catholic author in 1867 tallied the number of Spiritualists, Unitarians, Universalists, Jews, and Infidels and Skeptics in America and arrived at a total of 10,376,000 unbelievers, or, as he alarmingly exclaimed, nearly one-third of the nation's total population.[12]

Religious heresy was not the only problem these Catholics identified. The press, the schools, the Congress - in other words, practically all societal institutions - were denounced by Catholics for de-emphasizing or abandoning God. Society seemed to be placing its faith not in God but in materialism and consumerism, and science came under some scrutiny by Catholics since it was often cited in the press as the exemplar and chief

source of progress and materialist theories.

I disagree, then, with Morrison's claim that Brownson was chiefly to blame for the increasingly harsh tone of an initially euphonious Catholic response. Instead, I believe that Brownson, who had already rejected Darwinism because of its political implications, was only the loudest voice in an already conservative Catholic choir that he had only recently rejoined.

This anti-evolutionary hymn was loudly sung by Catholic World. From 1865 through April 1873, comments in its pages on evolution not attributable to Brownson were negative as well. For example, Hewit in 1866 dismissed the idea that God could only act directly in nature at genesis, afterwards acting only through previously created secondary causes, as "the sheerest assumption." Besides, he continued, "eminent men in modern physical science maintain the theory of successive creations."[13] Another negative reference came in an anonymous book review, in which the book's author was criticized because his theory opened the way to Darwinism.[14]

However, this is not to say that there were no views expressed by American Catholics that were friendly to science; a review of J.W. Draper's A Text Book on Physiology in July 1866 in Catholic World stated that[15]

> Catholicity courts scientific investigation and verification in every department of inquiry, and delights to honor all men who devote their lives to these self-denying labors. There is... a sanctity of science. Science inevitably tends toward religion, and is the most powerful safeguard of society and civilization next to religion.

The reviewer here was anonymous, but it was probably Hecker, since

he believed that genuine scientific discoveries necessarily confirmed the teachings of the Church and that "The progress of modern science and thought is unconsciously preparing the way for the triumph of Catholic truth."[16]

Brownson, though, did not share Hecker's optimistic outlook on science.[17] His outlook may be termed Cassandra-like, warning people that if they "confine their thoughts and wishes to the low sphere of naturalism,... they will soon cease to aspire, lose sight of the ideal, become gross and material, as incurious and as unprogressive as the savage."[18] One aspect of naturalism for Brownson was the idea of development, and again and again he denied that development could lead to the creation of anything new. Echoing Walworth, Brownson explained that if species do appear successively, "they are only the successive manifestations of the original creative act...."[19]

With regards to science, Brownson discarded the conciliatory tone he had adopted in the early 1860s and asserted that the Church was the lawgiver for the sciences, and that she had to restrict the liberty of scientists since they "degrade human nature and abase the dignity of reason by theories that deprive man of his humanity...."[20] Scientists, he warned, were using their science to dominate and supplant faith, and in a revealing letter to Hecker he asks why Catholics have not mounted a counterattack:[21]

> Why do not the Jesuits take up these great questions that the Savants are grappling with, master them, and refute the scientific infidels on their own ground? Are they overawed by great names? Have they no confidence in faith? Is their own physical science of the same character?... If I were not more than fifty I would try & master the so-called sciences,

and expose them.

If nothing else one has to admire Brownson's spirit.

With regards to evolution, Brownson raised two interesting arguments in 1867, one against Darwinism, the other against evolutionary theories in general. In the former argument, he suggested that man's soul enabled him "to resist... the chemical and other natural laws which act on animals, plants, and unorganized matter."[22] Alfred Russell Wallace had made a similar argument against Darwinism in 1864, but for Wallace it was man's unique intellect that removed man's body from the otherwise universal action of natural selection. In the latter argument, Brownson quoted Scripture to show that evolution, which postulated an ascent of species from simpler to more complex forms, contradicted the Bible's message that a descent from high to low, or from heaven to earth, must always precede an ascent from low to high.[23]

Other Catholic intellectuals also expressed theological reservations about evolution. A doctrine of paramount importance to Catholics is Apostolic succession: the idea that the spiritual authority and power which Christ originally gave the Apostles has been passed on through the centuries in the Catholic clergy. Brownson succinctly expressed this doctrine in 1857 when he explained that[24]

> The life of the church now is identically the life of the church in the first age, by virtue of an uninterrupted communion with the apostles. Each successive generation communes with its predecessor, and derives its life from it.

