

"Truth is a character which attaches to an abstract proposition, such as a person might utter. It essentially depends upon that proposition's not professing to be exactly true. But we hope that in the progress of science its error will indefinitely diminish, just as the error of 3.14159, the value given for π , will indefinitely diminish as the calculation is carried to more and more places of decimals. What we call π is an ideal limit to which no numerical expression can be perfectly true." (CP5.565).

Peirce's Journey to the End of Inquiry:

The Tenure of the Soul

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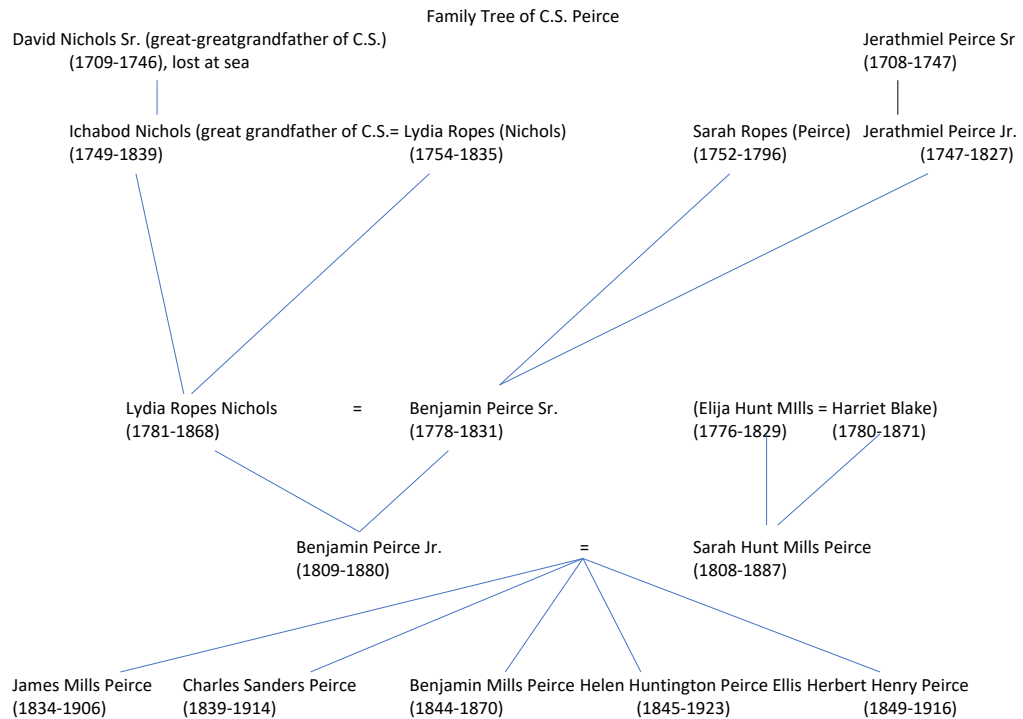
Abstract: This chapter considers and rejects the popular idea that in spite of his brilliance and academic pedigree, Peirce was a failure. Although he died in poverty and obscurity, it is argued here that, to the contrary, Peirce was a success by the standards of most academics, for the simple reason that he knowingly and willingly dedicated himself to the pursuit of truth and excellence, refusing to compromise his intellectual values in order to please those in power over him, even when this faithfulness to himself brought poverty and ostracism. He demonstrated what I call a “tenure of the soul”—an indestructible commitment to the pursuit of understanding and helping others to understand with him. He spent his life

engaged in fulfilling, meaningful work, supported by his wife Juliette, the love of his life. He forged an intellectual freedom to explore his many interests that few academics ever experience. This chapter examines his work ethic, his inventiveness, the sheer magnitude of his accomplishments, and evidence of his success. The epigram above is the basis for this chapter's subtitle on Peirce's own end of inquiry.

1. Peirce's history

1.1. Family Background

The Peirce family (pronounced "purse," originally spelled Pers, cognate with Pierce and Peter, meaning 'rock') originated most likely in Belgium, but came to have deep roots in Massachusetts. Below I have constructed an iconic representation of the prose accounts of both sides of his family from Massachusetts, many associated with the fishing industry in Salem:



Charles Sanders Peirce was born into this illustrious family on September 10, 1839 in Cambridge, Massachusetts, dying 74 years later on April 19, 1914 in Milford, Pennsylvania. Among his most notable contemporaries and near-contemporaries were General George Armstrong Custer, John D. Rockefeller, Samuel L. Clemens, Andrew Carnegie, Thomas Edison, Frederick Douglass, Clara Barton, Nikola Tesla, George Washington Carver, Alfred North Whitehead, Louis Agassiz, Benjamin Peirce, Leo Szilard, Edwin Hubble, Katharine Blodgett, Gerty Cori, Maria Mitchell, and Annie Jump Cannon. International contemporaries included Renoir and the Impressionists, Charles Darwin, and Michael Faraday. Important thinkers and other figures of historical significance were abundant during the 19th and early 20th centuries when Peirce lived.

Peirce was born in Cambridge, Massachusetts, on 3 Phillips Lane, the very same house serving as the current home of Lesley University's Graduate School of Arts and Social Studies. He was the second child of Benjamin Peirce Jr. and Sarah Hunt Mills Peirce. Benjamin was a professor of mathematics and astronomy at Harvard for over fifty years. Ben's own father, Benjamin Sr., was for five years the librarian of Harvard (1826-1831). Charles's first wife, Harriet Melusina ("Zina") Fay, was an early feminist leader and writer. His older brother, James Mills Peirce, also became a professor of mathematics and astronomy at Harvard and served for a few years as dean of the college of arts and sciences there. Another of Peirce's brothers, Benjamin Mills Peirce, died young (25 years old) and alone after struggling with finding his way in the world. Charles's youngest sibling, Herbert Ellis Peirce, served in the US diplomatic corps, and represented the US government at the coronation of Tzar Nicholas II of Russia. The sister of these four men was Helen Huntington Ellis Peirce, a constant source of support in letters, in person, and with her pocketbook for "Charley" until the end of his life. The family was very close and there is extensive, always warm and caring, correspondence between them all.

Beyond his nuclear family, Peirce's maternal and paternal families formed a well-to-do, prominent clade of senators, businessmen and mathematicians. Benjamin Peirce Jr., was considered the greatest US mathematician of his generation and a pioneer in the organization and stimulation of the formation of science as a profession in the USA. Charles Peirce's life began just as Benjamin and others were establishing the legal and cultural bases of US scientific research and culture. In 1839, the year Charles was born, his father Benjamin aided in the establishment of the first American astronomical observatory in Philadelphia. In 1848, Benjamin helped found the American Association for the Advancement of Science (AAAS). And in 1863,

when Charles was 24, Benjamin was a leader in the foundation of the National Academy of Sciences (NAS). The law creating it was signed by Abraham Lincoln.

Benjamin's work in astronomy and his book, *Linear Associative Algebra* (Peirce 1882), put American science on the world intellectual map as no other American except perhaps another Ben, Benjamin Franklin, had done. Benjamin helped found a group of intellectuals that was significant in his son Charles's formative thinking, the Lazzaroni, most of whom went on to founding memberships in the NAS.

Charles's mother, Sarah, was likewise born into a prominent family that included politicians and successful business people in Massachusetts. Her own father, Elijah Hunt Mills (1776-1829), was elected to the Massachusetts State Legislature, where he became Speaker of the House. He was later elected to the US House of Representatives and then to the US Senate. Others descending from Elijah were U.S. Senators John Davis Lodge and Henry Cabot Lodge, Jr. (defeated eventually in a bid for reelection to the Senate by John F. Kennedy).

The Peirce's were rooted in Salem Massachusetts (where Benjamin Sr. and Benjamin Jr. were born), establishing a successful shipping business. Benjamin Sr. came along as that business was fading, thus moving to Cambridge to accept the post the librarian of Harvard, after working briefly in the family shipping business in Salem.

Charles's family was committed to science, logic, and the life of the mind. They were loving and financially successful. But there were severe shortcomings in their world view. These should not be overlooked. In spite of all his brilliance, Charles's father believed that slavery was a good thing, freeing up the better (i.e. white) people for intellectual life, business, the arts, and so on.

