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This article focuses on the 20-year gap between Charles S. Peirce's classic proposal of pragmatism in 1877-1878 and William James's equally classic call for pragmatism in 1898. It fills the gap by reviewing relevant developments in the work of Peirce and James and by introducing G. Stanley Hall, for the first time, as a figure in the history of pragmatism. In treating Hall and pragmatism, the article reveals a previously unnoted relation between the early history of pragmatism and the early history of the "new psychology" that Hall helped to pioneer. © 2009 Wiley Periodicals, Inc.

The story of the origins of American pragmatism, as commonly told, emphasizes two papers published by Charles S. Peirce in 1877 and 1878, and an address delivered by William James a full 20 years later, in 1898, at the University of California at Berkeley. James's address, it is said, rescued Peirce's earlier ideas from oblivion and initiated the more or less continuous tradition that has run, sometimes prominently, sometimes obscurely, right up to our own time, when Richard Rorty and others have moved pragmatism back into the philosophical spotlight.¹

What happened during those intervening years from 1878 to 1898? The purpose of this article is to fill that 20-year gap in the history of pragmatism, first by qualifying the notion of a gap in relation to the work of Peirce (1839–1914) and James (1842–1910) and then by discussing the work of G. Stanley Hall (1844–1924), whose place—modest but not insignificant—in the history of pragmatism has not been recognized. In discussing his work, this article will relate the history of pragmatism to the history of psychology.

¹. There have been criticisms (e.g., Hollinger, 1980; Kuklick, 2001) as well as modifications (e.g., Fish, 1954, 1964a; Wiener, 1949; West, 1989) of this story, but the amendments have focused primarily on what happened before Peirce's articles and after James's address. A reasonable sampling of the extensive and ever-growing literature on the history of pragmatism would include Groce (1995), Diggins (1994), Fish (1986), KlopHenbergh (1996), Menand (2001), and Shook and Margolis (2006). Informative "readers" include Dickstein (1998), Goodman (1995), and Hollinger and Depew (1995). Useful bibliographies include Goddes (2001), Shook (1998), and the online Pragmatism Archive (http://www.pragmatism.org/archive/). Shook and De Tienne (2006) contains the classic pragmatic works of Peirce (in Vol. 1) and James (in Vol. 2) along with a rich assortment of classic secondary analyses of their work. Brent (1998) and Ketner (1998) provide background on Peirce's work; Myers (1986) and Perry (1935) offer philosophical analyses of James's thought; and Ross (1972) remains the basic source on Hall's life and work, though my recent article (Leary, 2006) offers a new perspective on Hall's intellectual style, methods, aims, and achievements. That Rorty's (1979) work has both stimulated interest in the pragmatic tradition and spurred debates about the extent to which it belongs to it is an interesting fact, but not the subject of this article.

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PEIRCE, JAMES, AND THE 20-YEAR GAP

It is important to note at the start that the apparent gap in the history of pragmatism, between 1878 and 1898, involved a lack of public notice and of specifically identified extensions and applications of Peirce’s initial proposal. No one other than Peirce, James, and—as I shall argue—Hall seems to have noticed, acknowledged, or responded to the proposals that Peirce made in “The Fixation of Belief” (1877/1992b) and “How to Make Our Ideas Clear” (1878/1992c). But both Peirce and James—James having been present when Peirce first formulated his pragmatic ideas in the famous Cambridge Metaphysical Club in the early 1870s (see Fisch, 1964b; Menand, 2001)—continued to develop those ideas throughout the 1870s, ’80s, and ’90s, right up to the time of James’s address in 1898. They did so, however, without using the term “pragmatism” or claiming that they were offering a distinctive new approach to scientific and philosophical issues. Even then, in the subtitle of his book on Pragmatism, James (1907/1975c) suggested that he was simply giving “a new name for some old ways of thinking,” despite the fact that those old ways—of John Locke, David Hume, John Stuart Mill, and Alexander Bain—were reformulated by James in light of evolutionary modes of thought (see Croce, 1995, and Wiener, 1949).²

The continuity in Peirce’s espousal and development of pragmatic ideas is shown by the fact that he assigned his two classic articles, “The Fixation of Belief” (1877/1992b) and “How to Make Our Ideas Clear” (1878/1992c), when he taught a year-long course on logic at the Johns Hopkins University in 1882–83, and that he continued to elaborate and share his ideas on the role of chance, the nature of inference, and the place of the community in the advancement of knowledge in various lectures and publications prior to 1898 (e.g., see Brent, 1998; Ketner, 1998; Peirce, 1867–1893/1992a, 1893–1913/1998a). In fact, if it is likely that Peirce’s Cambridge Lectures on Reasoning and the Logic of Things (Peirce, 1898/1992h) stimulated James to espouse pragmatism at Berkeley, later that same year, as the best way to blaze a “trail of truth” through the “trackless forest of human experience” (James, 1898/1975b, p. 257).³

But if Peirce’s lectures affected the timing of James’s public endorsement of pragmatism, they did not remind him of some long-forgotten ideas: A great deal of evidence demonstrates that he had never forgotten them. For instance, his first substantive writing, starting with his “Remarks on Spencer’s Definition of Mind as Correspondence” (1878/1978b), reflected the influence of Peirce’s pragmatic ideas. When James argued that subjective interests are the originating sources of our ideas and hence the initial “bases for human action,” he also contended that “in the long run” our ideas are controlled by the “coerciveness” of reality: by the feedback and control of data and rules, which (pp. 21–22). And in his Further الجانب Psychological Analysis, another widely known essay on psychology, it is clear that he had read, if not written of the early 1870s. In “The Function of Pragmatism,” what he called a book from Peirce’s philosophy, he argued that “true knowledge is the result of an assumption, perhaps aporetic, in the connection with the material of it, a pragmatic,” James claims, and that defined pragmatism in this classic articles (Peirce, 1903/1975).

