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8   Principles of selves: The rhetoric of introductory textbooks in American psychology

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All modern sciences employ textbooks as a pedagogical resource; yet despite the ubiquity of this literary genre, science textbooks hold an ambiguous status. While scientists themselves often denigrate textbooks as containing secondhand or false knowledge,[1] these texts nevertheless are taken to represent knowledge that is at once essential to acquire and superior to ordinary accounts of reality. Given scientists' equivocations regarding textbooks, it is not surprising that historians of science have yet to find a place for textbooks in their reconstructions of scientific activities.

This chapter attempts to situate introductory textbooks within the scientific practices of psychology. In particular, the chapter explores some of the ways in which textbooks have played a part in psychology's ongoing mission to propose and defend a particular construction of social reality – a version of social reality that has enabled or maintained certain cultural practices beyond what are taken as the boundaries of scientific psychology. Put another way, this investigation of one scientific entity, textbooks, proceeds from a conception of science as an organized set of technical practices that engage political, economic, and social conditions, and which transform ordinary understandings of those conditions.[2]

Within this conception, textbooks become all the more interesting because they are created as communications between those members who participate in science and those who do not; textbooks, then, become central resources for transforming everyday, nonscientific versions of the world.

Textbooks, along with other psychological writings, are crucial to the disciplinary project of defining and inscribing subjectivity. I will venture to

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suggest that textbooks' low status has masked their special burdens: Not only have textbooks shrouded inconsistencies and contradictions of this disciplinary project in order to portray psychology as unified and coherent, but they also required a complex dialogue between different subjectivities construed in the texts. In advocating a world that takes subjectivity as an object with characteristics not unlike the "natural" objects of other sciences, and simultaneously claiming superior knowledge of subjectivity, textbook writers had to address and engage the very subjects whose own subjective experiences were to be radically reinterpreted by the science. Textbook authors, then, faced the apparent paradox of denying certain subjectivities while attempting to enlist those very subjectivities in the project of a scientific psychology.

To illustrate these multiple functions of textbooks, I analyze three features of that scientific literary genre. After establishing their growing presence as a cultural commodity in a social world where individuals were turning to a new scientific expertise for guidance and enlightenment, I show how textbooks changed to engage this new audience and their problems of mentation. This analysis makes apparent the emergence of a new discursive format, one that positions readers as ignorant but ultimately capable of a scientific gaze on mental life. Second, I examine how several specific discursive strategies are used to position readers, authors, and others, especially those serving to smooth textual and actual contradictions regarding these subjectivities. I then turn to a selective analysis of illustrations in textbooks of the same period to uncover some of the ways in which subjectivity is constructed as biological, mechanical, and internal. The rhetorical positioning of reader and author subjectivities is necessary but not sufficient for persuading readers that the texts present an authentic *science* of subjective experience. It also is necessary to describe subjectivity as a phenomenon amenable to objective scientific scrutiny, to point to its real existence as something which can be observed, inscribed, measured, and compared.

The "new" psychology textbooks: Embodiment of aspiration

In both a symbolic and a practical sense, disciplinary textbooks represent the state of knowledge at the end of the nineteenth century; they embody industrial innovations (printing and distribution), the democratization of educational institutions, and the segmentation and regularization of formal knowledge. The textbook publishing industry taking form during this period symbolized these cultural changes and aspirations. Thus is Edwin Ginn, the founder of a major textbooks publishing house, described in the company's history: "In his vision he saw millions of children trooping to the elementary schools throughout the land and tens of thousands of earnest students who would be enrolled in the high schools and in the state and private colleges,

that, he rightfully believed, would soon be rising in all parts of the Union."[3] Although tinged with the nostalgia of Depression-era America, this description conveys both the visionary and practical aspirations associated with the textbook genre.

If defined as published works that claim to survey the study of psychological phenomena, then introductory psychology textbooks existed even in the early nineteenth century. Appearing at a rate of two or three books per decade, these works were generally used in upper-level college courses in philosophy. Bearing such titles as *The Human Intellect, Mental Philosophy, Rational Psychology,* and sometimes simply *Psychology,* the textbooks were written by academic scholars, usually men trained in theology or philosophy who occupied prestigious positions – such as college presidents – in institutions of higher education.[4] The 1880s marked a noticeable change in publication practices: The number of texts published per decade began to increase dramatically, and their authors now tended to be leading scientists, usually with training in psychology. Few titles retained the words "moral," "understanding," "powers," or "philosophy." In the 1880s there were almost as many textbooks released as had been published in the preceding 30 years: 14 in that decade, 32 in the 1890s, 25 in the first decade of the twentieth century, and 50 in the second.[5]

Using indices of authorship and titling that signaled the beginning of a "new" psychology, the origin of the modern textbook can be dated to or around 1887. Yet these new texts did not differ dramatically in subject headings, nor did the "new" psychology texts contain a vast array of recent experimental findings. Rather, the texts of the 1890s and 1900s retain a similar catalog of subjects: sensation, intellect, perception, judgment, and reasoning. Both pre- and post-1887 texts are concerned with identifying and classifying what counts as psychological reality; they systematically *segment* and *reorder* that reality.

Textbooks of the two areas, however, do differ in substantial ways. These differences result, on the one hand, from the textual and rhetorical features that enable the construal of author, audience, and object of the writing, and on the other hand, from the textual means whereby the intellectual project is tied to visions of cultural well-being and social order. To view textbooks in terms of such practices requires an analysis that goes beyond the conventional ways of reading scientific literature. Guided by techniques of discourse analysis, it is possible to identify patterns of scientific work within the texts. However, discourse analysis typically maintains a problematic distinction between lived experiences and the products of those experiences – commodities. As Michael Apple argues in his study of school textbooks, "This distinction can of course be maintained only on an analytic level, since most of what seem to us to be things – like lightbulbs, cars, records, and . . . books – are really part of a larger social process."[6]

Cultural commodities are social relations between people and, hence, need to be understood in terms of the sociohistorical dynamics of these relations.[7] For the study of books, then, it is necessary not only to examine discursive styles and the economic relations of publishing and educational settings,[8] but also the extended web of social arrangements that mediate the structure and contents of the literary products.[9] Analyses of "written" cultural forms must move between social and economic structures and attend to the social relations constituting those structures and cultural products.

