Overcoming Blindness:
Some Historical Reflections on
Qualitative Psychology

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This article explores the significance of qualitative research in psychology through an historical review of certain aspects and outcomes of William James's life and work. After showing how reflecting on his own personal experience allowed James to see and to name previously unrecognized or underappreciated aspects of psychological phenomena, it argues that his qualitative descriptions of various phenomena have had a notable, lasting, and positive influence on the discipline of psychology. Generalizing the point, it contends that qualitative research is essential to the advancement of psychology, and going further, it uses the example of James's overlooked neurological speculations to argue that qualitative psychology is fundamental to neuroscience as well as other cognate fields. In making this argument, it criticizes current assumptions about the primacy of neuroscience as well as unrealistic hopes for neuroscience's fulfillment and hence elimination of psychology's role in understanding human experience. In sum, this article defends the thesis that qualitative research is not just one among many kinds of research—not just one of many psychological methods—but rather, as history has shown, it is an essential means of overcoming blindness and opening up important aspects of human experience to the attention they deserve, whether or not that attention then leads to the use of additional methods (possibly including experimental and quantitative methods) in the pursuit of fuller or supplemental forms of knowledge.

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To this day, William James's Varieties of Religious Experience (1902/1985a) is considered by many, both inside and outside the discipline of psychology, to be not only a classic text in the psychology of religion but also a still-relevant source of ideas and insights. How has a century-old text remained so vibrant and revelatory to so many people?

The most likely answers are manifold: It draws on compelling first-person narratives; it eschews religious and psychological preconceptions; it points out previously unremarked similarities between religious and nonreligious phenomena; it offers novel distinctions, conceptual as much as verbal, that cast light on formerly indistinct and even invisible features; and it is beautifully written, providing apt examples that enrich and transform the reader's comprehension. In addition, suffusing the entire text is a palpable aura of James's distinctive attitude: critical yet fair, detached yet respectful, impartial yet deeply interested. And as much as Varieties enhances our understanding of different aspects of religious experience, it never forecloses further exploration. It opens rather than closes vistas; its conclusions are tentative, even when most compelling. Indeed, the entire work serves as an invitation to expand our curiosity, to set aside our prejudices, and to appreciate even
while scrutinizing phenomena that sometimes strike our modern sensibilities as strange, oppressive, and regretful. Neither an apologist nor prosecutor, James was an honest broker, holding back—or at least trying not to privilege—his own reactions and concerns. As part of this effort, he placed his major theoretical speculations at the end of the book, clearly identifying them as his own personal “overbeliefs.”

Some of the factors enumerated above explain why The Varieties of Religious Experience is often cited as an early work in phenomenology—in the careful and unbiased description of ways in which religious emotions, thoughts, and actions are experienced and expressed. In addition, its emphasis on determining the significance of religious phenomena through their impact on individual and collective lives made Varieties the first extended implementation of James’s pragmatism. But even more relevant, for present purposes, is the fact that Varieties can also be seen as an early example of qualitative research in psychology: of an empirical investigation that relies on qualitative rather than quantitative assessments of the phenomena that fall within its purview. Indeed, James explicitly indicated that he did not care how many people had this or that experience, or how often they had it; he believed that the nature and import of any particular experience can be revealed most tellingly in exceptional or strong rather than typical or weak cases (see James, 1902/1985a, pp. 5–6, 12, & 40).

In observing that Varieties was an early rather than the earliest example of qualitative research in modern psychology, I have left room to contend, in what follows, that the historical influence of James’s previously published Principles of Psychology (1890/1981a), indisputably one of the key sources of modern psychology, was directly related to its many qualitative contributions. My argument will be based on the things that James himself said about the typical blindness of human beings (and hence of psychologists) and what he did to combat this blindness, especially as he constructed an initial framework for the discipline of psychology. There is, to my mind, no better rationale for qualitative research, which (as I intend to show) is not simply another recent development within psychology nor simply an alternative technique within the methodological arsenal of psychologists. Rather, it lies at the foundation of all modern psychology, quantitative as well as nonquantitative, experimental as well as nonexperimental, theoretical as well as applied.

On a Certain Blindness in Human Beings

In 1899 James published a short but significant piece entitled “On a Certain Blindness in Human Beings” (James, 1899/1983f). In this essay he was concerned in particular about the blindness that afflicts human beings with regard to their fellow humans. Each of us, he pointed out, tends not to realize, much less comprehend and appreciate, the distinctive viewpoints and experiences of others, especially those who are least like us. This not only results in a narrow, insufficient view of the human condition, it leads to various sorts of misunderstanding, which sometimes evolve into fear and even aggression, as he discussed in subsequent publications (e.g., James, 1899/1983g & 1899/1987a).

Although “On a Certain Blindness in Human Beings” was concerned primarily with interpersonal aspects of human blindness, it was grounded in a more general conviction about the limits of all human understanding. As James (1899/2000) later wrote to a friend, this essay reveals “the perception on which my whole individualistic philosophy is based” (p. 522), namely, that “neither the whole of truth, nor the whole of good, is revealed to any single observer” (James, 1899/1983f, p. 148). As a result, James believed that advancements regarding “the facts and worths of life” will necessarily depend on the diverse perceptions of “many cognizers” (James, 1899/1983e, pp. 4), each of whom enjoys “a partial superiority of insight from the peculiar position in which he stands” (James, 1899/1983f, p. 149). The implication, spelled out in later works (e.g., James, 1907/1975a & 1909/1975c), is that any community of knowers—including any scientific community—depends on the diverse perceptions of differently situated individuals to overcome its inevitable blind spots. Thus, the distinctive perceptions of some can contribute to the
enhanced understanding and appreciation of all. It is only by sharing and building on the unique viewpoints and visions of a variety of individuals that communities are able to advance both theoretical knowledge and practical wisdom.  

This conviction was already present, in nascent form, in James’s writings of the mid-1870s, and it continued to grow until it found expression in his Principles of Psychology. But rather than trace its development, I want to jump straight into a review of some of the meaningful ways in which this fundamental conviction was manifested in Principles—and how James demonstrated its validity as he contributed to shaping the discipline of psychology as we know it today. The point, of course, is that James’s contributions illustrate the value of what we now call qualitative research.

Getting Started

James’s unique approach to psychology is apparent from the very first pages of his Principles of Psychology (1890/1981a). As noted by some of his contemporaries, the organization of this masterpiece, as outlined in its table of contents, is highly unusual. Responding to their criticism, James (1892/1984) admitted that his sequencing of chapters is “doubtless unshapely,” but he insisted that he had a compelling reason for taking what he called an “analytic” as opposed to a “synthetic” approach: This allowed his Principles to proceed “from the more concrete mental aspects with which we are best acquainted [from our direct and immediate experience] to the so-called elements which we... come to know later by way of abstraction” (p. 2). Thus, after his initial review of neurological, physiological, philosophical, and methodological issues, James started his treatment of psychological phenomena with his famous chapter on “The Stream of Thought,” followed by “The Consciousness of Self,” before going on to “Attention,” “Conception,” and all the other topics that can be extracted from the lived experience of consciousness and self. The obvious alternative, he said, would be to follow the opposite order, “building-up the mind out of its presumed units of composition,” that is, out of sensations, perceptions, ideas, emotions, and so forth. This approach would have “the merit of expository elegance” and would result in “a neatly subdivided table of contents,” he admitted, but these advantages would be purchased “at the cost of reality and truth” (p. 2).

