When I Heard the Learn'd Astronomer Study Guide

When I Heard the Learn'd Astronomer by Walt Whitman

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Introduction

Walt Whitman, whose name is synonymous with the United States and who continues to be widely considered America's greatest romantic poet, was inspired in a variety of ways by the Civil War. Many of the poems in *Drum-Taps* (1865), for example, a collection that was instrumental in establishing Whitman as a spokesperson for his country, deal directly with the fierce struggle between the Union and the Confederacy. However, this collection also included a number of poems with broad stylistic and thematic innovations only indirectly related to the conflict. Diverse explorations of Whitman's powerful and musical poetic voice, these poems were later incorporated into a variety of sections of Whitman's most important work, *Leaves of Grass*, which he revised and released in various editions throughout his life.

"When I Heard the Learn'd Astronomer," which is included in the "By the Roadside" section of the standard 1892 edition of *Leaves of Grass*, published in New York and now widely available from imprints such as W. W. Norton (1973), is a prime example of a *Drum-Taps* poem whose subject is not confined to the Civil War. Although one of its important themes deals with the idea of unity and individualism that resonates with the struggle for the Union of States, "When I Heard the Learn'd Astronomer" is chiefly a poem about romanticism, nature, and astronomy. With its sophisticated linguistic devices and its organization that envisions an escape from a confined lecture room to the glory of the night sky, the poem contrasts the limited scientific process with a personal and romantic interaction with the stars. A visionary poem with an intimate and immediate voice, it is a brilliant example of Whitman's achievement, containing a broad and transcendental vision into a short romantic poem.

Author Biography

Walt Whitman was born on Long Island, New York, in 1819, into a climate of patriotism for the newly created nation of the United States. His father was a carpenter by trade but began farming by the time his first son (Walt) was born. The family moved to Brooklyn when Whitman was four. Whitman studied in public schools for six years before he began working as an errand boy for Brooklyn lawyers. From then on he educated himself in the library. Beginning work as an apprentice printer for local newspapers in 1831, Whitman soon began to write articles and later moved around Long Island between jobs at newspapers and posts as a teacher. He also became active in debating societies and campaigned for the Democratic Party. In 1840, Whitman returned to New York City and began publishing short stories in newspapers and magazines.

In 1846, Whitman traveled to New Orleans as an editor for a local paper. Somewhere between this assignment and the publishing of the first edition of *Leaves of Grass* in the early 1850s, his poetic style shifted to the unconventional and visionary technique for which he would become famous. *Leaves of Grass* claimed to be speaking for all of America, and it was very favorably received by the influential American writer and philosopher Ralph Waldo Emerson. Whitman continued to revise *Leaves of Grass* throughout his life, and each edition changed and expanded from the original twelve untitled poems.

After the onset of Civil War in 1861, Whitman became increasingly affected by the conflict and began to volunteer in hospitals for wounded soldiers. In 1862, After finding his brother's name on a casualty list, Whitman set out to Virginia to find him. His brother had only a superficial wound, but Whitman came in contact with some of the most severe horrors of the war and decided to stay in Washington, D.C., working in the government paymaster's office and assisting in hospitals. The poet's experience of the war was central in inspiring a collection of poetry titled *Drum-Taps*, which included "When I Heard the Learn'd Astronomer," in 1865.

After being fired from his job in the paymaster's office when the former Senator James Harlan found a working copy of *Leaves of Grass* in Whitman's desk and declared it indecent, the poet returned to New York to work on the 1867 edition of the collection. Whitman suffered a stroke in 1873, but remained active for many years, continuing to publish new editions of *Leaves of Grass* as well as other poetry and commentary. He died in 1892 of tuberculosis.

Plot Summary

Lines 1—2

"When I Heard the Learn'd Astronomer" begins by repeating the title, something that often occurs in Whitman's poetry and gives extra weight to the first phrase, to set up the idea that the speaker is listening to an educated scientist. This phrase also stands out because of its internal rhyme, or rhyme within the same line, of "heard" with "learn'd." This is also a slant rhyme, or an inexact rhyme, since "learn'd" has an "n" sound unlike "heard," but it nevertheless emphasizes a sense of repetition. The slant rhyme even gives the first line an impression of awkwardness, since it is difficult to pronounce and uses the same long vowel sound twice in a row.

The other element of the first line to notice is use of the contracted version of "learned." Whitman frequently contracts words such as this, which would always be spelled out today, partly in an attempt to capture the way people actually spoke, instead of a high prose style. In this context, the contraction places some distance between the speaker of the poem, or the voice of the narrator, and the educated astronomer to whom he is listening. The poet may be suggesting here that the speaker uses a different, perhaps a more common or lower class, style of expression from the learned scientist.