Evolution, though, implied a discontinuity in the Apostolic

succession, or at least it undermined the analogy theologians sometimes made between the constancy of generation in the natural world and its continuity in the supernatural Church. Newman himself wrote to Walworth in 1866 that, "None but an infallible authority can separate Apostolical tradition from hereditary beliefs, and till this is done, we must be at sea how to think and how to speak."[25]

If one undermined the principle that like produces like in the natural world, then, one also potentially undermined Apostolic succession, the doctrine on which the Church based its authority. Even more: one also undermined an analogy between the filiation of a son to his father and the filiation of Christ to God.[26] As Hewit explained:

> the law of generation in the physical world... represents some divine and eternal principle... Man generates the image of himself, in his son, who is ... similar and equal to himself in his rational nature. As St. Paul says, the principle of this paternity must be in God, and must therefore be in him essential and eternal.

In other words, Christ, as God's son, is distinct and equal to God because God (and therefore man) reproduces the image of Himself. Let me emphasize that evolutionary theories did not directly contradict the doctrines of Apostolic succession and the Trinity, but by undermining natural analogies upon which they drew support these theories were perceived as being fraught with peril by theologians.

I shall conclude this section on the views of American Catholics with respect to evolution from 1865-70 by discussing a series of three articles (totalling forty-nine pages) on "The

Immutability of the Species" which appeared in Catholic World between November 1869 and February 1870.[27] These articles, ostensibly forming a review of evolutionary theories in Darwin's Origin, his Variation of Animals and Plants under Domestication (1868), and Spencer's Principles of Biology (1864), actually developed an alternative theory that animals and plants had degenerated in nature's realm since the Creation, and that "favorable modifications" were actually reversions to the perfect type.

The author of these articles was unidentified in Catholic World, but evidence suggests that it was James Keogh (1834-70), an Irish-born American priest who was a friend of Hecker.[28] Keogh's life exemplified the dictum that the candle that burns twice as bright lasts half as long. With his parents Keogh emigrated to America in 1841, settling in Pittsburgh, and Bishop O'Connor soon recognized that he had a prodigy in his diocese. Sent to Rome at age sixteen, Keogh earned doctorates in philosophy (1851) and theology (1855) from the College of the Propaganda in Rome, with his defense of the latter being witnessed and commended by the Pope. He was ordained on 5 August 1856, after which he returned to Pittsburgh. In 1857 he became professor of dogmatic theology at St. Michael's Seminary in Glenwood, Pennsylvania, and in 1863 he became president of the same. He also edited the Pittsburgh Catholic, the diocese newspaper, from 1863-65, but differences over the management of the seminary and the editorial policy of the newspaper caused him to resign both positions in 1865.[29] He

then lectured in theology at St. Charles Seminary, Philadelphia, and edited the Philadelphia Catholic Standard (1866-68), but ill-health forced him to retire to Pittsburgh in 1868. In his forced retirement Keogh occupied his free time by writing articles for Catholic World until his death on 10 July 1870.

Accustomed as we are to evolutionary theories, Keogh's theory may seem bizarre. However, to a Catholic in 1869 it appeared to be a viable alternative to evolution. God, Keogh explained, created perfect types, and these were not Platonic ideas but real individual prototypes of species which were "fully and proportionately developed."[30] Furthermore, God did not create mature individuals but one cell (or perhaps two, Keogh suggested, one for each sex) for each type or species. These cells then developed under the operation of natural laws, the process of development being predetermined in the creation, formation, or existence of the cells. In nature, individuals were subject to a close-ended, cyclical process of degeneration and reversion. Natural selection, in turn, tended to preserve those organisms which varied the least, since by Keogh's definition variation was maladaptive. The true struggle in nature, then, was against degeneration, which resulted from unfavorable action of the elements, such as environmental conditions, and from variations. Reversions, sometimes large ones, occurred under favorable conditions such as those that existed under domestication.[31]

Keogh, then, denied the entire concept of progress by evolution and proposed his own theory, which he felt was superior

to evolution on at least two counts. Evolution, he explained, relied on occult concepts of nature striving, of "aptitudes" in nature. Degeneration and reversion, though, were purely physical processes. In addition, he felt reversion better explained the correlation of parts in an organism. Evolution, he observed, had to posit that an evolved part was correlated to another part not yet in existence, a logical inconsistency which reversion avoided.[32]

Although Keogh refuted Darwin's and Spencer's evolutionary theories, he nonetheless admired Darwin for his "great ingenuity and vast research" and applauded Darwin and Spencer for their "great services to the cause of science."[33] He also displayed a thorough familiarity with the scientific literature, and conspicuously absent from his writings were references to Catholic theology or to God as the Divine Architect. In brief, Keogh was not an enemy of science as Brownson had become, and he did what Brownson said he himself was too old to try: he studied natural history and refuted scientists on their own ground. Brownson was greatly impressed, explaining that Keogh had shown that evolution "is but a reversion to the original type and condition, in like manner as we have proved... that the savage is the degenerate, not the primeval man.... [A]s a theory... [it] is far better sustained by well-known facts and incontrovertible principles than either the theory of development or of natural selection."[34]