The reality and truth to which James referred was the fact that consciousness, with all its sensory, perceptual, ideational, and emotional aspects, is experienced at the start in a holistic manner—like a continuing stream rather than a disjointed chain. This fact, revealed by unprejudiced introspection, should be the first premise of any empirically based study of mental life. The opposite approach, proceeding from the presumed preexistence and subsequent joining of reputedly discrete aspects into a larger field of consciousness, implies practically—and assumes theoretically—that more inclusive mental states are constructed, and hence it accords substantive reality and temporal priority to aspects of consciousness that are mistakenly taken to be “elemental” and to be connected, post hoc, according to “laws of association.” James granted that the regularities represented by such “laws” do play a role in psychology, but he denied that they do so in the

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1 James underscored the significance of his contentions in The Varieties of Religious Experience (1902/1985a), where he repeated his argument that “to no one type of man... is the total fullness of truth immediately revealed” (p. 383). Rather, “each, from his peculiar angle of observation, takes in a certain sphere of fact and trouble” (p. 384). That’s why “each of us has to borrow from the other parts of truth seen better from the other’s point of view” (p. 383). This explains why James spent so many pages of Varieties listening to what others, especially religious individuals, had to say about religious experience—or more precisely, listening and then thinking, both critically and constructively, about it. Using a metaphor that he probably drew from Shakespeare, James summarized his view of the necessarily communal aspect of human knowledge by observing that each individual contributes “a syllable in human nature’s total message” so that it takes “the whole of us to spell the meaning out completely” (p. 384). It should be understood, of course, that James was not proposing a mere agglomeration of disparate views but a critical assessment and integration of views. Perhaps I should add, too, because James (a one-time painter) so frequently used metaphors of vision, perspective, and angle of observation, that he did not privilege vision to the exclusion of other ways of experiencing nature. This was apparent in his listening to others and in his discussion of the phenomena associated with “a sense of presence” and “the reality of the unseen” in Varieties (pp. 51–70).
a priori manner traditionally assigned to them.2

James’s approach was so novel that few of his contemporaries seemed to grasp how revolutionary it was. But if they remained blind to its conceptual coherence and logical consequences, later Würzburgers and Gestalists, not to mention other early cognitive psychologists, grappled with some of the implications of James’s starting point, which he had reached by looking afresh at the experience of consciousness while setting aside the theoretical assumptions of his time. Obviously, my intent is to suggest that James’s distinctive insight and argument were the result of what we would call qualitative research. And even now, as consciousness returns as a focal topic in psychology—and, indeed, in neuropsychology—we have yet to absorb the full range of consequences flowing from his point of view, much less the potential significance of his later reflections on the nature of consciousness (James, 1904/1976a).3

Of course, it isn’t simply ways of thinking but also the words with which thinking is done or expressed that have led many psychologists astray, in James’s time as well as ours. Fully aware of this, James included among his methodological caveats a brief, but penetrating, discussion of psychology’s “nomenclature” as well as “the misleading influence of speech” (James, 1890/1981a, Vol. 1, pp. 185-186 & 193-195). It isn’t simply that words we trust without warrant can induce us to reify the objects of subjective experience, thus leading to what Alfred North Whitehead, following James, called “displaced concreteness” (Whitehead, 1925/1997, p. 51). That’s problematic, but just as troubling, James (1890/1981a) pointed out, is the lack of words that can keep us from noticing (i.e., seeing) relevant aspects of our experience, including aspects of scientific observation. As James put it, “it is hard to focus our attention on the nameless” (p. 194). That is why qualitative researchers serve such an important role when they give names to things unknown, or only vaguely sensed. Such names help others see what they had previously overlooked (p. 194).4

The larger point is that psychologists are subject to the same kinds of bias and blindness that everyone else is: for example, the kinds on which James elaborated in his chapters on “The Perception of ‘Things’” and “The Perception of Reality” (James, 1890/1981a, Vol. 2, Chs. 19 & 21). It would be apposite and enlightening to review these chapters, drawing relevant insights from James’s comments on the variability of human vision and understanding (but instead, see Leary, 1992). And we could draw additional insights from James’s chapters on consciousness and self (Vol. 1, Chs. 9 & 10), noting that his qualitative distinction between substantive and transitive states of consciousness remains significant, that his qualitative differentiation of the “I” from the “Me” has inspired many subsequent theories of self, that his qualitative definitions of the material and social dimensions of self have been enormously influential, and so on (but instead, see Leary, 1990). And although James’s observations on habit (Vol. 1, Ch. 4) have enjoyed a century of appreciation (see Leary, 2013), it would be germane to note how his once-rejected observations on the related concepts of attention and will are again relevant in

2 One of the benefits of James’s way of approaching these regularities is that it accounts for the distinctive associations of aspects of experience that have been selected out of ongoing experience according to the interests and sensibilities of individual minds. For James, experience is the result of dissociation (selecting out) as well as association (connecting together). He gave priority to dissociation, noting that “mental elements” are created by drawing them out of the original flow of consciousness. This selection process is accomplished, James said, through the action of discriminative attention. Subsequently these abstracted “elements” can be associated through the various kinds of synthetic connection described by the laws of association (James, 1890/1981a, Vol. 1, p. 461).

3 In essence, James (1904/1976a) came to believe that he had committed the fallacy of displaced concreteness in considering consciousness as a virtual “entity” apart from specific “concrete” instances of “the stream of consciousness.” He further speculated that the sensation of consciousness as an entity apart from “thoughts” of which we are conscious might be related to muscular sensations associated with breathing, thus postulating a possible empirical justification for ancient notions of “the spirit” (p. 19).