Line 2 of the poem then presents the interesting image of "proofs" and "figures" of mathematical equations "ranged," or arranged, in "columns." Notice that the poem's first four lines become increasingly longer, unlike these columns, which presumably go straight up and down within the same horizontal space. If a poetic line stretches beyond the margin, the standard method of printing that line is to continue it below, after an indentation. If a poetic line is continued in this way, therefore, it does not change the fact that the line should be considered to extend further and further to the right. Thus Whitman is likely to be contrasting the visual poetic expansion in the lines with the columned mathematical expansion of the astronomer's proofs.

Lines 3—4

The third line, in which the speaker is shown materials related to astronomy and asked to manipulate mathematical equations, is full of mathematical diction, or word choice, such as "charts," "diagrams," "add," "divide," and "measure." These words make up almost the entire line, and they are likely to overwhelm the reader, as they will increasingly overwhelm the speaker. That the speaker is asked to "add, divide, and measure" the "charts and diagrams" also emphasizes the negative side of the process, as though the lecture has nothing to do with the sky but merely manipulates its own figures.

This is reinforced by the fact that, through the fourth line, the poem has said nothing about astronomy. The fourth line also emphasizes that the speaker is "sitting," as

opposed to standing or actively engaging with the subject, and stresses again that the lecture is occurring in the "lecture-room," away from nature. And, once again, the reader is caught up by the internal repetition of "lectured" and "lecture-room," as is the case in the internal rhyme of line 1. This technique serves to contain the line inside its own words and achieve the stuffy lecture-room atmosphere that Whitman seems intent upon conveying. The applause that the lecturer is receiving therefore does little to make the lecture seem compelling or interesting.

Lines 5—6

Line 5, which comes at the halfway point in the poem, shifts in style from the first quatrain, or unit of four lines. In fact, everything that has come previously in the poem sets up and modifies the statement "I became tired and sick," which also contains the poem's first active verb. It is partly understandable from the description of the lecture why the speaker feels this way, but the deeper reason is contained in the word "unaccountable." Slightly confusing at first because it seems out of place in the sentence, this word primarily means that it is "unaccountable," or difficult to determine, why the speaker became tired and sick. But there is a strong secondary meaning of the word of great importance to the main themes of the poem; namely, that the speaker has become tired and sick because he is an "unaccountable" person, or someone who is impossible to explain or define.

The speaker then wanders off by himself in line 6, leaving the lecture room, and this line is therefore the turning point in the poem. There are a number of key elements to notice here, including the fact that the first two descriptive verbs, "rising and gliding," make it seem as though the speaker is flying out into the sky and directly interacting with space. This is an important poetic technique that combines the figurative, or metaphorical and representative, meaning, with the literal meaning, which is that the speaker walks outdoors.

The second important aspect of this line is the fact that the speaker "wander'd" out of the lecture room; this is the first hint that perhaps the speaker is somewhat aimless or unstructured in comparison with the exactness of the learned astronomer. Finally, it is important that the speaker leaves the lecture "by myself," because this suggests that, unlike the group effort of scientific analysis, the speaker will be approaching the phenomenon of astronomy alone. Like an artist, the speaker will be interpreting the stars on his own terms, as a creative individual.

Lines 7—8

In line 7, the speaker has emerged outside into the "moist night-air," and the key word in the description of the night sky is "mystical." This word could suggest a variety of spiritual ideas, from ancient pagan worship to romantic individualism, but it is very distinct from anything scientific, and it establishes a radically different atmosphere from that of the lecture room. The seventh line again uses the technique of internal repetition

with "time to time," but this idiom, or phrase from common speech, is mainly a method of reinforcing the speaker's more relaxed and unstructured process of observation. By looking up every so often, whenever he desires, the speaker is approaching nature very differently from the scientific regularity of observation and analysis.

It is also important to recognize that, in referring to the "mystical moist night-air," line 7 contains the first actual image of the sky itself. But even here the speaker has not quite reached the astronomical phenomena themselves, and does not do so until he looks up "in perfect silence" in line 8, again using a contracted "ed" verb, "Look'd," like "wander'd" in line 6 and "learn'd" in line 1, to emphasize his common touch. Here, in the very last word of the poem, only after the speaker has reached "perfect silence" and just before the words and descriptions of the poem end altogether, the speaker finally sees the vision of the "stars."

Themes

Romanticism and the Scientific Process

When applied to literature, the term romantic refers, very broadly, to the stress of the imagination and the senses over reason and logic. Pre-Civil War American romanticism has more specific associations, as does the philosophy of transcendentalism, and both of these terms are discussed in the historical context section below. But the particular strand of romanticism and transcendentalism that Whitman invokes in "When I Heard the Learn'd Astronomer" can be seen in poem's contrast between the value of the sensory imagination and the logical method of the scientific process in their approaches to the natural world.