So there was no reason to think, even then, that Peirce’s initial proposals had been forgotten. As Peirce recognized, even after about twenty years, his logical modesty (i.e., the Peirce sense of what he has accomplished)

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Almost four decades later, Collected Papers, my contemporaries’ translation of Peirce’s and understood remarks.

2. The prehistory of pragmatism was explicitly acknowledged by both Peirce and James, long before other scholars looked into the matter. While Peirce (1902) gave a distinctive nod to the critical philosophy of Immanuel Kant (pp. 321–322), both Peirce and James paid tribute to the British empiricists and their predecessors, reaching as far back as Socrates and Aristotle, as well as to their own American “boxing-master,” Chauncey Wright (see Peirce, 1907/1998c, pp. 399, 423–424; James, 1907/1975c, p. 30). On the prehistory of pragmatism, see Baum (1933), Fisch (1964a), and Madden (1963).

3. To complicate the story a bit more, I should note that Peirce’s own interest in pragmatism had apparently been reinvigorated by the publication of James’s Principles of Psychology (1890/1981), especially by James’s treatment of the role of inference in perception (Vol. 2, pp. 735–757). Around the same time, Peirce also began to realize some of the logical ramifications of his ideas about “the reality of actuality, or secondness,” which led him to rethink some of the arguments in his 1877–78 papers. On both points, see Houser (1998, p. xxi). Finally, to thicken the context even more, it was James who proposed and arranged the series of lectures that Peirce delivered in Cambridge in February and March 1898.

4. Peirce recognized this in his lead essay of the same year, a year and a half before James published his radical reorientation of philosophy as an empirical science, and by its practical results as a reform of the book as I have looked to Peirce’s understanding of it to help than I can express in this paper (pp. 21–22). And in his Further الجانب Psychological Analysis, another widely known essay on psychology, it is clear that he had read, if not written of the early 1870s. In “The Function of Pragmatism,” what he called a book from Peirce’s philosophy, he argued that “true knowledge is the result of an assumption, perhaps aporetic, in the connection with the material of it, a pragmatic,” James claims, and that defined pragmatism in this classic articles (Peirce, 1903/1975).

5. Weiss (1940) presents as evidence James’s essay, written: “I ed. not understand the second lecture, was what he said” (p. 10). Of course, “theological sophistication
feedback and corrections that constitute “the only unimpeachable regulative Law of Mind” (pp. 21–22). And in articles like “The Sentiment of Rationality” (1879/1978a) and “The Function of Cognition” (1885/1975a), as well as in his presidential address to the American Psychological Association on “The Knowing of Things Together” (1895/1978d) and his well-known essay on “The Will to Believe” (1897/1979b), James built upon these ideas, making it clear that he had never forsaken the insights nurtured in the Metaphysical Club gatherings of the early 1870s. In fact, as he later pointed out (James, 1907/2003, p. 448), his article on “The Function of Cognition” (1885/1975a) was “the fons et origo”—the basic source—of what he called “my pragmatism (in its second sense as ‘theory of truth’),” as distinguished from Peirce’s pragmatism (in its first sense as a theory of meaning). In that article, James argued that “truth” can only be measured by its “practical issue,” and further, that if an assumption, perception, or claim makes no practical difference, it fails to put us into a closer connection with “reality” (pp. 16, 31). Although he stopped short of labeling his views “pragmatic,” James clearly and unambiguously espoused the central claim of his later, explicitly defined pragmatism, and in the process of doing so, he cited and quoted one of Peirce’s classic articles (Peirce, 1878/1992c, quoted in James, 1885/1975a, p. 31).

So there was no gap as regards the continuity and development of Peirce’s and James’s thinking, even though there was a gap in terms of public recognition and response to Peirce’s initial proposals about the “practical bearings” of conceptual definitions and scientific inferences. As Peirce himself noted in 1903, “I sent forth my statement in January 1878; and for about twenty years never heard from it again” (Peirce, 1903/1998b, p. 134). James, with typical modesty (i.e., silence) regarding his development of Peirce’s ideas, corroborated Peirce’s sense of what happened:

The principle of Peirce, the principle of pragmatism . . . lay entirely unnoticed by anyone for twenty years, until I, in an address before Professor Howison’s philosophical union at the university of California, brought it forth again and made a special application of it to religion. By that date (1898) the times seemed ripe for its reception. (James, 1907/1975c, p. 29)

Almost four decades later, Paul Weiss, a co-editor of Peirce’s posthumously published Collected Papers (1931–1958), offered a related assessment: “It was Peirce’s and his contemporaries’ tragedy that he had friends and well wishers, but none who both sympathized and understood” (Weiss, 1940, p. 253). However, Weiss added a small footnote: “But see

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4. Peirce recognized the pragmatic character of James’s entire book on The Will to Believe (1897/1979a), not just the lead essay of the same name. Note that this book was published a year before Peirce’s Cambridge lectures and a year and a half before James’s address at Berkeley. As Peirce (1897/2000) wrote to James: “That everything is to be tested by its practical results was the great text of my early papers; so, as far as I get your general aim in so much of the book as I have looked at, I am quite with you in the main” (p. 243). James’s awareness of the relation of his thought to Peirce’s is underscored by his dedication of the book “To My Old Friend/CHARLES SANDERS PEIRCE/To whose philosophic comradeship in old times/and to whose writings in more recent years/I owe more incitement and help than/I can express or repay” (James, 1897/1979a, p. 3).