Unfortunately, Charles shared his father's opinions and believed that the average person should serve the "higher" classes (wealth, race, intellect, schooling, position, etc). Benjamin's friends included Louis Agassiz and the pro-slavery Confederate physicist and chemist at the University of Georgia (formerly a New England physician), John LeConte. As Raposa (2021, 34ff says of Agassiz, he "defended polygenism, for example, a theory that rejected Darwinian evolution and argued that the races were created separately."¹ LeConte (1818 – 1891) became the first (acting) president of the University of California, in spite of his enthusiastic support for slavery and the Confederacy.² These two were among many who reinforced Benjamin's biases against blacks. Charles's strong bias is displayed in the following syllogism, which he created to demonstrate that syllogistic reasoning can fail if given the wrong (in this case the minor) premiss:

"All men are equal in their political rights.

Negroes are Men.

Therefore, negroes are equal in political rights to whites." (W1:444)

But it is hardly news that privileged white people of the 19th century, with many ties to friends in the slave-holding states, were racist. This racism, despicable as it is in the hard light of the 21st century, does not cancel out the importance of the Peirce family contributions to science (though it does mean that they were guilty of horribly biased reasoning in this area, weakening their reputations). This racism means that, like all families, they had serious faults, typical of their age (though not for that reason excusable).

The Peirce family during Charles's lifetime lived within walking distance of the homes of William James, Henry Wadsworth Longfellow, Louis Agassiz, and many other prominent intellectuals of the 19th century. Agassiz would show up at the Peirce home in the morning and

shout "Ben!", and as Ben joined him, they would walk to their offices together, a custom that continued even after Harvard built homes for both of them in Harvard Yard and their walk was much shorter.

1.2. Peirce's Educational Background

Peirce learned largely on his own, by reading and discussions/argumentation exercises with his father. Because he was primarily home-schooled he had fewer peers and opportunities for socialization with those of his own age than most children might. His family lived during his life either near the Harvard campus or actually in Harvard Yard (where today Sever Hall, designed by a classmate of Charles's, is found). Peirce's obvious precociousness delighted his father and he received not only material but also emotional and intellectual indulgence and stimulation that few others, including his own siblings received. From an early age Charles had the freedom to pursue and discuss and write about his intellectual interests, experiencing a form of tenure from childhood on, if tenure is understood as security to freely pursue one's own questions.

He completed his undergraduate studies at Harvard in 1859, not a stand-out student at that time, though later he also graduated from the Lawrence Scientific School of Harvard, receiving the very first Summa Cum Laude degree in Chemistry in Harvard history.

Charles Peirce was arguably the most fecund thinker to have ever lived in the USA, among the best the world has known. The range of his work is unparalleled, as is its creativity and quality. Although my purpose in this chapter is to defend the thesis that Peirce lived a successful, fulfilling life in spite of many outward defeats, it is important to offer a brief survey

of his work and the American intellectual tradition behind this work, in order to understand what it is that brought him that inner and outer purpose and achievement.

In spite of his rare brilliance Peirce was but the *primus inter pares* of many individuals of a golden age of US literature and science, led primarily from three Massachusetts towns, Amherst (where Emily Dickinson revolutionized American poetry), Concord (Ralph Waldo Emerson, Henry David Thoreau, Louisa May Alcott, Branson Alcott, Margaret Fuller, Nathanael Hawthorne, inter alia produced literary works unequaled in quality and quantity any place in the world, rivalling the Athens of Euripides and Socrates), and Cambridge (Benjamin Peirce, Henry Wadsworth Longfellow, Louis Agassiz, Chauncey Wright, and Henry James Sr). Charles was the heir of a great intellectual fortune uniquely rooted in New England.

2. Transcendentalist New England and Peirce's Intellectual Roots

Thus Peirce's enveloping intellectual world was richer even than his profoundly cerebral home life. New England was bringing America to academic and artistic equality with Europe, becoming a literary and scientific light for the world. Of the three leading cities of the Commonwealth mentioned already, the initial intellectual engine of the USA in the 19th century was found in Concord, Massachusetts. There Emerson innovated approaches to thinking and knowing whose influence has only strengthened in the past nearly two centuries. The intellectual influences behind this birth of American philosophy, literature, and science were many, though one intellect outshines the rest. German philosopher Immanuel Kant's work altered the thinking of American and world philosophers, authors, and scientists alike. Not only did Emerson pay homage to Kant in many places. But Charles said that he "drank at the udders of Kant" for his

primary intellectual development (for the interconnection of Emerson, Peirce, and, indirectly, Kant, see Kaag 2013)

The influences of Kant and Emerson are important because Peirce's intellectual development always included their ideas as touchstones (though not the only ones). Peirce's intellectual life parallels that of Emerson's American Scholar. One can in fact make a plausible case that Peirce was the finest example of "The American Scholar" of the nineteenth and all subsequent centuries. Peirce helped shaped American thought from his century onward, with his ideas more widely studied today than ever. Peirce's thought enjoys a very long pedigree. But to understand Peirce's life as success, contra the common idea that it was a tragic failure, we need to grasp his place and role in American intellectual history, in particular as he exemplified Emerson's concepts of self-reliance (avoidance of conformity being central to that idea), grit, and action. His success was not merely a subjective feeling but an objective fact, the apex of the American tradition until that point at least. So what was that tradition and how did it begin? And how does it provide evidence that Peirce's life was not tragic but successful?

To understand Peirce in his cultural Zeitgeist, we return to Emerson and the roots of his philosophy. Emerson frequently acknowledged that his philosophy was inspired by the work of Immanuel Kant. Born in what is today the Russian city of Kaliningrad, Kant in his lifetime knew his birth and death place as Königsberg, Prussia. Kant died in 1804, one year after the birth of Ralph Waldo Emerson, five years before the birth of Benjamin Peirce, and 26 years before the birth of Emily Dickinson, three of the founders of American literature and science.

Kant's influence crossed many national and intellectual boundaries. In New England his influence was felt especially in his view of Transcendental Idealism, the idea that the spatial and temporal characteristics we attribute to the world are simply ideas within ourselves. It isn't raw

sensory experience that shapes our minds as Locke would have it, but rather our minds that preformat our experiences so that we perceive them not as they are, but as our minds represent/shape them to/for us. By the time of Emerson's youth Transcendentalism had traveled the world, from Prussia to the still-youthful American Commonwealth of Massachusetts.

Inspired by Kant and his own thinking about nature and the divine, Emerson founded what became known as New England Transcendentalism. Eventually, with money from his popular and frequent lectures and his first, deceased wife's inheritance, he began to gather together the cream of American letters around his home - the Alcott family; Henry David Thoreau; Nathanael Hawthorne; Edgar Allen Poe; Margaret Fuller; and others, all within sight of the old North Bridge where the American War of Independence from the tyranny of the old world began.

Emerson's 1842 essay "The Transcendentalist" begins with

"... what are called new views here in New England, at the present time, is, that they are not new but the very oldest of thoughts cast into the mould of these new times...

Transcendentalism among us, is Idealism... It is well known to most of my audience that the Idealism of the present day acquired the name Transcendental from the use of that term by Immanuel Kant, of Konigsberg, who replied to the skeptical philosophy of Locke, which insisted that there was nothing in the intellect which was not previously in the experience of the senses, by showing that there was a very important class of ideas or imperative forms, which did not come by experience, but through which experience was acquired; that these were intuitions of the mind itself; and he denominated them Transcendental forms. The extraordinary profoundness and precision of that man's thinking have given vogue to his nomenclature, in Europe and America, to that extent

that whatever belongs to the class of intuitive thought is popularly called at the present day Transcendental." (1842, p1)

As Emerson continued to expound his ideas, he wrote that "All that you call the world is the shadow of that substance which you are, the perpetual creation of the powers of thought..." (ibid) The mind was not limited to one individual, but it is produced through the efforts of a society of serious minds working together, "Man as Thinker," to put it in Emersonian terms, rather than merely men thinking. These nonempiricist ideas all reappear in one form or another in Charles Peirce's work, either as the objects of criticism or input to his own philosophy.

At the same time that Emerson was gathering intellectual partners in Concord, fifteen miles to the east, a group of scientists and others was forming in Cambridge - Benjamin Peirce, Louis Agassiz, Annie Jump Cannon, William Bond, and John Whipple, inter alia, including the poet Henry Wadsworth Longfellow. Both groups saw themselves as students of nature. Emerson's most important book is in fact simply titled *Nature*. But whereas the Concord group studied nature to understand its importance for the transcendental mind and soul of humans, the Cambridge group studied nature scientifically, to understand it as an end in itself. In addition to the Cambridge and Concord groups, another contemporary Massachusetts-born creator of the American mind was working in Amherst, within the four walls of her bedroom. Creating visions and pondering truths through her art, Emily Dickinson, one of the founders of modern American poetry, surpassed even Longfellow as a pioneer of American letters. She is today recognized as a leader in American art, thought, and reflection, a non-empiricist and to a degree a transcendentalist, without being explicitly labeled as such.

