# EMERSON'S PROTO-EVOLUTIONARY IDEA: ITS FORMATION IN TRANSATLANTIC CONTEXTS

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## 1. Introduction

Ralph Waldo Emerson's trajectory in seeking science has been recently reinvestigated in historical and transcultural contexts. David Robinson, William Rossi, and Laura Dassow Walls argue that Emerson's writings on nature are not as ahistorical as previously assumed.[1] Emerson's writings on nature are, rather, a historical representation of scientific development.

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[1] F. O. Matthiessen mentions Emerson's declaration of "being a naturalist," but he interprets "a naturalist" as "a naturalist of the soul" (16). Lawrence Buell recently says that "Emerson is typically studied at schools and colleges as a literary figure who advocated a doctrine of individualism. This image is not wrong, but it understates the depth of his thinking and the scope of his achievement" (1). In 1980 Robinson's groundbreaking essay on Emerson's science reopened the fields for reinvestigation of Emerson and science. In 2000 Rossi's essay traced the development of Emerson's scientific ideas by situating him in the trend of transformation from natural history to natural science in an Anglo-American context. Comparing Emerson with Thoreau in terms of empirical understanding of nature, Rossi presents the reason why Emerson was supposed to be ahistorical: "for a self-consciously American writer such as Emerson, nature is by definition ahistorical: to move alone into nature is to move outside of history and culture." But, quoting Cadava, Rossi points out that " 'Emerson's engagement with history and politics' is evident in the way nineteenth-century political and social history is inscribed even in meteorological language he uses" (Cadava 7, Rossi 102). Walls made her extensive study of Emerson's position as a secular leader who spoke for science into a book, *Emerson's Life in Science,* in 2003. Walls describes Emerson's conventional image as "the whimsical and fuzzy-minded idealist, too self-absorbed to attend to the outer world, too blithe to face real evil" (2).

In 1931, Harry Hayden Clark, by considering Emerson's debt to science, proposed to modify Emerson's image as "a mystical and irresponsible traveler in realm of Whim" (260).[2] However, the tendency of critics to advocate Emerson's idealism as well as individualism continued to regard Emerson as a man who considered nature as a metaphor of man's mind. This focus eventually shoved aside the interest in studying his scientific writings in a broader context. To use Dassow's words, Emerson is "a tough-minded survivor, dedicated to facing down tragedy and evil with the keen-edged weapon of scientific truth" (2). Emerson's understanding of natural science reveals a paradigm shift in a transatlantic influence on nineteenth-century America. Emerson's affinity with the Darwinian conception of nature proves this.

In his diary dated Oct. 19, 1826, Emerson wrote, "The changes of external nature are continually suggesting to us the changes in the condition of man. The leaves of forest & the generations of men go down into the dust but the succession of seasons or of generations is not suspended" (*JMN*, 3:50–1). This passage is greatly influenced by the natural science nurtured in Edinburgh, from which Charles Darwin's ideas on evolution were born. Emerson here observes the changes in nature as environmental phenomenon for humans and the succession of life as generational changes. He perceives change and succession in natural phenomenon, which prefigures Darwin's natural selection. In *The Origin of Species* (1859), Darwin recapitulates the process of natural selection as follows: "the process of diffusion may often be very slow, being dependent on climatal and geological changes, or on strange accidents, but in the long run the dominant forms will generally succeed in spreading" (328). Natural selection is a core idea in Darwin's theories, based on irreversible change and the sense of continuity of culture, to use Gillian Beer's interpretation (25–43). Precisely, Walls says that "[w]hen Emerson came to read Darwin, which he did in 1860, he saw nothing he had not seen before — a fact that reveals little about Darwin and a great deal

[2] Harry Hayden Clark investigated Emerson's interest and knowledge in science using biographical facts in his essay "Emerson and Science." As Gay Wilson Allen said in 1975, that study on Emerson and science, however, "has not been adequately assimilated into Emerson scholarship" (58).

about Emerson" (167).[3]