5. Weiss (1940) presented James as having sympathized with Peirce, without having fully understood him (p. 253), citing as evidence James’s reactions to several lectures by Peirce, one fairly early on (in 1866) and the other much later (in 1903). Commenting on the first lecture, which focused on the logic of science, James (1866/1995a) had written: “I do not understand a word but rather enjoyed the sensation of listening to it for an hour” (p. 144). As regards the second lecture, which focused specifically on pragmatism, James (1907/1975c) had characterized Peirce’s comments as “flashes of brilliant light relieved against Cimmerian darkness! None of us, I fancy, understood all that he said” (p. 10). Of course, Peirce was notorious for being obscure, while James lacked the mathematical and logical sophistication demanded by Peirce’s finer elaborations. In the end, however, even Peirce (1907/1998c) admitted...
G. Stanley Hall’s article in *Mind*, Vol. IV (1879), p. 102.” And therein lies the story I want to tell, regarding not only Hall’s sympathy with and understanding of Peirce, but also his application of insights that he took from Peirce—and James—well before 1898.

## HALL AND PRAGMATISM

The historical significance of Granville Stanley Hall, commonly known as Stanley Hall, has been underestimated by both psychologists and historians, who have tended to overlook his intellectual stature and the substantive contributions he made to the history of psychology. Instead they have focused primarily on his institutional and administrative firsts and on his controversial interactions with others. (Hall was the first person to receive a PhD in the U.S. for a thesis on physiological psychology; he held the first chair of Psychology at Johns Hopkins; he established the first formal laboratory and first journal of psychology in the U.S.; he was the first president of Clark University; he founded the American Psychological Association; and he pioneered genetic psychology and the psychology of religion. Unfortunately, he also had some very public and at times quite acrimonious conflicts with professional colleagues.) In a recent article (Leary, 2006), I have offered a different interpretation of Hall and his intellectual contributions to the history of psychology, an interpretation that is consistent with the opinion expressed by Joseph Jastrow, a pioneer of “the New Psychology” who had been a student of both Peirce and Hall:

What stands out notably in the impress of years concerning the leadership of Stanley Hall is the encyclopaedic sweep in the subjects of his interest, and the variety of the disciplines that he mastered. From the outset his Fach was education (or pedagogy, as he preferred to call it), as well as psychology; the title of his chair included both subjects. With the shifting emphasis of the years and with the refinement of methods in psychology, there has been a tendency to disparage the value of his contributions. He has been regarded as an unoriginal or even credulous, sampling indiscriminately all varieties of contribution and attempting a synthesis lacking perspective. This criticism refers to his major writings as well as to his use of the questionnaire method at Clark University, and to his adherence to the recapitulation theory. Hall deliberately chose this procedure upon

that, although James thought in a “very different dialect” from his own, “by processes I cannot comprehend” he nonetheless “arrives at much the same practical conclusions that I should” (p. 421). In fact, after expressing to James a “lingering regret” that he “would try to learn to think with more exactitude,” Peirce conceded “how far higher is the faculty of reasoning from rather inexact ideas [as you do] than of reasoning from formal definitions [as I do].” To wit,

I see myself, with admiration and wonder, how you, nevertheless, come to the right conclusions in most cases, and still more wonderfully how you contrive to impart to audiences as near to the exact truth as they are capable of apprehending. That faculty makes one useful, while I am like a miser who picks up things that might be useful to the right person at the right time, but which, in fact, are utterly useless to anybody else (since he cannot share it), and almost so to himself. What is utility, if it is confined to a single accidental person? Truth is public. (Peirce, 1907/1935, p. 437)

Nonetheless, Peirce was pleased that James had clarified, publicly, how their two versions of pragmatism differed (Peirce, 1905/2002, p. 534).

6. Here and throughout the rest of this article I am not going to provide documentation of widely known details about Hall’s life and work. For such information, see Ross (1972) and Leary (2006), in particular. Other helpful sources are Bringmann, Bringmann, and Early (1992), Burnham (1925), Fisher (1925), Leary (1879), Morawski (1982), Pruette (1926), Rosenzweig (1992), Sanford (1924), Sheldon (1932), Siegel and White (1982), Sokal (1990, 1992), White (1990, 1992), and Wilson (1914). Hall’s *Life and Confessions of a Psychologist* (1923) provides valuable insights, though it glosses over certain matters and must be used with caution as regards certain factual statements and interpretations.

7. I came across this note in a section of a book on autopoiesis at Clark University. I should add that the book is not by Peirce, but by someone who is a careful scholar of the most important of all of them.
the principle that suggestive hints for investigation arise from a composite view of a subject from all angles. Despite the weakness of the method, its use in Hall’s hands resulted in a broad approach and a stimulating effect upon his students. His influence as well as his contributions place him in the small group of the founders of American psychology. They equally reflect a mind of extraordinary powers. The child-study movement, the proper appreciation of the genetic principle, the inclusion of the abnormal as an integral illumination of normal phenomena, remain as evidence of his pioneering insight. His share in establishing psychology among the recognized sciences is a notable one. (Jastrow, 1930, pp. 138–139)

The burden of the present article is to show that Hall deserves additional attention as someone who recognized the importance of Peirce’s pragmatic ideas and adapted them to his own purposes—the development of psychology—long before James made “pragmatism” one of the most frequently used words in American philosophical discourse.

