

such nonacademic institutions as the clinic, the asylum, and the room. The repositories of their data were the arenas of social debate. This not to say that the new psychologists immediately laid their academic certification into practical roles as experts, for competency as that term suggests remained to be justified. Rather, it is to suggest that the institutional linkages between academic psychology and the social agencies upon which such roles would eventually be grafted existed from the very beginnings of psychology's academic institutionalization and that justification for conducting certain types of research could readily be translated into utilitarian terms. The ambiguity of what it was that psychology was about broadened its appeal, not only to its patrons, but to those drawn to psychology as a career, and facilitated its remarkable institutional success. This pervasive catholicity, this sanguine expectation that a science of mind would emerge from the combined approaches of disparate investigations, an actual contact with social problems *was* the new psychology.

In the year of the APA's founding, when prospects of psychological academic growth seemed secure, and when there were finally ancient psychologists to listen, James predicted that if

the hard alternative were to arise of a choice between "theories" and "facts" in psychology, between a merely rational and a merely practical science of the mind, I do not see how any man could hesitate in his decision. The latter psychology which could cure a case of melancholy, or charm a chronic neurosis away, ought certainly to be preferred to the most scrupulous inquiry into the nature of the soul.<sup>82</sup>

Twenty years later, Watson's declaration that psychology should be defined exclusively as the study of behavior mirrored the extent to which that hard alternative had been forced upon the profession. The other half of this work is devoted to elucidating the pressures that shaped that choice. It begins with the expectations and experiences of James Ladd, and Hall, whose careers reflected the tensions implicit in the new psychology's manifold vision.

## CHAPTER 6

# *The Search for Authority: William James and George T. Ladd*

Shall I get me a little nook in the country and communicate with my living kind . . . or shall I follow some commoner method—learn science and bring myself into man's respect, that I may better speak to him?

—Henry James, Sr. to Ralph Waldo Emerson [1842?]

It is more than doubtful whether Fechner's "psychophysical law" . . . is of any great *psychological* importance, and we strongly suspect that Helmholtz's "unconscious inferences" are not the last word of wisdom in the study of perception; but because these things are very difficult and very "scientific," people who do not understand them will remain persuaded that they are of portentous moment, and will distrust all teachers who have not swallowed and assimilated them.

—William James  
"The Teaching of Philosophy in Our Colleges," *Nation* (1876)

"Physical science," wrote William James in 1876, "is becoming so speculative and audacious in its constructions, and at the same time so authoritative, that all doctrines find themselves, willy-nilly, compelled to settle their accounts and make new treaties with it."<sup>83</sup> We saw in

chapter 2 how the metaphysical speculations of the German physiological reductionists prompted Wundt to devise physiological psychology, a rather inflated intellectual currency minted to save idealism from scientific bankruptcy. And it was suggested in chapter 4 that the religious audacity of Darwin's biological theories encouraged American academic philosophers to initiate diplomatic relations with Leipzig. Thus, when James declared that "one must have gone through a thorough physiological training" in order to challenge recent developments in science and philosophy,<sup>2</sup> his argument appeared both intellectually logical and emotionally resonant. It was also professionally expedient; which is to say that it possessed a social and institutional logic too.

James was implicitly insisting that instead of the traditionally prescribed theological schooling his own scientific training represented the best criterion for occupying a philosophic chair. Ultimately, the fulfillment of his professorial ambition depended upon the compatibility of his scientific inclinations with certain organizational imperatives within American higher education generally and at Harvard specifically. Science had become the ideal representation of intellectual authority, and postbellum academics in virtually every area of scholarship were attempting to heighten their social status and to enhance their cultural and intellectual influence by calling their pursuits scientific.<sup>3</sup>

### *Harvard, the Culture of Science and the Culture of Professionalism*

This intimate connection between social strategies of professional uplift and intellectual adherence to the methods and viewpoints of science is readily discernible at Harvard. A half-century before James began his teaching career in 1872, when Harvard was merely one of several New England colleges serving the socioeconomic elite, college professors constituted a much-abused group. Pedagogues rather than scholars whose parietal functions outweighed their commitments to specific bodies of knowledge, Harvard academicians were an undistinguished lot, patronized by the Brahmin mercantile class and often ridiculed by students. In general, they tended to have little training in their non-

inal fields of interest and to have been selected for their academic roles more on the basis of character than of intellect. Themselves graduates of the college, they were bound to their alma mater by chains of intense provincial loyalty. Usually they were Unitarians. Many regarded collegiate teaching as a vocational moratorium, a brief interlude before settling down to a "real" career. Those who fashioned a permanent life within the confines of Harvard Yard were considered deficient in ambition. Seen in retrospect, they might well be regarded as amateurs.<sup>4</sup>