All of these people working individually, though in some cases collectively, established the foundations of an American scholarship that was to eventually become the equal of European

science and literature. And there were connections among them. Thoreau took math classes from Benjamin Peirce at Harvard. Emerson was an acquaintance of the Peirce family. Charles Peirce remembers Margaret Fuller visiting his home when he was small.

Although the Concord experiment ended years before the death of Emerson in 1882, the second Cambridge generation of truly American scholars - in particular the James brothers (William and Henry) and the Peirce brothers (Charles and his brother James) all absorbed the intellectual values and ideas of their parents' generation. From the later teachings and writings of William James and Charles Peirce, many other scholars emerged from American soil in the third wave of American Scholars (i.e. in Emerson's sense) - Christine Ladd-Franklin, John Dewey, Josiah Royce, Edwin Holt, Ralph Barton Perry, and many others. Though these folks were younger than Peirce, many of them had ideas that influenced Peirce profoundly.³

Emerson recognized the intellectual transformation that was occurring in the USA, especially in Massachusetts. He saw the day arriving when "... the sluggish intellect of this continent will look from under its iron lids and fill the postponed expectations of the world..." (Emerson 1837, p1) He further asserted the duty of America to independently learn and write, not merely follow: "Each age ... must write its own books... each generation for the next succeeding...The books of an older period will not fit this." (Emerson 1837, p2) Or to put it another way, we need to be our own scholars rather than simply learn at the feet of the scholars of the old world because "... love of the hero corrupts into worship of his statue." (Emerson 1837, p2) For Emerson the way to learn, to innovate, to create new knowledge was through *action* - doing rather than merely contemplating. Emerson here anticipates the movement that Peirce was to found a couple of decades later, namely, American Pragmatism (or as Peirce came eventually to call it, Pragmaticism). He also claimed that action, including working on one's own theories

and applications, enhanced comprehension: "When the mind is braced by labor and invention, the page of whatever book we read becomes luminous with manifold allusion." (ibid)

Emerson set parameters for American philosophy in his writings on Transcendentalism. He pinpointed a serious problem with induction (inherited from Hume) that anticipated the work of Nelson Goodman (1983) when he said "But ask him [the materialist, DLE] why he believes that an uniform experience will continue uniform, or on what grounds he founds his faith in his figures, and he will perceive that his mental fabric is built up on just as strange and quaking foundations as his proud edifice of stone." (Emerson, 1842, 2)

Emerson was also Romanticist, as well as a Transcendentalist. And Romanticism was a vital component of this era of the American mind, indirectly influencing Peirce. The former component of his philosophy led to (according to Frye 1968,3) a throwing off of the "encyclopedic myth" of God as the origin of all creation and all knowledge. "In the new Romantic myth, human creativity assumes a central place." (ibid) As Isaiah Berlin says of Romanticism (Berlin 2000 [1999], 119), "The heart of the entire process [of Romanticism, DLE] is invention, creation, making, out of literally nothing, or out of any materials that may be to hand."⁴ Berlin was not speaking of Emerson directly, but nonetheless captures his viewpoint well. From this perspective Emerson concludes that "the 'fountain of all good' is in oneself." (CW 1: 79) Thus the American Scholar had self-reliance but was free to develop their ideas unburdened by the weight of god and religion. Emerson's philosophical work came to dominate a great deal of thinking in the USA. As the Stanford Encyclopedia of Philosophy puts it, "He influenced generations of Americans, from his friend Henry David Thoreau to John Dewey, and in Europe, Friedrich Nietzsche..." Emerson's transcendentalism further influenced American scholars to consider Kant more thoughtfully. Peirce, our exemplar of Emerson's American

Scholar, combined all of these characteristics and lived, even if unknowingly, guided by these Emersonian values.

So, as Emerson helped bring Kant to American scholarship and the American transcendentalist movement, he did this as part of a project to install the Romanticist view in the USA. Emerson urged his audiences not to look for wisdom only in old books of the past (e.g. the Bible) but in new books, as well as in one's own thinking and interactions with nature. For the Pragmatists, the Kantian Idealism and Transcendentalism - we are all part of the creative force of the world which is immanent around and in us - they in part inherited from Emerson and his Concord band, they also applied with the rigor of their new Pragmatist standards, i.e. if you cannot test something, if you cannot say how to apply something, then it means nothing.

Thus an understanding of Peirce's trajectory and thought requires an appreciation of the Emersonian revolution. Peirce looked at nature independently of doctrinal pressure. Although he believed in God, his inquiry was not shaped by the church, but by the spirit of the Romanticism sketched above. Although Benjamin Peirce and Louis Agassiz set the scientific standards of their time, the next generation of New England thinkers was deeply influenced as well by the values of the Concordian Romanticists that undergirded their quest for knowledge, their self-reliance and their intellectual independence from religion. Peirce of course rejected what was so important to Emerson, intuitionism as the foundation of intellectual work, replacing it with inferential reasoning. But it was Emerson as much as any other that freed American thinkers from the severe constraints of religion, a freedom that Peirce pursued his entire adult life. Peirce's life was thus a preeminently American life, imbued from start to finish with the concerns of the Concord and Cambridge of his father's generation. His success should therefore

be judged to some degree on how well he achieved the objectives of the agenda set originally by Benjamin Peirce and Ralph Waldo Emerson.

3. From Ease to Hardship: The price of Focus

3.1. Introduction

C. S. Peirce never held a long-term academic appointment, largely because he came to be despised by the presidents of Harvard (Charles Eliot; where Peirce studied) and Johns Hopkins University (Daniel Gilman; where Peirce initially taught). Eliot and Gilman, among others, came to actively oppose Peirce's employment at any US institution of higher education, successfully keeping him in penury for the latter years of his life. They accused him of immorality and underestimated his brilliance due to input from jealous rivals, such as Simon Newcomb (Brent 1998,152ff). From 1861-1892, Peirce earned his living as a geophysicist with the US Coast Survey (today N.O.A.A. - National Oceanic and Atmospheric Administration). In 1892, due in part to politics, Peirce's uncompromising attitude, and the machinations of Newcomb, Peirce was fired from the USCS. Though Peirce's accumulated difficulties were slow in coming, the warning signs came often and early. But Peirce persisted in doing his work according to his own sense of what was best. Much of Peirce's difficulty resulted from his behavior being in advance of the state of his culture. Faculty members today routinely behave as Peirce did.

3.2. The Halcyon Days

Peirce began his academic career with the support of one of the then most powerful academics in the USA, his father. Benjamin had helped found the U.S. Coast Survey and was one of its early directors. Charles, at Benjamin's urging, was hired as an Assistant Director. As

Brent (p89) puts it, "On April 8, 1872, Benjamin Peirce appointed his son, over the heads of the more experienced assistants, to the position of acting assistant in charge of the Coast Survey office in Washington [next] his father appointed him assistant in charge of gravimetric experiments..." There is no question that Charles was qualified for these positions. Nor is there much doubt that he was superior to all other candidates. But what came back to haunt him after his father's death about eight years later, was the resentment that this nepotism engendered in his colleagues at the USCS.

But regardless of how he came to be appointed, Peirce was energetic, original, and brilliant as a geophysicist with the USCS. Up until this appointment Peirce had held the assistant position at the Harvard Observatory (also to due his father). Assistantships in those days, at USCS and Harvard Observatory) were positions of high responsibility and generous remuneration. Charles was riding high and doing scientific work of world-class caliber. As a rather typical academic, Peirce was slow to clear his accounts at the Survey and resentment began to build. His work was of the highest quality. But his accounting and sense of financial responsibility were adolescent, though his privileges continued.

3.3. International Travel

One of the great perks of academe is international travel. Peirce certainly enjoyed this part of his profession and made five important and very enjoyable trips to Europe.

First European Trip: 18 June 1870 - 7 March, 1871

The purpose of Peirce's first trip to Europe was to identify locations "suitable for establishing observatories in order to study the total solar eclipse that was to take place at noon on December 22nd, 1870 over the Mediterranean Sea." (Nubiola 2020, 191). His father also

"wanted to introduce his son to several prominent European mathematicians (De Morgan, Jevons, Clifford, etc.)." (ibid) After the eclipse Peirce and Zina traveled through Italy, Switzerland, Germany, and England. They sailed back to Boston on February 21 from Liverpool, arriving March 07, 1871.