The first quatrain concentrates on the mathematical logic of the scientific process, and the poem details the breakdown of data from the real world as it is arranged and ordered by science. Although there is a sense that the learned astronomer's ability to arrange the information in this order is impressive, the main emphasis of Whitman's language suggests that his approach to astronomical data is cramped within a lecture room and even distinct from the astronomical phenomena themselves. Whitman may be suggesting that the lecture makes the speaker "tired and sick" because the manipulation of figures and the sitting in the closed lecture room full of applause is not as meaningful as the contemplation "in perfect silence" of the stars. Because the final three lines are so much richer in language and vision, it seems that romantic mysticism is favored above logic and science.

However, this does not necessarily suggest that the speaker has no interest in astronomy, or that the scientific process is worthless. Whitman, who was himself quite interested in the field of astronomy and the scientific advances of the period, also includes the hint in line 6 that the speaker is somewhat aimless in his escape from the lecture room by using the word, "wander'd." Wandering and mysticism are therefore not necessarily Whitman's straightforward solutions to the problems of the strict logic of the lecture room, and it is also possible that the "unaccountable" speaker may simply be unable to handle the truth and exactness of science. Nevertheless, the overriding sense of the poem seems to stress that logic and science are often unable to see and absorb the fuller sense of the world that a romantic inclination can provide.

Personalism

"Personalism" is the name given to Whitman's own version of individualism, the philosophy that individuals should lead their lives as they desire, balanced with the democratic ideal of a state that governs individual actions to some degree and develops a sense of union. The precise balance between individualism and ideals of statehood is not always clear in Whitman's poetry, however, and the poems of *Leaves of Grass* often question the balance between the individual and the collective that this theme requires.

The main clue that "When I Heard the Learn'd Astronomer" includes a meditation on the theme of personalism is the phrase "wander'd off by myself" in line 6, a clear reference to the solitary nature of the speaker's observation of the night sky.

Contrasting the speaker's lone interaction with the stars to the group of scientific observers that applaud the learned astronomer, Whitman at first seems to be stressing the importance of an individual's unique and personal contemplation of astronomy. When he leaves the group inside the lecture room, the speaker is able to rise and glide out into a mystical appreciation of the stars that does not make him "tired and sick" or unsatisfied. It seems due to the speaker's personal freedom that he is able, "from time to time," to enjoy the fuller and more majestic meaning of the stars.

As in Whitman's treatment of the theme of romanticism, however, there are also a number of subtle suggestions that such an individualistic approach is not necessarily without problems. The fact that the speaker is an "unaccountable" person, or at least unaccountably unable to remain confined in the lecture room, supports this ambiguity. The problem of his "wander[ing]" from the scientific truths of the mathematical figures in the first quatrain, as well as the fact that the speaker's individual observation results only in "perfect silence" and not in any judgments about the stars, also suggest that individualism is not the sole solution to the poem's problems. Mathematics appears unable to produce compelling imagery like that of the second quatrain, but it is possible that this compelling imagery is itself a distraction from the true meaning of astronomy that a group effort can discover. This is why the elements of Whitman's theory of personalism that he is testing in this poem should be considered an ambiguous balance between the volition of the individual and the solidarity of the group.

Space

Whitman's poem uses astronomy to convey ideas about various other themes, but the poem is also making a comment about the importance of space itself. The speaker's sense of awe and wonderment at the stars, which is reinforced by the fact that he views them in a reverential "perfect silence" and connects them to the word "mystical," highlights the fact that Whitman viewed astronomy as something of a new frontier for American thought. By applying advances in technology during the second half of the nineteenth century, scientists were making many discoveries about the physical nature of planets and stars, and Whitman's poem makes reference to the excitement about space during this period of discovery.

Also, and perhaps more centrally to Whitman's thematic goals in the poem, the speaker's interaction with the stars suggests that space is an amazing and inspiring realm that should be explored personally and intuitively as well as scientifically. There is even the possibility that the stars have a spiritual or religious significance, since they are associated with the mystical, eternal, and endless part of that universe the Whitman connected with spirituality. If this is the case, the poem can be understood as the next step in the process of discovering the truth of the universe when science fails or becomes too self-contained to see the bigger picture.

Style

Diction

One of Whitman's most important stylistic devices in "When I Heard the Learn'd Astronomer" is his extremely careful choice of wording, or diction. When, in lines 2 and 3, the meaning of the poem stresses the ordered and categorical process of science and mathematics, Whitman's language is full of mathematical words such as "proofs," "figures," "charts," and "measure." Or, when he is attempting to suggest the actual and magnificent nature of the night sky, Whitman describes the speaker's wandering with the words, "rising and gliding," which suggest the behavior of the stars or astronomical bodies themselves. This language is not simply descriptive; it is meant to bring out the poet's thematic goals because of the resonance of the words in the reader's mind.