By mid-century, however, the academic community was beginning to cohere into a recognizably modern "professional" form. The professorate was becoming more cosmopolitan in its religious, socioeconomic, and educational background; increasingly committed to research and publication rather than to teaching primarily; and more concerned with gaining the esteem of disciplinary colleagues at other institutions than with enhancing local reputations. The new academicians regarded Harvard, in Robert McCaughy's apt phrase, as a "professional perch." They tended to possess certifiable credentials in their specialties, to spend a longer time obtaining such credentials, and to regard academic employment as a permanent career. These two portraits of "amateur" and "professional" academicians are, of course, ideal sociological types; most of the faculty fell somewhere between these extremes. Still, the steady aggregate movement from the former condition to the latter between 1821 and 1892 has been statistically documented. A Harvard professorship was becoming an increasingly valuable commodity.<sup>5</sup>

Many reasons have been advanced to explain this shift. What may have begun as a reaction to Jacksonian anti-intellectualism and a reflection of the anxieties of a waning genteel class, the urge to make academic life respectable, to raise the occupational status of scholarship, was aided positively by the example of German scholarship and negatively by religious declension.<sup>6</sup> For whatever reasons, the professionalization of academic life, as Thomas Haskell has argued, was more than a self-interested occupational tactic; it was "a major cultural reform," a way to establish intellectual and cultural authority in a manner conducive to the pursuit of truth, the growth of knowledge, and the perpetuation of a "community of the competent." Professional-

zation involved "efforts to build an institutional framework that would identify individual competence, cultivate it, and confer authority upon the individuals who possessed it."<sup>7</sup> Seeking to construct such a framework, scholars emulated the most successful of the nineteenth-century academic architects—the scientists.

The professionalization of science preceded that of other areas of scholarship in part because it meshed with the nation's urgent social, economic, and political needs. Westward expansion and rapid industrialization facilitated the development of physical and geological science. The need to keep a growing urban population healthy in the face of epidemic disease and well fed in the face of declining soil fertility assisted the growth of the medical and agricultural sciences.<sup>8</sup> Colleges and universities would remain the appropriate settings for the preservation, transmission, and development of scientific knowledge; these institutions would continue to house the vast majority of scientific laborers.<sup>9</sup> But the needs of government and industry prompted the gradual disengagement of science from general education and the initiation of organizational attempts to identify and to encourage scientific competence. These developments assisted the rise of a national scientific estate.

During the 1840s—the decade in which James, Ladd, and Hall were born—the term "scientist" came into parlance to distinguish the professionally trained and established expert from the gentlemanly amateur "man of science."<sup>10</sup> This shift was institutionally symbolized by the creation of the American Association for the Advancement of Science in 1847, the year of the founding of the Lawrence Scientific School at Harvard. Intensely involved in the creation of the AAAS were two of Lawrence's most outstanding faculty members: Louis Agassiz, who would become James's scientific exemplar, and Benjamin Peirce, father of James's close friend and fellow philosopher Charles S. Peirce. In the 1860s Agassiz and Peirce began vociferously campaigning for the application of professional criteria for academic appointments of scientists at Harvard. Their most celebrated victory came in 1863 when they persuaded Harvard President Thomas Hill to confer the prestigious Rumford Professorship on the Application of Science to the Useful Arts to Wolcott Gibbs, a New Yorker, a Columbia graduate, a German-trained student of Justus Liebig, and a nationally

known research scientist. His competitor was a Bostonian, a Harvard graduate, and an assistant professor of chemistry at Lawrence. Though he lacked European training and a reputation for research, he boasted credentials that in another era or in a contemporary nonscientific arena would have guaranteed him the post. His father was a Harvard alumnus, a former mayor of Boston, and a onetime member of the Harvard Corporation. It was clearly a contest between a professional "outsider" and an amateur "insider," and when Gibbs accepted the Rumford Chair, Charles W. Eliot was informed by the man whom six years later he would replace as president that his contract had been terminated.<sup>11</sup> As we shall see, the moral attached to this episode was not lost on James, who transferred out of chemistry in the year of his teacher's disappointment into Agassiz's "department" of zoology. Eliot's eclipse may point out why James liked to stress that he was "a stranger to Harvard College."<sup>12</sup> Despite his "local ties" and "cat-like dread of venturing away from Harvard"<sup>13</sup>—almost despite himself—James sought in the ensuing decade to cultivate the image of the professional, the scientist, the outsider. Harvard scientists were lighting the way to professional autonomy and cultural authority, and James was determined to follow.