Second European Journey: 3 April 1875- 20 August 1876

In 1875 Peirce traveled to conduct extensive work on gravimetric pendulums, at the stations of Berlin, Geneva, Paris, and Kew. Peirce was expected to spend at least a year in Europe to "improve the American Geodesy." (Nubiola 2020, 192) "In England, Peirce spoke of geodesy with several British instrument makers and scientists, including James Clerk Maxwell at the Cavendish Laboratory in Cambridge, who agreed with his views on the characteristics of the resistance that affects pendulums." (Nubiola 2020, 193) Benjamin Peirce had resigned as the Superintendent of the Coast Survey in 1874. Peirce and Zina sailed back to the USA on August 8, just about two weeks after the defeat of Custer's 7th Cavalry at Little Big Horn.

Third European Journey 13 September 1877 - 18 November 1877

The third trip was Peirce's shortest trip, "but is extremely important for his scientific profile as Peirce defended his views on design flaws in the stand of the European pendulum and their effects on the accuracy of the measurement of gravity." (Nubiola 2020, 194) "From Berlin he goes to Paris where he arranges with Théodule Ribot the publication in the Revue Philosophique of the articles prepared during his trip." (Nubiola 2020, 194) During his trip back to the US, he wrote "How to Make Our Ideas Clear."

Fourth European Visit: 28 April 1880- 4 August 1880

This trip was primarily a stay in Paris with a trip to London (Nubiola 2020, 195). He cut his trip short due to his father's illness arriving August 4, 1880. Benjamin died on October 06, roughly 4 weeks after Charles's return.

Peirce's Final European Trip: 2 May 1883 - 18 September 1883

Just before leaving for this final trip to Europe Charles obtained his legal divorce from Zina, on April 24. On April 26, 1883, he married Juliette Annette Froissy (the name she used on their marriage certificate, though she was also known as Pourtalai). This visit seems to have been mainly so that Peirce and Juliette could honeymoon in Europe, though there were important discussions with other scientists in Paris and London, in the latter location he compared the American yard measurement with the London version.

These trips were fairly luxurious and as photos of Peirce at the time show, he was enjoying himself a great deal, living the high life of one of the most successful US academics. It is not surprising that during these trips he had no inkling of the difficulties to come or that this standard of living could ever end for one as talented and respected as he was. What strikes one who is familiar with the entire course of Peirce's life, seeing it at a distance, which of course Peirce, himself could not do at this time, is how even though the joy of these trips stands out in stark contrast to his later financial difficulties, Peirce work never slows, never stops, during all the vicissitudes of his life until just before his death.

3.4. Johns Hopkins University

In March of 1878, again in part because of his father's efforts, Peirce received the offer of a lectureship at Johns Hopkins from its inaugural president, Daniel Coit Gilman. Peirce was an employee of the USCS and gave thought to switching full-time to university life, but Gilman's

offer was not for a professorship, but for the lower-ranked, less stable position of lecturer. But in 1883, though Peirce had been promised a professorship by Gilman, he was fired from Johns Hopkins. Peirce was fired from Hopkins and was left only with his relatively low income from the USCS. Peirce was fired from JHU because of his extramarital (though he had been separated from Zina for years) affair with Juliette, who was to be his wife for more than three decades, and because he was prickly and critical, self-indulgent and demanding - that is, he was like most academics in my experience. But unlike modern academics, tenure was not well-established yet (it began in the late 1800s but was not officialized until 1915) in US universities and Peirce lacked any such protection. And even if there had been secure tenure in the US at this time, Peirce had been appointed as a lecturer, not a professor, by President Gilman and so would have not had this protection in any case. As mentioned Harvard's president Eliot already disliked Peirce and he and Newcomb and Gilman subsequently worked to keep Peirce out of US academe altogether. They were quite successful. And since Gilman went on to control the academic grants of the Carnegie Foundation, that rich source of funding was also to be forever denied to Peirce (see also section 4 of this paper).

3.5. Lowell and Harvard Lecture Series

Peirce was able to make money with occasional lectures, e.g. his Lowell Lectures of 1866 and 1903, his Cambridge Conference Lectures of 1898, and his Harvard Lectures of 1869 and 1903. The 1903 Lowell and Harvard Lectures are among the most important lecture series ever given in the USA. The Harvard lectures were on his Pragmatism and the Lowell lectures on his existential graphs and modes of reasoning, the latter often ignored although they included some of the most important innovations ever in semiotic and linguistic theories. If there had not been

so much bias against Peirce, these lectures would almost certainly have led to more major lecture offers from universities, perhaps even job offers, in spite of his age of 63. But in addition to the bias, Peirce's lectures did not achieve the popularity they deserved because they were so innovative and technical that even James referred to them as largely "Cimmerian darkness."

3.6. The Dream of Arisbe

In 1882, when Juliette and Charles purchased their two thousand acre estate and large home in Milford, Pennsylvania, they were doing alright financially, even though their income was largely limited to Charles's salary as a geophysicist with the U.S. Coast Survey and occasional income that Juliette received from murky sources in Europe and from renting out fancy clothes she owned. They were in fact optimistic about their future finances. Peirce believed that as an inventor, teacher, and logician, along with his many other polymathic skills, he would be a sought-after teacher and intellectual leader, sure to eventually make his fortune through one endeavor or another (he created on paper the first workable design for electronic computer, he drew up workable plans for acetylene lighting of homes, among several other potentially lucrative innovations that never came to pass. His lighting system, for example, was superseded by Edison's near-simultaneous invention of electric lights.) The purchased home, which Peirce named Arisbe, was not far from New York City. Peirce believed that this home would become the center of a salon culture of wealthy New York summer vacationers, among his other aspirations for it.⁵ Indeed, soon after their move to Milford from New York City, he and Juliette became good friends of the James W. Pinchot family and their two boys, Amos and Gifford, both of whom Charles influenced intellectually. Amos would become a wealthy New York attorney (and the father of Mary Pinchot, who had an affair with John F. Kennedy and was murdered

under mysterious circumstances not long after Kennedy's death, having claimed that she possessed evidence that the CIA killed Kennedy). Gifford became, under Theodore Roosevelt the first Director of the US Forestry Service and eventually governor of Pennsylvania. The Peirce's were close friends of all the Pinchots and frequent dinner guests. Gifford continued to support Peirce and then Juliette until her death in 1934.⁶ In fact even today, the Pinchots of Milford, Tony Pinchot's daughters in particular, include Charles and Juliette in their family lore (Nancy Pinchot, p.c.)

Adding to their optimism no doubt, in 1890 Peirce received a letter from Paul Carus, who had recently become the editor of two important journals that Peirce was to publish in frequently, *The Monist* and *The Open Court* (also a publishing house), both financed by wealthy German-born zinc manufacturer and father-in-law of Carus, Edward C. Hegeler. In his July 1890 letter, Carus invites Peirce to contribute to *Open Court*. Peirce was already writing for *The Nation* (currently the oldest continuously published weekly magazine in the USA). These writing opportunities gave a nonnegligible boost to Peirce's income and fame. Peirce was also fortunate that Carus was so keen to have him write for *Open Court* that he often paid him for unwritten articles merely suggested by Peirce, providing financial advances to help Peirce in what later became his precarious poverty.

But ever-faithful to his inner principles, and consistent with the thesis that Peirce possessed an inner tenure of the soul, Charles simply refused to write the easy to understand "popular science" that Carus requested, always writing rigorously-argued material that would stand up to professional scrutiny. This frustrated Carus as he expresses in many letters to Peirce. He wanted articles that the average citizen would want to read and buy. But although Peirce wrote difficult material, he did write well. In 1891, writing in the *American Journal of*

Psychology (3, 591) G. Stanley Hall wrote in his review of William James's *Psychology* that James's writing contrasts strongly with that of "Charles Peirce, who burns his own smoke and shoots with a rifle rather than with the shot gun or water hose."

Therefore, even though Peirce had been let go from Johns Hopkins (due to that institution's and era's mores, just as James Mark Baldwin was to be dismissed in 1908, also for charges of immorality) his financial state and professional prospects in Arisbe were still reasonably positive. He had his writing income and the income from the USCS.

However, in just nine years after moving to Arisbe, Peirce's financial status would be shattered, by his dismissal from the U.S. Coast Survey. On September 21, 1891, Peirce received a handwritten letter from the Director of the U.S. Coast and Geodetic Survey (new name for the U.S. Coast Survey), Thomas Corwin Mendenhall. Mendenhall had come into the directorship in 1889 and had heard complaints about Peirce taking too long to file his reports and that Peirce often failed to justify his spending for the USCGS. The new Director had also received a very negative review of the scientific value of Peirce's reports from, who else, Simon Newcomb. These facts contributed to TCM's decision to fire Peirce. He began his letter to Peirce:

"Dear Professor Peirce: Returning to my desk a few days ago after an absense in the West of several months, I was somewhat surprised to learn that nothing had come from you in the way of a report upon the unfinished pendulum work on which you have been so long engaged, or anything showing that you were making any progress towards completing it."