Another example of the importance of diction to the poem is Whitman's use of the common language of everyday speech, such as the contraction "learn'd" for "learned" or "look'd" for "looked," and the simplification of "arranged" and "until" to "ranged" and "Till," respectively. This is a stylistic technique used to develop the individual voice of the speaker in the poem, and it relates to the poet's desire to stress a common and personal understanding of nature. The style serves as a contrast to the precise mathematical language of the learned astronomer and his scientific lecture.

Repetition

Many words and sounds are repeated in Whitman's poem, beginning with the first line, which is a repetition of the title. This line also contains the internal slant rhyme of "heard" and "learn'd," and line 4 again repeats the sound of "lecture" with "lectured" and "lecture-room." "When" is the first word of each line of the first quatrain, and there is another internal repetition, "time to time," in line 7. Finally, there are a number of instances of alliteration, or the repetition of initial sounds, such as "myself, / In the mystical moist," and "silence at the stars."

These devices of repetition have a number of functions in the poem. For example, the repetition of "When" or the internal repetition of "lecture" may be meant to highlight the awkward failings of the scientific approach to astronomy. Meanwhile, the rich alliteration in the final three lines may be intended to stress the musical allure of the speaker's mystical approach to viewing the stars. In all cases, Whitman's technique of repetition is a musical device meant to enhance the pleasure of the reading experience, and it is a major part of what draws the reader to the intricacies of the poem.

Organization

Although "When I Heard the Learn'd Astronomer" does not have a particular meter, or sequence of stressed and unstressed syllables, it does use organizational techniques

such as line length and poetic form in order to demonstrate its meaning. For example, the first four lines become increasingly longer, by about two feet, or stressed syllables each. So, at the end of the quatrain, line 4 appears particularly long and inelegant compared to the brief and internally rhyming first line. On the contrary, the last line of the poem is in iambic pentameter, a traditional meter that is considered pleasing and was frequently used by Shakespeare. This stylistic technique may be a method of underscoring Whitman's theme of the value of interacting with nature as a categorical scientist or as an independent and creative observer.

Historical Context

Romanticism and Transcendentalism

European romanticism began in the late eighteenth century as a rejection of the Enlightenment-era's preoccupation with reason and rationality. Due in large part to the influence of the American philosopher Ralph Waldo Emerson, romanticism spread to the United States in the nineteenth century and became an important influence over many mid-nineteenth-century American writers such as Edgar Allen Poe, Nathaniel Hawthorne, and Whitman. The type of romanticism practiced by these and other writers varied widely, but it was characterized by a visionary and emotional style that stressed intuition and feeling as the primary sources of truth and meaning. From Poe's haunting ghost stories to Whitman's poetic vision of the self as the universe, writings with a romantic influence tended to explore the various aspects of the creative spirit.

Emerson's philosophy, which became associated with the system of thought known as transcendentalism, was extremely influential over Whitman and other American writers. Like romanticism, transcendentalism valued the examination of nature and the exploration of the self as the path to knowledge. Although Emerson was heavily influenced by European romanticism, his philosophy differed from the European tradition in a number of ways, including its conviction that people are fundamentally good. One of the most important of these distinctions is Emerson's concept of "self-reliance," which refers to the necessity of individualistic faith in one's self, including one's unique convictions and inner beliefs.

Emerson is credited with making transcendentalism popular in the United States, although other New England philosophers such as Henry David Thoreau made influential contributions to the movement. Whitman was inconsistent in his acknowledgement of their influence over him, but Emerson's ideas and transcendentalist theories are noticeable throughout his work. Much of Whitman's poetry, including "When I Heard the Learn'd Astronomer" is invested in the concept of self-reliance, and he consistently explores and tests the transcendental as a source of knowledge and meaning.

The American Civil War

There had long been tension between the slave-owning South of the United States and the North, which had abolished slavery by 1804, but the issue came to a head in the volatile presidential campaign of 1860. After Abraham Lincoln of the Republican Party won the election, in which the major issue was the expansion of slavery into the western territories, South Carolina voted to secede from the Union, largely because it feared the Republicans would attempt to abolish slavery in the South. After failed negotiations and the further secession of the other southern states, the Civil War began in 1861, when the Confederate army attacked Fort Sumter in Charleston, South Carolina. The larger,

industrial North hoped for a quick end to the conflict, but the South proved to have better generals and a greater conviction to fight, and the bloody war dragged out over five years until Confederate General Lee finally surrendered to General Ulysses S. Grant in 1865.