The story begins in the late 1870s when Hall, a recent recipient of a Harvard PhD (under James’s tutelage), pointed out the importance of Peirce’s classic papers in the article cited by Paul Weiss: an article entitled “Philosophy in the United States,” which was first published in the British journal Mind in 1879 and subsequently reprinted in the United States. In this article, which itself became a classic, Hall noted that “about a year ago Mr. C. S. Peirce . . . began . . . a series of papers entitled Illustrations of the Logic of Science,” which is still progressing.” (He was referring to the series, published in Popular Science Monthly, in which Peirce’s “The Fixation of Belief” [1877/1992b] and “How to Make Our Ideas Clear” [1878/1992c] appeared.) The discussion in these papers, Hall proclaimed, “promises to be one of the most important of American contributions to philosophy” (Hall, 1879, pp. 101–102).

Hall went on to devote fully 1,000 out of approximately 7,000 words (or 15% of his entire article) to Peirce’s work, much more by far than he devoted to any other thinker. Although there is no evidence that this treatment had any tangible affect on others, it nevertheless reflected the impact of Peirce’s ideas on Hall and on Hall’s own psychological work, both before and after 1879, and long before James’s address at UC Berkeley. In addition, awareness of this impact makes it difficult not to see Hall’s distinctive scientific work as a thoughtful implementation of pragmatic principles: an implementation that reflected the influence of James as well as Peirce. As a result, I will argue in the following pages that when James called for a pragmatic turn in philosophy and science in 1898, pragmatism had already been put into practice by Hall, at first tentatively—as a plan for research—at Johns Hopkins University in the 1880s and then more tangibly—as actual, ongoing research—at Clark University in the 1890s.

My argument starts with Hall’s 1879 article, which presented a remarkably pithy and accurate summary of Peirce’s ideas for the advancement of knowledge and as a basis for the worldview that begins with the “irritation of doubt,” proceeds to the establishment of “belief,” and culminates in “action” and the subsequent establishment of a more or less trustworthy “habit,” before returning, in time, to further doubt, belief, action, and modification of habit. At each stage of this iterative process, Hall noted, “beliefs are distinguished by the different modes of action to which they give rise. There is no distinction of meaning so fine as to consist in anything but a possible difference of practice.” Hence, in the

7. I came across this quotation after the appearance of my recent article on Hall (Leary, 2006) and was pleased to note how consonant Jastrow’s views are with my own. Perhaps I should add that Jastrow was not one of “Hall’s men” at Clark University, which is to say that his views on Hall were not skewed by the close relation and affection typical of many (but not all) of Hall’s psychologist-colleagues and students at Clark. He had, however, studied with Hall (as well as Peirce) at Hopkins, where he earned his PhD under Hall’s direction before Hall moved to Clark.
end, "our idea of anything is our idea of its sensible effects," and "our conception of these effects is then the whole of our conception of the object" (p. 102).

Having outlined these key notions, Hall went on to point out the probabilistic nature of the effects of experience, which may vary from person to person, or situation to situation, since unanticipated facts may interact with previously known or conjectured facts. In addition, he noted that no one person can draw out all the possible inferences of a given belief. As a result, we are forced to realize that "logicality inexorably requires that our interests should not be limited. They must not stop at our fate but must embrace the community." Thus, in summarizing Peirce's views, Hall concluded that logic and hence the development of knowledge is "rooted in the social principle" (p. 102).

This description of both the process underlying the acquisition and enhancement of knowledge and the nature of what knowledge entails, à la Peirce, may seem an obvious overview of pragmatic maxim in the early twenty-first century, but in 1879, without the assistance of any secondary treatments (other than conversations with James, as we shall see), it constituted an unusually astute reading of the long, complicated, and unfamiliar arguments in Peirce's 1877–78 articles. Among the significant points that Hall highlighted were the claims that both doubt and belief are crucial components of an ever-continuing learning process, that the action is the appropriate outcome of consciousness, that habit bears a significant relation to knowledge, and that knowledge, though prone to partiality and error, is nevertheless corrigeable so long as it maintains contact with sensible experience, both one's own and that of others.

Once one is aware of Hall's appreciation of pragmatic ways of thought, certain comments in an earlier article—the published version of his 1878 Ph.D. thesis on the perception of space—are easily identified as incorporating pragmatic claims about concepts and knowledge—and not only Peirce's claims, but also those of William James.