At the close of 1870, American Catholics learned from the pages of Catholic World that evolutionary theories had been debunked. Within months, however, Mivart's On the Genesis of

Species (1871) proclaimed that evolution, to include man's body, was compatible with Catholicism, and Darwin's Descent of Man (1871) extended the efficacy of evolution to man's ethics and soul, prompting a new debate within the American Catholic community. One result of this debate was that in May 1873 Catholic World published, for the first time, an article that advised American Catholics that they could, as Catholics, accept some tenets of evolution.

References to Section 6

1. The Syllabus of Errors of Pope Pius IX, ed. Robert Hull (Huntington, Ind.: Our Sunday Visitor Press, 1926), 72.

2. Letter from Montalembert to Brownson, 17 December 1864, Brownson Papers, Roll 6, emphasis in original. The years 1863-64 also saw a major confrontation between English Catholic conservatives and liberals, with the conservatives prevailing in 1864.

3. Dollinger, under the pseudonym "Janus", published The Pope and the Council (English trans., Boston: 1870) which condemned the Papacy. He dissented from the dogma of papal infallibility and the Church's denunciation of liberalism.

4. Morrison, American Catholic Opinion, 42. Morrison's quotation is from "The Origin and Mutability of the Species," Catholic World, 1 (September 1865), 845-51, on 851.

5. "Origin and Mutability," 851. Emphasis in original.

6. "Gleanings from the Natural History of the Tropics," Catholic World, 1 (November 1865), 178-197.

7. Morrison did use James Stothert's article as a further example of tolerance by the Church, since Stothert praised science for its advances. However, Stothert's main purpose was to prove the unreliability of the human senses, and he admonished Catholics not to trust physical knowledge. See Morrison, American Catholic Opinion, 60; James A. Stothert, "Physical Science and Christian Revelation," Catholic World, 4 (Nov. and Dec. 1866), 253-63, 372-88.

8. "Progress," Catholic Mirror, 23 September 1865, 5; "Scepticism in Society," Catholic Mirror, 12 May 1866, 4. This second article was reprinted on 14 Nov. 1868, p. 5 in "Southern Correspondence of the Catholic Mirror."

9. Augustine Hewit, "The Absurdity and Misery of Skepticism," pp. 285-95 in Sermons Preached at the Church of St. Paul the Apostle, New York, During the Year 1864 (New York: 1865), 288.

10. Alfred Young, "The Gospel according to Man; the Religion of the Day," in Sermons Preached at the Church of St. Paul the Apostle, New York, During the Years 1865 and 1866 (New York: 1866), 342-3. Author and date of sermon identified from manuscript record book, Paulist Archives.

11. Cornelius F. Smarius, Points of Controversy (New York: 1865, 1871); Erastus E. Marcy, Christianity and its Conflicts, Ancient

and Modern (New York: 1867); T.W.M. Marshall, Order and Chaos (Baltimore: 1869, 1875).

12. Marcy, Christianity and its Conflicts, 445.

13. Augustine Hewit, "Problems of the Age," Catholic World, 3 (August 1866), 577-89, on 581.

14. "Review of Curious Questions," Catholic World, 4 (December 1866), 428-29.

15. "Review of A Text Book on Physiology," Catholic World, 3 (July 1866), 576.

16. Hecker, "The Future Triumph of the Church," pp. 66-86 in Sermons Delivered during the Second Plenary Council of Baltimore, October, 1866 (Baltimore: 1866), 82

17. In an 1868 letter to Hecker, Brownson declared that he wanted "to war on the... spirit of the age, which I hold is the Spirit of Satan, false & mischievous in its essence..." and he complained that Hecker was preventing him from doing so. In Joseph Gower & Richard Leliaert, The Brownson-Hecker Correspondence (Notre Dame, Ind.: Univ. Notre Dame Press, 1979), 245.

18. Brownson, "Catholicity and Naturalism," Works, v. VIII, 339-59, on 350-01. It is not indicated in Works where or when this was published, but in Catholic World, April 1865, p. 144, a twenty-four page tract is mentioned entitled Reply to the Christian Examiner on Catholicity and Naturalism, published by Patrick Donahoe, and H.F. Brownson confirms in Latter Life, pp. 447-9 that it was published as an anonymous pamphlet by Donahoe. Brownson probably wrote this, then, in January or February 1865.