4 The phrase “give names to things unknown” is an intentional echo of Shakespeare’s saying that the poet’s imagination “bodies forth the forms of things unknown” and gives to them “a local habitation and a name” (Shakespeare, 1600/2008a, p. 886). In very tangible ways, the qualitative work of scholars and scientists parallels that of the poet, though their focus is more exclusively on what is rather than what might be. Further examples and thoughts on naming and knowing can be found in Leary (1995).
HISTORICAL REFLECTIONS ON QUALITATIVE PSYCHOLOGY

light of recent research on topics like emotion regulation (see, e.g., Gross, 2013).
Rather than explore these more obvious topics, however, I would like to focus on a chapter of Principles that is almost completely neglected today, presumably because it seems derivative in nature, because it is not considered a “classic treatment” of a uniquely Jamesian topic, and because it is assumed, without ado, to be outdated by contemporary standards. My working hypothesis is that if we can discern how James brought a distinctive vision to this topic and how his treatment of it was in fact considerably more consequential than has typically been recognized, we will be in a stronger position to assert the importance of qualitative research. My basic contention will be that it was not only James’s qualitative vision, based on interrogation of his own experience, but also the subsequent naming and reflection spurred by this interrogation that allowed him to point psychology in the right direction, even if the aptness of his pointing was not fully appreciated before our time. Finally, consideration of this topic will provide a context for some concluding comments on the relation of conscious experience to its neurological foundation, and hence the relation of psychology to neuroscience—an issue of vital importance in the evaluation of the significance of qualitative research.

The Conceptual Nervous System

The chapter of The Principles of Psychology that I wish to discuss is “The Functions of the Brain” (James, 1890/1981b). What I want to show is that James used his extensive knowledge of the nervous system, on the one hand, and his literally painstaking observations of psychological phenomena, on the other, to make shrewd conjectures about what must be the case regarding the structures, functions, and relations of neural processing and psychological events.

Because James became and remains so famous for his treatment of consciousness, self, and other topics now associated with the more humanistic and clinical aspects of psychology, relatively few persons are now aware that his basic training was in the sciences—particularly in chemistry, physiology, and anatomy—and that his knowledge of the nervous system was therefore both thorough and up-to-date. In fact, James’s only degree was an M.D. from the Harvard Medical School in 1869: a degree that was given largely on the basis of his knowledge of the natural sciences. During the following years, as he moved slowly into teaching at Harvard, first in anatomy and physiology and later in physiological psychology and philosophy (then the home discipline of psychology), James kept up with the rapidly proliferating litera-

Because qualitative research is typically associated with interpretive approaches to lived experience within sociohistorical contexts, it is perhaps appropriate to say a few things about the focus here on the nervous system. a) James would not have accepted the suggestion or implication that interpretation is limited to comprehension of experience within the sociohistorical world; he argued that all knowledge involves interpretation. (Regarding natural scientific interpretation, see James, 1890/1981a, Vol. 2, pp. 1230–1236.) b) James would have hesitated to draw a clear line between the social and the nonsocial, just as he explicitly rejected any clear line between the mental and the physical (p. 19). c) James was highly suspicious of definitions and words that prejudge or prescribe any topic that is under consideration, as he famously illustrated with his own hesitation to agree, up front, on the terminology that should be used in psychology (p. 186). d) A concern about sociohistorical contexts within qualitative research has frequently, and quite appropriately, invited attention to aesthetic and moral issues. Just so, James’s interpretation of the nervous system was undertaken with, among other things, aesthetic and moral issues in mind. To wit, his empirical justification for viewing the nervous system as selective and teleological (i.e., leading from discriminated sensory input at one end to consequent behavioral output at the other) was a necessary correlate of his later arguments about the very possibility of aesthetic and moral experience (pp. 273–278; also Vol. 2, Chs. 21 & 26 & pp. 1264–1268). In short, there should be no predetermined downward limit to the reach of qualitative research, just as there is no upward limit for quantitative research; in fact, a thoroughly engaging commitment to qualitative research would increase the probability of achieving some kind of coherence between different levels of analysis—in this instance, between neurology, psychology, and social history. James himself would see this coherence as something to aim for, because we human beings have a natural inclination toward theories that not only “account satisfactorily for our sensible experience” but also appeal to “our aesthetic, emotional, and active needs” (Vol. 2, p. 940). But, of course, such coherence should not be purchased at the expense of blindness to facts or factors that do not fit our conceptual schemes. As a radical empiricist and pluralist James would expect and advise us to accept any gaps or disjunctions that resist our labeling and schematization. The understanding toward which we should realistically aim, he would say, is more akin to a “mosaic,” with our conceptual cement clearly visible between its pieces, than to a painted “picture,” with no spaces or cracks to reveal our human workmanship (see James, 1904/1976b, esp. p. 22). (footnote continued)
ture in his original fields and attended lectures by leading figures in the emerging disciplines of sensory physiology and neurology. His recurring health issues, which frequently drove him to Europe for recuperation, ironically proved propitious in this regard, for the leaders in these fields were all in Europe. Fortunately, too, was the fact that his knowledge of multiple languages made cutting-edge literatures and lectures accessible to him in their original formulations.

As a result, what is immediately apparent as one reviews James's chapter on "The Functions of the Brain" from the perspective of the 21st century is that his selection of scientific authorities and his account of relevant scientific facts were remarkably prescient. Over and over, he pinpointed scientists and research that we now see as the ultimate "winners" in the scientific advances and controversies taking place in James's time. This was true of his early adoption of a thoroughgoing Darwinian perspective (long before "natural selection" was accepted by the majority of biologists, much less psychologists) and by his later choice of experts and findings to rely on as he made sense of the often disjointed developments in sensory physiology and neurology.

The reason for underscoring these points is that it is seldom noted, much less appreciated, that James made many perceptive decisions as he pulled together his account of the relations between the environment, peripheral nervous system, central nervous system, mind, and behavior. And in discussing these relations, he wasn't simply summarizing the results of general handbooks. He was identifying very particular investigations and facts, selecting and often adapting aspects of extant theoretical formulations, and bringing these data and speculations together into novel combinations. In hindsight it is clear that his conclusions depended on his unusually astute collection of observations combined with sustained thought about the issues at hand.

James's sagacity in these regards was noted by his superiors at Harvard and also by authorities at the newly established, research-oriented Johns Hopkins University in Baltimore. The latter invited James to deliver a major series of lectures on "The Senses and the Brain and Their Relation to Thought" in February 1878 (James, 1878/1988a). The former supported his subsequent delivery, in October and November 1878, of a related set of lectures on "The Brain and the Mind," sponsored by the Lowell Institute of Boston (James, 1878/1988b).

