

INTRODUCTION

THIS BOOK is a series of readings in a body of medical literature. The second half of the nineteenth century saw the emergence of a new genre of writing dealing with the relations between language and the human brain;¹ during this period a new condition known as “aphasia” emerged as an object of intense investigation. As a study of the writing by nineteenth- and twentieth-century doctors about this topic, *Lost Words* is a contribution to the history of a medical specialty; research into aphasia was central to the generation of an intellectual identity for neurology. The book is also relevant to wider issues of the relation of patient and practitioner in modern Western societies. Because aphasia studies were indispensable to any attempt to localize language in the cerebral cortex, it necessarily touches on major themes in the history of what are now known as the neurosciences. The subject matter of *Lost Words* is, moreover, relevant to current concerns with the cultural history of the self: it describes a moment when crucial aspects of personality were shown to be dependent on material organization.

It is possible to assign an inception date to the literature on aphasia: 1861. As soon as this date is proposed, however, a variety of alternative starting points occur. While I am of the view that the 1860s *are* the decisive decade in initiating the literature with which this book deals, the study begins by considering a number of earlier texts. One of these (that of Bouillaud) was retrospectively awarded a status within the corpus of aphasia studies. More important, it already displays some of the necessary preconditions for what might be called mature aphasiology.

While the literature of aphasia possesses a starting point—or rather several more or less plausible beginnings—it has no terminus. Aphasiology is very much an ongoing enterprise as the most casual survey of current medical bibliographies will reveal. The decision to conclude this study in 1926 with Henry Head’s *Aphasia and Kindred Disorders* is therefore to some extent, though not entirely, arbitrary.

The book does not pretend to be a comprehensive survey of the literature of aphasia between 1825 and 1926. Instead it takes certain texts from that literature—some of them “classics,” others more obscure—and subjects them to a variety of readings. The expression “medical literature” is

¹ For useful collections of some of the major texts in this literature see: H. Hecaen and J. Dubois, *La naissance de la neuropsychologie du langage 1825–1865* (Paris: Flammarion, 1969); Paul Eling, *Reader in the History of Aphasia: From [Franz] Gall to [Norman] Geschwind* (Amsterdam: Benjamins, 1994).

4 INTRODUCTION

therefore used here in a more deliberate way than is usual to refer to a body of medical writing that bears sustained critical scrutiny. The texts in question have been chosen less with the aim of identifying key moments in the development of the modern understanding of the relation of language to the brain than in order to illuminate certain definitive aspects of this body of literature. I am, moreover, also anxious to demonstrate the possibilities of certain strategies for the reading of medical texts. I believe that these ways of reading have an applicability that goes beyond the subject matter of the present study.

My emphasis is on the texts themselves rather than on their authors.² I maintain that in important respects the signification of these documents cannot be referred to the motives or impulses of the individuals producing them. The primary aim of the book is not therefore to provide intellectual biographies of the authors of these writings. Thus, although I discuss Paul Broca's early contribution to the literature at some length, that discussion is not about "Broca" as such: that is a name conventionally assigned the authorship of a collection of texts some of which are relevant to this study. In the case of the debate at the Société d'Anthropologie upon which I focus, moreover, Broca's utterances form part of a composite text in which there are other participating voices.

To a still more marked degree chapter 3 has no protagonist. It seeks to show the order, the conditions of coherence, underlying a representative selection of texts drawn from what can be called the classic period of nineteenth-century aphasiology. When I cite a text by, for example, Carl Wernicke, it is with this end in mind. To object that other texts by that author—or even the *same* text—can with some plausibility be cited in different contexts is beside the point.

Even when a particular author, John Hughlings Jackson or Henry Head, is at the center of a chapter, it is the writings ascribed to that name that provide the focus of attention. The aim in these cases is not to show how a particular text is determined by the supposed intentions of an author, nor to show its place within his overall literary output. It is rather to demonstrate how these classic aphasiological texts can be read in novel ways to show within them the presence of unexpected contingencies. It is also to insist that a scientific text is not a transparent window upon reality but itself a dense object of study.³

² For an excellent discussion of the various forms of concern with linguistic questions in recent historiography see: Penelope J. Corfield, "Introduction: Historians and Language," in idem (ed.), *Language, History and Class* (Oxford: Blackwell, 1991), pp. 1–29.

³ For a review of the growing awareness in the history of science of the need for close attention to language see: J. V. Golinski, "Language, Discourse and Science," in R. C. Olby, G. N. Cantor, J. R. R. Christie, and M. J. S. Hodge, *Companion to the History of Science* (London: Routledge, 1989), pp. 110–123; L. J. Jordanova, "Introduction," to idem (ed.),

INTRODUCTION 5

I recognize that by adopting this approach I leave myself open to various criticisms—perhaps the most serious of which is that such concentration on the text is merely a new species of idealism. What has already been said is at least a partial answer to this reproach: texts figure in this book not as the expression of the thoughts of a few great men or even of several smaller ones. Still less are they seen as the incidental expressions of a pure, transcendent natural knowledge. The emphasis is much more upon the way in which every author must write in a language of which he or she is not fully the master; discourse exists as a datum which conditions and exceeds all efforts at individual expression.

