

Even Steamrollers Need Rocks in Their Path Cleared: How *In Memoriam* helped pave the way for the *Origin of Species* and *Descent of Man*

MELODY JUE

WRITER'S COMMENT: I took a Science and Technology Studies class on Darwin during winter quarter as an English major, pursuing my interest in studying the dialogue between literature and science. The idea for this essay congealed after I spent about four hours at the library, desperately searching for a topic on anything that involved Darwin and literature for my term paper. I finally found James E. Secord's excellent book, *Victorian Sensation*, which explored how Robert Chambers' anonymously published work, *Vestiges of Creation*, helped prime Victorian audiences to receive Darwin's evolutionary theory. What caught my attention was the fact that Secord both ended and began the book with references to Tennyson: the introduction depicted Tennyson wanting to get his hands on a copy of *Vestiges*, and the end quoted a few stanzas from Tennyson's famous elegy, *In Memoriam*. What was Tennyson doing in a book about the history of science? There had to be some significance to this. I checked out the book and decided to compare Darwin and Tennyson, unaware at the time of how very similar the concerns of the two men were.

—Melody Jue

INSTRUCTOR'S COMMENT: Despair, loss, grief, and doubt are themes explored by Tennyson in his poem, *In Memoriam*. These emotions as well as the philosophical implications of a law-bound evolutionism for relationships between man, God, and nature also claimed a place in the mind of Charles Darwin, Tennyson's compatriot. In her fine interpretive historical essay on Tennyson and Darwin, Melody Jue argues that the reception of Darwin's theory depended not only on his credibility as a gentleman-scholar, in contrast to the popular anonymous work, *Vestiges of the Natural History of Creation* by forerunner Robert Chambers, but also on the way prepared for Darwin by Tennyson's acclaimed poem. Ms. Jue's essay is finely crafted, elegantly expressed and reasoned, and makes excellent use of scholarly secondary and primary 19th-century sources. The essay's sensitive reading of poetry and psyches, clear argumentative structure, and insight into the scientific works of Darwin and his contemporary naturalists make this one of the best essays on science and literature that I have ever read by a student.

—James Griesemer, Science & Technology Studies and Department of Philosophy

IN MANY respects, Darwin and Tennyson led strangely similar lives; both Victorians were born in 1809, belonged to the British upper class, and attended Cambridge University. Yet each led his own uniquely tormented life. Tennyson's most famous poem, *In Memoriam*, inspired by his doubt and grief over losing his best friend Hallam, questioned the relationship between God and Nature. Similarly, Darwin was haunted by the effect his evolution and Natural Selection hypotheses would have, once published, on his respectability and on society. Yet Darwin's audience had been conditioned to receive his theory, which was itself the result of a long tradition of imaginative scholarship and research which included the work of Whewell, Herschel, Lamarck, Lyell, Owen, and Chambers. Darwin's ideas were not so radical in the kind of world view they espoused—the basic idea of evolution had been around since Lamarck, and the transmutation of species sometime after that—but in the way they explained a mechanism, Natural Selection, by which evolution might occur. This tenet of his theory was particularly controversial, but members of the Victorian scientific community and the public were willing to openly debate and discuss it. Although the significant attention given to Darwin's theory at the time can be partially attributed to Darwin's credibility as a respected scientist and gentleman and to the quality of his scholarship, it may also be attributed to the audience's own preparation—the extent to which they had become conditioned to think about the idea of evolution and to cognitively integrate it into their lives.

Tennyson's elegy *In Memoriam* depicts many of the same issues and problems of reconciling theology with science that Darwin faced when writing *On the Origin of Species* and subsequently *The Descent of Man*. In this paper I explore how Tennyson's poem offered a world view that integrated evolutionary science with Victorian religious ontology, illustrating how spiritual faith could peacefully coexist with evolution. The preceding scientific steps made by Lamarck, Lyell, Owen, Chambers, and many others paved the way for Darwin's evolutionism, but the Victorian literary canon, of which Tennyson's *In Memoriam* was a defining part, conditioned the public to doubt, investigate, and integrate new scientific information into its existing world view.