Evolutionary theory has been unfortunately entangled with religion and politics since Darwin published *The Origin of Species*. Even before Darwin, natural scientists had worked to apply evolution to the history of nature.[4] Before Darwin, the Scottish geologist Charles Lyell published *Principles of Geology* (1830–33) which influenced Darwin's ideas on evolution.[5] Evolutionary ideas were almost born in the 1830s from Lamarck's idea of assuming the inheritance of acquired characteristics. At that time, however, natural theology which claimed God's design was prevalent in England. The Lamarckian evolutionary idea was considered too materialistic and eventually refuted. Emerson read Lyell's *Principles of Geology*, from which he came to know Lamarck's idea of progressive advancement in natural history. In due course, Emerson located evolution in the unity of nature and the moral domain. In nineteenth-century America, however, pseudoscientific discourses, such as phrenology and physiognomy, were popular. Such studies were used for awareness of race and supposedly helped establish national identity. The development of anthropology, sociology, and psychology in the later nineteeth century was influenced by phrenology and physiognomy. Socio-biological elements in the latter infiltrated Darwin's ideas of evolution, and given the wide impact of Herbert Spencer, "social Darwinism" using "eugenic arguments" emerged. This was contrary to Darwin's basic concepts and methodology (Beer 13). Even now, evolutionary theory tends to be viewed in tandem with education and stimulates controversial debates, like those regarding Intel-

[3] Robert D. Richardson explains Emerson's reaction to *The Origin of Species*: "Emerson was on a lecture tour when Darwin's *Origin of Species* appeared in America in the early months of 1860. He was impatient to see the book. His long interest in process in preference to taxonomy disposed him to believe in evolution, and despite his friendship with Agassiz, Emerson never said anything to suggest that he accepted Agassiz's ideas about special creation. Emerson understood evolutionary change, however in Lamarckian and progressive terms" (546).

[4] Evolutionary ideas supposedly originated in Lamarck, Lyell, and Chambers, to whom we can even add Erasmus Darwin, Charles Darwin's grandfather. See Beer 3; Fowler 48–9; Matsunaga 3–14; Ospovat 6–38.

[5] Lyell recognized that "similar conditions always produce similar forms of life" (Ospovat 15). According to Bowler, Darwin's idea "is traced back to Lyell's alternative uniformitarian geology, in which all change is slow and gradual. Lyell's thinking reflects the liberals' faith in the gradual transformation of social institutions, but he repudiated a central plank of liberal thinking: the idea of progress" (97–8).

ligent Design.[6] The multivalent discourses later appeared as influences of Darwin's evolutionary theory should not blind us to Darwin's primary conception of nature as inductive accounts.

Darwin, voyaging on the *Beagle*, explored the truth of nature in his observations and researches. This certainly finds an echo in Emerson's "Nature" (1836) which was written after his first visit to Europe. Emerson's interest in science and his travel to Europe endowed him with a development of an analogical understanding of human beings and natural world. Reviewing Emerson's writings and Darwin's original ideas, I would like to analyze how proto-evolutionary ideas are manifested in Emerson's thinking, particularly in his major work, "Nature," and to reconsider transatlantic influence on Emerson's ideas on nature.[7] The connection between Scottish natural scientists and British Romanticists illuminates parallels between Emerson and Darwin, and this provides a fresh look at the transatlantic and transdisciplinary influences on Emerson's conception of nature.

## 2. Evolution in "Nature"

In the introduction of "Nature," Emerson said, "The foregoing generations beheld God and nature face to face; we, through their eyes. Why should not we also enjoy an original relation to the universe?" (*CW*, 1:7). Charles Darwin perceived "the multiple materiality of the world" and eventually "refused the notion of precedent Idea with its concomitant assumption of preordained Design" (Beer 73). When we consider Emerson from the perspective of a rebel who challenged the norm as Darwin did, the implication of the above passage appears to have congruity with Darwin's refusal of "precedent Idea." Emerson's rejection of a Calvinistic God is not obvious here, but I assume that he boldly proposed an "original" interpretation of the world by direct engagement with facts and evidence rather than surrendering himself to a preordained divine will

[6] About Intelligent Design, a new nomenclature for creationism, the Feb. 23, 2005 issue of *Newsweek Japanese Edition* contained a special article about evolution in regard to teaching Darwin in public schools in the United States; debates between evolutionists and creationists have been heated in the USA.

[7] Barbara Packer shows the influence of British intellectuals on American Transcendentalists. In her essay, she emphasizes the influence of German philosophy and literature through Coleridge and Carlyle (331–604).

which the preceding generation had been very eager to do. Although Emerson said, "the whole of nature is a metaphor of the human mind," his analysis of nature was not as consistent with this belief as it could be. His journals reveal that his writings were based on his observational conception of the world and later added his analogical thinking.