HALL'S RESEARCH

Hall had come to his reading of Peirce by way of a recommendation made by James, who happened in 1876, '77, and '78 to be Hall's teacher. Hall had arrived at Harvard in 1876, frustrated by his inability to interest Daniel Coit Gilman, the president of the recently established Johns Hopkins University, in his services as a lecturer and possibly even a professor of philosophy. Hall was no typical graduate student, no neophyte to either philosophy or the academy. Just two years younger than James, he had undergone far more education than James, both in the United States and Europe, and had already completed four years of teaching at Antioch College, as professor of rhetoric, English literature, and mental philosophy. Still,
Harvard—and James—offered an opportunity for Hall to engage in further study and research, focused on the "new psychology," and Hall wanted to advance himself by taking advantage of this opportunity, thus avoiding the resumption of teaching duties in the Midwest, which he had come to see as a dead end for his career. When Hall arrived at Harvard, James had just given his first course in physiological psychology (in the previous year), so he was ready to take on a graduate student, and, fortuitously, James's friend, the physiologist Henry P. Bowditch, was willing to make his laboratory (in the Medical School) available to Hall.9

Not surprisingly, given their common interests, Hall and James hit it off and were soon taking long walks, engaging in wide-ranging conversations, and even vacationing together.10 It was Hall, in fact, who informed James about the appointment that Gilman planned to make at Hopkins, thus initiating a long, drawn-out correspondence between James (as a potential candidate) and Gilman (see James, 1877/1995b, p. 557). Conversely, it was James who helped Hall realize the liabilities of his prior fascination with Hegel, which had begun during his two-year period of study in Europe from 1869 to 1871 and been reinforced through his interaction with the St. Louis Hegelians during his years of teaching at Antioch College from 1872 to 1876 (see Hall, 1878a).

Meanwhile, research on his Harvard doctoral thesis on "The Perception of Space," coupled with his introduction to Peirce's thought (through Peirce's 1877 and 1878 articles) and frequent conversations with James about James's own developing thought (which would start appearing in print in January 1878, in the same issue of the Journal of Speculative Philosophy in which Hall published an article on Hegel and his critics), drew Hall toward the pragmatic set of propositions expressed in October 1878 in the published version of his thesis. Among those propositions was the statement that:

"All possible truth is practical. To ask whether our conception of chair or table corresponds to the real chair or table apart from the uses to which they may be put, is as utterly meaningless and vain as to inquire whether a musical tone is red or yellow. No other conceivable relation than this between ideas and things can exist. The unknowable is what I cannot react upon [which is to say, by contrast, that the knowable is what I can react upon]. The active part of our nature is not only an essential part of cognition itself, but it always has a voice in determining what shall be believed and what rejected." (Hall, 1878b, p. 446)

9. Interestingly, James's first publication dealing with philosophy, an anonymous article on "The Teaching of Philosophy in Our Colleges" (1876/1978a), was written in response—though it was published as an introduction—to a brief article (actually a letter to the editor) that Hall had written on "College Instruction in Philosophy" (1876). Both pieces appeared in the Nation in September 1876, the same month that Hall arrived at Harvard. In his letter, Hall vigorously touted "the application of scientific methods in psychology" and "the application of philosophical systems to history, politics, law, and education," and he praised a "recent lecture course at Cambridge"—namely, James's course—for giving an example of "how much might be accomplished in this direction." James, of course, welcomed Hall's comments, both for their criticism of "the sorry state of the typical philosophy courses in American colleges, typically taught by college professors who are usually ministers of the Gospel," and for their espousal of the new kind of psychology—physiological psychology—taught in his own course at Harvard (p. 180).

10. For instance, James spent August 1877 hiking in the Adirondacks with Hall during a crucial period of his (James's) life, while James's future wife, Alice Howe Gibbens, was in Canada, considering whether or not to continue her relationship with him (see James, 1877/1995b). Two years later James recommended Hall for a Lowell Institute lecture course, touting him "in the most emphatic way" for "the extent of his learning in all matters connected with the border land of physiology and psychology" as well as for "the judicial character of his mind." In fact, he wrote that "Mr. Hall is one of the new generation of students who are both psychologists and physiologists, and of all the students I know of that double field he is the most devoted" (James, 1879/1997a, pp. 44–45). Although James was sometimes prone to hyperbole, a good deal of other evidence indicates that he meant what he said. In 1880, he recommended Hall to Gilman, saying that Hall was "a more learned man than I can ever hope to become" (James, 1880/1997b, p. 125). That James and Hall had a falling out later in life should not obscure James's early assessment of Hall's knowledge and ability.
This statement not only reveals an obvious debt to Peirce and James, it provides a clue to the relevance of "muscular perception" in Hall's program for psychology. For if the knowable is—and only is—that to which one can react, then the muscular sense—if "innervated," as Wilhelm Wundt (1874) had recently proposed—provides a physiological foundation for the action–habit sequence that follows arousal of the belief–doubt conjunction in the pragmatic paradigm. In short, it provides, or at least it promised to provide, a foundation for the kind of open-ended development of practical knowledge that was depicted in the emerging pragmatic epistemology.

So it was that when Hall made his second study trip to Europe (from the latter part of 1878 to the latter part of 1880) he expanded upon his research on muscular physiology in an attempt to develop a psychology based on reflex action, hardly a novel objective (recall René Descartes, the later French physiologists), but still an approach that bore a striking homology to—and provided a foundation for—Peirce's treatment of and emphasis upon "habit." In fact, Hall was soon writing about what he called "mechanized knowledge," which he characterized as "the most organized and known form of knowledge," the pursuit of which, he said, should replace the quest for the "Ding an sich" (for noumenal essences) as the goal of epistemology (Hall, 1881, p. 72). With this step in the development of his thought, Hall had completed his journey from Kantianism (broadly defined) to pragmatism. It was not a long journey, Hall (1912b) said later, since "in modern Pragmatism the true Kant has been resurrected; indeed has been for the first time really discerned" (p. 386). Long or not, however, it was a significant journey that made a big difference in the way that Hall formulated and pursued his work in psychology.