So there is incontrovertible evidence that James knew in intimate detail what he was talking about when discussing anatomy, physiology, and neurology, even though he himself was not a leading, avid, or even frequent experimentalist. What he brought uniquely to this area of work, as reflected in his chapter on "The Functions of the Brain," was not experimental skill or dogged perseverance in the lab, but a remarkable ability to see how developments in the neurological literature were or were not consonant with human experience as he understood it, based particularly on his own introspective observations and reflections on certain mental phenomena with which he was all-too-familiar: indecision, attention or lack of attention, mental effort and mental exhaustion, and a variety of other phenomena associated with wanting and

(footnote continued)

Or to use a different analogy, the kind of knowledge to which we should aspire is more like a set of "blazes" (marks made on trees) that can guide us through the shadowed forest in which we find ourselves than it is like a fully developed "map" in which every detail of the forest is laid out with complete clarity and precision (see James, 1898/1975, esp. pp. 257-259). Qualitative research can and should help us discover pieces that fit into a larger mosaic; it can and should help us blaze trails that take us in the right direction, toward bridges that span apparent chasms and divides. And within the larger mosaic, as we try to find our way in the middle of the forest, neurological research should not be seen as an isolated and separate enterprise; it is not simply about nerves and a variety of brain parts and the functions they fulfill. It is about discovering a piece of a larger mosaic and making a blaze that could potentially connect—and hopefully someday will connect—with the sociohistorical contexts that nerves and brains help to produce: contexts that, in turn, facilitate the production of more nerves and brains. We need to work with larger purposes in mind, even when those purposes are not our immediate concern. This, at least, was the Jamesian way. (The reason that many avoid working toward an interconnecting set of perspectives or languages is that it seems to call for a surrender to materialist assumptions. But James denied that this outcome is inevitable, and it was precisely his analysis of the functions of the brain, based largely on its functional relations with consciousness, that made him confident that the trail did not necessarily lead in that direction. Recent research on the role of consciousness within the biological realm is consonant with his confidence.)
willing. Within this context he was finely attuned to the potential significance of facts and the possible uses to which this or that aspect of an experimentalist's speculations could be put. Even as he made his own relatively simple experimental observations in the laboratory of his Harvard friend Henry P. Bowditch (who went on to become one of the foremost experimental physiologists in the United States), James was on the lookout for the telling observation that would found a neurological foundation for psychology or would clarify—perhaps even resolve—this or that conceptual issue that he was pondering. At the same time, he analyzed the published literature on topics that were relevant to psychology, noting the consistencies, contradictions, and theoretical implications of this research. In short, James wasn't advancing sensory physiology or neurology by doing innovative experimental work; he was trying to advance psychology by means of his observations—including observations of his own mental states—and by means of his absorption and reformulation of anything that could help him make sense of these observations, and vice versa: Having a keen eye for significant features of psychological phenomena, James reasoned backward to what must be the case physiologically and neurologically for these features to be manifested as they are.6

With a hefty collection of empirical data and theoretical perspectives, then, James pulled together his chapter on "The Functions of the Brain," laying out (along the way) some of his own innovative observations and offering conclusions that often went beyond anything that had yet been verified in the literature and teachings of physiology and neurology. The most significant of these conclusions had to do with the model that he proposed for understanding how the nervous system facilitates mental processes. In essence, he proposed, then critiqued, then revised what could be called a "conceptual nervous system" that would account for the psychological phenomena that stand at the foundation of psychology. It is here, in particular, that his thorough knowledge of the sensory physiology and neuroanatomy of his day was directly pertinent to the crucial qualitative contributions that he made to the establishment of the new physiological psychology.

James's chapter made other contributions to the fledgling science of psychology. It accepted the distinction between "afferent" and "efferent" nerves and their relation to "acts of response" that had the character of "service" to the organism (James, 1890/1981b, p. 25). It clarified the relations between reflex, semireflex, and voluntary acts (p. 26). It proposed the reflex as "the fundamental conception of modern nerve-physiology" (p. 35). It asserted the significance of a one-way system of nervous impulses flowing from sensory receptors to motor muscles by way of an internal "switch-board" (p. 38). And it reviewed a wide range of phenomena in a successful effort to make sense of the ongoing localization-of-functions controversy (pp. 42–70). But it was James's postulation and development of what he called "the Meynert scheme" that served as the basis for his subsequent psychological theorizing about the nature and functions of consciousness, automated habits, and voluntary action. And it is this scheme—or something very like it—that underlies modern psychology, with aspects of it

6 In other chapters of Principles (e.g., the chapter on "Habit"), James supplements his scrutiny of relevant experimental evidence with his broad knowledge, firsthand observations, and even personal experiences with clinical phenomena and theories. In "The Functions of the Brain," however, he sticks largely to scientific evidence, even when it is drawn from pathological cases, though the conclusions he reaches are clearly intended to be consonant with his own qualitatively observed and recorded experiences (as will be discussed later in this article) as well as relevant to his subsequent treatment of clinical phenomena. This working-from-both-ends—from neurological factors, at one end of the spectrum, and from phenomenal experiences and symptoms, at the other—would seem to be a useful strategy for qualitative researchers. (This observation underscores a similar point made just before the parenthetical comments at the end of the previous footnote.)

7 One way to illustrate how perceptive James was, how astute his reasoned conclusions were, and how much respect he earned by his chapter on "The Functions of the Brain," is to note that John Theodore Merz (1904), in his monumental survey of scientific thought in the 19th century, cited James's "excellent" account of the highly debated issue of localized brain functions (p. 479). On the same pages in Merz's volume, James's is the only American name appearing alongside the names of such highly regarded European experimentalists as Paul Broca, Emil Du Bois-Reymond, Pierre Flourens, Friedrich Goltz, Hermann von Helmholtz, Johannes Müller, and Hermann Munk.
still coming into the limelight, a full century after many thought they were no longer viable.

The first thing to say is that there was nothing inevitable about the scheme that James proposed. The German-Austrian neuroanatomist Theodor Meynert was certainly a major researcher, but no one else had picked up on his observations and speculations about the cerebral hemispheres in quite the way that James did. It was James who saw their potential usefulness for explaining how it is that human neurology, as distinct from the neurology of nonhuman animals, could allow for human experience (and particularly, as hinted above, for the phenomena of indecision, attention, effort, and will). And it was James who proposed that insights drawn from this research could be reformulated into what James called “the Meynert scheme.”

James introduced this scheme by noting that, despite the advances in “the minute anatomy and detailed physiology of the brain” over the preceding decades, “many points are still obscure and subject to controversy.” Nonetheless, “a general way of conceiving the organ” had emerged and a “plausible scheme” could now be envisioned regarding “the way in which cerebral and mental operations go hand in hand.” And this scheme, he conjectured, seemed “not unlikely to stand” the test of time (p. 27). Acknowledging that the scheme he wished to propose was simple, James asserted that “it is often very instructive to start with too simple a formula and correct it later on” (p. 28). With this, he began a slow laying out of empirical evidence regarding the functions of the nervous system, focusing on the structures that are most relevant to psychological phenomena. After reviewing “the lower centers” and noting that they “act from present sensational stimuli alone,” he moved on to discuss the cerebral hemispheres and how they are related to “perceptions and considerations” and “seem to be the seat of memory” (p. 32). Then, finally, he laid out a schematic diagram (see Figure 1) that would illustrate how “if we liken the nervous currents to electric currents, we can compare the nervous system, C, below the hemispheres to a direct circuit from sense-organ to muscle along the line S...C...M” and can then consider the hemisphere, H, as adding a “long circuit or loop-line” (p. 33). In this schematic model, he said, “the hemispheric loop-line may be supposed to serve as a reservoir for... reminiscences” (p. 33).