### *William James*

Born in 1842 into a family of considerable means and gentle eccentricities, William James was the older brother of the novelist Henry James and the first son of the nonconformist theologian and public philosopher, Henry James, Sr. Regarding proper education as the transcendence of all forms of orthodoxy, the elder James acquainted his sons with a "pluralistic universe" of high culture and cosmopolitan society; of European travel, languages, manners, and literature. The resultant intellectual and temperamental liberality that marked William James's thought and character as a mature scholar and that continues to be celebrated as his most precious asset provided small benefits to a young man searching for a vocation. Plagued by the dubious habit "of always seeing the alternative" and enabled by economic circumstance to avoid forcing a career choice, James simply could not decide what he should become.<sup>14</sup>

After studying painting in America and Europe, James surrendered his ambition to become an artist and entered the Lawrence Scientific School in 1861, as others of his generation marched off to war. His tutorian George Fredrickson has detected during this period "a change in the attitude of the gentleman-intellectual toward society and the active life." Partly as a result of the bloody sectional conflict, the gentle man of letters "was prepared to be a 'practical man,' working in an institutional setting. He was ready to make an heroic effort to find his place in the America that was coming into being."<sup>15</sup> Perhaps the most heroic aspect of this attitudinal shift were efforts to adapt new roles to individual personalities bound to older ideals and conventions.

At Lawrence he first learned chemistry from Eliot until the latter was obliged to resign. Finding laboratory work irksome and tedious, the would-be scientist thereupon became Jeffries Wyman's pupil in comparative anatomy and physiology. In Wyman, an evolutionist, theorist as well as a biologist, James found a man with broader scientific and philosophic interests than Eliot had possessed. In 1863 he entered the Harvard Medical School where Wyman was Hersey Professor of Anatomy. Through his teacher the twenty-one-year-old medical student became acquainted with a remarkable scientific intelligentsia that included Agassiz, Peirce, Gibbs, and Asa Gray. Here was a community of men whose scientific breadth matched the literary cosmopolitanism of Cambridge and Boston and whose prestige—due in large part to the cultural significance of the evolutionary debate—overshadowed the celebrity of the literati. In some respects, Agassiz became James's intellectual ideal—one who aimed "at no less than an acquaintance with the whole of animated Nature."<sup>16</sup> At the end of March 1865, James interrupted his medical studies to join Agassiz on a nine-month zoological expedition to Brazil.

Resuming his medical studies the next year, James began flirting with philosophy. Unsure of his career and prompted by an illness that would probably have been diagnosed by contemporaries as neurasthenia, he again broke off his studies in April 1867 and journeyed to Europe, his physical sanatorium and vocational moratorium. Undoubtedly, this peripatetic procrastinator had learned from the example of Agassiz and from the Eliza-Gibbs incident that Europe represented the professional training ground for the academically ambitious. Attending Wil-

helm Griesinger's lectures on psychopathology in Berlin, he announced his intention "to stick to the study of the nervous system and psychology." Both studies met at the nexus of his emotional difficulties and career aspirations.<sup>17</sup>

In the spring of 1868 James described his dilemma to his friend Oliver Wendell Holmes, Jr., whose father in the 1840s had been in the vanguard of the movement to reform Harvard's medical faculty along the lines of scientific professionalization.<sup>18</sup> James reported:

I had hoped to get working at physiology, not that I have any special interest in its details, but that there is work there for somebody to do, and I have a (perhaps erroneous) suspicion that psychology is not a *Tordr du jour* until some as yet unforeseen steps are made in the physiology of the nervous system; and if I were able by assiduous pottering to define a few physiological facts, however humble, I should feel that I have not lived entirely in vain. But now I see that I can never do laboratory work, and so am obliged to fall back on something else. . . . I shall continue to study, or rather *begin* to, in a general psychological direction, hoping that I may get into a particular channel. Perhaps a practical application may present itself sometime—the only thing I can now think of is a professorship of "moral philosophy" in some western academy, but I have no idea how such things are attainable, nor if they are attainable at all to men of a non-spiritualistic mold.<sup>19</sup>

Philosophy appealed to James because it considered nothing less than those "universal questions" of spiritual and cultural significance. Science attracted him because it appeared capable of grounding answers to such questions in bedrock certainty. No doubt thinking of Agassiz, to such questions in bedrock certainty. No doubt thinking of Agassiz, James confessed envy of the biologist whose "concrete facts form a fixed basis from which to aspire as much as he pleases to the mastery of the universal questions when the gallant mood is on him."<sup>20</sup> Accordingly, he found it impossible "to break off connection with biological science."<sup>21</sup>