The language and methods of such reading are far from self-evident or agreed upon. Nevertheless, this kind of reading needs to be undertaken with introductory psychology textbooks and, I hope to show, reveals both psychology's enmeshment in a broader cultural project and the importance of textbooks to that project. The social arrangements of readers and authors in these textbooks provide a starting point for tracing the relations between discursive styles and cultural conditions.

Subjects/readers in transition

In 1870, 52,000 students were enrolled in institutions of higher education, and by 1900 enrollment had increased over fourfold to 238,000. (Although most college students were white and male, by 1900 40% of the undergraduate population was female.) There were 563 institutions of higher education in 1870, and 977 in 1900. The faculty increased nearly fourfold during that period, from 5,553 in 1870 to 23,868 in 1900. Prior to 1870 graduate training was virtually nonexistent, and in that year only one doctorate was granted in the nation.[10] By 1904 psychology alone had produced over 100 Ph.D.s and ranked fourth among the sciences in number of degrees conferred.[11] It is more difficult to determine the number of undergraduates who studied psychology. Until the wide-scale adoption of the elective system in the 1890s, students generally were required to take courses in moral philosophy, which usually included a course or coursework in psychology or mental science. By 1904 at least 623 institutions had three or more psychology courses and eight large universities required a psychology course for the B.A.[12] Judging by the increased number of textbooks, professors of psychology, and psychology courses, the number of students who studied psychology during their undergraduate career was substantial.

The student who entered higher education in the last three decades of the nineteenth century lived within a "buzz" of social and economic activity: rapid industrialization, technological innovations (especially in transportation and communication), immigration, urbanization, mass education, and the demise of religious influence. Economic conditions were in an unsteady state, with several depressions and recoveries, while business organizations virtually transformed themselves into hierarchical and inclusive corporate

structures. All of these changes implied shifts and proliferation of social relations: between workers and production, between producers and consumers, between ethnic and social classes, between members of families, and between co-workers.[13]

Participants in this culture were situated in a field of tensions and, consequently, the assimilation of culture produced notable anxieties. One set of tensions emerged when the possibilities for vertical mobility, for becoming, in G. Stanley Hall's words, "authorities" (leaders) and not merely "echoes" (workers) coincided with the formation, in all institutions, of corporate hierarchies or broad pyramids where only a few were to reach the peak. Most middle-class individuals would be embodied as what Hall called "corporate members."[14] On another level, the emphasis on ambition, dedication, and self-control – or plain old hard work – existed alongside sanctions for leisure, sport, and permissive consumption of new mass-marketed products. In colleges, study was not supposed to interfere with good times; collective entertainment, whether it be football or fraternities, occupied a significant portion of students' time. Popular literature contributed with accounts of frolic and adventure, and magazines filled the reader with ideas about new products and purchases, not to mention new identities.[15] Finally, the middle-class culture of professionalism privileged firsthand experiences of reality in both work and play. In this spirit, Hall invited readers of *Forum* to partake in the novel experiences of the laboratory, and William James marveled at the "buzz" of experience.[16] However, experience and reality alike were becoming increasingly difficult to locate. The other side of the buzz – and expansion of experiences – was its dynamic complexity, multiplicity, and obscurity. The growing trust in the veracity of scientific knowledge, the faith axiomatic to professionalism, promised ultimate access to reality, yet at the same time the proliferation of new expert knowledges suggested the existence of multiple realities, if not *un*reality. Social science especially challenged the position of reality in its repeated assaults on common sense, proclamations about the subjectivity of ordinary experience, and the insistence on the improbability of autonomous action. As Richard Hofstader reported, 1890s progressives saw reality as hidden and psychic events as "a kind of pale reflex."[17]

Middle-class culture of the late nineteenth century, especially for youth, consisted of anxieties as well as ambition, self-doubt as well as self-control and knowledge, and fragmentation as well as order. If the 1890s are seen only in terms of the professionalization of the sciences, vertical mobility, and progressive attitudes, then we can see how the new psychology served the citizens of this culture by way of offering a utilitarian and reformist as well as scientifically grounded profession. If however, we also acknowledge the ongoing transformations of individual identities and social relations along with the instabilities produced by those transformations, then psy-

chology can be considered as instrumental in the very process of "defining identities appropriate to a changed reality."[18] Psychology was not simply the promise of a science of universal truths (concerning all mankind) or of norms for identifying the abnormal. Psychology did not simply *reflect* social experience by naturalizing and justifying its social codes. Psychology also was in a position to represent *new possibilities,* and to be *constitutive of new identities and social alliances.* The youthful readers of the new psychology textbooks, then, could seek in those volumes not only a potential career path but also a modern guide for experience, one that would locate "real" reality and enhance one's capacity to see and do.

The making of authors and readers

The authors and readers represented in introductory textbooks after 1887 do, indeed, provide a guide for experience and locating reality. They both result from the use of conventional rhetorical strategies, yet the old and new texts differ in their specific discursive aims. The authors of the "old" texts participated in an ageless conversation among men of wisdom. They positioned themselves as caretakers, reformers, and humble transmitters of knowledge which had been fathered through generations, from the Greeks onward. Although the authors of the early texts paid homage to doing "science," improving mental faculties, and aiding education, they gave an egoistic framing to their efforts. They recurrently indicated their personal standpoint and simultaneously supported and illustrated their claims with "experience." "Self" as author and as a set of experiences coalesced in these genealogies of truth. As Hamilton noted in his 1883 textbook, he wrote first for himself and then to furnish "a scientific book such as every American gentleman should have for reading and for reference."[19] The audience imaged in the earlier text likewise was capable of and interested in self-betterment, and although its social and economic status goes unmentioned, its position usually can be inferred: However privileged, these readers are gentle and passively receptive to guidance.[20] Generally, whenever questions are advanced to these gentle readers, the author hastens to provide the answers.