One of the most sensational evolutionary works that may have prompted Darwin to finally publish his work on evolution and Natural Selection was Robert Chambers' anonymously published book, *The Vestiges of Creation*. Unlike Darwin, Chambers did not have "the secure position in society nor the scientific reputation that allowed Darwin to put his name on the title page of the *Origin of Species*" (Ruse, *Darwinian* 186). In *Victorian Sensation*, James A. Secord argues that Darwin's *Origin* was received as well as it was because Victorian audiences had been conditioned by *Vestiges* to think about the feasibility of evolution. Ruse concurs, suggesting that Darwin's audience was "readier" for evolutionism in 1859 than they had been in 1844, and that "Chambers himself was one of the main reasons people were readier. For all its inadequacies, *Vestiges* reduced the shock value of evolutionism" (Ruse, *Darwinian* 132). Darwin also acknowledged his debt to the book:

The work, from its powerful and brilliant style, though displaying in the earlier editions little accurate knowledge and a great want to scientific caution, immediately had a very wide circulation. In my opinion it has done excellent service in this country in calling attention to the subject, in removing prejudice, and in thus preparing the ground for the reception of analogous views. (6)

However, *Vestiges* interested not only people in the scientific community, but also writers like Tennyson, who were forever curious about humanity's relationship with the world. Secord notes that "other works need only be borrowed; *Vestiges* was a book that Tennyson wanted to buy" (Secord 10). Because of the number and variety of people it reached, *Vestiges* undoubtedly conditioned audiences to think about evolution.

In Memoriam—the poem that made Tennyson the royal Poet Laureate of Britain—may also have been highly influential in conditioning the Victorian readership to receive Darwin's *On the Origin of Species* and *The Descent of Man*, as it was arguably more widely read than *Vestiges*. Lamenting the death of the prince consort in 1850, the Queen herself told Tennyson, "next to the Bible, '*In Memoriam*' is my comfort" (Ruse, *Darwinian* 150). This was a kind of public-

ity money couldn't buy. Darwin himself was also familiar with *In Memoriam*; it was his wife Emma's favorite poem, and the questions it raised about death resonated with Darwin, given his experience coping with the death of his beloved daughter Annie. Desmond and Moore cite passages of *In Memoriam* to describe the grief Darwin experienced in this loss (383-4), suggesting that Annie's death was the straw that broke his Christian faith: "This was the end of the road, the crucifixion of his hopes. He could not believe the way Emma believed—nor what she believed. There was no straw to clutch, no promised resurrection. Christian faith was futile" (384). Life was fragile, and Darwin identified with the doubts explored by Tennyson. Recent scholarship also recognizes Tennyson's importance to Victorian scientific culture. Secord chooses to both begin and end his book on *Vestiges* with references to Tennyson, suggesting that "for thousands of readers, Tennyson's *In Memoriam* offered the most profound integration of the evolutionary narrative into everyday experience" (530). *In Memoriam* synthesized a wealth of doubt concerning God and man's place in nature, bringing this evolutionary narrative to the attention of a wide Victorian audience.

From a young age, Tennyson was primed to think about the same questions concerning evolution and Christian faith that tormented Darwin. At Cambridge, Tennyson was part of the exclusive and reputedly brilliant club, "The Apostles," who "gathered on Saturday evenings to wrangle over everything from fornication and the division of labor to the fraught question of whether mankind had 'descended from one stock'" (Desmond & Moore 56). A few of the men who became Darwin's mentors, including Whewell and Sedgwick, were also Tennyson's tutors at Cambridge, available for him to question regarding matters of cutting-edge science (Roppen 68). Tennyson's grief over the sudden and unexpected death of his best friend Hallam became a trigger for even deeper and more serious contemplation about the nature of God and man's place in the world. Over the next 17 years, Tennyson wrote the poetic fragments that he eventually assembled into his long elegy *In Memoriam*. Darwin, as a "Renaissance man" of the scientific disciplines who had spent five years on the H. M. S. Beagle as a solitary naturalist, was also conditioned to doubt and question the world around him. To

the best of their abilities, both men tried to figure out why the world worked in the seemingly chaotic fashion that it sometimes did.

Yet the question arises, did *In Memoriam* prepare Victorian readership for Darwin's particular flavor of evolution? What *kind* of theory does *In Memoriam* depict, and if it does not depict the same kind of evolutionary theory as Darwin's, did that lessen its agency in conditioning the public to receive Darwinism? In approaching these questions, one must take into account the materials available to Tennyson at the time as well as what he was actually prepared to write. Tennyson published *In Memoriam* nine years before Darwin published his theory of Natural Selection, and had written most of the poem before 1844 when *Vestiges* was published; he commented that *Vestiges* "seems to contain many speculations with which I have been familiar for years, and on which I have written more than one poem" (Secord 9). Tennyson could not have been familiar with Darwin's particular theory of evolution and probably did not rely on Chambers' theories either. Furthermore, he was a poet, with only a dilettante's interest in science. While Tennyson toyed with theories already published, he was far from the crowd of scientists who worried about the details of evolutionary theory and the particular mechanisms by which it works. Still, like *Vestiges*, *In Memoriam* may have been influential simply by helping introduce evolutionary concepts to the public.