**HALL'S PROGRAM FOR PSYCHOLOGY**

After Hall returned from Europe and spent some additional time in Massachusetts, he was finally offered a lectureship at the Johns Hopkins University, where he lived across the street from another Hopkins lecturer, namely, Charles Peirce (Hall, 1923, p. 226). At that time, in 1882, Peirce was in the middle of his longest—indeed, his only—period as a continuing academic instructor as opposed to an occasional, short-term visiting lecturer. (Peirce's employment

at Hopkins lasting only until 1879.) As mentioned earlier, Peirce took his next two (and in his mind his final) full professorships with full professorship status established in 1885 and 1886, respectively, and with all of his colleagues.

In this additional capacity, Hall undertook an ambitious project, a deep evolutionary theory of psychology, in other words, "the philosophical psychology, through which we should come to a thorough knowledge of the mind, as we come to an exact expression of the facts and an overall "philosophy of mind" that would "go back of all science and of all psychology" to itself.

Although a number of years remained before Hall reached this third overarching project that would "no different" (to use his words, rather than mere titles). Hall (1926, p. 243). Noting that his time in Europe and with great gain for his work in the past as well as for the "human perspective" met with little resistance. Peirce, but anyone who studied Peirce in the "pragmatic school," as Hall's appointment chairman put it, "had other personal difficulties. (Note: In any case, it is clear in his address that Hall noted "philosophy"
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14. One of the venues for Peirce’s public presentations was the Metaphysical Club that he established at Hopkins in 1879. Between 1879 and 1885, when it came to an end, the members of this Club (besides Peirce and later Hall) included James McKeen Cattell, John Dewey, Joseph Jastrow, and Christine Ladd, among many others. See Behrens (2005) and Fisch and Cope (1952). The latter source provides compelling evidence that, despite his reputation as a crank and the loss of his position at Hopkins, Peirce harbored no grudges, against either Gilman or Hall, though Hall got the position (albeit focused on psychology rather than logic) that he had hoped to get. For his part, Hall (1923) later described Peirce as “one of the ablest and most original philosophic minds this country has ever produced,” noting that he “saw very much” of him during this period of time and expressing great “indebtedness” to him—in fact, even greater indebtedness than he felt toward his mentor William James (p. 226). This seems to corroborate the assumption that their interactions at Hopkins were particularly interesting and useful to Hall.

15. This fact has been missed by the many commentators who refer to this address primarily for its apparent compromises between the materialist premises of the new psychology and the spiritual concerns of Baltimore’s Christian community. This “reading” of the address has led to conjectures regarding the reasons for preferring Hall over Peirce, but anyone who knows about Peirce’s own religious convictions, captured by Wilson (1968) in his book on the quest for community among American thinkers between 1860 and 1920, might reconsider this interpretation of Hall’s appointment and address. It is not as if Hall represented a religious dimension that was missing in the work of Peirce and others. See, e.g., Peirce (1878/1992d), pp. 150–151, and (1878/1992f), pp. 184–185. (Peirce, of course, had other personal liabilities in relation to Baltimore’s moral code as opposed to its more broadly religious orientation.) In any case, Hall (1885) was hardly giving in to local prejudices—or offering cheap comfort—when he said in his address that “deeper psychologic insights” would “gravely affect the future of religion” (p. 134) or when he noted that “philosophy is sometimes no truer to literal fact than are the parables of Jesus” (p. 240, italics added).
German thinkers like Eduard Zeller, whom he interpreted from a naturalistic Darwinian perspective, Hall argued that it was time to bring "the methods of modern historic research" to psychology (p. 131). Doing so would reveal that "neither the popular consciousness of any one nor of all races combined can be said to have exhausted the possibilities of thought" about humans and their development (p. 130). Each race or human group, from its own distinctive experience in the evolutionary history of humankind, had something to offer, something to say; none could be seen as giving the final word as long as evolution was in progress.

If this approach and rationale sound familiar, they should: They echo Peirce's and James's views about the ongoing development of human experience and hence the ongoing development of human knowledge, which is always, at any given moment, the winnowed product of the community's experience, yet also always "ever not quite" (never quite the final word). Even so, as Hall went on to say, if we could gather into historical psychology "all the wisdom that lies about us scattered and ineffective in many minds till it really express[es] the total life of our people," it would "more nearly than any other [philosophic system] has done, express the life of the [human] race, and be the long-hoped-for, long-delayed science of man" (p. 135).

This is precisely what Hall proposed to do in his research and lectures on "psychogene\-sis," which he postponed to a large extent until he moved to Clark University as both president and scholar-teacher in the late 1880s. There, at Clark, together with many colleagues and students, Hall set about accumulating the "scattered and ineffective" wisdom of human experience. Through prodigious reading and note-taking, as I have discussed elsewhere (Leary, 2006), through culling the results of comparative and experimental psychology, and through the development and use of extensive questionnaires, they collected a vast amount of diverse information about human experience. Then, because (following Peirce) "all knowledge comes from synthetic inference" (Hall, 1879, p. 103), Hall attempted to bring it all together in a way that extrapolated its underlying meaning. And what extrapolation he produced (see, e.g., Hall, 1904)! Whether he managed to achieve the "wisdom" or "science of man" to which he aspired can be seriously (in fact, all too easily) doubted, but there can be no doubt about the goal that he had in mind as he conducted his extensive research and voluminous writing. Even though his accomplishments fell short of his goal, the results were nonetheless considerable, including the stimulation and emergence of "genetic" or "developmental" psychology, with its initial emphasis on child development, adolescence, and senescence (see, e.g., Hall, 1898, 1904, 1922).