Taking a different purchase, the authors portrayed in the "new" textbooks announce their participation in the escalating action of the new science. In these texts there is a detectable alteration of authorial voice: The self is minimally present either through a strategy of omitting all personal experience and theoretical preferences, or by positioning the self among the many thinkers in psychology. When the self of the author does appear, it is used overtly to establish a "friendly" text, a camaraderie with readers; however, as we shall see later, these occasional self-revelations are important moments in defining subjectivity.

Just as the identity – personal and intellectual – of the author appears to recede in the new textbooks, so the identity and psychology of the reader becomes more precisely marked. Readers are teachers or teachers in training, high school or normal school students, potential lawyers and businessmen, or "ordinary" readers. They are men of action, laboring to examine real life more fully and to master its complexity. To E. A. Kirkpatrick, the reader has no interest in the "thoroughly dried specimens" of the older mental science and its laws, which the student can not observe and verify. "Real knowledge and power" requires that the pupil "observe and analyze the actual processes of his own mind and those of others instead of taking what the author tells him about imaginary mental processes."[21] The reader's ambition, whether to pursue careers in psychology or elsewhere, is aligned with the edict, "a man's reach should exceed his grasp."[22] Even when direct references to readers are absent, these readers are beckoned to acquire the psychologist's standpoint, that is, to acquire the ability to know with certainty the "real" of life experiences. Sometimes this standpoint is offered as an immediate possibility in the form of experiments the reader can perform on his own. More often the standpoint is posed as the motive for reading, and the psychologist's clear vision is only pages away: "with a clean, well-trained eye and the mind's retinal field cleared of all floating specks, the student of Psychology must ever seek the truth, and the truth alone, if he would not be handicapped."[23] From the psychologist's standpoint, "face-to-face experience of actual life is essential." Readers are given the possibility not simply of new psychological experiences but of understanding the "real nature" of those experiences. The trained student shares interests with the trained psychologist who desires to convert consciousness into an object of (indirect but verifiable) knowledge for himself." The author proceeds by assuring readers that "it is not arrogant to claim that the trained psychologist understands not only the child, the idiot, the madman, and the hypnotic subject, but also the artist, the scientist, the statesman, and the thinker, as psychical beings, far better than any of these classes understand each other, or even themselves."[24] Not only are the mental faculties of scientific psychologists presented as the most veridical means of knowing others' realities, but these faculties are attainable by the reader, too, and are taken to be desired by the reader.

Although readers are sometimes invited by textbook authors to become psychologists, more frequently they are identified as members of a special social class of "educated men" who seek knowledge about reality.[25] These men stand apart from the class of "lazy readers."[26] Whether readers are described as potential psychologists or as knowledge holders, their identities have been textually "transplanted" to a desirable location. This move illustrates a long-standing rhetorical device: "If you want an uncultivated man to change his views, transplant him."[27] Not only are the readers'

identities elevated; but they are seen as members of an elite audience, another common rhetorical device for persuasion.[28] However, the elite audience portrayed in the new psychology textbook differs from the elite audience in the earlier textbooks: In the "new" books the common man, the motivated man, can by transforming himself thereby include himself within the elite. As one author insisted, even the costly instruments of the new psychology do not prohibit the common person from engaging in this world of knowledge.

Although not always explicit in the texts, readers are assumed to be seeking both self-improvement and mastery over others. They want to become the organizer of experience and the detecting eye, the manager and the surveyor. Self-knowledge was perceived as an obvious ambition: A 1898 textbook posits that "self-control" is "the great end of all education," and a 1911 textbook takes the ability to observe psychological processes to be something "we owe to ourselves as educated members of civilized races."[29] Another text similarly claims that the very function of a textbook is as "guide to the study of his (student's) mind"; however, it also is taken to be instrumental in "dealing with other minds." This other-control is made explicit by claiming that psychology benefits "all individuals interested in studying or controlling human nature."[30]

Beyond this image of reader as ambitious, independent, and aspiring to certain skills, however, are textual messages that insist on passive readers. Questions scattered throughout the text, study problems, and experiments to be performed – all devices that are purportedly innovations befitting the truly enthusiastic reader – actually limit action and preclude the possibility of cognitive independence. The answers to most study questions in the books require no more than rote learning, and the experiments usually have a single correct outcome. Occasionally authors claim to be using simplified language or omitting complex information.[31] Later I will return to this contractory underside of the new reader.

The new authors and readers prepared the way for new understandings – or a new reality – of psychological phenomena. In fact, these new actors at once relied on and fashioned particular rationalities and subjectivities. They enabled certain experiences and social roles; they also determined the containment or denial of other possibilities. Students were invited simultaneously to be consumers of the new psychology and its potential producers; they were offered roles that promised control over other individuals, a special experience of self, and a veridical grasp of reality. What these new roles enabled, in fact, was a different reality, one that specified certain relations between perceiving individuals, between individuals and what comes to be taken as reality, and within individuals. The rhetorical contrivance of readership (and authorship) played upon culturally salient desires and ambitions in order to entice the individual reader. However, the subjec-

tivity made real through these methodological practices differed from the subjectivity of readers described in texts. Psychology's success in undermining commonsense knowledge and in marketing an apparently unsavory model of subjectivity depended on the readers' dissociation from that subjectivity.