19. Brownson, "Argyll's Reign of Law," Catholic World, 6 (February 1868), 595-606, in Works, v. 3, 375-91, on 387.

20. Brownson, "Rome or Reason," Catholic World, 5 (September 1867), 721-37, in Works, v. 3, 298-324, on 323.

21. Gower & Leliaert, Brownson-Hecker Correspondence, 238.

22. Brownson, "Faith and the Sciences," Catholic World, 6 (December 1867), in Works, v. 9, 268-91, on 285.

23. Ibid, 288.

24. Brownson, Convert, 151-2.

25. Ellen Walworth, Father Walworth, 194.

26. Hewit, Problems of the Age, 86.

27. James Keogh (?), "The Immutability of the Species," Catholic World, 9 (Nov. and Dec. 1869, Feb. 1870), 252-67, 332-46, 656-73.

28. On Keogh see A.A. Lambing, A History of the Catholic Church in the Dioceses of Pittsburg and Allegheny (New York: 1880), 90-94; J.J. Hennesey, "Keogh, James," New Catholic Encyclopedia, v. 8, 162.

29. Hennesey, "Keogh, James," 162.

30. Keogh, "Immutability," Feb. 1870, 661.

31. Ibid, Nov. 1869, 255, 261, 263.

32. Ibid, Nov. 1869, 264-65; Feb. 1870, 659.

33. Ibid, Feb. 1870, 673.

34. Brownson, "Hereditary Genius," Catholic World, 11 (September 1870), 721-32, in Works, v. 9, 401-17, on 415.

American Catholics and Evolution: 1871-75

By the early 1870s, a major portion of the American scientific community had been converted to some evolutionary theory, usually either Darwinism, neo-Lamarckism, or Spencerism. Inheritance of acquired characters and environmental influences were favorite modifications of Darwin's theory for those who balked at natural selection, since they carried with them the concept of directionality, which was somewhat reminiscent of natural theology in that God could be thought of as the director. Edward Drinker Cope and Alpheus Hyatt were the foremost proponents of neo-Lamarckism in America. Spencer's popularity in America was partly attributable to his faith in progress and his espousal of individualism, which complimented America's vision of itself.[1] John Fiske, Spencer's leading disciple, explained that Spencer had discovered "the fundamental law of human evolution... which is found to explain alike all the phenomena of man's history and all those of external nature."[2] Briefly, Spencer held that the universe was evolving from an unstable homogeneity to a more stable heterogeneity, and that God, or rather some higher Power manifested by the universe, was inscrutable. Spencer's ideas were spread even further by Edward Livingston Youmans, another disciple of Spencer whose Popular Science Monthly (begun in 1872) served as a mouthpiece for evolution. Youmans was both preaching evolution to the popular audience for science in America and trying to increase the authority of evolution by enlarging this audience. As the popularity and prestige of evolutionary theories shot-up in

the public mind these theories began to challenge the status and authority of Church teachings.

Three books published in 1871 marked a new phase in the evolutionary debate in America. The first book was Mivart's Genesis of Species.[3] Mivart, an English Jesuit biologist who was close friends with Huxley, taught that the general theory of evolution was "perfectly consistent with [the] strictest and most orthodox Christian theology."[4] Mivart demoted the importance of Darwinism in his book, stating that natural selection acted during evolution but played only a supporting role, and this devaluation stemmed from his conviction (formed in 1868) that man's intellect and ability to make ethical judgments were unaccountable by natural selection.[5] Mivart suggested that a force internal to organisms was a great, and perhaps the main, determining agent in evolution, and that this internal force or tendency interfered with, cooperated with, and controlled the action of external conditions. This internal power, upon stimulation by external forces, caused saltations: that is, evolution progressed by large, sudden changes, not minute and gradual changes as Darwin had posited. Mivart could not isolate or identify this internal power or innate tendency, but he made it clear that it worked by design and that it was explicable by natural laws yet undiscovered. To Catholics the most radical part of his theory was his claim that evolution was derivative creation by God, that is, that evolution was God's method of creating specific organic forms by and through natural laws, a claim he supported by quoting St. Augustine, St.

Thomas Aquinas and Francisco Suarez. He stunned Catholics further by asserting that man's body had evolved from lower species.

A most enlightening episode was Huxley's reaction to Mivart's claim that the teachings of Suarez were consistent with evolution. One might have predicted that Huxley would have been delighted to accept his friend's claim, but instead he plunged into a study of Catholic theology, that "great Proteus" as he termed it,[7] and concluded that Suarez actually opposed evolution. But why would Huxley passionately deny the claim that evolution was reconcilable with Church teachings? Because the Catholic church was his bogeyman - "that vigorous and consistent enemy of the highest intellectual, moral, and social life of mankind"[8] - which he called forth to alert audiences to the dangers religion held for science. He could not sanction Catholic tolerance since the Church as bogeyman was an essential part of his overt attempt not just to secularize science but to undermine religious authority in all realms of thought.[9] It will be shown later in this section that other evolutionists besides Huxley viewed the Church as <u>the</u> enemy of science.