Yet neither was James capable of immersing himself in it. The problem with science was that it required such "assiduous pottering." James covered the scientist's prestige but not his everyday routine. Shortly before he returned from Europe, he declared that "my only ideal of life is a scientific life"; yet he realized that he was "about as little fitted by nature to be a worker in science of any sort as anyone can be. . . . I should feel as if all value had departed from my life if convinced of *absolute* scientific impotence."<sup>22</sup> James simply could not



"settle down to some one occupation for the rest of his days, and atone for the narrowness of his scope by the thoroughness of his treatment of it."<sup>23</sup> His mind begged to be challenged by broader concerns. Returning to Boston in November 1868, he began to chart a professional course that would allow him to compensate for his incorrigible philosophic drift with the compass of scientific mastery. In the process, he brought German scientific psychology to the attention of the American academic world.

In October 1871 the Harvard board of overseers complained that Psychological studies cannot be said to rank very high among us. They are neither taught by as many teachers nor studied by as many students as they might be—nor do they seem to excite the interest among those engaged in them which should be felt in questions concerning every generation of educated men.<sup>24</sup>

This announcement may have prompted James's renewed interest in physiological studies. That fall James's friend Henry Pickering Bowditch had inaugurated experimental physiology at the Medical School, and James frequently visited Bowditch's private laboratory in Boston. The following spring James accepted an offer from Harvard to teach comparative anatomy, and was appointed instructor of physiology in August 1872. His successful teaching debut coincided with the initiation of his famous philosophical correspondence with Charles Renouvier, out of which sprang James's celebrated conclusion that he could engage in science without accepting a deterministic world view.<sup>25</sup> At the end of his first teaching term, James confided to his diary:

I decide today to stick to biology for a profession in case I am not called to a chair in philosophy. . . . Philosophy I will nevertheless regard as my vocation and never let slip a chance to do a stroke at it.

Despite occasional doubts about his capacity for philosophic endeavor, James continued to work in physiology keeping his focus upon "mental science"—the field with which the overseers continued to express their disenchantment. At the end of the 1873 academic year, they complained that "neither the number nor the spirit of those who take electives in philosophy is what it ought to be."<sup>26</sup>

In 1875 James was able to move closer to his professional goal by offering a graduate course entitled "The Relations between Physiol-

ogy and Psychology." That year also he established a demonstration laboratory—the first of its kind—in Lawrence Hall. The overseers applauded James's course with the previously cited remark that by ignoring physiological studies philosophers inadvertently exaggerated the importance of materialistic views. President Charles Eliot immediately proposed that James bring the force of this moral to bear upon the undergraduate mind. James would meet materialism head-on by introducing "Physiological Psychology—Herbert Spencer's Principles of Psychology" in the college. James viewed this opportunity as a springboard into philosophy. In 1877 he taught "Physiological Psychology" under the auspices of the philosophy department and informed Eliot that he wished to be considered "a candidate for the first philosophical vacancy that should occur." Three years later he was inducted into philosophy as an assistant professor.<sup>27</sup>

The thirty-eight-year-old physiologist's access to this coveted niche owed much to the measured appeal of his arguments to Eliot, who sanctioned James's innovation, not because he sensed its intellectual inevitability, but because he realized its institutional expedience. Intellectually, as we have seen, philosophy required the new psychology; professionally, James—whose Swedenborgian background deprived him of proper theological credentials—required it to gain entry into Harvard philosophy; and institutionally, as we shall see, Harvard in its bid for academic supremacy demanded it. Nurtured by these three streams, the new psychology took root at Harvard.

### *Eliot, James, and the Professionalization of Harvard Philosophy*

Returning from two desultory years of study in Europe where he observed the German educational system and made a lukewarm and belated attempt at enhancing his scientific credentials, Eliot returned to Boston in 1865 to an appointment in chemistry at the (Massachusetts) Institute of Technology.<sup>28</sup> In 1869 he published an extensive and timely two-part article in the *Atlantic Monthly* entitled "The New Education," which captured the attention of Harvard's overseers as they convened to elect a new president.<sup>29</sup> Higher education, wrote Eliot, suffered from "clerical administration." Divinity schooling and pas-

toral training were no longer compelling prerequisites for the management of "large educational establishments" responsive to scientific culture, to trustees drawn increasingly from the business world, and to visions of institutional expansion involving the enrollment of a national clientele and therefore the rejection of sectarian affiliation or identification. "Fortunately for the country, education is getting to be a profession itself."<sup>30</sup> The modern university required the services of a "captain of erudition" compatible with the captains of industry who supported it, an academic broker-politician who had studied educational systems abroad—someone, in short, like Eliot.