Subjectivities: One and the other

Just as the persuasiveness of introductory textbooks depended on particular confections of reader and author, so too it relied upon cultural imagery and beliefs. Authors drew upon a cache of cultural understandings, and in doing so were not just limited to ordinary conceptions of human nature, but also drew on conceptions supplied by other sciences. Their selections from these cultural ideas and ideals, however, were not arbitrary but were determined by the scientific model of subjectivity which they were propounding. Numerous historical studies have documented this subjectivity – a purportedly objective construal of subjective experience – as self-contained or highly individuated, self-monitoring, asocial, mechanistic, trait-bearing (manifesting certain distinct and measurable qualities), and dedicated to rational and logical functions yet ill-equipped for producing them.[32] At first glance this needy if independent subjectivity contrasts with the ambitious, competent, and potentially masterful subjectivity attributed to textbook readers. The contradiction in subjectivities could be explained simply on rhetorical grounds: Some assurance or diversion was needed in order to persuade an audience that the new psychology, which slighted personal experience and offered an apparently inhumane model of humanity, nevertheless offered accurate knowledge. And to some extent this rhetorical strategy is apparent. The reader and author, as members of an elite community, were set apart from "others," especially in those texts where the reader is invited to partake in the psychologist's gaze (to be like, if not to be, an actual psychologist). Those who had not acquired appropriate skills were "poverty stricken," wrote Robert Yerkes in his 1911 textbook, and thus "Millions of human beings – unfortunate but all unconscious of what they are missing – go through life blind to the psychological world."[33] By counterposing the reader and the mass of others (note the economic language of this juxtaposition), intertextual contradictions concerning subjectivity are eased.

The easing of these textual contradictions depended not only on rhetorical contrivances but also on the presence of a master of subjectivity – a socially elevated observer of psychological reality. Perhaps the textual contradictions found between the subjectivity of the reader and "others" actually functioned positively in the larger social landscape, an economic world best served by subjectivities which were at once ambitious and submissive, desiring and self-regulating, managing and manageable.[34] Whatever the pos-

sible social functions of these discordant subjectivities may have been, it remains that they are, first, sustained by the hypothetical presence of a superior subjectivity,[35] a scientific observer, and, second, are given meaning through the evocation of common cultural images and forms. Two specific usages of cultural imagery and beliefs figure prominently in the early modern textbooks: the use of ordinary understandings and cultural stereotypes of self and other, and the deployment of characteristics of reality associated with more legitimate sciences. The first usage is illustrated by E. W. Scripture's introductory textbook and the second by a sample of textbook descriptions and illustrations of reality that rely on a reality depicted in other sciences.

A textbook published in the late 1890s furnishes examples of what might be called "coordinated" or "mercurial" subjectivities. Scripture's *The New Psychology* defends introspection while promulgating a "new" experimental psychology. Written by a psychologist at an elite institution, the work assumes an audience of socially advantaged students. In the introductory pages of the text, Scripture described the subjectivity of the new psychology in terms of the "vagaries of the human mind" and its untrustworthiness caused by the unavoidable operations of prejudices and unconscious alterations: "Our passions, our prejudices, and the dominant opinion of the day are abundant sources of dangerous illusion."[36] Scripture freely extended this conceptualization to himself, citing everyday examples of his untrustworthy self. However, this same precarious subjectivity makes possible its opposite, the masterful observer, initially through a faithful accounting of unfaithful mental processes and then through similar accountings of others' mental acts.

Scripture's trustworthy confession, and elaborate descriptions of psychological methods that follow, confirm both forms of subjectivity – the one and the other. Prefatory comments about "uncultivated observers" and their primitive mind-sets prepare the stage for an elaboration of characters.[37] It will suffice here to describe two strategies through which this elaboration is accomplished. First, Scripture used the existing social structure to define the "other" subjectivity, that configuration of complex mental processes with limited cognitive powers of self-control, which constituted the object of modern psychology. This is the subjectivity of "uncultivated observers" who remember favorable events but forget unfavorable ones, who associate changes in the weather with changes in the moon, and who are duped by a "whole race of prophets and quacks." These subjects, upon visiting Berlin, notice the shop windows in the Kaiser Gallerie but remain "unconscious of the watchful policeman around the corner," which is actually more characteristic of Berlin than the shops.[38] In defining psychology's object, then, Scripture relied on caricatures of the common "man"; this reliance occurs even in discussions of laboratory experiments. For example, his

account of experimental work on "time of sensation," or reaction time in visual identification, demands a prior and cultural understanding of the ordinary reader. In these descriptions, the "observer" (subject in the experiment) acts like the "uncultivated": "He attempted to name the letter even when he had seen only part of it. Hereby he often named it correctly when he had seen only a little of it, and, on the other hand, he often thought he had recognized a letter clearly which was not present at all." Scripture then recounted other experimental studies in which securing the observer's correct recognition proved "a hopeless case." He suggested several ways to make reading more accurate but parenethetically quoted another experimentalist's conclusion that such innovations would undoubtedly shock public taste and create new confusions. In these samples, experimentation, or the reporting of it, captured and reenacted cultural forms of ignorance and cognitive shortcomings.[39]

Scripture also enlisted common understandings of cultural difference to demonstrate differences in subjectivities. By assuming a Western male reader, Scripture could readily differentiate a masterful subjectivity from the "other" one. Thus, the positive influence of mental effort on volition was exemplified by comparing "intelligent Europeans" with Africans, and "intelligent mechanics" with "common labourers." Using the same textual strategies, he illustrated the incremental effect of intellectual excitement on physical power with culturally specific cases: The "lecturer actually becomes a stronger man as he steps on the platform" and the mother bear protects her young "when in a state of fear."[40] In these examples "intellectual excitement" is gendered; productive and reproductive activities are gender-specific. Consequently a hierarchical arrangement of subjectivities is further asserted. When several female subjects attained the highest scores in a mental test of finger tapping, their performances were discounted on the basis of their extraexperimental pastimes (playing baseball in one case and playing the violin in another).[41] Again differentiation of subjectivities is declared by drawing on culturally established cognitive hierarchies. These hierarchies also are implicated in discussions of will, where a better mental condition, and more practice and training, are claimed to enhance volition. Thus effort, striving, and motivation are described, both explicitly and implicitly, as Western and male. Subjectivities are differentiated in these passages and the readers are persuaded not only because the differentiations are foregrounded with their cultural understandings but also because the readers' subjectivities can, at almost any time in the text, be identified as being *not* a member of the class of "uncultivated observers."