Emerson was very sensitive to the beauty and diversity of nature. And he acknowledged natural science as a key to understand the laws of the world. The world of natural science had a powerful impact on him, because "he felt it [a growing emphasis on natural science] was a part of a general reorientation of American religious life that would result in a new focus on the cultivation of the self" (Robinson, "Field of Investigation" 94). On July 13, 1833, Emerson, visiting the Cabinet of Natural History in the Garden of Plants in Paris, wrote down the impression in his journal: "I feel the centipede in me — cayman, carp, eagle, & fox. I am moved by strange sympathies, I say continually 'I will be a naturalist'" (*JMN,* 4:200). Emerson's claim of being a naturalist is related to his habit of analogical thinking.

Emerson expressed his sympathy or compassion for animals while ranking them in the order of their complexity. He talked on his experience of visiting the Cabinet of Natural History in his first lecture on nature, "The Use of Natural History" on November 4, 1833, like this:

> You are impressed with the inexhaustible gigantic riches of nature. The limits of the possible are enlarged, and the real is stranger than the imaginary. The universe is a more amazing puzzle than ever, as you look along this bewildering series of animated forms, the hazy butterflies, the carved shells, the birds, beasts, insects, snakes, fish, and the upheaving principle of life every where incipient, in the very rock aping organized forms. Whilst I stand there I am impressed with a singular conviction that not a form so grotesque, so savage, or so beautiful, but is an expression of something in man the observer. We feel that there is an occult relation between the very worm, the crawling scorpions, and man. I am moved by strange sympathies. I say I will listen to this invitation. I will be a naturalist. (*EL,* 2:10, emphasis added)

Emerson first enumerated the creatures which he found interesting and then symbolized them to present some order.[8] Later, Emerson repeated

[8] Stephen E. Whicher and Robert E. Spiller point out in the introduction to *EL* that "the

this sentiment in "Nature." He refigured this experience for the American audience by saying that "[t]he greatest delight which the fields and woods minister, is the suggestion of an occult relationship between man and the vegetable" (*CW,* 1:10). The phrase "an occult relationship between man and the vegetable" here is derived from his journal's entry where he expressed compassion toward the creatures in the museum.[9] Emerson's refashioning urge in which he elaborates his feelings toward the creatures on display in the metaphorical expression, "an occult relationship between man and the vegetable", expresses the popularity of natural history in his generation.

It was the age of expedition, and many new species were discovered around the world. The writings of botanists and zoologists, papers, and books on nature were rife with depictions of new plants and animals. Emerson's reference to the vegetable reflected his broadened interest in plants as well as animals. As Rossi points out, Emerson, in his letter in 1838, praised Peter Mark Roget's *Animal and Vegetable Physiology* (1834).[10] Emerson might have known about the book prior to 1838, for Roget's way of depiction is reflected in his significant phrase, "between man and the vegetable." In that book, Roget said, "the manifold structures and diversified phenomena of living being[s] . . . are extensively, and perhaps universally connected" (2:499–500). Emerson's earlier interest in variety and connection among living beings was probably verified by his later reading of Roget.

In the chapter, "Commodity," Emerson stated a quite similar thought to Darwin's: "Nature, in its ministry to man, is not only the material, but is also the process and the result" (*CW,* 1:11). For Emerson, nature constantly changes and should be understood not as a fixed state but as a process. In "Discipline," he argued that "[t]he first steps in Agriculture,

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science which Emerson studied and professed was pre-Darwinian and concerned itself more with the classification than with the evolution of natural phenomenon" (*EL,* 1:3). As they later suggest that "Emerson could understand and respond to the larger concepts which motivated the work of such men without ever acquiring the technical competence to read their work intelligently in any but popularized versions," Emerson shows here his insight into evolutionary thinking (*EL,* 1:4).

[9] Hiroko Washizu explains the similarity of these two expressions (218–220).

[10] In 1838 Emerson wrote to Margaret Fuller that "now I have Roget's Bridgewater Treatise, the only good one I believe in the series except Bell" (*L,* 2: 168–9). Roget's Treatise means Peter Mark Roget's *Animal and Vegetable Physiology.* See Rossi 125.