The Civil War was an extremely traumatic and devastating conflict that affected nearly all aspects of American life and had longstanding consequences. For example, although Lincoln had reassured the newly formed Confederacy that he had no intention of abolishing slavery in the South, he delivered the Emancipation Proclamation to free the slaves in 1862 after the Union army won a particularly horrific battle in Maryland. The war was of utmost importance to Whitman, who worked for the government in Washington, D.C. during the conflict and tended to thousands of wounded soldiers. "When I Heard the Learn'd Astronomer" originally appeared in *Drum-Taps* (1865), a collection largely inspired by the poet's Civil War experiences.

Astronomy

The mid to late nineteenth century was an active and exciting time for astronomy. In 1838, F. W. Bessel made the first measurement of the distance from the earth to a star, and the planet Neptune was discovered in 1846 based on a position calculated by J. C. Adams and U. J. J. Leverrier. Also, technological advances in photography and spectroscopy were making it possible for scientists to study the stars and planets more thoroughly than ever before. Instead of merely charting the paths of astronomical bodies and their distances from Earth, astronomers were beginning to find out about their physical composition. In 1858, German physicist Gustav Robert Kirchhoff discovered that every element has a unique fingerprint of spectral lines. Based on this discovery and his observation of the spectral lines revealing the presence of sodium in the sun's atmosphere, Kirchhoff thus made the first claim that elements found on Earth are also present in space.

Critical Overview

Whitman created a sensation in the literary community from the publication of the first edition of *Leaves of Grass* in 1855, but his poems were extremely controversial, and he was abused by critics throughout his career. When *Drum-Taps* was published in 1865, reviews in the United States tended to be mixed, although critics such as John Burroughs, in his article "Walt Whitman and His *Drum-Taps*," were struck by this volume and began to recognize Whitman as a unique and powerful American poet, praising "the rugged faith and sweet solemnity we would describe in *Drum-Taps*." The anonymous *New York Times* reviewer of November 22, 1865, on the other hand, was among the many critics who continued to find Whitman's poetry obscene: "we find in them a poverty of thought, paraded forth with a hubbub of stray words."

Negative reactions to Whitman's poetry, both in the United States and abroad, continued to be problematic. In June of 1865, Whitman was fired from his government job because former Senator James Harlan discovered a copy of *Leaves of Grass* in Whitman's desk and found it obscene. The early 1880s saw an increased acceptance of Whitman as a brilliant and important poet, in part because of the support of the major publisher James Osgood. But the District Attorney of Boston banned the 1881 edition of *Leaves of Grass*, and Whitman refused to omit the objectionable material. Forced to withdraw further printings with Osgood after the banning, Whitman was nevertheless able to sign a contract with the Philadelphia publishing firm, Rees, and sell many copies based on positive reviews and the notoriety from having been banned in Boston.

It was not until after Whitman's death, however, that the barrage of negative criticism against him ceased. Then, from the 1890s onwards, Whitman began to be recognized as the quintessential American poet, a reputation he continues to enjoy. Throughout the twentieth century, critics concentrated on Whitman's innovations in language and structure, his politics and understanding of union and democracy, and his spiritual and romantic philosophy. Today, critics are increasingly interested in the historical dimension of Whitman's poetry as well as in the ways it engages with the theme of sexuality. "When I Heard the Learn'd Astronomer," now included in the "By The Roadside" section in *Leaves of Grass*, is widely anthologized and sometimes included in discussions of Whitman as a poet of science and Whitman as a poet of luminosity.

Criticism

- Critical Essay #1

Critical Essay #1

Trudell is an independent scholar with a bachelor's degree in English literature. In the following essay, Trudell discusses the place of Whitman's poem within Leaves of Grass *as a whole in order to explore the context of its themes of personalism and spiritualism.*

"When I Heard the Learn'd Astronomer" is included in the "By the Roadside" section of *Leaves of Grass* in accordance with Whitman's wishes, since this was the poem's location when Whitman declared that all future printings should match the 1892 edition. The poem had not always been in this group, however; it was originally published in the separate Civil War collection *Drum-Taps* and was included in the "Drum-Taps" addendum to the 1867 edition of *Leaves of Grass*. Then, in the 1871 and 1876 editions, the poem was printed in the "Songs of Parting" section, the final group in the collection. It was not until 1881 that it was placed into the miscellaneous "By the Roadside" group, where it remained in subsequent editions.

This shifting place of "When I Heard the Learn'd Astronomer" in Whitman's major work is important because it reveals, in a way, what kind of poem it was to the poet. *Leaves of Grass* is not simply Whitman's collected poetry; it is the representation of his self and the seed of his eternal self-expression he even considered the work a bible for the new America and numbered verses in the 1860 edition as if they were biblical passages. The wide range of themes and issues in the collection were arranged in an order that was vital to Whitman's self-understanding. A poem's group and previous groups can help to highlight some important aspects of its meaning and thematic context.