In contrast to most evolutionists, Mivart saw evolution as the natural action of God in nature, a force that underlaid nature and worked for harmony, intelligence, and progress in nature. But while he accepted evolution, even making man's body subject to its action, he denied that man's soul or that man's ethics and noble qualities were products of evolution. Darwin, however, made no such qualifications in his <u>Descent of Man</u>. He took a

thoroughgoing biological approach to every aspect of human life, suggesting that man's moral sense, and even his soul, were products of natural selection, and that man's mental qualities differed only in degree, not in kind, with lower animals. Perhaps the most shocking assertion in the Descent to Catholics, though, was Darwin's claim that man's religious devotion to God was analogous to a dog's "religious" devotion to its master.

The third key book published in 1871 was James McCosh's Christianity and Positivism. McCosh, the president of the College of New Jersey (later Princeton), was the first prominent Protestant leader to accept evolution. In his book, McCosh asserted that Christians could accept evolutionary theories without discarding their belief in God as creator and ultimate designer. He agreed with Mivart that man's soul was created by God and that man's intellect was different in kind from lower animals, but he could not decide if man's body had evolved or if it had been created by God. To summarize, 1871 saw the genesis of a new intellectual climate for debates on evolution in America, one in which esteemed Catholic and Protestant intellectuals had given the green light to their fellow Christians to adopt some aspects of evolution, and one where it had been suggested that man's soul and even man's belief in God were merely products of natural selection.

American Catholics were seemingly in no hurry to become acclimatized, however. In the few comments on evolution contained in the Baltimore Catholic Mirror from 1871-75, Darwinism was

depicted as being injurious to social order and political stability, and Darwin, Huxley and "the modern school of scientists" were identified as being teachers of "advanced atheism."[10] The pages of Catholic World remained remarkably quiet on the subject of evolution from March 1870 to May 1873, a lull probably attributable to the staying power of Keogh's refutation of evolution, but by May 1873 an article appeared on "The Evolution of Life" in Catholic World which reviewed Mivart's and Darwin's theories.[11] The anonymous author of this piece first proclaimed that Mivart had "dealt his [Darwin's] theory blows from which it will not recover," and that many Darwinian enthusiasts, Huxley for one, supported Darwinism for the service it rendered to their efforts to disintegrate Christian societies. On balance, though, the author was sympathetic to evolution, advising Catholics that they could accept Darwinism or other evolutionary theories, as long as they remembered that the creation of the soul by God was "an absolute scientific certainty," that man's moral nature and intellect were not explicable by evolution, and that the teachings of Darwin and Mivart with respect to man's body were "probably next to heretical."[12]

"The Evolution of Life," by affirming (with some caveats) that the theory of evolution was compatible with Catholicism, represented a significant departure from all previous American Catholic responses to evolution, and it was probably not coincidental that it was published after Brownson had split with Hecker and Catholic World and revived his own Review, the first

issue of which came out in January 1873. If Brownson had still been with Catholic World, he probably would have reviewed Mivart's and Darwin's books, just as he had previously reviewed McCosh's book.[13] In his absence, another author was called upon, and the result indicates that some Catholics in America were becoming lukewarm supporters of some aspects of evolution by 1873. But it also appears that the Paulist editors of Catholic World soon decided that this article was a mistake, perhaps because of the sharp rebuke it received at Brownson's hands in the July edition of his Review, where he thundered that natural selection and evolution "[are] irredeemably false, and are to be as unqualifiedly condemned as any erroneous theories ever broached."[14] The quotations from Augustine, Aquinas and Suarez that Mivart claimed were consistent with evolution had not been fairly made, Brownson continued, and from his own reading of Augustine Brownson stated that Augustine clearly taught that species did not come to exist by derivative creation but by the primary or direct creative act of God. Furthermore, Brownson warned, Catholics were not free to adopt evolutionary theories even if they had been supported by one of the Church Fathers.[15]

Catholic World recanted its fleetingly brief lapse into liberalism in a review of Darwin's The Expressions of the Emotions in Man and Animals in August.[16] The author of this review (not the same author who wrote May's piece, the editors made clear) admitted that there was a germ of truth in the theory of evolution, but he then asserted that most theologians agreed that

the principal species of the animal kingdom had been directly created by God. While the author of the May article had depicted Darwin as a gentleman,[17] this latest author depicted Darwin as one of those men "too proud to listen to God's Word," an almost demonic figure who "sometimes assumes the garment of light, and puts on an appearance of virtue."[18] Although this review was not entirely negative, it abandoned the softer tone and tolerant attitude which typified the May article.