This simple model, he noted, provided a neural basis for deliberation, pausing, and postponing the delivery of the current to the motor organs (p. 33). Hence, with appropriate elaboration, it could account for all the higher order psychological phenomena (including, importantly for James, the phenomena associated with willing, as he would explicate in later chapters, esp. Vol. 2, Ch. 26).

This was James’s initial representation of how the nervous system works, highlighting (on the one hand) that neither the hemispheres nor consciousness are involved in the kinds of automatic reflexes brought about through “lower center” mediation (that is, through virtually immediate conversion in the spinal cord, brain stem, or lower brain) from sensory input to motor output while underscoring (on the other hand) that the higher order activity of the hemispheres entails more complicated mediation processes, resulting in connections (e.g., “associations” and “reminiscences”) that are built up through experience.

Having described this basic scheme, James went on to show how it was too simple. Although “on the whole” it could be “most satisfactorily corroborated” by objective research (p. 73), its two basic premises, drawn directly from Meynert’s work, were not precisely correct, because it is not true that “the hemispheres have no native tendencies to determine activity,” that is, they are not blank slates awaiting the inscription of experience (p. 80); nor is it true that “the reactions of the lower centers” are “all native,” that is, they
are not all built-in and unchangeable (p. 82). "Wider and completer observations show us," he said, "that the lower centers are more spontaneous" and "the hemispheres are more automatic, than the Meynert scheme allows" (p. 80). So James's careful review of the anatomical and neurological literature confirmed a suspicion that he had voiced at the start, "that the scheme probably makes the lower centers too machine-like and the hemispheres not quite machine-like enough" (p. 39).

What is most important for us to note is that James saw some things in the extant literature and drew some conclusions that Meynert had not. How he was able to see and do these things gets at the central concern of this article. It was not the result of any quantitative factors, and it had nothing to do with the accumulation of data per se. Rather, James's revision of the Meynert scheme had to do, at bottom, with his distinctive vision of psychological processes, which stemmed from his qualitative analysis of his own personal experiences, which led to his modification of evolutionary assumptions and then to his application of those modified assumptions to his understanding of neurological as well as psychological processes. We need to back up and consider the role of these factors in James's neurological speculations.

The Qualitative Foundations of James's Neurological Speculations

Anyone who knows even a little about William James's life is likely to know that before finding his way to psychology in the late 1870s, he suffered a significant amount of indecision and wavering about the career path he should follow. (James's life spanned from 1842 to 1910. His extended period of indecision stretched from around 1858 to 1878. The relevant facts are readily available in Allen, 1967; Feinstein, 1984; Perry, 1935; Richardson, 2006; and Simon, 1998.) As James turned this way and that, he experienced a great deal of anxiety and spent prolonged periods in debilitating depression, at times even entertaining suicidal thoughts. His anxiety, depression, and suicidal thoughts were related in great part to his scientifically based conviction that everything is determined and, hence, "that we are Nature through and through, that we are wholly conditioned, and that not a wiggle of our will happens save as the result of physical laws" (James, 1869/1995f, p. 370). This was not an easy thought to bear for someone who held onto the hope of making "some nick, however minute"—a distinctly personal nick—in the forest of human existence (James, 1868/1995e, p. 301).

As difficult and drawn-out as James's growing-up experiences were, they gave him more than ample motive and opportunity for introspection and reflection, two activities at which he excelled. As a result, he became uniquely capable and productive of sensitive, accurate, and insightful psychological observations of his own mental states and their associated emotional, behavioral, and neurological (i.e., "nervous") correlates. His letters and diary entries provide detailed information, often day by day, regarding his varying psychological condition and the analytic thoughts that occupied large portions of his time, frequently to his own regret if not to ours since we are the beneficiaries.

Characteristically, James didn't shy away from the kind of study and rumination that intensified his suffering. He wanted to know the truth, whatever it might be. As he turned toward psychology, he even developed his own "conscious automaton" theory, arguing (though he wished ardently it wasn't true) that human thought, emotion, and activity might be completely determined by physical and neurological causes (see Leary, 2013). He did this in the early 1870s, after receiving his M.D. and while spending time in Bowditch's physiological lab, anticipating the beginning of his teaching career in January, 1873.

But having given the devil his due, James found that he just couldn't accept the implications of a deterministic world, which clashed so harshly with his own experience and desire. In particular, James was brought back, over and over, to his fundamental consciousness of resisting the world and many of its ways (see Leary, 2009). At times he confessed he wasn't up to the task—this is a common refrain in his letters from the late 1860s and early 1870s (e.g., James, 1865/1995b, p. 107)—but he continually felt a "dogged desire to assert myself" (James, 1868/1995e, p. 301). For James, there was no gainsaying this deeply felt experience,
just as he could not deny his urge to contribute, through his own choices and efforts, to "the mass of work which each generation subtracts from the task of the next" (James, 1868/1995d, p. 249).

Unfortunately, as James admitted in the early 1860s, "the native hue of resolution" was not "a very deep shade" in him (James, 1867/1995a, p. 43). If there is a dominant motif in his letters and diary entries during this early period of his life, it is precisely his inability to make a decision and then maintain his resolve to carry it out. This ongoing experience—his persistent failure to choose and then pursue a path of action—accounts for James’s fascination with Shakespeare’s Hamlet, from which James had borrowed the phrase about lacking a "native hue of resolution" (Shakespeare, 1603/2008b, p. 1734). This inability to choose and act—this obstruction of the will, as James experienced and expressed it—was crucially important for James and eventually significant for psychology, for it is the personal, experiential origin of James’s distinctive psychological insights regarding the processes, conflicts, and outcomes of mental dynamics. From his repeated experience of indecision, which he frequently described and analyzed, he drew lessons that led him later to modify Meynert’s scheme so that it could account for delay and indecision, on the one hand, and for movement beyond indecision, on the other, through the closely intertwined processes of attention, effort, and will. The entire complex of attention-effort-will underscored for James the crucial role of consciousness within the natural world. And as we shall see, the realization of the utility of consciousness, in turn, prompted James to expand the Darwinian framework of his thought to include a more consequential role for consciousness as a selective agency.

All of James’s personal experiences with anxiety, depression, indecision, and inaction came to a head in late April, 1870, prompting him to make a crucial decision, namely, to believe in free will. This would be the first free act of the rest of his life, he said, and he promised himself (thus exemplifying his incipient pragmatic orientation) that he would "cultivate the feeling of moral freedom" for the rest of the year and then see how he was doing: see whether or not acting freely—or at least acting as if he were free—had resulted in any tangible benefits. He would, in short, "posit life... in the self governing resistance of the ego to the world" (James, 1870/1868–1873).