Drum-Taps, published in 1865, was essentially a Civil War collection, and its main themes were related to the long and bloody conflict between the northern and southern States, including the war's implications for individuals and for the country. This became more true when the collection was incorporated into *Leaves of Grass* and certain poems were placed into more appropriate groups. Nevertheless, although a wide variety of ideas extended from this main theme and many poems in the final "Drum-Taps" group initially seem not to have anything to do with the Civil War, each poem does relate in some way, directly or indirectly, to union, division, war, and death.

"When I Heard the Learn'd Astronomer" appears to be one of the poems that is unrelated to the Civil War, but its themes of personalism and spirituality actually have much in common with the central preoccupations of the "Drum-Taps" group. The individualism and democratic ideals inherent in Whitman's personalist philosophy are evident in this poem particularly with the phrase "wander'd off by myself." Whitman was a firm supporter of the Union of States, an idea that he connected to the unity of the self, but some of his poems also reveal an amount of sympathy for the individualistic fervor of the South. Throughout "Drum-Taps," the poet examines the freedom and power of the individual in relation to the unity of the whole and the will of the collective. Similarly, "When I Heard the Learn'd Astronomer" highlights the stress between the self-referential and even contained method of science, and the intuition and romantic knowledge of the individual.

In the interplay between the individual and the collective, the stars are a consistently important image. In the "Drum-Taps" group, they are normally a vision of eternity and almost unattainable unity, as in the poem "Bivouac on a Mountain Side," which ends: "And over all the sky□the sky! far, far out of reach, studded, breaking out, the eternal stars." The moon is also an important image of eternity, frequently associated with death and spirituality, asked to "bathe" over the dead and called "sacred" in the "Drum-Taps" poem "Look Down Fair Moon," and referred to as "ghastly, phantom" and "Immense and silent" in the poem "Dirge for Two Veterans." Although it is difficult to find the presence of death in "When I Heard the Learn'd Astronomer," it is certainly true that the stars represent mystical and individual spirituality in the poem.

Nevertheless, the poem did not genuinely fit in the "Drum-Taps" group, and by 1871 Whitman had placed it in the "Songs of Parting" group, the final section of *Leaves of Grass*, whose most important themes are death, eternity, and the future. "Songs of Parting" is a far-reaching and extensive group of poems that are also insistently self-conscious and introspective, and "When I Heard the Learn'd Astronomer," particularly in its final image, has much in common with the idea of a combination of eternity and individualism. Although "Songs of Parting" only mentions the stars once in passing, it does describe space as the "sphere of unnumber'd spirits" in the poem "Song at Sunset," while "As They Draw to a Close" contains the provocative line, "Through Space and Time fused in a chant, and the flowing eternal identity."

Thus, with its speaker's mystical and spiritual identification with the stars, which represent a kind of limitless unity that the lecture room cannot provide, "When I Heard the Learn'd Astronomer" does have a substantial connection with the "Songs of Parting" group. As the structure of the poem emphasizes, meaning and knowledge are firmly associated with the stars, which are the location of endless and "flowing eternal identity" here and in "Songs of Parting." After withholding any imagery of nature from the first quatrain in the lecture room, Whitman saves a vision of space for the very last word of the poem, setting the image of the stars alone by preceding them with "perfect silence" and following them by the end of the text. While the scientists are left applauding themselves in the lecture room, the speaker and the reader are left with this striking impression of endless, spiritual space.

The visionary group of "Songs of Parting," however, whose poems either transcend the particular issues of the day or use them (as in "Ashes of Soldiers") to comment on eternal themes, remains slightly inappropriate for "When I Heard the Learn'd Astronomer." Although the poem's final image and its romantic, spiritual emphasis have much in common with the main themes of the final group, its meditation on the mathematical method of the astronomer is out of place. The questions that Whitman asks about science and his criticism of the containment of the lecture room are too earthly and specific a commentary to belong with the transcendental "Songs of Parting."

The poem therefore needed to find another group, one that was appropriate for its commentary on contemporary scientists as well as its spiritual, eternal vision of meaning. At first it might seem that, with his taste for broad and seemingly distinct ideas that come to be unified, Whitman might have considered any number of groups for the

poem. And there are many occasions for a poem that blends scientific and spiritual themes; as Whitman suggests in his 1876 "Preface to *Leaves of Grass* and *Two Rivulets*," "Modern Science" is an extremely important aspect of "the Spiritual" and "the Religious":

Only, (for me, at any rate, in all my Prose and Poetry,) joyfully accepting Modern Science, and loyally following it without the slightest hesitation, there remains ever recognized still a higher flight, a higher fact, the Eternal Soul of Man, (of all Else too,) the Spiritual, the Religious□which it is to be the greatest office of Scientism, in my opinion, and of future Poetry also, to free from fables, crudities and superstitions, and launch forth in renewed Faith and Scope a hundred fold.