Astronomy, Zoology, (those first steps which the farmer, the hunter, and the sailor take,) teach that Nature's dice are always loaded; that in her heaps and rubbish are concealed sure and useful results" (*CW*, 1:25). Although he believed in the will of God, he ambiguously called it "Nature's dice" and acknowledged the development of discipline. Greek rendering in the perception of natural change indicates Emerson's ambivalence about the existence of preordained design. And in the chapter "Spirit," he said that "[i]t is essential to a true theory of nature and of man, that it should contain somewhat progressive" (*CW*, 1:36). The word "progressive" is noteworthy in that it was supposed to connote theological progressivism in terms of natural theology and later became the center of contention against evolutionary ideas. Interestingly, when Emerson opened the new section of "Spirit" by this sentence, he added the word "somewhat" to it.

In the 1830s, before he published "Nature," Emerson gave four lectures on science. After that, in 1836, he gave his last lecture specifically on science. In this lecture, "Humanity of Science," he said that "[n]ature proceeds from a mind congenial with ours" (*EL*, 2:33). Emerson related nature and mind to provide a humanistic or existential notion of science. With the prevalence of natural theology, scientific inquiry into nature turned to seek the laws of natural process. In due course, the idea of progress became an important issue. In 1845, Scottish journalist Robert Chambers' *Vestiges of the Natural History of Creation* (1844), which introduced the then sensational idea of evolution, was circulated in America.[11] However, the idea of evolution contained two different connotations. According to Rossi, proto-evolutionary ideas included two venues of understanding evolution: transmutation and progress. In Walls' expanded explication of Rossi, Emerson's contemporary intellectuals favored the idea of "progressionism" as a means of understanding the natural world, since it assured them of "god-directed progress" (Rossi 127, Walls 168). On the other hand, "transmutationism" which was discussed in Chambers' *Vestiges*, was thought to be dangerous, being contradictory to God's

[11] Chambers who was running a publishing company in Edinburgh wrote his work anonymously in 1844 for John Churchill Co, London. According to Robert M. Young, "Chambers' *Vestiges of Creation* sold over 25,000 copies in Britain before 1860." By comparison, Darwin's *Origin of Species* had sold "16,000 copies by 1876 and 47,000 by 1895" (Young 4).

design. Nevertheless, "liberal Whig circle," "certain groups of Unitarians," "dissenting medical men," and a "handful of 'infidel' freethinkers" in England hailed *Vestiges* as "a new revelation."[12] As Rossi concurs, Emerson generally agreed with Chambers' explanation of evolution.[13] Emerson embraced evolutionary ideas different from his American contemporaries and felt close to his British counterparts. Therefore, it is important to investigate British evolutionary theory and Emerson's understanding of it in relation to his transatlantic experience.

## 3. Emerson and Edinburgh

The scientific discourse among Americans in the nineteenth century reveals a strong interest in ethnology. However, early Emerson was more interested in nature or natural science than ethnology.[14] The study of natural science culminated in Darwin's theory of evolution. In early Emerson, we can recognize common ground with Charles Darwin, although they never met. For both, the importance of Edinburgh should not be dismissed. After his second visit to England, Emerson wrote "English Traits" (1856), in which he said:

> Like most young men at that time, I was much indebted to the men of Edinburgh, and of the Edinburgh Review, — to Jeffery, Mackintosh, Hallam, and to Scott, Playfair, and De Quincey; and my narrow and desultory reading had inspired the wish to see the faces of three or four writers, — Coleridge, Wordsworth, Landor, De Quincey, and the latest and strongest contributor to the critical journals, Carlyle. (*CW*, 5:1)

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[12] James Secord's introduction to Chambers' *Vestiges* indicates that in the beginning *Vestiges* was received well among the public both in England and America. But, once British authorities began to criticize it in 1845, the tenor of responses changed. (Secord xxvii–xxix). However, as for the later recognition, while Americans thought it as a dangerous book, "on the whole the book was generally well received among certain groups of liberal Christian, rationalists, and radicals" (Rossi 129).

[13] Rossi points out Emerson's dissatisfaction with Chambers' theology. But Rossi estimates that "his [Emerson's] interest in Chambers' theory was ardent enough, apparently, that in Britain three years later, he not only met twice with Chambers but sought out Andres Cross as well" (129).

[14] Emerson enthusiastically sought knowledge on science especially between 1832 and 1836 in reading Playfair, Cuvier, Mackintosh, Abernerthy, Hartley, and Cousin as well as Carlyle, Milton, and Goethe (*EL*, 1: 1–2). Clark shows Emerson's reading of Galileo, Newton, Somerville on astronomy, and Herschel in 1832. Clark mentions that Emerson had been acquainted with Dalton, Faraday, Erasmus Darwin, Lyell and Lamarck by his return from Europe (231–248).