These textual practices enabled a smoothing of apparent contradictions between the motivated and knowing subjectivities attributed to readers, and the confused and inefficient subjectivities that constituted the object of psychological science. The two forms of subjectivities not only serve as a

rhetorical device to engage and persuade readers – would-be consumers of modern psychology – but they functioned in relation to one another. The needy subjectivity of the ordinary actor enabled a believable construal of the masterful subjectivity of the expert observer. Further, the recurrent reliance on cultural markers, which repeatedly signaled difference and hierarchy among subjectivities, verified a world of dichotomous subjectivities while drawing an ambiguous and permeable line between them.[42] (This textual strategy of using cultural meaning to create an audience is similar to the textual tactics for construing "virtual witnesses" in early scientific writing.)[43] While the readers often could locate themselves outside the class of subjectivities investigated by psychological science, they were not entirely or always free to make this dissociation.

The second example of cultural forms used as persuasive devices in textbooks concerns the ways in which reality is depicted. The ambitious readers, motivated by personal and professional aspirations, needed to be directed toward an accurate perception of reality. Considerable textual work was devoted to directing perception and, consequently, relocating reality (some of this work is common to scientific writing and ultimately is what sets it apart from nonscientific writings). Introductory texts after 1890 no longer directed the readers simply to the authors' beliefs, or even to those opinions nested among other writers' ideas.

Nothing was posed as so exciting, so promising, in the new psychology textbooks as reality. The real can get us beyond epiphenomena and illusion, and more than that: Reality promises to eradicate the confusions of fleeting, multiple, and sometimes contradictory experiences. Entering this "temple of reality," as Ladd described it, is the ultimate objective of the new science and, hence, it is the subject of discursive work throughout the new psychology textbooks.[44] Despite some philosophical differences among the books, reality or the real was accorded several common attributes. First, the real *exists* and its existence is confirmed, on the one hand, by the possibility of scientists' objective gaze and, on the other hand, by examples of this gaze. Thus, in discussing "scientific imagination," James Mark Baldwin attributed to certain men a great "emotional soberness" and an ability to "see deeply," which enables them to have "direct reference to our knowledge of the world and things."[45] The examples of this access to reality are found throughout the books, but none are so convincing as illustrations. Here the unseen reality is made visible: The invisible organs are sketched, lines of energy are drawn, levels of consciousness are mapped, and magnitude and duration of memories are charted. In addition, these textbooks contain a healthy number of illustrations that initially obscure any obvious reality and then enable the author to explain the real nature of that veiled reality.

The second alleged attribute of psychological reality is that it was at once *natural* and *subjective* material and yet not biological. Mental experiences had to be rendered natural if they were to become objects of science. This was done by setting up a series of correspondences, between psychological states (sensation, perception, intention) and physical states. However, the correspondences usually are of similarity or parallelism and not identity. In other words, sensation was claimed to be more than, yet in some way aligned with, nervous impulses. In aligning mental experiences in this way, they could be presented as natural, thus real, and at the same time subjective, in the sense of being experienced internally *and* having that internal experience subject to observation (and eventually to control).

From these qualities of mental experience it followed that the person experiencing does not – and, in many instances, could not – have access to the "real nature" of subjective experience. Thus reality was given the third attribute of *uneasy or indirect accessibility*. Psychology goes beyond "the narrative, or the dramatic and artistic description of life" to observe "real nature," the causal relations underlying this psychic life.[46] Willing, sensing, feeling, thinking, seeing, dreaming, and hating are not what they appear to be to the subject. Insofar as the psychologist has access to reality whereas others do not, William James held that the psychologist becomes a critic. Critique, he continued, was necessary given the fallibility of subjective experience and the mere fact that "no subjective state, while present, is its own object; its object is always something else."[47] By the early twentieth century, this obscured reality was consistently sought in the data, not in the subject *who* experiences.

These textbooks shared a commitment to a constructed reality that was presented as natural, subjective, and difficult to know accurately. It was portrayed as a reality of amazingly complex mental transformations that nevertheless could be codified through mechanical laws and descriptions, on the one hand, and through data charts and sheets, on the other hand. The books presuppose, outline, and even detail these mental transformations, these subjective realities, as an objective reality or at least as a reality that could be known objectively. Except for an alliance with and dependence on physiology, the textbooks do not investigate any material reality. This abeyance persists even when a psychological event is dependent on material conditions, say hunger, pain, death. In these textbooks, either mental transformations are substituted for material transformations, or those mental transformations are mapped onto some taken-for-granted material condition. They encourage attention to and reflection on the mental, not any other reality.

More dramatic than the language of reality, then, was the visual representation of mental life. Things were no longer a matter of belief: In Bruno Latour's words, "This is *seeing*."[48] And seeing became increasingly important: Of six analyzed textbooks published between 1870 and 1887, sev-

eral contain no illustrations and none exceeds 17. Of the analyzed texts published between 1888 and 1907, only two books (and these were brief "primers") had no visual representations; the remaining texts averaged 32 illustrations per book. Several qualities of these representations exemplify their strategical function in redirecting perception. The first quality has just been mentioned: Illustrations constituted a move from *believing* to *seeing*. That is, they offered another cognitive resource for persuading the reader to perceive in a particular fashion. Second, the graphics were overwhelmingly items "borrowed" from other sciences, notably biology; hence, additional cognitive authority was marshaled to persuade the reader. Third, the images are partial: They restrict observation to parts of bodies or systems. These decontextualized and defamiliarized images – detached from ordinary experiences and perception – increase the reader's reliance on the author's interpretation.