How could he do this? What would be the neurological basis of doing so? Even though he wavered in his belief in the coming years, as illustrated by his articulation of a "conscious automaton" theory, James started to explore the ways in which the nervous system could somehow work with, or at least alongside, consciousness so that sometimes inaction and sometimes action could result from the same electrophysiological currents in the hemispheres. On the psychological side, this entailed pondering the nature and processes of willful action and inaction, and James became convinced, after reflecting on his own experience, that the phenomenon of willing is simply the sustaining of a thought—just like the sustaining of a belief—for its own sake. When a thought is thus sustained by the mental effort of conscious attention, to the exclusion or diminution of other

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8 James also made frequent reference to being "sickled o’er with the pale cast of thought," another phase that comes from the same passage in Hamlet as "the native hue of resolution." (This passage is part of Hamlet’s famous "To be, or not to be" soliloquy.) More importantly, James mulled over Hamlet’s indecision, even discussing it with Herman Grimm and the young Wilhelm Dilthey while he was studying in Germany (James, 1867/1995c, p. 214), and he explained his repeated attendance at performances of Hamlet in 1868 by noting how "Hamlet’s example besets me more & more," leading him to conjecture that, with "a long enough soaking" in such examples, "some light might dawn" regarding the issues he was facing (James, 1868/1992, pp. 47–48). And indeed reflecting on Shakespeare did contribute to James’s eventual emersion from depression and concerns about free will. So it is far from random that James used Hamlet as an example in his chapter on "Will" in The Principles of Psychology (James, 1890/1981a, Vol. 2, p. 1134). (It is worth noting parenthetically that Shakespeare and Hamlet were important to Sigmund Freud as well as James, though for very different reasons.)

9 It is interesting to note that conscious resistance to the influence exerted by the causal pressures of the external world, including willful effort to amend the world’s evils, was as salient to James (i.e., it was, for him, the signature response to human existence) as unconscious resistance to the influence exerted by the causal pressures of the inner world of biological urges, including willful (if unconscious) effort to amend the aims (or targets) of those urges, was to Sigmund Freud. This too-brief contrasting of the basic concerns of these two pioneers of modern social thought deserves further elaboration, especially because James and Freud approached the human situation from very similar backgrounds (footnote continues)
thoughts, the action related to the sustained thought will occur of its own accord since the electrophysiological currents associated with that thought must by their very nature find a way out of the brain through the motor nerves connected to it. To name and explain what he was getting at, James expanded the British physiologist William B. Carpenter’s much more narrowly defined concept of “ideo-motor action” into a more generalized “ideo-motor theory.” In espousing this theory, James presented evidence he had gathered in support of his explanation of habit, which—like his explanation of will—would be undergirded, years later, by the Meynert scheme (see Leary, 2013, p. 202). Meanwhile, James maintained that inaction results from a conflict between, or insufficient attention to, ideational states, which leads to the kinds of “pausing” and “postponement” that James would subsequently attribute to hemispheric mechanisms (James, 1890/1981b, p. 33). When he brought all of this together in his Principles of Psychology, James reversed the actual order of discovery, presenting his proposed neurology in his early chapter on “The Functions of the Brain” before laying out his proposed theory of action versus inaction in his later chapter on the “Will” (James, 1890/1981a, Vol. 2, pp. 1098–1193). Historical evidence shows, however, that the insights leading to James’s neurological speculations were rooted in the prior experiences to which he had paid so much attention: attention that involved, in our terminology, a great deal of qualitative awareness, description, and reflection.

While this is not the place for a detailed treatment of James’s views on conscious attention, mental effort, and the will, which were key elements in the qualitative foundation for his modified Meynert scheme, it is an appropriate place to emphasize that these views were not the result of random bias or wishful thinking on James’s part. To review just one compelling piece of experiential evidence, which may have been among the original sources of James’s views on these topics, we can turn to The Varieties of Religious Experience (1902/1985a) in which James discussed, among many other cases, an instance of severe “panic fear” that involved “horrible dread” and a deeply disturbing sense of “the insecurity of life” (p. 134). In introducing this case, James said that it had been reported in a document that he was translating from French. Because James could write in French, this might well have been true, but we know now that in saying this he was trying to divert attention from the fact that he was re-

\[\text{(footnote continued)}\] in medicine, physiology, and neurology. Notably, too, they each accepted a Darwinian framework for their thought and conceptualized psychological phenomena within the context of modern energetics. And although James emphasized consciousness, he clearly recognized the role of nonconscious factors operating both “at the fringe” and “beyond the threshold” of consciousness. The differences in their thought become more interesting in the context of these similarities. One difference relevant to the concerns of this article is the considerably different extent to which they allowed their interpretations to stray from the actual experiences they were trying to comprehend, whether the experiences were their own or those of others. James’s thinking about psychological phenomena consistently stays closer to the descriptive, empirical level, without ascending too precipitously into an abstract and formalized theory that claims both too much and too little. Instead of offering overly refined and polished theories, James’s thought typically conveys a compelling theoretical perspective—an angle of vision that highlights certain aspects of whatever he is describing. (On the closely related topic of James’s views on description and explanation, see Leary, 2010.) Freud’s approach, meanwhile, gave greater sway to theoretical interpretations that hovered further above the data and, once established, frequently served a more directive role in shaping the interpretation (and misinterpretation) of subsequent experiences and cases. Although this and other such critical summaries of Freud’s approach need to be qualified to be both too much and too little. Instead of offering overly refined and polished theories, James’s thought typically conveys a compelling theoretical perspective—an angle of vision that highlights certain aspects of whatever he is describing. (On the closely related topic of James’s views on description and explanation, see Leary, 2010.) Freud’s approach, meanwhile, gave greater sway to theoretical interpretations that hovered further above the data and, once established, frequently served a more directive role in shaping the interpretation (and misinterpretation) of subsequent experiences and cases. Although this and other such critical summaries of Freud’s approach need to be qualified to be completely fair and accurate, it seems clear to me that qualitative psychologists would do much better to take James as an exemplar. He not only listened carefully, he tried to generate frameworks of understanding that would make sense to those who had experienced what he was discussing.

\[\text{(footnote continued)}\]
porting an experience that he himself had suffered around the early 1870s. (He admitted the provenance of this experience to the French translator of Varieties; see James, 1904/1985b, p. 508.) The relevant thing to notice about this awful panic attack is that James withstood it and came out on the other side of it without going insane, as he feared he would, only because— in his estimation—he had “clung to scripture-texts like ‘The eternal God is my refuge, and so forth’” (p. 135) until the episode had passed. To repeat this significant point: James got through this harrowing experience by focusing his attention on certain scriptural texts and holding them, with great effort, in the center of his consciousness, while all around him lurked a terrifying image of the “entirely idiotic” person he seemed on the verge of becoming. “This image and my fear entered into a species of combination with each other,” he reported. “That shape am I, I felt, potentially” (p. 134), and so it might have been, but for his clinging to a contrary state of consciousness: willing himself to hold onto a different set of thoughts. As we have seen, this would become the core of his theory of the will, namely, the premise that willing consists in attending to an idea, or set of ideas, that will produce a particular outcome by means of its natural, idea-motor expression. In this case the expression took the form of hopeful perseverance rather than despairing disintegration.