16. The phrase "ever not quite" is from a later work by James (1898/1975b, p. 258), but James held this view as early as the 1870s. Another echo of James is apparent in Hall's reference to "mental perspective," which James (1876/1978a) had specifically identified as the objective of philosophical study (p. 4). And behind statements by not only Hall, but also Peirce and James, echoes of Ralph Waldo Emerson are often heard (see Leary, 2006, p. 199), as when Peirce and James comment on the value of community and when Hall expresses a desire to listen creatively and critically to "the many-voiced past" (Hall, 1885, p. 247). Although I respect Cavell's (2003) caution against simplistic overestimations of the relation between Emerson and pragmatism, I think Poitier (1992) is correct in suggesting a tangible connection between Emerson and later pragmatic approaches to knowledge and reality. Finally, Hall's views on historical psychology also reflect his encounter with Ernst Haeckel's thought (see Leary, 2006, pp. 217-218; Ross, 1972, pp. 89-93). Richards' recent (2008) book on Haeckel will do much to resuscitate Haeckel's reputation, and hence to cast new light on past criticisms of Hall's developmental theories.

17. By his own admission, Hall's psychology courses at Hopkins were "almost entirely experimental and covered for the most part the material that Wundt had set forth in the later and larger edition of his Psychological Psychology" (Hall, 1923, p. 234). However, in the third year of his three-year sequence of courses on psychology at Hopkins, he moved beyond experimental psychology, touching upon various topics in comparative and historical psychology (p. 255). Still, with only a few exceptions, the research that he and his students did during his Hopkins years was either experimental-psychological or textual-philosophical in nature (see the representative listing on pp. 255-257).

18. Hall (1882) pioneered the pragmatists and students who followed him, including many responses and subsequently many revisionary and modern treatments of his 1882 article in 1883 (e.g., Richards, 1999, "Varieties of Religious Belief," to inaugurally the Journal of Metaphysical Psychology). In the 1990s, for instance, a general overview of pragmatist and religious views can be found in Wulff (1991, pp. 9-11), who notes the "deep and essentially religious experiences of James, Peirce, and Dewey." Even the most superficially historical fact that Peirce was a member of the New England Transcendental Club is the basis for Wulff's article.
Though none of this work was "pragmatic" in a self-described or narrowly construed way, there are good reasons to think, as I have tried to indicate, that its development was guided by commitments associated with Hall's encounters with Peirce's and James's early thoughts on pragmatism. If this is so, then it is one of the happy coincidences of history that Hall and several members of his "Clark school" produced an archive of information about religious experience that provided an important part of the foundation upon which James stood when he delivered his famous Gifford Lectures, just three years after his 1898 call for pragmatism. For when James reached what he explicitly called the "thoroughly pragmatic" conclusion of those lectures, namely, that "the instinctive belief of mankind" is that "God is real since he produces real effects" (James, 1902/1985, p. 407), pragmatism had not only emerged from its nascent period, but had been applied substantively, effectively, and with considerable public notice to one of the deepest of human issues—with the assistance of Stanley Hall and his associates.18

**Final Thoughts**

It is important to emphasize that I am not arguing that Hall was a thoroughgoing pragmatist or that he advanced the theory of pragmatism. He was not and did not. In and of itself, the pragmatic dimension of Hall's work and the identification of his program of research and writing as an overlooked aspect of pragmatism's history is a relatively small matter. But history moves forward by small, often vanishing steps. The historian's task is premised on the belief that these steps are noteworthy, especially if they provide a link between significant antecedents and consequences. I have argued that this is the case regarding Hall's encounters with Peirce's and James's early thoughts on pragmatism: On the one hand, they changed his personal trajectory, first by directing his attention to an early topic of research and then by leading (or at least helping to lead) him to a distinctive approach to psychology, which has had some notable historic effects of its own. And on the other hand, despite the fact that Hall neither enlarged nor advanced its theoretical framework, his work can be seen as filling a gap in pragmatism's historical record.

Assuming I have made a reasonable case for this two-sided argument, two questions remain for brief consideration:

First, why didn't Hall simply say that he was adopting pragmatic assumptions and methods? To this question, there is a fairly straightforward answer and several supplemental explanations: Although Peirce apparently used the terms "pragmatic" and "pragmatism" in Metaphysical Club discussions, he did not use them in his published articles of the late 1870s nor were they used in any published work by Peirce or James prior to James's lecture at Berkeley in 1898. So, after Hall had indicated his attraction to Peirce's—and James's—new