In the eyes of the overseers, Eliot's arguments for the professionalization of educational leadership balanced nicely with his reputation as a loyal "insider," an innovative teacher, and an astute organizer. In his inaugural address, Harvard's twenty-first president outlined an executive course that he pursued for forty years. For all his scientific background and technical school experience, Eliot held firmly to traditional collegiate ideals. Harvard would continue to produce men of broad cultural sympathies and insight by providing "an accurate general knowledge of all the main subjects of human interest." Yet, sensitive to the needs of industrial society, Eliot intended Harvard to provide in addition "a minute and thorough knowledge of the one subject which each may select as his principal occupation in life."<sup>31</sup> Eliot recognized that the division of labor in society must be matched by "the division of intellectual labor." In Eliot's view, the specialization of intellectual work implied a psychology of individual differences. A general liberal education alone was insufficient; it was premised on a conception of mind as "a globe, to be expanded symmetrically outward. . . . A cutting-tool, a drill, or auger would be a juster symbol of the mind."<sup>32</sup> The new education must recognize the "natural bent and peculiar quality of every boy's mind" and the complementary need of industrial society for trained specialists in a multitude of fields. Harvard intended to provide its graduates with marketable careers in a society increasingly structured according to standards of function rather than class. Yet it also sought "to broaden, deepen and invigorate . . . all branches of learning" in order to insure that the specialized expert need not remain a cultural troglodyte.<sup>33</sup> Eliot's ability to provide this combination of assurances to wealthy patrons and

potential clients helped him build Harvard into the nation's leading institution of learning.

Eliot's ambitions demanded curricular revisions that struck at the heart of the philosophic syllabus. A university democratically designed to meet all demands must recruit a large and diversified faculty. In order to entice an adequate complement of professors, the president saw the need to raise salaries during the initial years of his incumbency. By 1878 the instructional staff had doubled. Eliot intended to subsidize faculty expansion with the tuition recovered from increased enrollments. It was therefore absolutely essential that enrollment increases keep pace with faculty growth, and Eliot realized that in order to attract the largest possible student clientele it was necessary to dissociate Harvard from the last traces of sectarian affiliation.<sup>34</sup> "A university," insisted Eliot in his inaugural address, "is built, not by a sect, but by a nation."<sup>35</sup> Philosophy at Harvard, personified by Francis Bowen, embattled defender of the Unitarian faith, presented Eliot with an annoying reminder, while not of Harvard's vestigial denominational foundations, at least of its currently flimsy sectarian supports. Eliot was especially open to philosophical innovations capable of offsetting Bowen's orthodoxy; James did not disappoint.

Eliot had made his intentions known to Bowen from the start. "Philosophical subjects," advised the newly inaugurated president, "should never be taught with authority . . . ; they are full of disputed matters, open questions, and bottomless speculations."<sup>36</sup> Eliot's call for the exposition rather than the imposition of philosophical opinion was rooted in his own liberal temperament and scientific prejudices, but it was prompted by the need to make Harvard philosophy sufficiently eclectic to attract—or at least not to repel—a heterodox student body. In 1877, when Eliot permitted James to offer his course on the connection between physiology and psychology within the philosophic curriculum over Bowen's protest, prudential considerations dictated his action. That year—for the first time since the Civil War—Harvard's expenditures exceeded income because enrollment had not kept up with faculty increases.<sup>37</sup> Eliot's famed elective system had come to grief at least in the areas of philosophy and psychology, as the overseers' most annual complaints indicated. Students were plainly bored.<sup>38</sup> James had emerged as a popular teacher at Harvard in the early 1870s,<sup>39</sup>

placing his course on philosophy's roster might stimulate the revival of philosophic study. It certainly revived James's hopes for a philosophic position.

Inadvertently and with little sensitivity to the consequences of his educational policies, Eliot had converted Harvard into an arena of intense academic competition conducive to innovations such as James's. Ironically, Eliot was initially no advocate of professionally based appointments criteria; he handed four of his first six appointments to old friends, only one of whom had previous teaching experience. However, his determination to increase the salaries (and therefore the loyalty) of trusted friends at the top, when combined with the need to expand the faculty, forced him to do most of his hiring at the bottom where salaries were lower. By creating a large pool of aspirants at the lowest end of the occupational ladder, Eliot accelerated the tendency among the junior faculty competing with one another to accrue professional credentials in order to reach the top.<sup>40</sup>

In reality, there were not one but several ladders. The elective system that permitted students to specialize in particular interests required a similar specialization among instructors whose decisions to ascend a particular ladder were significantly conditioned by their predictive assessments of vacancies at the top. The received wisdom that interprets James's vocational vacillation exclusively in terms of very real philosophical and psychological ambivalences ignores the determining force of institutional exigencies. By 1871 Henry Bowditch, who received his M.D. degree the year before James, had preempted physiology at Harvard.<sup>41</sup> He was thirty-one years old; Bowen was sixty, and quaintly redundant. James knew where he might anticipate an opening that would lead to a chair.