Edinburgh was important to Emerson.[15] Intellectual environment of this city contributed to the development of evolutionary theory. Edinburgh held a special place in the annals of scientific study, especially in the fields of medicine. Moreover, in the field of intellectual history, Edinburgh was known as the center of Scottish Enlightenment, while scientific advancement flourished there since the late eighteenth century.[16] For Americans, Edinburgh was an ideal center of science. According to Hunter Dupree who wrote the biography of botanist Asa Gray, Darwin's American ally, "Edinburgh, with its long record as a mecca for Americans seeking advanced training and its strong Presbyterian flavor, was a good place to start" (77).

Reaching back to the age of the American Revolution, the relation of Scotland to England resembles that of America to England. As Linda Colley argues, British people considered Americans similar to them in language and life style. But they were also quite different in that they lived in an ungraspable, far land (Colley 117–145). This image was exactly what the British conceived to the Scottish before they met a new otherness, Americans, at the time of the American Revolution. The affinity which Americans felt toward Edinburgh has some connection to this historical and cultural context. The borderlines of the British Empire enabled both Scotland and America to nurture an innovative spirit.

Charles Darwin studied medicine at Edinburgh University, where his grandfather, physician and radical thinker Erasmus Darwin graduated. Before Charles Darwin, Chambers, who inhaled the liberal scientific atmosphere in Edinburgh, wrote a pre-Darwinian evolutionary theory in his *Vestiges*. It should not be overlooked that later American recognition of Darwin's *The Origin of Species* came through interpretations by Asa Gray who also studied at Edinburgh University. Edinburgh contained within its unique position a penetrating influence on scientific development.

Later opposition and acceptance to Darwin's theory by Louis Agassiz and Gray respectively signified the difference between the idealistic and

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[15] Barbara Packer refers the importance of the *Edinburgh Review* as well as the *Quarterly* to American Intellectuals (357). According to Rossi, the "notion of 'moral science' was derived from the Scottish Common Sense realism that underpinned the Harvard curriculum in moral philosophy" (110).

[16] Toshio Matsunaga explains that in the eighteenth century Scotland enjoyed a religious equilibrium between Calvinistic rigidity and tolerance, which engendered flourishing scientific studies (10).

materialistic understandings of nature. According to Dupree, "Gray was the embodiment of British empiricism, of a rational religion based on materialistic arguments, of a muted vitalism that stressed organization rather than the presence of a soul, the disciple of induction who was sparing in the use of analogy in arriving at generalization" (231–2). On the other hand, Agassiz "embodied all those revolutionary forces which had transformed eighteenth-century rationalism into the German idealism of the nineteenth century — not only Kant and Goethe but also Schelling and his Naturphilosophie" (Dupree 232). Materialist Gray held a favorable view of *The Origin of Species*, while idealist Agassiz strongly refuted Darwin. On the face of it, the dividing line between acceptance and rejection of Darwinism correlates with materialism and idealism.

Although Emerson as a Transcendentalist should endorse idealism, his understanding of science was not always based on it.[17] The case in point which bewilders critics when considering the entirety of Emerson's ideas is his synthesized notion of philosophy and science. He conceives idealism in philosophy and materialism in science. This synthesization usually blurs the boundary of religion and science as well. As Rossi argues, Emerson tried to explain "the unity of the moral and physical sphere of nature" (138). Although Emerson was interested in science as a materialistic representation, he wrote about science with "gnomic metaphor," to use Walls' phrase. Critics, however, often have overlooked the valorization of Emerson's pure understanding of science represented in his entangled text.

As Rossi argues, "Emerson lived through a time when the physical environment was extraordinarily transformed, no less than the broadly cultural forms through which his contemporaries conceived and experienced nature" (101). Emerson's understanding of science repeated the process of recognition of the Deity, which he sought beyond Unitarian doctrine. In both dimensions he disputed old doctrine and pursued a new discipline. Emerson's epochal phrase "to be a naturalist" should be

[17] Harold Fromm reinvestigates the transformation of Emerson's belief and presents a new Emerson. He argues that "Emerson's views changed markedly during his lifetime as he followed new developments in the sciences, so that he was faced with the acrobatic task of reconciling his growing acceptance of materialism with his sense of the spiritual foundations of the phenomenal world" (86).

interpreted in a transatlantic context in relation to this re-cognition of science and religion. His declaration of being a naturalist was inspired from encounters with nature not in America but in Europe, outside of his native context.