From this, the letter proceeds to Mendenhall's statement that:

"I therefore deem it my duty to inform you by this personal communication that I shall ask that your services be discontinued after the 31st of December next."

In letters subsequent to his dismissal, Charles writes to William James and others of his thoughts of suicide and his feelings of worthlessness in the eyes of the scientific and philosophical communities. James offers emotional encouragement and also aids him financially. He does this by arranging lectures for Peirce, e.g. the Harvard lectures mentioned below, and also by recruiting several people to contribute monthly to a fund James is to control that will guarantee a minimal annual income for Charles and Juliette. Peirce's income therefore now depends entirely on his free-lance writing, paid lectures, contributions from those recruited by William James, and any entrepreneurial success he might have (as stated above, though there were many ideas there were no notable successes). The combined income from all of Peirce's sources was relatively small (often roughly \$25,000 annually in twenty-first century dollars, well below the poverty line of today and then). In fact, the Peirces are often unable to buy food, clothes, or even heat their home, often suffering intense hardship.

It is often claimed that Peirce brought his hardships on himself because of quirks, perhaps genetic abnormalities, in his personality. And yet the evidence suggests that his hardships were primarily the result of his refusal to compromise, his utter rejection of the philosophy that guides many, viz., that one should "Go along to get along." But because of the widespread view that Peirce's neurodiversity brought about his ruin, it is worth considering this possibility in more detail.

3.7. Neurodiversity?

According to contemporary accounts, Peirce could be unintentionally rude, fail to sense what other people were thinking, lose track of time and social appropriateness, and so on. Taken individually, however, no particular incident in my opinion makes him stand out from any

number of academics. I have myself long thought that social awkwardness is common among academics because so many of us spend a disproportionate amount of our time alone, focused on narrow problems that only a handful of people will understand and even fewer care about. It never occurred to me in my study of Peirce that he was particularly abnormal, either neurally or emotionally. Of course on the ever-rarer occasions when Charles did have an opportunity to give a public lecture and be taken seriously by his fellow academics, he sometimes drank a bit too much or went on for too long. These faux pas seem to result from Peirce's pleasure in having an audience and being taken seriously. Again, this is not likely different from how many academics would feel and behave after years of ostracism.

As an example of this type of behavior, there is a report by then Harvard philosopher George Santayana that:

"I heard one of [Peirce's] Harvard lectures. He had been dining at the James's and his evening shirt kept coming out of his evening waistcoat. He looked red-nosed and dishevelled, and a part of his lecture seemed to be ex-tempore and whimsical. But I remember and have often used in my own thought, if not in actual writing, a classification he made that evening of signs into indexes and symbols and images [icons]: possibly there was still another distinct category which I don't remember."

[Buchler 1954: 54; also Lachs 1967: 68]

Santayana describes the state of a happy man, following a few glasses of wine with his best friend, yet still capable of impressing with new ideas that were clearly of deep significance. From my perspective, Peirce's "dishevelled" appearance and red nose, etc. are unremarkable. I have had professors in college, including some who were later colleagues, who came to class with their blazer tucked into their pants, their flies unzipped, toilet paper stuck to their shoes,

laughing quite alone at their own jokes, and so on. Such oddities seems to be a hazard of the profession of scholarship and at least partially an effect of constant focus on research.

Of course, it is possible that Peirce fell somewhere along the continuum (he did like continuua so this would not have likely bothered him to discover) of Autism-Spectrum Disorder. Temple Grandin, someone who learned to function in society in spite of her own autism, has joked that autism often accompanies/facilitates creativity, getting laughs for remarking in an address in Silicon Valley that this portion of California is a world center of autism - because autistic people often are able to concentrate and focus more effectively than others. Peirce might have had a degree of autism. We cannot be sure. But I see nothing particularly noteworthy in Peirce's psychology except toughness and focus and, yes, self-centeredness (prerequisites perhaps for being a successful academic). On the other hand, some Peirce scholars argue that he did in fact experience a more pronounced form of neurodiversity.

David Pfeiffer (2013, 203), for example, says of Peirce that

"Charles Peirce regularly stated and complained that his thinking processes were not like those of other people. Peirce accounted for his mental difficulty with the notion that he was left-handed. Neurologists consulted in this study note that one in seven people is left-handed and that the thought processes of left-handed people are not noticeably different from right-handed people. Joseph Brent in his biography of Charles Peirce accounts for Peirce's mental anomalies with the claim that Peirce suffered from a manic-depressive disorder or what today is called bipolar disorder. This article challenges that conclusion. The argument is that Peirce suffered from Asperger's Syndrome."

Pfeiffer's conclusions do seem to be moderately supported by more recent research such as that of Richardson, Blackmore, and Atkin (2007, 1141), though the data on Peirce is to my

mind far too sketchy to draw any firm conclusion. With or without some form of neurodiversity, Peirce was an intellectual living in isolation and exercising greater mental focus than the vast majority of other researchers and thinkers, more than the average person of any profession or work.

Of course, it is well-known that Peirce was banned from Harvard by president Eliot, fired from Johns Hopkins by president Gilman (who in a later position of leadership over the grants of the Carnegie Foundation, scuttled Peirce's application for a Andrew Carnegie grant, even though Andrew Carnegie himself wrote a letter in support of Peirce's application). What can account for this? In the Harvard case, Eliot's feelings against Peirce go back a long time. The first event that Eliot held against Peirce was that Peirce vandalized his classroom when Eliot was professor of chemistry at Harvard. But much more importantly (though one cannot say what long-term effect on Eliot's opinion of him Peirce's youthful pranks might have had), it was known, including to Eliot, that both Charles and Benjamin Peirce held rather low opinions of Eliot, as a scholar and as a potential intellectual leader. Benjamin had voted against Eliot's tenure case at Harvard and was chagrined when Eliot eventually returned to Harvard as its president. Later Eliot added to his reasons for disliking Peirce the claims of immorality raised by Gilman, as well as the claims of professional inadequacy raised (falsely) by Newcomb.

Gilman found Peirce difficult to deal with because, among other reasons, Peirce already had a full-time job with the U.S. Coast Survey and he wouldn't give it up without assurance that he Johns Hopkins job would become permanent. Gilman, as first president of JHU, considered offering a permanent appointment to Peirce (Peirce felt one had been promised) but his budget was severely constrained and the JHU trustees had priorities other than philosophy, which was the department Peirce was in (though he could have just as easily have been assigned to the

physics, chemistry, math, psychology, or other departments). But, fatally for Peirce's professorial career, when a Johns Hopkins trustee saw Peirce emerging from a hotel with Juliette, who was not then his wife, the "immorality" and scandal potential for JHU led Gilman not only to fire Peirce, but to work against Peirce for the rest of both their lives. He refused to enter the home of a friend on one occasion when he discovered that Peirce was there. There was deep animosity and disgust, however unfair, in Gilman and Eliot towards Charles.

The same Simon Newcomb also wrote ignorant and falsely accusatory reviews of Peirce's Coast Survey work to Peirce's superiors. These letters were particularly effective because Peirce had already earned the resentment of several Survey colleagues and superiors, who felt that Peirce did not respect his superiors, because his father had once been the director. Some thought he acted with a strong sense of entitlement. Even Zina wrote a letter to the head of the Survey, claiming indirectly that Peirce was still a spoiled child (there is some evidence that she was motivated in part by jealousy of his interaction with women while they were in Europe).

Many who knew him at the USCS also believed that he was dilatory in his work and that he failed to follow some regulations because of his father's former power and nepotism in appointing his own son. Peirce was often perceived as acting as though he were superior to others (he likely he *did* think he was intellectually and socially superior). Moreover, as discontent built towards Charles, the Survey's budget was being threatened by Congress. As we saw earlier, his "perfect storm" eventually led to Peirce's dismissal and subsequent poverty, after 31 years of brilliant work for the US Government. No retirement. No severance.

There are many possible theories as to why Peirce fell into disfavor, but none of them rely on him being mentally different from anyone else, other than his arrogance from confidence

in his superior intelligence.⁷ So did Peirce have Asperger's or bipolar disorder? Perhaps. But I see no convincing evidence.

3.9. Recalling Charles Peirce

These blows to his financial security might have devastated Peirce, as near financial ruin has psychologically hobbled many throughout history. But how did Peirce ultimately actually respond to these financial blows? Tragically? As a failure, hunkered down in eremitic seclusion? No. He responded with hard work and vigorous research. And even as he worked hard, even though he was eccentric from, at least in part, long years of focus on his work, he was a well-liked neighbor by many of the children who knew him, as well as their parents.