Thus, while Eliot regarded James's undergraduate offering mainly as a flip to philosophy's declining popularity, James did not miss his chance to apprise his former teacher of the greater significance of his new course. James declared that

the principal claim I should make for it is the intrinsic importance at the present day, when at every side naturalists and physiologists are publishing extremely crude and pretentious psychological speculations under the name "science", and when professors whose educations have been exclusively literary or philosophical, are too apt to show a real inaptitude for estimating the

force and bearing of physiological arguments when used to help define the nature of man. A real science of man is now being built up out of the theory of evolution and the facts of archeology, the nervous system and the senses. It has already a vast material extent, the papers and magazines are full of essays and articles having more or less to do with it. The question is shall the students be left to the magazines, on the one hand, and to what languid attention professors educated in the exclusively literary way can pay the subject? Or shall the College employ a man whose scientific training fits him fully to realize the force of all the natural history arguments, whilst his concomitant familiarity with writers of a more introspective kind preserves him from certain crudities of reasoning which are extremely common in men of the laboratory pure and simple?

Apart from all reference to myself, it is my firm belief that the College cannot possibly have psychology taught as a living science by anyone who has not a first-hand acquaintance with the facts of nervous physiology. On the other hand, no mere physiologist can adequately realize the subtlety and difficulty of the psychologic portion of his own subject until he has tried to teach, or at least to study, psychology in its entirety. A union of the two "disciplines" in one man seems the most natural thing in the world, if not the most traditional. But if tradition be required, Göttingen with Lotze, and Heidelberg and Zürich with Wundt would serve as most honorable precedents for Harvard College.<sup>42</sup>

In one stroke James had struck several of Eliot's responsive chords.

First, by suggesting that his course focused upon the themes daily displayed in the public press, James was assuring Eliot that it would provoke a popular response among students. Second, James's condescending references to the "inaptitude" of philosophers "educated in the exclusively literary way" and to the necessity of "scientific training" were guaranteed to appeal to the president whose inaugural address contained references to philosophy's "bottomless speculations" and to the need for acquainting all students with "what is meant by scientific observation, reasoning and proof."<sup>43</sup> James was assuring Eliot that there was a biological bottom to philosophic speculation. Third, despite Eliot's respect for scientific values, James's allusion to the intellectual "crudities" of laboratory men was certain to appeal. Eliot himself had little taste for research, had lost his post at Lawrence to a research chemist, and was disinclined to bring the research ideal to Harvard. "What the country needs," insisted Eliot, "is a steady supply of men well trained in recognized principles of science and art . . . who thoroughly understand what is already known."<sup>44</sup> James's dem-

onstration laboratory was precisely what Eliot required: a place, as he said in his inaugural, that "would have science taught in a rational way, objects and instruments in hand—not from books merely, not through memory chiefly, but by the seeing eye and the informing fingers."<sup>45</sup>

Finally, James's call for a union of the two "disciplines" of psychology and physiology in one man must be seen in terms of its institutional as well as its intellectual logic. Viewed in the context of career realities at Harvard, his advocacy was also an argument for one man changing ladders halfway up the rungs. James's justifications for the feasibility of that step into philosophy were so compatible with Eliot's plans that one might be tempted to call them opportunistic; but, in fact, James ingeniously subscribed to his president's educational ideals.<sup>46</sup> He would be, in his own words of advice to Howison on Stratton, "a competent psychologist and exhibiter [*sic*] of classic experiments" and not the tortured tinkerer. James would master psychology to criticize it, not to advance it. "In short," he declared, "philosophy . . . claims her own where she finds it. She finds much of it today in physics and natural history, and must and will educate herself accordingly." Such a training would "enable [the psychologist] to teach, and show his pupils the physiology of brain, senses, and psychophysics methods in general." James admitted: "I always enjoyed that much of psychology." Novel scientific discoveries may or may not be important, said James, but "the fact that they involve a change in the method and *personel* of philosophic study is unshaken"—as unshaken as the subsequent philosophical career James built for himself upon that self-fulfilling fact.<sup>47</sup>