This hasty return to conservatism was solidified in 1874 and 1875 in response to the publication of John Tyndall's Belfast address and John William Draper's History of the Conflict between Religion and Science.[19] Both Tyndall and Draper advanced the same thesis: that science throughout history had had to fight against the tyranny and pious superstition of the Catholic church. Draper's book was particularly popular, passing through eight editions between 1875-77,[20] a record of publication which only disheartened Catholics further, with the following quotation from Catholic World exemplifying Catholic exasperation: "we infer that men's minds are sadly diseased when they take pleasure in what is so hollow, false, and shallow as Dr. Draper's latest edition to anti-Catholic literature."[21] Catholics saw themselves besieged, and Brownson was not alone in his cry that "the enemies of the church are now waging their war against her for her extermination under the mask of science...."[22]

The strident, anti-Catholic rhetoric that typified the polemics of some scientists - most notably Huxley and Draper - was

part of a larger effort by these men to expunge religious concerns from scientific theorizing and to organize and professionalize their discipline.[23] As they sought to determine their own goals and methods of inquiry independent from religion, they defined biology "as a value-neutral but inherently progressive" science that "was beyond the realm of criticism on extrascientific grounds."[24] They singled out the Catholic church for particular opprobrium since it was the low risk (in that the Church had strong opponents and a somewhat unfavorable public image in England and America), high profile (in that the Church was the epitome of a conservative, dogmatic, hierarchical institution) target they needed to portray to the public, in the sharpest contrast possible, the supposed impossibility of pursuing science freely without an utter separation between science and religion.

The Church's withdrawal into conservatism, driven by the Pope's political problems in Italy and the corrosion of Church authority and influence in intellectual circles outside the Church, lent credence to this portrayal. The reaffirmation of the Syllabus of Errors and the definition of Papal Infallibility at Vatican I in 1870 closed liberal avenues to Catholics and provoked criticism of the Church's reactionary posture by non-Catholics and Catholics. However, the anti-Catholic declamations of scientists such as Draper and the use of evolution "as a weapon of offence by irreligious writers"[25] against Catholics (most blatantly in Germany in the Kulturkampf between Bismarck and the Jesuits) convinced Catholics that the Church's posture was justified. This

conviction was exemplified in a lecture on science and religion given in 1875 by Father F.P. Garesche, a Jesuit professor at St. Louis University. Scientists, Garesche agreed, were "wonderfully a unit against revealed religion... [And] as regards dogmas... they regard them with ill-concealed scorn."[26]

This conflict between Catholics and some scientists transcended mere rhetoric. As I have noted, scientists rejected the authority of religion in order to secure both credibility for their own methods and their positions and prestige in society. On the other side, conservative Catholics attempted to stigmatize scientists with odious, even infernal, names, and they played up the scientists' anti-Catholic rhetoric to inflame Catholic opinion against science, thereby strengthening the cohesiveness of the Church in the face of scientific theories which these conservatives believed clearly contravened Church dogma. Brownson in particular adopted this strategy, warning Catholics that the greatest danger to Catholic unity resided in the Church and admonishing them "to make no compromises, and seek no alien alliances" with scientists, since even scientists such as Asa Gray, who admitted no discrepancy between science and religion, did so to allay popular prejudice against science.[27]

But while it is important to recognize the genuine conflict that existed between Catholicism and certain scientists in the nineteenth century and the purposes to which this conflict was put, it is equally important to recognize that Catholicism and science harmoniously coexisted in the lives of Catholics such as

Walworth and Mivart. Moreover, Catholics at times went out of their way to prove that science thrived under Catholicism. Wiseman's lecture on science and religion, originally delivered before the Catholic Literary Association at Leeds, England, in 1853, was republished in 1876 to demonstrate that "Science has nowhere flourished more, or originated more sublime or useful discoveries, than where it has been pursued under the influence of the Catholic religion."[28] In effect, Catholics asserted that it was not the Church that squelched science, but it was science that squelched the contributions of Catholicism to science.

By the close of 1875 American Catholics struggled as much against the anti-Catholic polemics of Draper, Huxley, and Tyndall as they did against their evolutionary theories. Lacking representation within the scientific community and an intellectual elite educated in science, American Catholics could not influence the discourse on evolution within or without the scientific community, and they could only decry (or exploit) depictions of their Church as an opponent engaged in an apocalyptic struggle against science. From the sidelines Catholics heartily applauded Charles Hodge's terse conclusion that Darwinism was atheism,[29] and their suspicions about the foul motives of scientists only grew stronger as scientists vehemently criticized the Church and as Catholic polemicists dismissed Darwin, Spencer, Tyndall and Huxley as atheists.