## 4. Emerson and British Romanticists

Emerson went to England to see "Landor, Coleridge, Carlyle, Wordsworth" (*JMN,* 4:78). However, Emerson seemed not so much as impressed with British intellectuals as Carlyle. His impression of British intellectuals was dominated by their atheism, which was totally foreign to him. He wrote: "I wrote above my conviction that the great men of England are singularly ignorant of religion. They should read Norton's Preface to his new book who has stated that fact well. Carlyle almost 〈covets〉 ↑grudges↓ the poor peasant his Calvinism" (*JMN,* 4:80).[18] Emerson, however, concurs with Carlyle's criticism of Unitarians. He noted in his dairy that "Unitarians he thought were a tame limitary people who were satisfied with their socialistic system & never made great attainments — incapable of depth of sentiment" (*JMN,* 4:83). In 1832, Emerson had already decided to leave the Unitarian ministry because of his inner conflict with Unitarian theology. Although atheism is too radical for Emerson, atheistic comments which he had never read at home gave him a chance to view religion in a different light.

When Emerson met 61-year-old Coleridge in 1832, Coleridge, criticizing Dr. Channing, "burst into a declamation on the(sic) folly and ignorance of Unitarian." In response to that, Emerson, although he was on the verge of leaving the Unitarians, said to him, "I was born and bred a Unitarian" (CW, 5:5). Emerson's response was to think of Coleridge's position as an example of atheistic narrow-minded doctrine.

However, it was widely assumed that Coleridge was supposed to be "torn between the unorthodoxies of pantheism and idealism" (Priestman 154). In retrospect, when Coleridge studied at Cambridge, he experienced "the great dualism of life, so hard to reconcile, between faith and reason, matter and spirit, desire and necessity, all the pedestrian motives of

[18] The editor explains the symbols as follows: 〈 〉 Cancellation; ↑↓ Insertion.

prudence, and legality, every jealous distinction" (Fausset 55).

When considering the influence of British Romanticists on Emerson, an examination of the idea of atheism across Romantic writings should be taken into account. With the atheism debate initiated by Priestley's confutation of non-believers, a trend toward questioning established religion was spreading among writers in England. Blake, Wordsworth, Byron, Keats, and Shelley wrote atheist poems.[19] From the end of the eighteenth century to the beginning of the nineteenth century, many writers expressed skeptical ideas which might include sacrilege, materialism, and atheism. Martin Priestman argues that they tried to "construct their own meaning out of the known facts of nature rather than the unknowable postulate of religion" (*Romantic Atheism* 6). That is what Emerson tried to do throughout his life. The influence on Emerson of British Romanticists should be studied against the backdrop of atheism.

Emerson's understanding of materialism is akin to that of British Romanticists. I assume that Emerson acquired a materialistic viewpoint through the development of natural science as well as the critique of atheism of British Romanticists. The two streams of religious radicalism and evolutionary conception of nature stemmed from Erasmus Darwin's works: *Zoonomia* (1794–96) which contained ideas on evolution and *The Loves of the Plants* (1789) which personified procreative botanical life. British Romanticists recognized Erasmus Darwin's materialistic idea of "the variety of nature and analogy between various plants and the legendary or invented human characters chosen to represent them" (Priestman, *Romantic Atheism* 63).

According to Beer, Charles Darwin was influenced by his grandfather Erasmus' works. Emerson mentioned Erasmus Darwin in his diary in 1834:

> [May] 29. Dr. Darwin's book has lost all its consequence in the literary world. Why? Not from Currie nor from Brown. No. A dim venerable public decides upon every work. When it ⟨appears⟩ ↑offers itself↓, a sort of perplexity, ⟨a⟩ ↑an uneasy↓ waiting for judgment appears in the living literary judges, but [it] ↑the work↓ presently takes its true place by no effort friendly or hostile, but by the real importance of its principles to the

[19] In his *Romantic Atheism,* Priestman analyzes "positive unapologetic atheism" of Blake in the 1790s, Coleridge in the 1790s, Wordsworth in the 1790s, and Shelley in the 1810s.