Evidence for this comes from some of those very children. On September 17, 1977, ten people who had known Charles or Juliette Peirce as young people gathered in the Peirces' former home of Arisbe, in Milford, Pennsylvania to answer questions put to them by Peirce philosopher Preston Tuttle, along with the director of the interviews, George Stoney. The interviewees, most in their 80s, one in his 90s (Walter Gassmann), remembered Peirce and carried on a lively and entertaining discussion about him.⁸

From 1898 on, the Peirces' closest neighbors in Milford were the Gassmanns. There were three brothers and sister, Walter, Charles, Ralph, and Hazel, all of whom knew the Peirce's well. In the interviews it becomes clear that Ralph Gassmann, the youngest brother, held a negative opinion of Charles, owing to his being a small boy when the events being recalled occurred, somewhat put off by the long white beard and strange (to him at least) mannerisms of then a very old Charles Peirce. His older brother, Walter, however, knew Peirce longer, from childhood till his teen years and had a much more positive view of Peirce as a kind, helpful, down-to-earth yet

brilliant man who made him a gift of what Walter called the most useful book he ever owned, as he prepared to leave Milford in order to train and work as an engineer. The book was *The Mechanical Engineer's Reference Book*, by Henry Harrison Suplee.

The Gassmanns recalled Peirce eating with them frequently when Juliette would go out of town, usually on a visit to Europe. The meal that he seemed to love the first time he had dinner with them was "pigs in a blanket," sausages wrapped in pancakes with sweet syrup. After dinner, the brothers recalled, Charles performed card tricks for them. They were impressed both by how many card tricks he knew and how well he performed them.

Hazel (the sister of Ralph and Walter), her brother Ralph nodding affirmatively and commenting with her, talked about how Charles would have their mother boil down coffee until it was a jelly, which he would then take home to eat by the spoonful to keep him going as he worked late at night, which he also said soothed the pain caused by the cancer in his intestines.⁹

Several of them mentioned that in their youth Indians still lived in the area and that many times they saw Peirce talking to them on his property. They recalled Charles standing on his front porch from time to time, calling his dog, Zola - "Zola, Zola, Zola," they repeated. Everyone laughed with the memory. And they warmly remembered how Peirce loved his horse, Cora. And Juliette loved her small dog, Fifi. (One recollected that she kept Fifi on a short leash and that he seemed much happier after she died when he was adopted by a neighbor who let him roam free.)

Walter's memories of Peirce were still vivid and warm, about 70 years later (Walter left the area years before Peirce died): "... the first memories of him was when I used to come over here and was making a French rose garden for his wife... I don't know just exactly how I got into his study... he knew that I liked that ... what'll I say, research work, to create something that isn't. He knew that, and that's when I used to sit in his study and talk to him... And, of course, I could

tell that he was a very brilliant man, when you talked to him... he stands out just vividly right in front of ... I can see him just as plain right now as I did then. Yeah, I can see him ... standing there with his long white beard... he was sharp. His eyes was sharp. Sometimes when he'd look at you, he'd look right through you..."

Caroline Depuy, one who remembered the couple from when she was a young girl, spoke of their relationship,, "if ever a woman adored her husband, Madame Peirce adored him. And I believe it was mutual, because they sort of lived for each other... He was devoted." Fellow interviewee Robert Blood added to this, "there was no one ever more in love with her husband than Madame Peirce. To me that made an impression as a small boy even then. Everything was Papa (Juliette's term for Charles)." Most of the interviewees also remembered Charles as very fond of children and very kind to them.

Charles Gassmann, the middle brother, was no longer living at the time of the interviews. But Walter and Ralph described vividly how Charles, checking one sad day in April to see how Charles and Juliette were coping with the cold, found Juliette alone, bundled, and shivering in her room. She immediately asked him to check on "Papa." Charles entered Peirce's upstairs study, to find him dying, also shaking from the cold. He had arrived just in time to hold Peirce in his arms as he expired in discomfort and pain, in his large dark house without heat.

Depuy (former Honorary Chairman of the Pike County Historical Society, whose farmer father knew Charles well) then offers perhaps the most striking image of Charles Peirce:

"I often think of Professor Peirce and liken him to [George] DeForest [Grush, DLE], the famous artist who did so many of the finest Indian paintings in the Metropolitan. He spent his last days in the Middletown Sanitarium. He used his own blood to paint the reds, and a nurse that I knew brought him from the asylum down to the Metropolitan, and

he selected each one of his pictures. Professor Peirce spent so many years dying of cancer, so I feel that everything he has left to posterity now that means so much he wrote with his own blood, as he was really dying during all that time. And thank goodness, thank goodness, the time has come when he is being recognized."

3.10. The end of dreams

A few years after moving to their beloved Arisbe, when their financial situation had declined steeply, with fears of destitution plaguing Charles, the Peirces variously tried to sell the home or turn it into a profit-generating hotel, both unsuccessfully. Peirce realized that as a man in his 60s, with no income, with bleak prospects for his future, he was going to remain poor, outcast from the intellectual culture that he was raised in and that he so enjoyed. He knew he was unlikely to hold another job of any prestige. He also knew that his problems were of his own making by and large. This, unsurprisingly, often depressed him. Still, until the end of his life he drew plans for expanding Arisbe and invested what little money he had, money that could have been better used elsewhere, in preparing his home for guests and students that never came. His vision of teaching, of an intellectual salon, and his research motivated him to the end.

Brent (1998: 319), as he discusses these hard years, concludes that "With a distant grief, I muse about this tragic life..." But to this the appropriate reply is "What tragedy? The tragedy of Poverty? Of isolation? The tragedy of a lack of professional position?" These were unpleasant realities of course. But there was no tragic life. Peirce did live a hard, challenging existence that his own choices brought him. But these are choices that he would not have changed and that were consequences of his inner values and perception of his role in the world, a man committed to inquiry. Yes, of course, Peirce died in discomfort from a painful cancer that had been killing

him slowly for many years (already in 1901, thirteen years before Peirce's death, Doctor Otto Sommer sent Peirce an article he published in *The Medical Times* in the July-August 1901 edition, "The Abdomino-Sacral and Other New Methods for the Extirpation of Rectal Cancer," indirect evidence that Peirce was already feeling the onset of his cancer). But it is equally true that all of us will die, most likely in sickness and pain. This is the universal end of all life. But death and hardship are hardly tragedies unique to Peirce.

In order to understand and evaluate Peirce's life as a success or as a failure, we have to analyze him *pragmatically*: what were his *actions* during this time? What was he *doing* and what was he *saying* as he watched his body age and his strength and health depart?

As an example of his grit and focus, one reads in his diary entry of March 30, 1914, just under three weeks before he died, suffering the worst agonies of the intestinal cancer that killed him, where Peirce wrote:

"Had taken Castor oil last night and on waking "Salts" (Probably Epsom). This mornight [sic] good washing out with hot water (referring to his ever-doubtful and painful bowel movements). Of course a good deal of pain. But was grateful to Dickens for allowing the book to end as he makes it."

In his pain and agony, we see that Peirce did not stop reading until the last days of his life. He wasn't writing much by this time and stopped altogether soon after this. But here he was reading Charles Dickens and thinking simultaneously about the endings of life in reality and in novels. His diary rarely if ever displays bitterness. He complains occasionally (especially when trying to get money from others, such as Carus and James). But his complaints are remarkable for their scarcity given his many disappointments and difficulties. One is reminded of another important American who died of cancer, 29 years before Charles, Ulysses S. Grant, who also

wrote and thought until the very end, having also lost his earlier wealth and also dying of an excruciatingly painful cancer. Yet who would say General Grant died a failure?¹⁰

Charles writes of a full life, one that according to his diaries, tended to begin at 730am each morning and end around 130am each evening. His days were full of writing, reading, thinking, some beer-drinking, much cigar-smoking, occasional shopping, daily correspondence with brilliant friends, and drawing out plans for future projects and research. He played with his dog Zola. He rode to town in his wagon, pulled by his beloved horse Cora. He enjoyed relationships with many neighborhood children, relationships that marked them positively for the rest of their lives. There is no evidence of unusual tragedy or any all-consuming despair. There is certainly no evidence whatsoever of the "moral blindness" that Joseph Brent accuses him of in his biography.