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3. St. George Jackson Mivart, On the Genesis of Species (New York: 1871). On Mivart's life see Jacob W. Gruber, A Conscience in Conflict: The Life of St. George Jackson Mivart (New York: Columbia Univ. Press, 1960).

4. Mivart, Genesis of Species, 16.

5. Robert J. Richards, Darwin and the Emergence of Evolutionary Theories of Mind and Behavior (Chicago: Univ. Chicago Press, 1987), 355. See also pp. 225-28.

6. Mivart, Genesis of Species, 17, 242-43, 116, 281-82.

7. Thomas H. Huxley, "Mr. Darwin's Critics," (1871) in Darwiniana Essays (New York: 1893), 124.

8. Ibid, 147.

9. See Ruth Barton, "Evolution: The Whitworth Gun in Huxley's War for the Liberation of Science from Theology," in David Oldroyd and Ian Langham, eds., The Wider Domain of Evolutionary Thought (Dordrecht: D. Reidel, 1983), 262.

10. "Progressive Aspirations and Modern Civilization," Baltimore Catholic Mirror, 20 May 1871, 4; "The New School of History," Baltimore Catholic Mirror, 3 Feb. 1872, 4.

11. "The Evolution of Life," Catholic World, 17 (May 1873), 145-57.

12. Ibid, 148, 151, 154.

13. Brownson's opinion of McCosh's book was that it was "bosh, & fit only to rhyme with McCosh." In Gower and Leliaert, Brownson-Hecker Correspondence, 305.

14. "True and False Science," Brownson's Quarterly Review (July 1873), 367-98, in Works, v. IX, 497-528, on 528.

15. Ibid, 527.

16. "More about Darwinism," Catholic World, 17 (August 1873), 641-55.

17. "The Evolution of Life," 147.

18. "More about Darwinism," 646, 641.

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23. On professionalization see Frank M. Turner, "The Victorian Conflict between Science and Religion: A Professional Dimension," Isis, 69 (1978), 356-76.

24. Martin Fichman, "Ideological Factors in the Dissemination of Darwinism in England 1860-1900," pp. 471-85 in Everett Mendelsohn, ed., Transformation and Tradition in the Sciences (Cambridge: Cambridge Univ. Press, 1984), 472.

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26. F.P. Garesche, Science and Religion: The Modern Controversy. A Lecture delivered before the Young Men's Sodality of St. Xavier Church, 2d ed. (St. Louis: 1876), 8-9, 21.

27. Brownson, Works, v. IX, 546, 528, 519.

28. Nicholas P. Wiseman, Science and Religion. A Lecture, delivered at Leeds, England (St. Louis: 1876), 7. This quotation was fully capitalized in the original.

29. For comments on Hodge see "Review of Hodge's What is Darwinism?," Catholic World, 19 (June 1874), 429-30.

Conclusion

In general, American Catholic responses to evolutionary theories were infrequent and negative. They came infrequently because American Catholic intellectuals were either preoccupied with parish and missionary duties or illiterate in science, or both; because Catholic representation in the American scientific community was negligible and Catholic university education nonexistent in America; and because science was not considered to be necessary or effective as a bulwark to Catholic theology. They were negative because the Pope condemned liberalism, thereby ensuring the ascendancy of conservatism in the Church; because Catholics were anxious about the growing secularism and materialism of American life, and fearful that evolutionary theories contributed to this growth; because theologians believed that evolutionary theories subverted Church authority by corrupting analogies Catholics made between inheritance in nature and Apostolic succession; and because conservative Catholics strategically employed the rhetoric of warfare against scientists to strengthen their hold over the Church and to stifle compromises between Catholicism and evolution.

Orestes Brownson was the most influential, and after 1864 the most conservative, translator of evolutionary theories for American Catholics. His caricatures of these theories were easily grasped and readily accepted by an audience poorly versed in the sciences, and his strong objections to more moderate depictions of these theories reinforced Catholic convictions that evolution was

scientifically untenable and diametrically opposed to Catholic theology. However, Brownson's repudiation of evolution must be understood in terms of his political theory, which denigrated individualism and denied that governments were self-developing or evolutionary constructs.