Offering key insight into the coexistence of scientific methodology and spiritualism in "When I Heard the Learn'd Astronomer," this thought emphasizes that science is not necessarily discounted or dismissed when Whitman is thinking about spirituality and eternity. It also suggests that science may be an extremely important step, even a vital step, in making progress in spiritual endeavors.

It is important to recognize, however, that this thought does not account for the ambivalence about science and the dissatisfaction with the methodology of the lecture room in "When I Heard the Learn'd Astronomer." It is far from clear whether this poem actually "joyfully accept[s] Modern Science," as Whitman claims the groups of *Leaves of Grass* accept it "without the slightest hesitation." In fact, "When I Heard the Learn'd Astronomer" not only hesitates to accept science, it warns that science is actually a distraction from the vital spiritual significance to be gained from the stars. Far from assisting the ultimate goal of romantic knowledge, science appears entirely self-absorbed and unhelpful even as a link to the "higher flight" of the "Spiritual." Instead, the poem serves to censure the shortsightedness of science and its unenlightening mathematical breakdown of the natural world.

"When I Heard the Learn'd Astronomer," therefore, ultimately fits best in "By the Roadside," the miscellaneous group of *Leaves of Grass* that is disconnected from many of Whitman's overarching themes and does not necessarily reinforce the value of unification predominant in the other groups. As Sculley Bradley and Harold W. Blodgett's footnote in the 1973 Norton Critical Edition of *Leaves of Grass* claims: "The group is truly a melange held together by the common bond of the poet's experience as a roadside observer□passive, but alert and continually recording." Like the other poems in "By the Roadside," "When I Heard the Learn'd Astronomer" presents a speaker who is distanced from the unity of all things, and who is admonishing and discontent in his observations about the world around him.

With its speaker "tired and sick" of the scientists that, to Whitman, do not see the ultimate goal or value of science□a speaker who is "unaccountable" and cannot see the unity of science and spirituality□the poem rightly belongs in the "By the Roadside" group. This is not to say that the themes of the poem that resonate with the preoccupations of the "Drum-Taps" and "Songs of Parting" groups have somehow become unimportant, or that a poem's group somehow fixes its meaning. But the

context of the individual poem within Whitman's unified work is vital to the chord that it strikes with the reader, and it is only from the wayside group of *Leaves of Grass* that "When I Heard the Learn'd Astronomer" achieves its full resonance as a mystical vision that is nonetheless a very real and specific commentary on the failings of contemporary science.

Source: Scott Trudell, Critical Essay on "When I Heard the Learn'd Astronomer," in *Poetry for Students*, Thomson Gale, 2005.

Topics for Further Study

The Civil War was a major inspiration for the collection of poems in which "When I Heard the Learn'd Astronomer" was originally published. Read about the history of the Civil War and research Whitman's activities during the period. How do you think the conflict affected the poem? Which of the main themes of *Drum-Taps* apply to the poem? How does it express them differently or uniquely? Describe and compare other historical or contextual themes in "When I Heard the Learn'd Astronomer."

What is your impression of Whitman's feelings towards science and astronomy after reading "When I Heard the Learn'd Astronomer"?" Research Whitman's personal interest in the subject and read about the scientific advances of the 1860s, such as the discoveries in spectroscopy by the astronomer Gustav Robert Kirchhoff. How does this information affect your understanding of the poem? How do you think the message of the poem regarding the scientific process relates to science today? What might Whitman say to a modern-day scientist, and what might he think about twenty-first century technology and astronomy, or the fact that people have walked on the moon?

Many of Whitman's poems have musical qualities in their tone and style. Discuss and describe the musicality of "When I Heard the Learn'd Astronomer" by analyzing its tone, diction, organization, and linguistic devices. How is the poem similar to a song, and how does it differ? How do you think the poem's musicality affects its meaning and themes? How and why does Whitman use music in his other poems, such as those in the "Drum-Taps" section of *Leaves of Grass*?

Read other sections of *Leaves of Grass* that are related to the themes of "When I Heard the Learn'd Astronomer," such as "Drum-Taps," "From Noon to Starry Night," "Songs of Parting," and the rest of the poems in "By the Roadside." How does "When I Heard the Learn'd Astronomer" compare to other poems that envision astronomical bodies, and how is it typical or distinct from Whitman's other poems about nature? What is the typical role of the moon and the stars in the collection? How do you think the poem relates to the overriding themes of *Leaves of Grass*, and what does it contribute that is unique and individual?