Visual representations certainly were not the only strategy for directing the reader's perceptions, for persuading them that psychology offered a superior access to reality and a means to experience the real rather than the epiphenomenal. However, along with textual depictions of reality, these visual aids are revealing of how perception was redirected and readers were persuaded.

Conclusion

Scientific textbooks, although generally considered "secondhand knowledge" by scientists and historians alike, actually represent genuine scientific activity. At the turn of the century most scientists spent considerable time teaching, and their instructional practices, like their laboratory activities, reflect the cultural nature of their larger project.[49] As science of the nineteenth century was moved from the public domain to the private territory of universities, boundaries were established to delineate *what* was taken as knowledge and *who* were the masters or generators of that knowledge. As Sally Kohlstedt has argued, education was instrumental in the emergence of a "cultural outlook in which the study of science gained a fundamental place."[50] If read from this vantage, and without the assumptions typically made about scientific education, psychology textbooks become historical resources for exploring that cultural outlook.

Given its subject matter, psychology was immediately implicated in cultural understandings and visions. Teaching and textbooks illustrate the dynamic interplay whereby psychology was at once produced through particular cultural projects and productive of those projects. The enterprise of forging a scientific definition of subjectivity contained a set of expectations that could not be realized through laboratory procedures alone: That definition had to correspond, at some level, with emerging subjectivities in the

modern world. The scientific project of defining and scrutinizing subjectivity was constituted by certain conceptualizations of subjectivity, albeit conceptualizations that were ambiguous and far from agreed upon. Psychology textbooks reveal the complicated search for a universal subjectivity and, at least during the early years of modern psychology, they show how psychologists imagined a subjectivity that was sometimes local, mutable, and multiple.

Notes and references

1 Scientists' disdainful attitude toward textbooks and the act of writing textbooks is well known. Historians and other analysts of science have tended to reproduce this sentiment even when their objective entails debunking of scientific practice. Thus, for instance, Stephen Brush's frequently cited study of historical myths in science textbooks can be taken to provide testimony on the constitutive flaws of textbooks. Likewise, a number of studies of the biases, omissions, and misinterpretations in psychology texts, although intended to simply document some inadequate aspects of psychology, actually can be seen as confirming the overall derivative and flawed status of these works. See Stephen G. Brush, "Should the History of Science Be Rated X?" *Science*, 1974, *183*, 1164–1172. Examples of empirical studies of psychology textbooks include R. Michael Brown and Roma Brown, "Bias in Psychology and Introductory Psychology Textbooks," *Psychological Reports*, 1982, *51*, 1195–1204; C. J. Buys, "Freud in Introductory Psychology Texts," *Teaching of Psychology*, 1976, 160–157; Stuart J. McKelvie, "Left-wing Rhetoric in Introductory Psychology Textbooks: The Case of Mental Illness," *Psychological Reports*, 1984, *54*, 375–380; Douglas R. Miller, "An Analysis of the Treatment of 'Jensenism' in Introductory Psychology Textbooks," *Teaching of Psychology*, 1980, *7*, 137–139; Robert Sommer and Barbara Sommer, "Mystery in Milwaukee: Early Intervention, I.Q., and Psychology Textbooks," *American Psychologist*, 1983, *38*, 982–985. Some of these investigations do attend to historical and contextual conditions surrounding the production of texts and, therefore, do not imply that the textbook genre, in itself, is biased and second-rate knowledge. See, for instance, Ben Harris "Whatever Happened to Little Albert?," *American Psychologist*, 1979, *34*, 151–160; Ned Levine, Colin Worboys, and Martin Taylor, "Psychology and 'Psychology' Textbooks: A Social Demographic Study," *Human Relations*, 1973, *26*, 467–478.
2 For varied examples of such a revised conception of science, see Bruno Latour, "The Impact of Science Studies on Political Philosophy," *Science, Technology, and Human Values*, 1991, *16*, 3–19; A. Rabinbach, *The Human Motor: Energy, Fatigue, and the Origins of Modernity*, New York: Basic Books, 1990; and Steven Shapin and Simon Schaffer, *Leviathan and the Air Pump: Hobbes, Boyle and the Experimental Life*, Princeton: Princeton University Press, 1985.
3 Thomas B. Lawler, *Seventy Years of Textbook Publishing: A History of Ginn and Company, 1867–1937*, Boston: Ginn, 1938, p. 9. Many early twentieth-century psychologists identified William James's *Principles of Psychology*, New York: Henry Holt, 1890, to be the boundary marker of a new era for psychology and psychology textbooks. See Michael M. Sokal, "Introduction," in *Psychology: Briefer Course*, by William James, Cambridge, MA: Harvard University Press, 1984, pp. xi–xii.
4 Some of these texts are reviewed in Jay W. Fay, *American Psychology before William James*, New Brunswick, NJ: Rutgers University Press, 1939.
5 These numbers have been derived from my own bibliographic search of first edition, introductory psychology textbooks published in the United States. The numbers undoubtedly will be adjusted as additional texts are located and as texts are found not to meet one of the criteria for inclusion.

6 Michael W. Apple, *Teachers and Texts: A Political Economy of Class and Gender Relations in Education,* New York: Routledge & Kegan Paul, 1986, p. 82.

7 In addition, the publishing industry is not composed of standardized relations among the actors involved but, rather, is segmented by different industrial forms and by different types and structures of human relations. See Lewis Coser, Charles Kadushin, and Walter Powell, *Books: The Culture and Commerce of Publishing,* New York: Basic Books, 1982.