Clarence Walworth's brusque dismissal of Darwin's theory highlighted a common belief held by American Catholics that Darwin's Origin was not a particularly relevant work. The curt, negative criticisms of Darwinism by Walworth, Brownson, and other American Catholics were in stark contrast to the detailed and, on the whole, less condemnatory responses of English Catholics. For example, while the English Catholic press generated two lengthy and able reviews of the Origin within a few months of its publication,[1] the American Catholic press waited ten years before publishing its own review, and even then the reviewer devoted his efforts almost exclusively to developing a new theory designed to overturn evolutionary theories. This disparity in interest and intent between the two Catholic communities suggests that while one might be justified in concentrating strictly on responses to Darwin's Origin among nonscientific audiences in England, where Darwin's influence was considerable, one must adopt a wider perspective in America or else risk inflating Darwin's importance and slighting topics of greater relevance to nonscientific audiences in America. These topics would include political controversies such as states' rights and scientific controversies such as disputes over the origin of the races of man and the age

of the earth. In this wider context, Darwin's Origin was simply perceived by American Catholics (and American Protestants for that matter)[2] to be of minor significance. Thus Walworth framed his views on development in nature in response to polygenist, not evolutionary, theories, while Brownson's writings that bore on evolution were permeated with comments on slavery, states' rights, the South's individualistic tendency, and other issues that reflected a distinctly American climate.

Insights are also gained by comparing American Catholic responses to their Protestant counterparts. Jon Roberts has shown that from 1859-75, American Protestants criticized evolution mostly on scientific rather than theological grounds, since they believed that evolutionary theories had to be spurious interpretations of nature, given that science necessarily confirmed theology.[3] However, American Catholics criticized evolution more on theological and metaphysical rather than scientific grounds. These disparate approaches reflected fundamental differences between Catholicism and Protestantism. Catholic theology was Thomist, emphasizing rigor, logic, certainty; science played essentially no role here. In contrast, Protestant theology was based more on common-sense realism and reverent studies of nature.[4] Catholics and Protestants spoke different languages in which different stresses were laid on the role and value of science.

This disparity in the main thrust of American Catholic and Protestant criticisms of evolution also stemmed from sharply

different levels of scientific expertise possessed by the two communities. Walworth's efforts exemplified this major difference. His Gentle Skeptic was the first book-length study of the religion-science relationship written by a Catholic in English since Wiseman's study twenty-seven years earlier, and like Wiseman, Walworth never updated later editions of his book. These Catholic works were merely forays in science compared to the sustained efforts of Protestants such as Edward Hitchcock and Hugh Miller, and again this demonstrated the subordinate role science played in Catholic thought. Catholics rarely sought evidence from nature since they had the Church Fathers and the infallible authority of the Church to interpret Scripture for them. Brownson for one affirmed that natural theology had no value for Catholic faith.[5] In addition, the reader will recall that most American Catholic intellectuals who wrote on evolution were, like Walworth, converts from Protestantism. While Walworth's efforts were hardly exceptional in a Protestant context, where his sermons on the sacredness of science and the book of nature were typical of the natural theology tradition of Protestantism, this very typicality in a Protestant context was the source of Walworth's uniqueness in a radically different American Catholic context.

This thesis terminates with the year 1876, the year of Brownson's death, Huxley's triumphant lecture tour of America, and the consignment of Draper's Conflict to the Index by the Church. The following years saw many triumphs for science and a neo-Thomist revival by Pope Leo XIII in 1879. This reactionary

revival of Thomist philosophy solidified the impression promoted by Draper, Huxley and others that Catholics *qua* Catholics were enemies of modern science and the modern age. This impression lives on in the literature on evolution, where American Catholic responses are often summarized by referring solely to the strident anti-evolution and anti-science rhetoric of Brownson. But there was a great deal more to American Catholic responses than the post-1864 extremism of Brownson, and it is the hope of the present author that the reader has been convinced that a confluence of concerns and motivations which reflected a distinctly American and American Catholic intellectual climate underlay the negative responses of American Catholics to evolution.

References to Conclusion

1. See John Lyons, "Immediate Reaction to Darwin: The English Catholic Press' First Reviews of the *Origin of the Species*," Church History, 41 (1972), 78-93.

2. Frederick Gregory, "The Impact of Darwinian Evolution on Protestant Theology in the Nineteenth Century," pp. 369-90 in David C. Lindberg and Ronald L. Numbers, eds., God & Nature: Historical Essays on the Encounter between Christianity and Science (Berkeley: Univ. California Press, 1986), 375.

3. Jon Roberts, Darwinism and the Divine in America, ix-x.

4. Ibid, 8.

5. Brownson, "Faith and the Sciences," Works, v. 9, 287.

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Primary Sources - Periodicals

Comments: Brownson's articles are grouped together below; they are listed chronologically. Articles published in Catholic World which were not written by Brownson are also listed chronologically. Most of these articles were published anonymously; authors are listed where known.

Baltimore Catholic Mirror (1860-75)

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Brownson's Quarterly Review (1844-64; 1873-75). Brownson's personal forum. Specific references given below.

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Vita

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