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18. Hall (1882) pioneered research into the moral and religious life of children and adolescents before various colleagues and students at Clark, including James Leuba and Edwin Starbuck, picked up on this topic. (He reprinted his 1882 article in 1891, after his move to Clark, in order to spark interest in the topic.) Starbuck, in particular, gathered many responses to questionnaires in preparation for his initial publications in this area (Starbuck, 1897a, 1897b) and subsequently made these materials available to James, who acknowledged his generosity in the preface to *The Varieties of Religious Experience*, after noting that "a large acquaintance with particulars [as revealed in responses to questionnaires] often makes us wiser than the possession of abstract formulas" (James, 1902/1985, pp. 5–6). For a general overview of "the Clark School" of the psychology of religion, including Hall, Leuba, and Starbuck, see Wulff (1991, pp. 9–11, 42–53). Throughout *Varieties*, James was at pains to determine the practical differences that religious experiences make in an individual's life as well as in the history of the human species. It is another nice historical fact that Peirce, who had inspired pragmatic ways of thinking to begin with, was so pleased with *Varieties*, even calling it James's best work (as noted in Perry, 1935, Vol. 2, p. 286).
ways of thinking about “truth” and “the logic of science” in his 1878 thesis and 1879 article, he simply adopted and adapted their views without concern for nomenclature. Besides being a natural course to follow, this approach was also consistent with Hall’s acceptance of Ralph Waldo Emerson’s stipulation that one should take what one wishes from the thought and work of others, using it in one’s own way as one sees fit, without concern about precedence (see Leary, 2006, pp. 201–204). These two points of explanation can be supplemented further by Hall’s rather curious comment, made after James had popularized the term “pragmatism,” that “true science has always been and must forever be pragmatic, but is liable to be injured if it becomes conscious . . . of this fact” (Hall, 1912b, p. 426, italics added). While the latter part of this statement admits of more than one interpretation, it suggests that Hall felt that practicing scientists should remain focused on the practical—on doing what is called for in the present moment—rather than follow some pre-established set of rules. This more flexible and less self-conscious course of action, Hall said in the language of that time, leads to greater “efficiency” (p. 426). If this is the correct way to understand what Hall meant, it is yet another sign of his pragmatic attitude.

Second, what did Hall hope to achieve by adopting what I have identified as a pragmatic approach to research? As I have argued elsewhere (Leary, 2006), Hall’s scientific work was typified by a spirit of conjecture, refutation, and improvement: In his frequent lectures, in his Monday evening seminars, and in various publications, he aimed at stimulating thought, convinced that if he offered his own best conjectures, someone else would show where they fell short and yet another person would indicate how they could be improved. This assumption that “the diverse strands of society will ‘harmonize’ the shortcomings and excesses of individual finite minds, as Hall (1879) put it in his classic article on “Philosophy in the United States” (p. 105), was a key methodological premise of both Peirce and James. Hall’s commitment to it confirms my picture of him as a pragmatist in intent and achievement.

So, in summary, even if Stanley Hall is never accorded the title of pragmatist in the standard histories of philosophy and psychology, the fact that his significant contributions to psychology seem to have been guided, at least in part, by pragmatic premises, suggests that historians of psychology should reconsider the philosophic (specifically pragmatic) underpinnings of some of the historic lines of development in the discipline. It further suggests that histories of pragmatism could be enriched by greater attention to actual working scientists and their works. After all, Hall may not be the only one—besides Peirce and James—to have been inspired by the undercurrent of pragmatic ideas between 1878 and 1898.19

19. Indeed, a case can be made for Josiah Royce (1855–1916) as someone who was influenced by this undercurrent of pragmatic ideas between 1878 and 1898 (see Oppenheim, 2005, pp. 14–25). He, too, read Peirce’s classic 1877–78 articles, suffered the kinds of published critique by Peirce that can only come from someone whose thought is closely related though somehow significantly different, engaged in relevant debates with his Harvard colleague and friend William James, and ended up developing a late-life system of thought that he labeled “absolute pragmatism” (Royce, 1913/2006). However, Royce’s early thought was so multiply determined, so firmly rooted in Kantian rather than Peircian modes of analysis, and so much more vitally influenced by Peirce in early 1898 (by the Cambridge lectures that James had arranged) than in prior years, that I feel justified in leaving him out of the story I have told. Perhaps I should add, too, that there is no evidence that I can find of any intellectual influence of Royce on Hall, or vice versa, and that my omission of Royce is further justified by the scholarly decision of the editors of the four-volume collection of works by the primary figures in “the Cambridge School of Pragmatism,” who selected Royce’s December 1903 Presidential Address to the American Philosophical Association, published in 1904, as Royce’s first pragmatic work (Shook & De Tienne, 2006, Vol. 3). Finally, among “non-Cambridge pragmatists,” John Dewey (1859–1952) might seem to be a candidate for inclusion in the story I’ve told, but Dewey’s turn toward instrumentalism began relatively late in the 1878–1898 period that I have been discussing and was initiated by his encounter with the biological orientation of James’s Principles of Psychology (1890/1981) rather than prior publications and thinking about pragmatist principles per se (see Dewey, 1930).
I thank Laurence D. Smith for encouraging me to expand some brief comments in a recent publication (Leary, 2006, pp. 208–209, 217) into this article. Earlier versions were presented at the Annual Meeting of the History of Science Society, Vancouver, Canada, November 3, 2006, and at the First Joint Meeting of the Chetron Society (The International Society for the History of Behavioral and Social Sciences) and the European Society for the History of the Human Sciences, University College, Dublin, Ireland, June 26, 2007. I would like to dedicate this article to the memory of Richard Rorty (1931–2007). Although his particular rendition of pragmatism can be questioned, no one can doubt that he helped to make pragmatism, once again, a point of lively and relevant discussion. He was also admirably firm in his conviction that psychology as well as philosophy should serve the common good.

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Journal of the History of the Behavioral Sciences. DOI: 10.1002/jhbs


JOURNAL OF THE HISTORY OF THE BEHAVIORAL SCIENCES DOI: 10.1002/jhbs

According to Wundt, the switch from Western monadic societies has exposed a social issue of the nature of the human mind which its editors consider essential features of psychology means appraising the view of people in different social, cultural, and economic contexts which is a reaction to the American monadic tradition.