> Constant Mind of Man. And this in a way that no individuals ⟨seems⟩ can much affect, by blame or praise. It is the specific gravity of the atom. (*JMN,* 4:292–3)

The footnote of this edition reads that "Dr. Erasmus Darwin's *Zoonomia or The Laws of Organic Life* (London, 1794–1796); probably Dr. James Currie (1796–1805), Scottish physician who wrote on fever and whose own case of pleurisy was discussed in Darwin's work; and Dr. John Brown (1735–1788), whose work on the elements of medicine reportedly provided material for Darwin" (*JMN,* 4:292). However, this footnote did not acknowledge Erasmus Darwin's poetic works, *The Botanic Garden* (1791) and *The Temple of Nature* (1803). It might have confused *Zoonomia* with Erasmus Darwin's other poetic works.[20]

Before this 1834 entry, Emerson jotted down a note relating to Erasmus in 1821: "[Erasmus] Darwin is an example of vivid imagination existing quite separate from poetical sentiment or moral enthusiasm. For strength of stimulus the poetry of sentiment is certainly preferable to that composed of mere pictures like Darwin's or of observation like Pope's" (*JMN,* 1:336). These two entries show Emerson's interest in Erasmus Darwin in terms of literary taste.[21]

According to Emerson's letter to Carlyle of Nov. 20, 1834, Emerson turned his interest to poetry after he returned from Europe.[22] In that light, it is not a stretch to assume that his previous comment on Erasmus

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[20] As Thom Verhave and Paul R. Bider argued, "the large number of American editions of *Zoonomia* between 1796 and 1818 . . . would indicate its popularity." Further, they explained "[Erasmus] Darwin's popularity in London at the turn of the nineteenth century." Desmond King-Hele says that after the publication of *The Economy of Vegetation* (1791) "[f]or about five years Darwin became the most highly regarded poet of the day" (26). Moreover, Priestman points out that "[i]n the nineteenth century his once gigantic reputation suffered a near-permanent eclipse, and he came to be known chiefly as the epitome of the artificial verse against which Wordsworth and Coleridge had established the new principle of Romantic poetry" ("Introduction" vi).

[21] The Huntington Library has an American edition of *Zoonomia.* In that edition, the title page says that "By Erasmus Darwin, M.D. F.R.S./Author of the Botanic Garden, Phytologia &etc." It has an introduction by Samuel Mitchell. He emphasizes the medical use of this book. According to Ralph Rusk, in the year of his marriage (1829), Emerson borrowed *Zoonomia* from the Boston Library Society (143). Emerson might have noticed *The Botanic Garden* when he borrowed *Zoonomia.*

[22] In response to Carlyle's question about his interests after his travel, his letter said: "Since my return home, I have been left very much at leisure. It were long to tell all my speculations on my profession and my doings thereon" (*CEC,* 109). After that passage, Emerson wrote about his fascination with poems and German literature.

Darwin's works should be poetry. "Rhodora," one of the poems which Emerson wrote and published, is thought to have been written in 1834 and coincidentally fits to his description in his letter to Carlyle. In this poem, Emerson admired the beauty of a lonely flower and addressed the flower as "dear" (*W*, 9:38). This might recall Erasmus Darwin's personification of flowers in *The Loves of the Plants* (1789).

Emerson's image of nature evokes Erasmus' depiction of nature as an organic entity in connection with the human world. In the chapter "Language" in "Nature," Emerson depicted nature as an organic entity: "At the call of a noble sentiment, again the woods wave, the pines murmur, the river rolls and shines, and the cattle low upon mountains, as he saw and heard them in his infancy" (*CW*, 1:21). Emerson's perspective resembles that of Erasmus. We witness this in Erasmus' depiction of moss in Canto IV of *The Loves of Plants*: "And hail with ruby lips returning day. / Down the white hills dissolving torrents pour, / Green springs the turf, and purple blows the flower (*The Love of the Plants*, IV 357–9). Emerson recognized that there was no longer Erasmus Darwin's fame as a poet. Yet, he kept interest in the correspondence between the human world and nature as Erasmus presented. In 1843, Emerson wrote a poem, "To Rhea," in which he depicted affectionate love imitating the style of mythological romance.