Intellectually Peirce was active to the end, especially in his active correspondence during his final years. He corresponded with Lady Welby, with James, with Royce, and with a multitude of other philosophers, geologists, physicists, mathematicians, biologists, authors, artists, and others. He also wrote plays in French and English, acted in plays, and was engaged in an amazing range of polymathic endeavors (Everett 2023). He did not live the life of a recluse except as forced upon him by finances. Instead he lived in an intellectual universe of his own creation, in which he was the center. And from this creation and his own choices emerged the work that has brought so many into that universe, Charles still at the center.

3.11. The end of Inquiry

Peirce avoided painkillers and faced the pain of cancer bravely, purposely, and purposefully until he died in Charles Gassmann's arms on a cold April 19th, 1914. He faced his

pain in order to write and think more clearly. He worked at problem-solving until just a few days before he died. Most intellectuals I know would consider this both a good life and a good death.

4 . Peirce's Influence and The Trope of Tragedy

Most modern intellectuals have failed to recognize Peirce's importance in world philosophy, though his indirect influence is widespread. This neglect of his legacy leads many philosophers who neglect his work to conclude that Peirce was a minor figure and thus largely a failure. This cycle of neglect, negative opinion, and then more neglect leading to more negativity, is sustained by the erroneous but common assumption in academics that if someone were really important, they would also be famous. One example of the neglect of Peirce's legacy that reinforces the bias that Peirce is of little significance, can be found in *The World Philosophy Made* (Soames 2019, 413), wherein philosopher Scott Soames has just one note about Peirce (spelled incorrectly in the index as Pierce) merely mentioning (incorrectly) that Peirce's logic "did not have the historical impact that Frege's did." This ignores the fact that in *Principia Mathematica* Russell and Whitehead used not Frege's notation, but Peirce's, and it was Peano's adaptation of Peirce, not Frege, that led to modern mathematical logic, that came to influence Chomsky's development of the so-called "Chomsky hierarchy." This neglect cycle is a form of what one might call today the "cancelling" of Peirce, in some ways still the legacy of his dismissal from Johns Hopkins and depriving him of students and a more standard forum for his ideas and work. Neglect in the literature can be, and often is, taken as a (self-fulfilling) indication of failure, as noted. But popularity is logically irrelevant to the evaluation of the quality of one's work.

Peirce is responsible for myriad vital concepts such as, picked at random, "universe of discourse," "type vs. token," "Pragmaticism" and "Pragmatism", "valency," the early bases of cognitive sciences, "Semiotics," Peircean inclusion, and various other crucial concepts in contemporary philosophy. We might excuse Soames's book had it been written fifty years ago for the reason that Peirce's writings were at one time extremely difficult to access. But this is not true any longer and certainly it was not true at the time that Soames wrote his book. The effect is that Soames's book arguably omits any discussion of the most important philosopher in American history and arguably the most important system-builder since Aristotle (Everett 2017), contributing to the false idea that Peirce never achieved the importance he aspired to, typical of many tragic features, reinforcing the myth of the "tragic Peirce" that is so widespread.

Peirce set out to create a philosophy and build a system that would "rival Aristotle's." And one can make the case that he did just that. The importance and range of Peirce's contributions to science, mathematics and philosophy can be appreciated again by recognizing that many of the most important advances in philosophy and science over the past 150 years originated with him: the development of mathematical logic (independently of Gottlob Frege and with a clearer notational system that led many to adopt Peirce's logical system over Frege's, contra Soames); the development of semiotics (before in my more detail than than Ferdinand de Saussure's work); the philosophical school of pragmatism (before William James); the modern development of phenomenology (independently of Edmund Husserl); and the invention of universal grammar with the property of interpretational recursion (before Noam Chomsky; though, for Peirce, universal grammar, a term Peirce seems to have been the first American to use, in 1865, was subordinate to Speculative Grammar, in part a set of constraints on signs and their expression).

In another recent survey of philosophy, Grayling (2019), Peirce is also and just as inexplicably overlooked. In Grayling's work, the discussion of Peirce is a bit better than in Soames, but is still marred by the myopia often observed overly ambitious intellectual histories, leading to a focus on the familiar and an avoidance of researching and discussing more difficult and less well-known ideas and people, further suggesting to many contemporary philosophers, that Peirce was but a minor figure and thus, in Peirce's own values, a failure.

Such omissions as we find in Soames, Grayling, and others are not only detrimental to the value of these works, but simply propagate popular and widely accepted "official" histories. What passes for intellectual history is often not all that different from a great deal of modern journalism, which tends to repeat twice-told stories, use the same experts, frame debates in the same terms, regurgitate opinions and information from popular works, and repeat standard views uncritically. This can be harmful no matter how deeply thoughtful these views might otherwise be. In the case of Peirce, this too frequent way of surveying history is particularly unfortunate because of his significance and because it reinforces the trope of the "tragic Peirce."¹¹

Peirce has not only been ignored, but all too often misinterpreted, even by linguists who express admiration for him, e.g. Chomsky and Jakobson. Chomsky asserts, for example, that "the philosopher to whom I feel closest and whom I'm almost paraphrasing [on the philosophy of language, in dialogues with Mitsou Ronat 1976] is Charles Sanders Peirce" (Fisch 1986, p431). Another pioneering linguist of the 20th century, Roman Jakobson, referred to Peirce as a "Pathfinder in the Science of Language" and his, Jakobson's, "most powerful source of inspiration" (Fisch 1986, 430). But both misunderstood him. The evidence that Chomsky doesn't seem to have grasped much of Peirce's overall program comes from the fact that Peirce's philosophy is incompatible with Chomsky's own program in profound ways. Jakobson's

understanding is superficial, even though his opinion of Peirce is also very positive. It is good that these two major figures in linguistic history both admired Peirce's ideas, but it is a shame that his papers were at the time of their writings still so poorly organized and disseminated that neither of them understood him very well.

It is undeniable that Peirce struck many of his contemporaries as eccentric, sometimes just weird. Was he really so eccentric? As discussed above, the eccentricity we have evidence for is most easily explained as the oddness that goes with the job of a life time of intellectual focus. I am odd. Most readers of this will be odd. But oddness is not tragedy. Some might argue nevertheless that Peirce's life was tragic simply because he died in obscurity and poverty. This facile view of success and failure also seems misguided.

6. Writing in his own blood

Although those who knew him as children talk extensively about his poverty, about how Arisbe fell into disrepair, about Peirce's painful suffering from cancer, and about how desperately cold Arisbe was (because he and Juliette could not afford to heat it), the conclusion that the evidence of his life forces upon us is that he would rather have lived conducting his research freely as he did than to lead a wealthy or at least more secure life without his research. His uncompromising faithfulness to his research and his faith in its quality, in spite of criticism, is ultimately what led to Newcomb's corrosive jealousy and the dislike of his cocksureness (arrogance to many) among many colleagues and administrators. That is how his poverty is reconciled with the idea that Peirce lived good and successful life. Nearly everyone who has written about his life has talked about how he ruined his own life by failure to conform and weird behavior. But few have argued that he did always what he thought was right and what he felt he

had to do. His was a life of free inquiry. And it was a deeply ethical life, living and dying by his own values. Peirce made his own tenure in all of his life's circumstances and arguably this independence was much greater and led to more significant results than any other way of life for him might have.¹²

Moreover if we examine standard ideas of happiness and success, to me there is much evidence for the conclusion that Peirce *was* a happy man. He had fulfilling work that he knew was important. He had friends of the highest intellectual caliber (e.g. William James and Ernst Schroeder). He had a loving marital relationship and always enjoyed the love and respect of his siblings and many friends. His home, in spite of all its problems due to lack of maintenance, was large, usually comfortable (it was not always winter after all), housed his books and offered him a wonderful place to work in one of the most beautiful parts of the USA.

Of course, as discussed, he lost several opportunities and jobs. He was denied grants. People called him a crackpot. But still he was widely respected. This kind of mixed reaction is the lot of most academics. And the more prominent the academic, the more mixed the reaction from their peers. Why was this the case with Peirce? Because he refused to compromise. He told people they were wrong openly, publicly or no, often to their face, no matter whether they were friend or foe. He was a serious pursuer of truth and it is in that pursuit that his fulfillment is found.

Tenure is defined in Wikipedia as "a means of defending the principle of academic freedom, which holds that it is beneficial for society in the long run if scholars are free to hold and examine a variety of views." This is a fair definition. But in this wider sense, tenure can be a basis for living and fulfillment. One greater than happiness. Not a professional tenure, but a "tenure of the soul."