One key concept that the work of both Darwin and Tennyson illustrates is how the universe operates by a system of laws. Both men were influenced by John Stuart Mill's *System of Logic*, which promoted the claim that "All the universe, including man, is subject to law—unbreakable natural regularity" (Ruse, *Darwinian* 145). Darwin ended *On the Origin of Species* in a way that alluded to Mill's law-obeying universe (Glick & Kohn 215). While Darwin never seemed troubled by this system of rigid laws, it was initially a cause of despair for Tennyson. When he wrote that "nothing is that errs from law" (stanza 73 line 8), he imagined a system of inexorable laws with no sensitivity for human life. As one critic puts it, "Tennyson's fear of death is interlinked with a horror of blind, mechanical forces operating without heed or plan throughout the universe" (Roppen 72). Yet in an interesting reversal of logic, this

system of laws, which initially horrifies Tennyson, becomes a source of comfort by the end of *In Memoriam*:

That god, which ever lives and loves,
One God, one law, one element,
And one far-off divine event,
To which the whole creation moves.
(Epilogue: 141-4)

Tennyson concludes that the universe works according to a framework of law given by a loving God, a conception that helped him to understand how evolution might be assimilated into a view of human dignity and human progress.

Another key concept introduced by the poem is the relation of geology to humanity's place in the world. Tennyson's exact stance on geology is not easy to pin down, and critics differ on whether *In Memoriam* presents a catastrophist or Lyellian understanding of geology. The critics who see *In Memoriam* as catastrophic call attention to the "cyclic storms" (118 line 11), which depict a radical and swift process of change and transformation. Other critics argue that *In Memoriam* has a strongly Lyellian flavor, calling attention to the following passages:

Are God and Nature then at strife,
That Nature lends such evil dreams?
So careful of the type she seems,
So careless of the single life
(55: lines 5-8)

"So careful of the type?" but no.
From scarped cliff and quarried stone
She cries, "A thousand types are gone;
I care for nothing, all shall go."
(56: lines 1-4)

Ruse suggests that this view of Nature as indifferent to individual life is comparable to the grim "uniformitarian" geology of Charles Lyell: "Lyell argued that nature is going nowhere—it's bound by stern, unbreakable laws, and there is no goal in prospect, nor any progress in view. Life comes and life goes without meaning" (Ruse, "Biology"). How we interpret the kind of geology *In Memoriam*

depicts influences how we understand what the poem has to say about the workings of the universe and God's plan. If Tennyson's geology is catastrophist, then he is accenting the frailty of humanity and the looming threat of global disasters. If Tennyson's geology is Lyellian, then perhaps he despairs at the futility of human existence in the cyclic universe of immutable laws. Since poetry is often intentionally ambiguous, seeking to layer, overlap, and code meaning, perhaps Tennyson's views conform fully to neither geological theory.

Tennyson's attitude towards and depiction of evolutionary theory is inextricably linked to his understanding of man's place in creation. Where Darwin sought to understand evolution in terms of transmutation, Tennyson pondered what evolution implied about divine intention. In section 55 of *In Memoriam*, Tennyson questions if Nature is truly indifferent to the fate of individuals. He explores this theme further in section 56:

Man, her last work, who seemed so fair,
Such splendid purpose in his eyes
Who rolled the psalm to wintry skies,
Who built him fanes of fruitless prayer,

Who trusted God was love indeed
And love Creation's final law—
Though Nature, red in tooth and claw
With ravine, shrieked against his creed—

Who loved, who suffered countless ills,
Who battled for the True, the Just,
Be blown about the desert dust,
Or sealed within the iron hills?
(56: lines 9-20)

At this point, in the middle of the poem, fully conscious of evolution, Tennyson explores his most paralyzing doubts about God and man. He acutely recognizes how a general theory of evolution could imply that man has no higher purpose than any other creature, and that the ills man suffers are pointless side-effects of existence instead of earthly tests after which one would eventually ascend to heaven. Many religious people did not accept evolution because of these implications.

However, Tennyson inverts his attitude towards evolution after this passage, turning it into evidence of man's dignified place in creation. Instead of seeing man as a race abandoned by God to the harsh, cold laws of the universe, Tennyson sees man as responsible for his own progression and development into a higher being. This resolution was partially influenced by Tennyson's reading of *Vestiges*, or its excerpts, including resonant sections such as, "Is our race but the initial of the grand crowning type? . . . There is in this nothing improbable on other grounds . . . There may then be occasion for a nobler type of humanity" (Ruse, *Darwinian* 278). Tennyson repeats this same ennobling language in *In Memoriam* to describe the dignity of man in conjunction with the forces of evolution.