8 Although this claim implied a linear influence of human relations (both economic and social) on cultural products, the connection is far more complex and fluid. In the case of school textbooks, numerous researchers have documented the ways in which standardized written materials have transformed classroom activities, teachers, and educational objectives. See, for instance, David L. Elliott and Arthur Woodward, eds., *Textbooks and Schooling in the United States: Eighty-ninth Yearbook of the National Society for the Study of Education,* Chicago: University of Chicago Press, 1990; Henry J. Perkinson, *Early American Textbooks, 1775–1900,* Washington, DC: U.S. Department of Education, 1985; Apple, *Teachers and Texts.*

9 I use terms such as "mediate," "prestructure," or "produce" with awareness that the dynamics of the relations are yet unknown and certainly complex. Implicit in my position is a contrast between the textual analyses I attempt and the poststructuralist analysis of texts, which denies the existence of subjectivities with specific historically conditioned interests (that analysis assumes, paradoxically perhaps, a universal power dynamic underlying all cultural products, and which takes texts to be constructing the "real"). For critical commentaries on different versions of poststructuralist approaches, see Judith Newton, "Historicism New and Old: Charles Dickens Meets Marxism, Feminism, and West Coast Foucault," *Feminist Studies,* 1990, *16,* 449–470; Steven Shapin, "History of Science and Its Sociological Reconstructions, *History of Science,* 1982, *26,* 157–211; "Talking History: Reflection on Discourse Analysis," *Isis,* 1984, *75,* 125–130. The dichotomies presented in these commentaries warrant further exploration, especially in terms of the working definitions of discourse, interests, and practice. See Steve Woolgar, "On the Alleged Distinction between Discourse and *Praxis,*" *Social Studies of Science,* 1986, *16,* 309–317.

10 Lawrence R. Veysey, *The Emergence of the American University,* Chicago: University of Chicago Press, 1965; Burton Bledstein, *The Culture of Professionalism: The Middle Class and the Development of Higher Education in America,* New York: Norton, 1976.

11 Thomas Camfield, *Psychologists at War: The History of American Psychology, and the First World War,* unpublished Ph.D. dissertation, University of Texas at Austin, 1969, pp. 43–44.

12 See Bledstein, *Culture of Professionalism;* Camfield, *Psychologists at War;* Fay, *American Psychology before James;* Veysey, *Emergence of the University.*

13 Bledstein, *Culture of Professionalism;* Richard Ohmann, *Politics of Letters,* Middletown, CT: Wesleyan University Press, 1988; T. J. Lears, *No Place of Grace: Antimodernism and the Transformation of American Culture, 1880–1920,* New York: Pantheon, 1981.

14 G. Stanley Hall, "The New Psychology as Basis of Education," *Forum, 17,* 713–719.

15 See Christopher Wilson, "The Rhetoric of Consumption: Mass-market Magazines and the Demise of the Gentle Reader, 1880–1920," in R. Fox and T. J. Lears, eds., *The Culture of Consumption: Critical Essay in American History, 1880–1980,* New York: Pantheon, 1983, 41–64. Also see Ohmann, *Politics of Letters;* Veysey, *Emergence of the University.*

16 Hall, "New Psychology"; Veysey, *Emergence of the University,* p. 61.

17 Hofstader quoted in Thomas L. Haskell, *The Emergence of Professional Social Science,* Urbana: University of Illinois Press, 1977.

18 Charles Rosenberg, "Toward an Ecology of Knowledge: On Disciplines, Context and History," in A. Oleson and J. Voss, eds., *The Organization of Knowledge in America,* Baltimore: Johns Hopkins University Press, 1979, p. 443.

19 E. J. Hamilton, *The Human Mind: A Treatise in Mental Philosophy,* New York: Robert Carter & Brothers, 1883, p. iii.

20 Later in this essay I note that in the new texts a certain passivity of the reader was presumed. This later account of passivity refers not simply to the social roles of teachers and students or to the gentleness of readers, but also to an assumed cognitive incompetence on the part of readers.

21 Edwin A. Kirkpatrick, *Inductive of Psychology,* Winona, MN: Jones & Kroeger, 1893, pp. 3–4.

22 Colin S. Buell, *Essentials of Psychology,* Boston: Ginn, 1898, p. iv.

23 William Krohn, *Practical Lessons in Psychology,* Chicago: Werner, 1894, p. 20.

24 George T. Ladd, *Primer of Psychology,* New York: Scribner, 1894, pp. 7, 8, 21.

25 James Drever, *The Psychology of Everyday Life,* London: Methuen, 1921, p. v.

26 William James, "Introduction," in Edward L. Thorndike, *The Elements of Psychology,* New York; A. G. Sieler, 1905, p. vii.

27 M. Millious quoted in Ch. Perelman and L. Olbrechts-Tyteca, *The New Rhetoric: A Treatise on Argumentation,* translated by J. Wilkinson and P. Weaver, Notre Dame: University of Notre Dame Press, 1969, p. 20.

28 Perelman and Olbrechts-Tyteca, *New Rhetoric,* p. 33.

29 Buell, *Essentials of Psychology,* p. 4; Robert M. Yerkes, *Introduction to Psychology,* New York: Henry Holt, 1911, p. 13.

30 Harvey Carr, *Psychology: A Study of Mental Activity,* New York: Longmans Green, 1925, p. 13; Fleming A. C. Perin and David B. Klein, *Psychology: Its Methods and Principles,* New York: Henry Holt, 1926, pp. 17–18.