> I make this maiden an ensample
> To Nature, though her kingdoms ample,
> Whereby to model newer races,
> Statelier forms and fairer faces;
> To carry man to new degrees
> Of power and of comeliness. (*W*, 9:11)

Viewed in relation to Erasmus' depiction of the love of plants, this scene evokes an analogy of the human world and nature through the poetic image of a horticultural creation of new species.

Erasmus Darwin's works influenced his grandson Charles Darwin as well as British Romanticists.[23] Emerson's views on plants and animals are quite similar to those of Erasmus Darwin. As Beer notes, Erasmus

[23] About Erasmus Darwin's influence on Romantic Poets, see King-Hele and Priestman. About his influence on P. B. Shelley, see Ishikawa and Ogawa (55).

Darwin was a forerunner of evolutionary ideas, who noticed polymorphic organic life and used analogy between human beings and the natural world (87). David Robinson argues that Emerson "saw the laws of science — natural laws — as analogies to the law of intellect, or of the spirit" ("Field of Investigation" 99).

Emerson liberated himself from the conflict between religion and science by experiencing the aftermath of atheistic debate in England. Identifying atheism as the extreme opposite, Emerson redirected his inquiry into belief, not belief in God, but in human beings. He wrote as follows:

> I believe that the error of religionists lies in this[,] that they do not know the extent or the harmony or the depth of their moral nature, . . . I call Calvinism such an imperfect version of the moral law. Unitarianism is another, & every form of Christian and of Pagan faith in the hands of incapable teachers is such a version. (*JMN,* 4:83)

When he ended this critical paragraph by saying "[t]he highest revelation is that God is in every man" (*JMN,* 4:84), he seemed to embrace the contradiction between religion and science in perceiving human beings as the perfection of the world. Emerson's later religious writings verify his commitment to seek the process of human prominence, as Robinson argues.[24] Emerson's attempt to articulate nature is no less a scientific approach than Darwin's.

## 5. Conclusion

We can see how close and how different Emerson's and Darwin's ideas on nature are by considering how they applied evolutionary ideas to the history of nature. Darwin concluded *The Origin of Species* as follows:

> There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and

[24] Robinson explains Emerson's later religious works and argues that *The Natural History of Intellect* is "his most ambitious project" and that in that "he felt that progress in natural science would necessarily result in an increased understanding of the realm of the mental" ("Emerson and Religion" 151–177).

> are being, evolved. (459–60)

Darwin locates the mechanism of evolution in natural selection, but he appreciates its result as beautiful and wonderful. Emerson's chapter "Beauty" resonates with Darwin-like admiration for the world. Emerson said that "[a]ll men are in some degree impressed by the face of the world; some men even to delight. This love of beauty is Taste. Others have the same love in such excess, that, not content with admiring, they seek to embody it in new forms. The creation of beauty is Art" (*CW*, 1:16). Darwin and Emerson are interestingly auxiliary to each other in consideration of the beauty in the world. Their admiration of the beauty in nature originated in various depictions of plants and animals. This was quite popular at their time given the development of scientific observation.

Analogical relationships between Emerson and Darwin illustrate the importance of Edinburgh as a place for nurturing new scientific ideas. It is not surprising that Emerson was embarrassed by the development of British industrialization which brought forth extreme materialism. When he traveled further into Scotland to meet Carlyle, Emerson was impressed with the beautiful scenery which eventually brought him to conjure up a crucial topic to discuss with Carlyle. As Kenneth Marc Harris argues, Emerson seemed to never forget the clear sky in Scotland, where he talked about immorality with Carlyle in 1833.[25] His visit to England convinced him that "the English mind was in a state of arrested development" (Rusk 395). He was aware of the weakness of the Romantic generation, exemplified by Wordsworth and Coleridge, and the rise of the new generation, exemplified by Carlyle. Emerson sensed the power of science which might create new cultural phenomenon not in a developed place like London but in regional places like Edinburgh or America. He was anxious about the pace of industrialization and its human and aesthetic cost. His response was to seek beauty in nature more intensely.

Emerson devoted himself to pursue the study of science in the 1830s. His essay "Nature" reflected his understanding of new scientific theories, especially theories on evolution. His transatlantic experience stimulated a

[25] Harris emphasizes the scene in Scotland in which Emerson and Carlyle talked of immortality by mentioning it in his chapter "The Transatlantic Transcendentalists" (8–9, 44).

questioning of atheism and materialism. Emerson's debt to science and his transatlantic experience is an important avenue of exploration for understating the intellectual upheaval in the age of Darwin.

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