In tracts of fluent heat began,
 And grew to seeming-random forms,
 The seeming prey of cyclic storms,
Till at the last arose the man;

Who throve and branched from clime to clime,
 The herald of a higher race,
 And of himself in higher place
If so he type his work of time

Within himself, from more to more;
 Or, crowned with attributes of woe
 Like glories, move his course, and show
That life is not as idle ore.

(118: lines 9-20)

Tennyson also uses the language of upwards motion in the epilogue:

A soul shall draw from out the vast
And strike his being into bounds,

And, moved through life of lower phase,
 Result in man, be born and think,
 And act and love, a closer link
Betwixt us and the crowning race
(Epilogue: 23-28)

Tennyson concludes that man is too imperfect to be the last goal of creation, and that evolution offers “strong evidence of a Divine plan in the ordered and progressive growth of life to higher levels” (Roppen 91). Through this theme of progress, heavily influenced by Chambers’s evolutionism, Tennyson began to regain his faith in God.

Yet in contrast to Tennyson, Darwin was officially opposed to the idea of looking at evolution as a history of progress. In *The Descent of Man*, he argued that “We are apt to look at the progress as normal in human society; but history refutes this” (qtd. in Glick & Kohn 246). He later wrote, “We must remember that progress is no invariable rule” (252). However, Darwin began to mix up his language in the following pages, writing that the struggle for existence forced “man upwards to the highest standard” (254). He also described “the steps by which some semi-human creature has been gradually raised to the rank of man in his most perfect state” (254), suggesting that man had “risen, though by slow and interrupted steps, from a lowly condition to the highest standard as yet attained by him in knowledge, morals and religion” (256). Darwin’s use of the diction of “ascent” is clearly in conflict with the title of this publication, “descent,” suggesting that while he did not professionally subscribe to a progressive view of evolution, he still maintained some notion of progression in his psyche, and that this notion was somehow essential to retaining a belief in human dignity.

Since the two men arrived at an enthusiasm for evolution from such radically different perspectives, perhaps it didn’t matter what kind of evolution *In Memoriam* was actually proposing in order to effectively condition audiences to think about evolution. After all, Tennyson was not a scientist but a poet, dealing with issues that were, in his opinion, infinitely larger than the scientific details of a particular evolutionary theory. He accepted that the world worked by some kind of evolutionary principle; some of the implications of any evolutionary theory would be the same regardless of other details, and these did not matter for the main part of what he was trying to say. In the end, Tennyson was motivated less by an interest in scientific and technical knowledge than by his own tormented experience as a human being confronting death and annihilation.

The fact that *In Memoriam* was not technically accurate in its description of evolution as a force did not detract from its overall effect of conditioning Victorian audiences to think about evolutionary concepts and how these might integrate into acceptable and Christian worldviews. It reached audiences that technical and scientific work did not appeal to, contextualizing evolution in a way that made audiences readier to think about Darwin's theory nine years later. Tennyson's skill was so consummate that most people did not realize that what they were reading was controversial, remaining ignorant of the possibility that Tennyson's particular reconciliation of evolution and Christianity might be viewed as blasphemous for its struggle with faith and for alluding to a version of history that challenged the literal truth of stories from the Bible. Ruse remarked that "[t]he gullible public was avidly reading a poem that not only was directly inspired by Chambers's evolutionism but followed the doctrine into a blasphemous perversion of Christianity" (Ruse, *Darwinian* 150). On the other hand, T. S. Eliot famously noted that *In Memoriam* is "not religious because of the quality of its faith, but because of the quality of its doubt" (Abrams et al. 1230). The poem's fame and popularity suggest that this was the attitude that most Victorians agreed with.

In Memoriam was also influential in conditioning audiences to receive Darwin's works simply because it *was* a poem. Although *Vestiges* and *Principles of Geology* also significantly helped condition Darwin's audiences, they were scientific texts that sought to contribute to an existing bank of knowledge and "truth" about the world. As such, they were held to a high standard of accuracy; while science is meant to be hard and factual, poetry is meant to be speculative. Poetry celebrates the multiplicity of interpretation, synthesizing multiple thoughts, reflections, and feelings. Although he had his doubts, Tennyson worked out a way to understand evolution as compatible with a dignified view of humanity—and with his Christian faith.

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