Compare and Contrast

1860s: The Republican Party and President Abraham Lincoln are known for their opposition to slavery, support of the Union of the States, and pro-business fiscal policies.

Today: The Republican Party and President George W. Bush are known for their social conservatism, tax cuts, and increased military spending.

1860s: Astronomical science is making major advances due to technology. For the first time, scientists are able to identify elements present in the sun's atmosphere.

Today: Technology allows astronomers to identify the furthest planetoid in our solar system, send robotic probes to the surface of the planet Mars, and see almost as far in space as the location of the "Big Bang" that is thought to have started the universe.

1860s: Homosexuality is entirely taboo, and few, if any, public personalities such as Whitman could admit to being gay without fear of severe reprisal from the government and the public.

Today: American society is increasingly accepting of homosexuality, but homophobia continues to be a major problem. Politicians such as President George W. Bush are currently calling for a constitutional amendment to ban homosexual marriage.

1860s: The United States is a divided country, plagued by a bloody war between the States.

Today: Public opinion is divided on many domestic and international issues despite the patriotism following the September 11, 2001 terrorist attacks and the United States' invasions of Afghanistan and Iraq.

What Do I Read Next?

Ralph Waldo Emerson's last major philosophical volume, *Conduct of Life* (1860), contains many of the views that were so influential over Whitman. Stressing the importance of self-reliance, the book also reveals Emerson's romantic aesthetic theory.

Leaves of Grass (1892), Whitman's life work and one of the major achievements in American literature, contains many famous sections, such as "Drum-Taps," "Memories of President Lincoln," and "Songs of Parting." The final poem of "Inscriptions," "Song of Myself," is one of Whitman's most influential longer poems.

Edgar Allan Poe's poem "The Evening Star" (1827) is a compelling meditation on astronomy that relates to love and other themes. It is an important poetic vision of the night sky by an earlier American romantic writer who was an important influence on Whitman.

Herman Melville's famous novel *Moby-Dick* (1851) is the story of Captain Ahab's pursuit of the white whale. Its symbolism and romantic undercurrent are vastly different in style from Whitman's work, yet the writers were contemporaries and explored some of the same themes.

Stephen Crane's *The Red Badge of Courage* (1895), like Whitman's *Drum-Taps*, deals directly with the horrors of the Civil War, but its approach is quite distinct and in many ways reveals the developments in the American literary scene during Whitman's later years.

Further Study

Allen, Gay Wilson, *The New Walt Whitman Handbook*, New York University Press, 1975.

This useful reference guide to Whitman is the work of one of his most influential twentieth-century critics and biographers.

Beaver, Joseph, *Walt Whitman: Poet of Science*, King's Crown Press, 1951.

This study explores a number of scientific themes that relate to "When I Heard the Learn'd Astronomer."

Gay, William, *Walt Whitman: His Relation to Science and Philosophy*, Firth & M'Cutcheon, 1895.

Gay provides an early analysis of Whitman's contribution to scientific and philosophical fields.

Loving, Jerome, *Walt Whitman: The Song of Himself*, University of California Press, 1999.

Loving presents a thorough biography of Whitman.

Reynolds, David S., ed., *A Historical Guide to Walt Whitman*, Oxford University Press, 2000.

Reynolds places Whitman into the political, literary, and social context of his era with a collection of interdisciplinary essays.

Thomas, M. Wynn, *The Lunar Light of Whitman's Poetry*, Harvard University Press, 1997.

Thomas's book discusses Whitman's self-conception, his nostalgia for the past, and the changes in his poetry after the Civil War.

Bibliography

Burroughs, John, "Walt Whitman and His *Drum-Taps*," in *Walt Whitman: The Contemporary Reviews*, edited by Kenneth M. Price, Cambridge University Press, 1996, pp. 123—30; originally published in *Galaxy*, Vol. 2, December 1, 1866, pp. 606—15.

Review of *Drum-Taps*, in *Walt Whitman: The Contemporary Reviews*, edited by Kenneth M. Price, Cambridge University Press, 1996, p. 118; originally published in the *New York Times*, November 22, 1865, p. 4.

Whitman, Walt, *Leaves of Grass: Authoritative Texts, Prefaces, Whitman on His Art, Criticism*, edited by Sculley Bradley and Harold W. Blodgett, Norton, 1973, pp. 264, 271, 300, 320—21, 494, 501.

□□□, "Preface to *Leaves of Grass* and *Two Rivulets*," in *Leaves of Grass: Authoritative Texts, Prefaces, Whitman on His Art, Criticism*, edited by Sculley Bradley and Harold W. Blodgett, Norton, 1973, pp. 746—56.