The great British phonetician, Prof. Peter Ladefoged of UCLA, a resident of Los Angeles for more than five decades, told me once during fieldwork in the Amazon that he had not yet naturalized as a US citizen because he did not want to belong to a country that placed "the pursuit of happiness" in its founding documents. "There are more important things than happiness." Of course it depends on how one defines happiness. If what is meant is giddy emotion, then no thanks. But one can make purpose, love, respect, sense of achievement, fulfillment in relationships and work, and other components part of a combined concept of happiness and success. For this reason it has been argued here that Peirce lived a successful life, even a happy life. People who knew him commented that they could not imagine a couple (Peirce and Juliette) who loved each other more. They talked about his love for his horse Cora and his dog Zola. And they talked about his brilliance, of his love of his work, and his dedication to that work, in a home that, although falling into disrepair and not heated well in the winter, provided room for his books and was a lovely place outside the winter months. We have to reconsider the ideas of happiness and success if we think Peirce was unhappy, or if we believe that happiness is found in typical academic achievement - position, salary, awards, citations, and so on.

Peirce worked until his own end of inquiry writing for years in his own blood, as Caroline Depuy put it. But defeated? Tragic? A failure? I would like to be such a failure.

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Notes

¹ There is a non-racist view similar to polygenism, namely the "multi-origin hypothesis," as discussed in Wolpoff and Caspari (1997).

² The eventual permanent president replacing LeConte was Peirce's implacable enemy, Daniel Coit Gilman, who had fired Charles from Johns Hopkins University while serving as the first president of that institution.

³ Many other famous, innovative Americans were born or active around this time. In fact, Henry and William James were not even the most famous James brothers. Frank and Jesse were innovating ways of robbing banks and trains while their less well-known contemporaries, William and Henry were creating literature and psychological science.

⁴ See the similar phrase summarizing research by Walter Gassmann in 3.9. above as he reminisces about his view of research after meeting Charles Peirce. "he knew that I liked that ... what'll I say, research work, to create something that isn't."

⁵ The name Arisbe, according to Fisch, comes from Peirce's knowledge of and interest in Greek history and philosophy: "... at Arisbe was a colony of Miletus, the home of the first philosophers of Greece - Thales, Anaximander, and Anaximenes - who first had sought the Arche the Principle, the First of things (Ms 905, pp. 21-25). Of Peirce's three categories, it was Firstness that had given him the greatest difficulties, and it was only when Epicurus had helped him to a partial solution of them that he was ready to join the Greek cosmologists, and that his Arisbe too became a colony of Miletus."

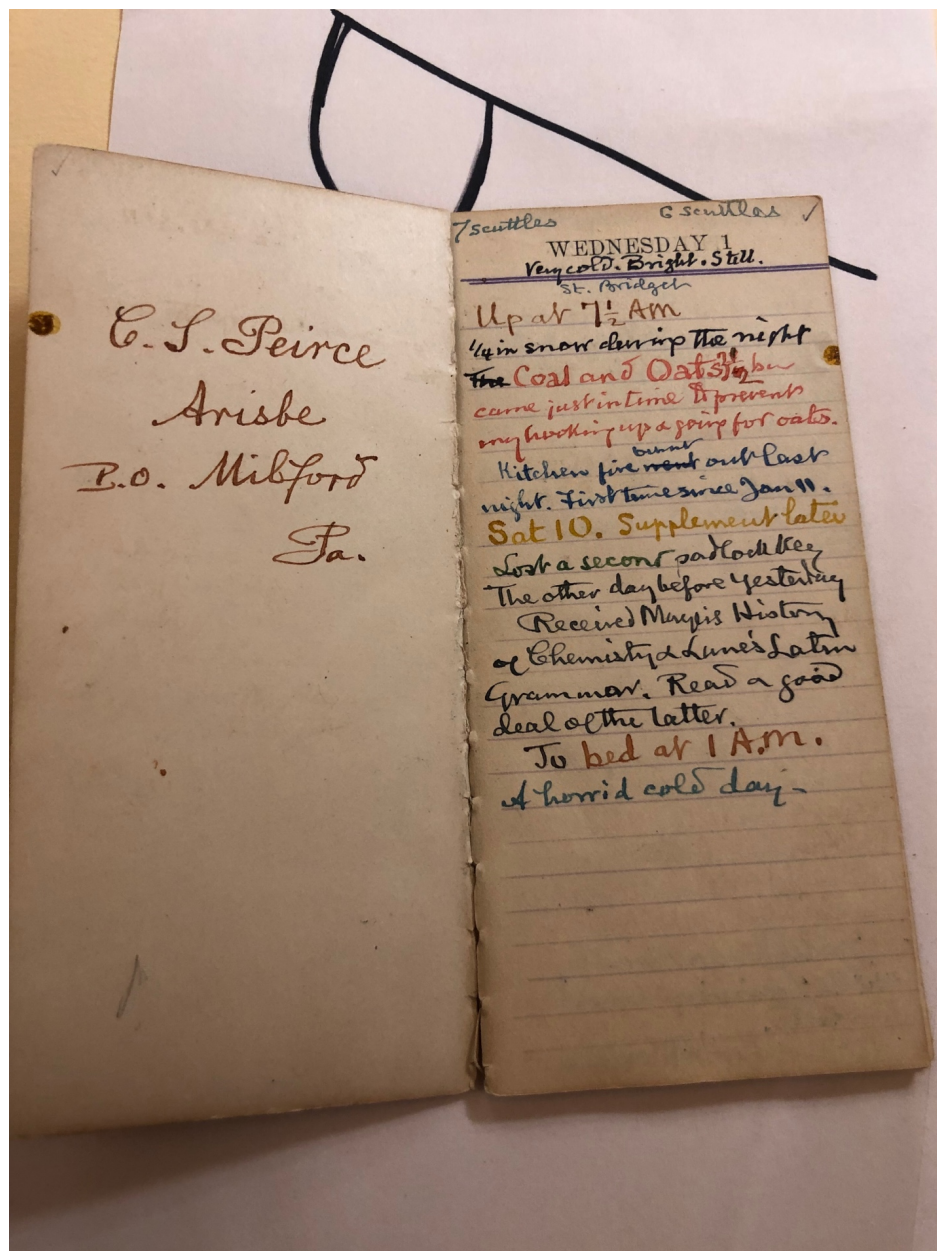
⁶ Due to their poverty, the Peirces were eventually buried together in a plot owned by the Pinchot family in the Milford cemetery.

⁷ But this is another common ailment of the academic profession. As I have often heard, an academic audience is one in which every person in the audience likely believes they are the smartest person in the room.

⁸ Thanks to the Columns Museum of the Pike County Historical Society in Milford, PA for providing me with a digital copy of the video recording of these discussions and reminiscences.

⁹ In their discussions of Peirce, several of the people who had known him when they were younger commented on Peirce's habit of working late into the night. This is born out by his diaries. One typical entry (photograph by DLE from Houghton Library archives) shows that he

rose early and went to bed after 1 am.



¹⁰ And one can hardly say that Grant's life ended better than Peirce's because Grant left his widow financially well-off by finishing his autobiography, marketed successfully by his friend and publisher Mark Twain, after his death.

¹¹ As philosopher Max Fisch put it:

"Who is the most original and the most versatile intellect that the Americas have so far produced? The answer 'Charles S Peirce' is uncontested, because any second would be so far behind as not to be worth nominating. Mathematician, astronomer, chemist, geodesist, surveyor, cartographer, metrologist, spectroscopist, engineer, inventor; psychologist, philologist, lexicographer, historian of science, mathematical economist, lifelong student of medicine; book reviewer, dramatist, actor, short-story writer; phenomenologist, semiotician, logician, rhetorician [and] metaphysician ... He was, for a few examples, ... the first metrologist to use a wave-length of light as a unit of measure, the inventor of the quincuncial projection of the sphere, the first known conceiver of the design and theory of an electric switching-circuit computer, and the founder of 'the economy of research'. He is the only system-building philosopher in the Americas who has been both competent and productive in logic, in mathematics, and in a wide range of sciences. If he has had any equals in that respect in the entire history of philosophy, they do not number more than two."

¹² Camus's great work, *The Myth of Sisyphus* (1942) talks about the so called tragedy of a man (Sisyphus) who is condemned by the gods to push a boulder to the top of a hill during the day only to see it roll back down the hill and have to begin again the next day. Though this is originally intended as a horrible example of divine punishment, Camus argues that this work gave the man purpose and measurable goals and that his life was therefore not tragic. There is an sense in which we are all personifications of Sisyphus. Thus even in the worst possible interpretation, as in the Greek myth, purposeful work that faces us every day is not a tragedy, but a blessing, according to Camus. It is a blessing that all laborers enjoy and one that motivated Peirce throughout his life.