By the mid-1870s James was working his way toward a neurological theory that would undergird personal experiences like this one as well as many other qualitative observations regarding psychological processes. His first public statements on neurology, in 1878, were already drawing on Meynert’s work and moving toward his later model (James, 1878/1988a and 1878/1988b), and his first publications in psychology, beginning in the same year, underscored the active role that consciousness can play in making it possible for humans to escape the effects of internal and external pressures, such as those from which he had suffered (James, 1878/1983a and 1879/1983b). It was in these articles that James first revealed his emerging criticism of traditional associationist psychology and presented his own vision of psychological dynamics, which emphasized a proactive mind that could select among sensations, perceptions, and ideas, and thus create and sustain novel mental states. My contention, as should be clear by now, is that the distinctive aspects of this vision were based on the kinds of experiences and forms of consciousness that had been the subjects of his qualitative reflections over the preceding decades.

James’s analysis of the active nature of consciousness constituted an enhancement of the evolutionary viewpoint that he had accepted in the early 1860s. This enhancement had consequences for James’s proposed theory of neurological functioning since it demanded a model that could account for the kinds of variation that selective consciousness introduced into mental life. The need for flexibility—initially called for by his experience and assessment of attention, effort, and will (leading to James, 1880/1983c and 1888/1983d) and later warranted by his analyses of perception, association, memory, and habit (see James, 1890/1981b, p. 78)—made it possible for James to see and interpret neurological facts that meant nothing, or something else, to Meynert, whose neurological vision wasn’t framed by the same evolutionary assumptions. This led James to highlight several novel features in his revised version of the Meynert scheme. First, it led him to underscore not only the “plasticity” of organisms, as Charles Darwin (1859) had, but also and more particularly the “plasticity” of the human brain.11 In James’s account, one of the purposes for which the cortical layers of the hemispheres have evolved is “the production of new paths” for nervous excitations. Second, James’s evolutionary vision of the nervous system led him to the conclusion that

11 James first encountered Darwin’s concept of the “plastic” nature of living organisms when he read Darwin’s The Origin of Species (1859) in the early 1860s. Later, he explicitly acknowledged the concept and its centrality to Darwin’s way of thinking in the first of two reviews that he published on Darwin’s The Variation of Animals and Plants under Domestication (1868), in which he wrote that “the general result of this inquiry is a conviction of the endlessly fluctuating character, or, to use Mr. Darwin’s words, of the ‘plasticity of the whole organization’” of “domestic animal and vegetable kinds” (James, 1868/1978b, p. 229). In light of the fundamental contention of the present article, it is relevant to note that James concluded, near the end of his review, that “the great value” of Darwin’s “hypotheses” was “in setting naturalists to work, and sharpening their eyes for new facts and relations” (p. 235, italics added).
“neither in man nor beast are the hemispheres 
the virgin organs which our scheme [following Meynert] called them. . . . They must have 
native tendencies” that are reflex-like, though 
not so reflexive that they would fail to remain 
modifiable to a certain extent by experience” 
(p. 83). With these changes to the model he 
had tentatively proposed and described in the 
earlier pages of “The Functions of the 
Brain”—that is, with slightly greater plasticity 
being accorded to the lower centers and 
slightly less plasticity being assumed in the 
higher centers—James concluded that 
“we . . . get whatever psychological truth the 
Meynert scheme possesses without entangling 
ourselves on a dubious anatomy and physiology” (p. 86). More specifically, these refine-
ments of the scheme drawn from Meynert’s 
research produced a model of the nervous 
system that, although firmly anchored to rel-
vant facts, was more adequate to the psycho-
logical phenomena that James would go on to 
discuss in his subsequent chapters and hence 
more relevant to the psychological theories 
that he would propose to account for them. 
After positing his revised scheme and ad-
mitting that further refinements would inev-
itably be needed, James finished his chapter on 
“The Functions of the Brain” with a confident 
assertion that “some such shadowy view of 
the evolution of the centers, of the relation 
of consciousness to them, and of the hemi-
spheres to the other lobes, is . . . that in which 
it is safest to indulge” (p. 87). Shadowy or 
not, it is obvious from the perspective of 
today that James’s general conclusions were 
on target, so much so that it is easy to under-
estimate the creative ingenuity that he showed 
(on the basis of his qualitative understanding 
of his own psychological experiences as well 
as his reading, observations, and thinking 
about the relations between the nervous sys-
tem, mind, and behavior.

Conclusion

William James is justly famous for creating 
new ways of seeing and thinking about con-
sciousness, self, habit, and other psychologi-
cal phenomena. These were essential qualita-
tive contributions to the advancement 
of psychological science, and more than a cen-
tury later, their various impacts on the disci-
pline are still evident (see Leary, 1990, 1992, 
& 2013). To understand these contributions in 
relation to qualitative research and to assess 
James’s conclusions regarding neuropsychol-
ogy, it is pertinent to quote James’s observa-
tion that most of us are “enslaved to the stock 
conceptions with which we have . . . become 
familiar,” and thus, over time, we become 
“less and less capable of assimilating impres-
sions in any but the old ways” (James, 1890/ 
1981a, Vol. 2, p. 754). Our eyes, as he wrote 
in his essay on the blindness of human beings, 
become “jaded and unquickened” (James, 
1899/1983f, p. 144). Without someone seeing 
an overlooked phenomenon and proposing a 
new conception along with new terminology 
for thinking and talking about it, we are likely 
to continue overlooking it, though its exis-
tence “would be patent to us all, had we only 
grown up to hear it familiarly recognized in 
speech” (James, 1890/1981a, Vol. 1, p. 194). 
Thus seeing and giving names to things un-
known, as suggested earlier, are the most 
esential qualitative contributions that scholar-
s and scientists can make, whether or not 
they also use quantitative methods. (Qualita-
tive contributions are not reserved, after all, 
to those who eschew quantitative methods.) 

Of course, not every qualitative contribu-
tion or every consequence of qualitative re-
search is picked up or developed immedi-
ately. Sometimes there is a lag between 
someone’s initial naming and the communi-
ty’s subsequent knowing. James himself, 
a pragmatist from start to finish, would hardly 
be surprised. Each new conception needs not 
only to be usable; it needs someone to use it. 
It is not enough that it could do some signifi-
cant conceptual work; it needs to be put to 
work. This was illustrated by James’s distinc-
tive use of Darwin’s general notion of organ-
ismic plasticity to describe the alternative 
pathways that must be created, James argued, 
to allow passage of neural impulses through 
the brain in ways that would account for the 
psychological phenomena he had experienced 
and described. For a considerable time, 
James’s description of “brain plasticity” was 
taken as an unfounded metaphor. But in re-
cent decades, as the notion of neuroplasticity 
has come to the fore, James’s insight has been
recognized as foresight. In fact, in a survey of James's neurological ideas, the neuropsychologist Richard F. Thompson (1990) has noted that James's views are "astonishingly contemporary." In particular, he mentioned James's notion of brain plasticity, which "has only recently regained popularity." He also pointed to James's other neurological speculations, which can now be seen as advocating a "kind of connectionist machinery," also akin to contemporary theorizing. Indeed, so much is now going the way of James's hypotheses—for instance, regarding the localization of functions and the basic structure of the brain as “a circuit, albeit an immensely complicated one”—that Thompson expressed confidence that “James would be very pleased" by the recent body of neurological literature (pp. 172–173).