And so what came to be called the new psychology—or at least a portion of it—made its way into the American philosophic curriculum. It arrived unheralded by enthusiasts for the research ideal or by advocates of its application to any problems other than philosophic ones. Almost immediately, however, Eliot's conception of the true purposes of the university was drastically altered by the creation of Johns Hopkins University in Baltimore. When James's foremost student, G. Stanley Hall, secured a permanent professorship there in 1883, he encountered a new set of institutional mandates that prompted him to move psychology into the realms of both laboratory research and practical application. When Hall moved on to Clark University in 1889

to establish a separate Department of Psychology, Harvard was forced to follow Clark's competitive example, for reasons that will be explained in the next chapter. Just as Bowen finally retired and Eliot offered James the Alford Professorship he had coveted for more than a decade, James suggested instead the creation of a separate professorship for himself in psychology, arguing that such an innovation was necessary to keep Harvard "in the foremost files of time."<sup>48</sup> Soon afterward Harvard's new professor of psychology inaugurated a brisk fund-raising campaign to acquire the equipment needed to convert his demonstration facility into an active research center. He also provided the new laboratory with a director—Hugo Münsterberg, an ardent experimentalist who would soon become America's leader of applied psychology. Then, having performed his "greatest stroke for Harvard," having sent his *Principles of Psychology* to his publisher, and tiring of the "nasty little subject," James demanded to be reappointed professor of philosophy.<sup>49</sup> He had performed a service in advancing psychology; the converse of this statement is equally true.

#### George Trumbell Ladd

While James was "scribbling a 'Psychology' toward completion" in 1888, he was surprised to receive in early April a copy of Ladd's *Elements of Physiological Psychology*. "I had no idea," he wrote its author, "that you were interested in any such thorough way in that side of psychology."<sup>50</sup> James called Ladd's book "an honor to American scholarship."<sup>51</sup> "Coming, as it did, from a professor of philosophy at Yale who had been a Congregational minister," wrote Titchener at Ladd's death, "*Elements of Physiological Psychology* gave the young science an air of respectability (I can think of no better word) which was of high advantage in its struggle for life."<sup>52</sup> The highly orthodox source of this massive compendium of German experimentalism partly explains James's astonishment and suggests that the new psychology could germinate in diverse intellectual and institutional climes.

Eight days younger than James, Ladd was born in less congenial intellectual surroundings in Ohio's Western Reserve. Frontier fragility, however, did not imply lack of educational opportunity. Ladd followed the route to a scholarly career prescribed to Congregationalist



sons whose families had small financial resources. In 1866 he departed for Andover Theological Seminary.<sup>52</sup> The Andover curriculum of classical languages and theological study aimed at providing congregations with a "learned ministry" capable of meeting the challenges of modern biblical scholarship, of mediating between science and religion. Not only would an enlightened clergy inspire a parish by means of exemplary piety; it would also uplift it intellectually.<sup>53</sup>

In 1876, as James and Hall were campaigning in the *Nation* for the application of scientific method to philosophy, Ladd, then a Milwaukee minister, published in the journal of conservative Yale Congregationalism, the *New Englander*, his "New Theology." Stressing the need for empirical scholarship, Ladd criticized the tendency of theologians possessed of "time and brains for scientific study" to engage in idle speculation. "This wrestling," he continued, "of nature, the Bible, history, and consciousness, in the interests of a polemical theology, must give way before the more patient and exhaustive study of all these sources by means of the improved helps which have recently been furnished."<sup>54</sup> In Milwaukee, Ladd continued meanwhile to call his sermons lectures, but realizing that "he could not convert the church into a college,"<sup>55</sup> he began publishing frequently in eastern journals in an attempt to convert a pastorate into a professorship. In 1879 he won an appointment as Southworth Lecturer on Congregationalism at Andover. Almost immediately upon his appointment he accepted a professorship of philosophy at Bowdoin College in Maine.<sup>56</sup>

The articles that had helped recommend the aspiring scholar to this small New England college resembled the sort of natural theology he had condemned in his 1876 manifesto. His essays sprinkled an court allusions to Darwin, A. W. Volkman, du Bois-Reymond, and Helmholtz, all of whom were enlisted to support the a priori conclusion that nature exhibits final purpose.<sup>57</sup> Ladd's call to Bowdoin to establish a separate department of mental and moral philosophy suggests that, while collegiate philosophizing still retained a theological orientation, it was at least doctrinally liberal and scientifically sophisticated. His simultaneous assumption of the Andover lectureship coincided with the celebrated takeover of that bastion of Congregational orthodoxy by a contingent of liberal theologians.<sup>58</sup> The historian George Peterson has called this institutional transformation one of the "scen-

nal points of reform" of American higher education as a whole. Andover teachers and graduates stocked the presidencies and faculties of New England colleges throughout the remainder of the century.<sup>59</sup> Ladd nearly numbered himself among them in 1881 when Bowdoin offered him its presidency. Ladd declined in favor of a philosophic post at Yale.<sup>60</sup>