31 Historians and sociologists of education have reported that textbooks influenced practice and participants: Textbooks promoted simplified and flattened accounts, contributing to students' disinterest and to the deskilling of teachers, among other things (see note 8). William James remarked on such effects of textbooks in his introduction to Thorndike's 1905 text. James wrote "Can it be, I thought, that the author's long connection with the Teachers College is making him a high-priest of the American 'textbook' Moloch, in whose belly living children's minds are turned to ashes, and whose ritual lies in text-books in which the science is pre-digested for the teacher by every expository artifice and for the pupil comminuted it to small print and large print, and paragraph headings, and cross-references and examination questions, and every other up-to-date device for frustrating the natural movement of the mind when reading, and preventing that irresponsible rumination of the material in one's own way which is the soul of culture." In Thorndike, *Elements of Psychology,* p. vi.

32 These studies include Roy F. Baumeister, "How the Self Became a Problem: A Psychological Review of Historical Research," *Journal of Personality and Social Psychology,* 1987, *52,* 163–176; John C. Burnham, "The New Psychology: From Narcissism to Social Control," in J. Braeman, R. H. Bremmer, D. Brody, eds., *Change and Continuity in Twentieth-Century America: The Nineteen-twenties,* Columbus: Ohio State University Press, 1968; Philip Cushman, "Why the Self Is Empty: Toward a Historically-Situated Psychology," *American Psychologist,* 1990, *45,* 599–611; Kurt Danziger, *Constructing the Subject: Historical Origins of Psychological Research,* Cambridge: Cambridge University Press, 1990; William Kessen, "The American Child and Other Cultural Inventions," *American Psychologist,* 1979, *34,* 815–820; Jill G. Morawski, "Contextual Discipline: The Unmaking and Remaking of Sociality," in R. Rosnow and M. Georgoudi, eds., *Contextualism and Understanding in Human Psychology.* New York: Praeger, 1986, pp. 47–66; Nikolas Rose, "Individualizing Psychology," in J. Shotter and K. J. Gergen eds., *Texts of Identity,* London: Sage, 1989, pp. 199–232; "Psychology as a 'Social' Science," in I. Parker and J. Shotter, eds., *Deconstructing Social Psychology,* London: Routledge, 1990, pp. 103–116; Edward E. Sampson, "Psychology and the American Ideal," *Journal of Personality and Social Psychology,* 1977, *35,* 767–782; "Cognitive Psychology As Ideology," *American Psychologist,* 1981, *36,* 730–743; Couze Venn, "The Subject of Psychology," in J. Henriques, W. Hollway, C. Urwin, C. Venn, and V. Walkerdine, eds., *Changing the Subject: Psychology, Social Regulation, and Subjectivity,* London: Methuen, 1984, 199–152.

33 Yerkes, *Introduction to Psychology*, p. 13.
34 Close analysis of that socially elevated observer subjectivity indicates that it, too, is composed of more than one subjectivity. Jill Morawski, "Maturation of the Psychologist's Two Selves," paper presented at the American Psychological Association Meetings, Boston, August 1990. That study, along with the present analysis, suggests that the scientific conceptualization of subjectivity, which constituted a major project for late nineteenth-century psychologists, was more complicated than choosing between humanism and science, between self as sensing subject and self as object. For a somewhat different account of that dilemma see David E. Leary, "The Psychologist's Dilemma: To Subject the Self to Science – Or Science to the Self?" *Theoretical and Philosophical Psychology*, 1990, *10*, 66–72.
35 The relations between cultural conditions and psychology's theories have been examined through various models of knowledge generation. For instance, Philip Cushman has explored some of the connections between increased production of goods and the development of psychological theory that posits needy or empty selves, selves in search of gratification. His thesis suggests that subjectivity was constructed not just as self-contained but also as an ongoing process of desire, a process that required both regulation and repair. Cushman, "Why the Self Is Empty." For a related interpretation of the labeling and management of anger, see Carol S. Stearns and Peter N. Stearns, *Anger: The Struggle for Emotional Control in America's History*, Chicago: University of Chicago Press, 1986.
36 E. W. Scripture, *New Psychology*, New York: Charles Scribner's Sons, 1897, pp. 3–4. For an analysis of recent construction of subjectivities in psychological writing, see Jill G. Morawski and Robert S. Steele, "The One and the Other: Textual Analysis of Masculine Power and Feminist Empowerment," *Theory and Psychology*, 1991, *1*, 107–131.
37 Scripture, *New Psychology*, p. 3.
38 Ibid., pp. 3–6.
39 Ibid., pp. 103–107.
40 Ibid., pp. 219–220.
41 Ibid., pp. 129–130.
42 The demarcation of subjectivities, however mercurial or ambiguous, is part of the "boundary work" of psychological science. For an excellent elucidation of boundary work, see Thomas F. Gieryn, "Boundary-work and the Demarcation of Science from Non-Science: Strains and Interests in Professional Ideologies of Scientists," *American Sociological Review*, 1983, *48*, 781–795.
43 Steven Shapin, "Pump and Circumstances: Robert Boyle's Literary Technology," *Social Studies of Science*, 1984, *14*, 481–520.
44 Ladd, *Primer of Psychology*.
45 J. M. Baldwin, *Handbook of Psychology*, New York: Henry Holt, 1891, pp. 45, 236.
46 Ladd, *Primer of Psychology*.
47 James, *Principles*, pp. 196–197.
48 Bruno Latour, *Science in Action: How to Follow Scientists and Engineers through Society*, Cambridge, MA: Harvard University Press, 1987, p. 48.
49 Stanley M. Guralnick, "The American Scientist in Higher Education, 1820–1910." In N. Reingold, ed., *The Science in American Context: New Perspectives*, Washington, DC: Smithsonian Institution Press, 1979, pp. 99–141. Also see Peter S. Buck and Barbara C. Rosenbrantz, "The Worm in the Core: Science and General Education," in E. Mendelsohn, ed., *Transformation and Tradition in the Sciences*, Cambridge: Cambridge University Press, 1984.
50 Sally G. Kohlstedt, "Parlors, Primers, and Public Schooling: Education for Science in Nineteenth-Century America," *Isis*, 1990, *81*, p. 445.

Part III

Early antecedents