Alas, despite the fact that James would be happy that his conceptual neurology resonates in positive ways with contemporary neurological theory, he would not be so pleased—in fact, he would be dismayed—by the assumption, so frequently encountered in the literature these days, that neuroscience is the royal road to all or virtually all of the answers that psychologists seek. As the story told in this article makes clear, James placed priority on the qualitative description and assessment of conscious experience, which provided, for him, the best clues to which neurological possibilities, among those currently conceivable, were more likely to be confirmed by subsequent research. It is psychology, largely through qualitative research, that should give direction and meaning to neurology, not the other way around. Of the countless phenomena associated with the structures and functions of the nervous system, only certain ones, seen in certain ways, in relation to certain psychological phenomena, are likely to yield relevant information and insight. And with regard to current research trends, James would insist that the identification of neurological correlates of psychological states can never replace sustained qualitative analysis of those psychological states. A nerve twitching, a neuron firing, or a chemical dissolving, in and of itself, indicates nothing about the meaning or significance of the experiences associated with them. Qualitative research has a fundamental role to play in psychology, just as psychology has a fundamental role to play in relation to neuroscience, cognitive science, and the other human sciences. Overcoming blindness through seeing and naming what needs to be explained or treated should be the first order of business in the advancement of relevant knowledge and practice. That is what James would claim if he could speak to us today, and it is, in any case, the lesson that we can take from our review of his seminal chapter on "The Functions of the Brain."

12 Jerzy Konorski (1948) is often credited with coining the term "neural plasticity," and the avalanche of research on brain plasticity in later decades is typically seen as based on his work, with less frequent reference to the work of Santiago Ramón y Cajal (111/1995) and Donald Hebb (1949). However, recent historical research by Bertucci and Buchtel (2009) has revealed the clear priority and relevance of James's statements about brain plasticity, based on a more thorough treatment of the role of plasticity in James's work than has been—or could be—given here. To corroborate their claims, they quote extensive passages from James’s chapters on “Habit,” “Association,” and “Will” (i.e., James, 1890/1981a, Vol. 1, pp. 110, 112, 113, & 534; Vol. 2, pp. 1186–1187), which have not been discussed in any detail in the present article. Interestingly, although they argue persuasively that "the theory [of neuronal plasticity] fell in disgrace when [Karl S.] Lashley's ideas of mass action and functional equipotentiality of the cortex tended to outmode models of the brain based on orthodox neural circuitry" between the "1920s and the 1940s" (pp. 307 & 316), Lashley himself noted that "the reactions which we designate as 'behavior' in contradistinction to reflex . . . involve features of plasticity which . . . imply . . . an independence of specifically differentiated conduct paths" (Lashley, 1929/1963, p. 164), and he concluded that "the facts of both psychology and neurology show a degree of plasticity, of organization, and of adaptation in behavior which is far beyond any present possibility of explanation" (Lashley, 1930/1960, p. 208). It is not known whether Lashley had James's description of neural processes in mind when he used the term "plasticity," but it seems quite possible that he did.

13 It bears saying that whereas this current article has focused on the impact of James's preceding qualitative understanding of various mental processes on his subsequent neurological speculations, the same basic argument can be made about the impact of James's preceding qualitative understanding of his own unique self on his later theoretical speculations on the universal influence of material conditions and social relations on the development of the human self (see Leary, 1990). Similarly, the distinctive qualitative understanding of sensation and perception that resulted from his early experiences as an artist's apprentice was the source of his later innovative insights regarding sensory and perceptual processes (see Leary, 1992). And so on. Finally, it should be noted that James also listened, learned, and built on the experience-based reflections of others, as for instance in his Varieties of Religious Experience (1902/1985a).
Not too long ago, Carol Marchel and Stephanie Owens (2007) wrote a review of qualitative research in psychology: a review that includes a great deal of quantitative information. They brought their treatment to a close with a discussion of whether or not William James would be able to get a job in psychology in our day and age. (Their final word was that psychology, at the start of the 21st century, might be ready for a latter-day James.) Their informative piece will almost certainly interest anyone who wishes to follow up on some of the things discussed in the present article. The crucial difference in the focus of my own treatment is that I have been asking, implicitly, Where would contemporary psychology be if there hadn't been a William James (and others like him) at its origin (and at subsequent junctures along the way)? It is not enough to have techniques and data, whether observational, experimental, or clinical. Techniques do not yield meanings or interpretations on their own, just as data do not speak for themselves. Techniques and data are crucially important; they do in fact constrain what can and should be said. But there is always more than one thing that could be said about them. It takes a sentient human being to discriminate what that ought to be: to see what the techniques afford and what the data mean, especially in relation to qualitatively described human experience.¹⁴

¹⁴ One of the major voices arguing for such discrimination and vision—in a word, for qualitative research—over the past half century was Sigmund Koch (1917–1996). His was a truly distinctive voice that expressed a uniquely important vision, represented not only in his work as the architect and editor of the monumental, multivolume series on Psychology: A Study of a Science (1959–1963), but also in his pathbreaking qualitative analysis of the relationship between discrimination, language, and psychology (Koch, 1976) and in a series of papers (collected in Koch, 1999) that set the scene for his own qualitative study of human creativity in the Aesthetics Research Project that he founded and directed at Boston University. Unfortunately, Koch's death foreclosed the possibility that he could publish his own conclusions from this significant qualitative study, but the videotapes of his probing interviews with such major artists as Edward Albee, Edward Larabee Barnes, Saul Bellow, Phyllis Curtin, Eric Hawkins, Arthur Miller, Toni Morrison, Virgil Thomson, Violette Verdi, and Richard Wilbur constitute a major legacy that deserves to be mined by a wide variety of scientists, scholars, artists, and educators. (For more specific details on Koch and his distinctive approach to psychology, see Leary, Kessel, & Bevan, 1998, and Leary, 2001.) It is to Sigmund Koch, with whom I was privileged to be associated (e.g., Koch & Leary, 1992), that I dedicate this article, with confidence that he would appreciate William James's saying, toward the end of his life, that "our visions are usually not only our most interesting but our most respectable contributions to the world in which we play our part" (James, 1909/1977, p. 10). This was surely true of those, like James and Koch, who have contributed to the advancement of psychology through their distinctive qualitative insights. I trust it will be true, too, of those who contribute similarly in the years ahead, perhaps in the pages of this new journal.

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