In 1880 Ladd had occasionally visited New Haven to discuss with Noah Porter, Yale's philosopher-president, the reorganization of philosophy at Bowdoin. Porter had been Yale's professor of moral philosophy and metaphysics for thirty-four years and its president for a decade. His *Human Intellect*, published in 1868, and *Elements of Intellectual Science*, published in 1871, had become the most popular college textbooks in psychology, or mental philosophy, before James McCosh's *Psychology* (1886) and James's *Principles* (1890). Porter's preeminence stemmed from the broad range of his erudition. He had overcome many of the handicaps of Scottish Realism and was totally familiar with the most modern of British empiricists—Spencer and Bain. In addition, he had studied in Berlin, where he assimilated German idealism—especially the critical philosophy of Friedrich Adolf Trendelenberg, who appreciated the philosophic usefulness of scientific methodology.<sup>61</sup> The theological keystone of Porter's psychological enterprise was the teleological demonstration of the existence of "an uncreated thinker" or final purpose.<sup>62</sup> According to Herbert Schneider, his appeal lay in his ability to give his theological psychology "the appearance of scientific objectivity."<sup>63</sup> Ladd found in Porter an exemplar for his self-ordained role as intellectual mediator between the old and the new. Seventy years old and approaching retirement, Porter saw Ladd as a protégé who conceived it his duty to examine psychological and physiological science in order "to know all that modern materialism has to offer" metaphysics.<sup>64</sup> In 1881, therefore, Porter offered Ladd a professorship in mental and moral philosophy, and Ladd had to choose between the institutional authority of the Bowdoin presidency and the intellectual authority of a Yale professorship. As the chairman of Bowdoin's board of trustees acknowledged, "the offer from Yale was such as came to exceedingly few young men, and to them only once in a lifetime."<sup>65</sup>

For the next six years at Yale, Ladd, by his own reckoning, spent

"as many as twenty-five or thirty hours a week" mastering physiological and psychological treatises while preparing his *Elements*. He possessed "no laboratory for experimental research, and only a very meagre equipment of apparatus for illustrating the results of the research of others."<sup>66</sup> His familiarity with experimentation derived from the solicitude of Yale physiologist J. K. Thatcher. In his preface to *Elements*, Ladd stated the overwhelming purpose of his monumental labors:

Some writers have certainly indulged in extravagant claims as to the past triumphs of so-called Physiological Psychology, and in equally extravagant expectations as to its future discoveries. On the other hand, a larger number, perhaps, have been inclined either to fear or to depreciate every attempt to mingle the methods, laws, and speculations of the physical sciences with the study of the human soul. . . .

As a result of some years of study of the general subject, I express with considerable confidence the opinion that there is no ground for extravagant claims or expectations, and still less ground for any fear of consequences.<sup>67</sup>

Concluding that physiological psychology did not jeopardize the autonomy of the soul, Ladd felt confident that he had made modern materialism safe for metaphysics. In the process, he made available to a nascent academic discipline an experimental encyclopedia.

Like James and Hall, Ladd had come to psychology in an attempt to reconcile the claims of positivism and idealism. Unlike his contemporaries, he failed to expand his vision of psychology's purposes beyond that single aim and thus sacrificed whatever hopes he may have entertained of assuming disciplinary leadership. Porter was his mentor, an educational conservative who held firm to the idea of collegiate labor as mental discipline, denounced the transformation of Yale from college to university as "an outgrowth of materialistic tendencies," blocked faculty efforts to initiate the elective system, and refused to offer assistance to the Hopkins trustees seeking advice about university-building.<sup>68</sup> "The manners & customs of the Yale faculty," smirked Eliot in 1880, "are those of a porcupine on the defensive. The other colleges were astonished at first, but now they just laugh."<sup>69</sup> Ladd was a quintessential porcupine with little enthusiasm for research and no desire to promote psychology as an autonomous discipline. But his success in gaining a prestigious philosophical post shows that the new psychology could grow in a variety of institutional settings. James would

never have been an acceptable candidate to Porter; he carried as much metaphysical baggage as Ladd, but he carried it less conspicuously. Eliot would have rejected the theologically minded Ladd out of hand. Nevertheless, Ladd's endeavor was not *ab origine* so very different from James's. Different institutional exigencies would largely dictate the scope of their activities. One institutional development, however, served to force psychology at both Harvard and Yale into a similar pattern of activity: the founding of Johns Hopkins University. By the mid-1890s, G. Stanley Hall and the "Hopkins idea" had become American psychology's guiding light.