Texts must, moreover, be understood as the products of concrete historical processes;⁴ in some cases, indeed, these documents are the *only* relics of that history. As one historian has remarked, “the relationships constituting hospital medicine were both made, and made visible, primarily when those involved in it wrote about them.”⁵ chapter 3, in particular, seeks to depict the production of these scientific texts as a species of work dependent on a range of prior and parallel activities; and, in our culture, work is conventionally regarded as an embodied, material process.⁶

I am, above all, acutely aware that at the center of these processes were damaged and diseased bodies; we can, however, only know anything about those suffering individuals through the webs of language that were woven around their afflictions. (It may even be argued that these bodies together

Languages of Nature: Critical Essays on Science and Literature (London: Free Association, 1986), pp. 15–47. The role of texts in generating, as opposed to merely communicating, knowledge is found in Steven Shapin, “Pump and Circumstance: Robert Boyle’s Literary Technology,” *Social Studies of Science* 14 (1984): 481–520; Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Method* (Princeton: Princeton University Press, 1985), esp. pp. 60–69. Other studies in the history of science sensitive to linguistic issues include: Evelyn Fox Keller, *Secrets of Life and Death: Essays on Language, Gender and Science* (New York: Routledge, 1992); Donna Haraway, *Primate Visions: Gender, Race, and Nature in the World of Modern Science* (London: Routledge, 1989); Marco Beretta, “The Grammar of Matter: Chemical Nomenclature during the 18th Century,” in Roger Chartier and Pietro Corsi (eds.), *Sciences et langues en Europe* (Paris: Centre Alexandre Koyré, 1996), pp. 109–125.

⁴ For a perceptive account of how an emphasis upon symbolic resources—linguistic and otherwise—is fully compatible with a historical materialism see: Raphael Samuel, “Reading the Signs,” *History Workshop* 31–32 (1991): 88–109, especially pp. 104–5.

⁵ Susan C. Lawrence, *Charitable Knowledge: Hospital Pupils and Practitioners in Eighteenth-Century London* (Cambridge: Cambridge University Press, 1996), p. 23. For an example of how new ways of writing formed an integral part of the development of innovative medical practices see: Jacalyn Duffin, *To See with a Better Eye: A Life of R. T. H. Laennec* (Princeton: Princeton University Press, 1998), p. 141.

⁶ This is incidentally to discount the notion that the generation of knowledge is an immaterial, transcendent process. These dichotomies are considered in Christopher Lawrence and Steven Shapin, *Science Incarnate: Historical Embodiments of Natural Knowledge* (Chicago: University of Chicago Press, 1998), especially p. 4.

6 INTRODUCTION

with their afflictions exist *because* of these discursive practices.⁷) Foucault's remarks about the literary aspect of the disciplinary process are equally applicable to the work of the clinic:

The examination leaves behind it a whole meticulous archive constituted in terms of bodies and days. The examination that places individuals in a field of surveillance also situates them in a network of writing; it engages them in a whole mass of documents that capture and fix them. . . . A 'power of writing' was constituted as an essential part in the mechanisms of discipline.⁸

If the book has a protagonist it is the "aphasic," an entity that emerged in the pages of medical journals and monographs in the latter part of the nineteenth century. The afflicted men and women who supplied the raw material for this invention mostly survive only as the objects of this discourse. The "lost words" of the title refers not only to their physical disabilities but also to their lack of power to influence the acts of representation within which they were entwined. Where exceptions to this rule occur they do so for particular reasons.

A number of firsthand accounts of the experience of aphasia from the period covered by this book do exist; one of these is discussed in chapter 1. It would, however, be a mistake to imagine that these narratives constitute a more natural or authentic account of the condition; they do provide a contrasting set of representations that help demonstrate the partiality and contingency of a ruling discourse. "Experience," whether of work, illness, or any other mode of life, is never raw.⁹

But it is only more recently that a literary form has arisen that gives the speechless¹⁰ man and woman the opportunity to record his or her own account of their affliction. Notably, a number of moving descriptions of the experience of aphasia appeared in a collection published in 1992. One sufferer recalled: "I was in a different world really. . . . It was like being on

⁷ For an exposition of this extreme Foucauldian antihumanist position see: David Armstrong, "Bodies of Knowledge/Knowledge of Bodies," in Colin Jones and Roy Porter (eds.), *Reassessing Foucault: Power, Medicine and the Body* (London: Routledge, 1994), 17–27, pp. 21–22.

⁸ Michel Foucault, *Discipline and Punish: The Birth of the Prison*, translated by Alan Sheridan, (Harmondsworth: Penguin, 1977), p. 189. For an account of the development of record making as an integral aspect of neurological work see: Christopher G. Goetz, Michael Bonduelle, and Toby Gelfand, *Charcot: Constructing Neurology* (Oxford: Oxford University Press, 1995), pp. 67–68.

⁹ See the remarks in: Patrick Joyce, *Democratic Subjects: The Self and the Social in Nineteenth-Century England* (Cambridge: Cambridge University Press, 1994), pp. 4–5.

¹⁰ I use this term to refer loosely to the full gamut of language disorders derived from injury to the brain. In fact, few sufferers are altogether deprived of speech, and various aspects of language other than speech can also be affected.

INTRODUCTION 7

another planet.” Another described “a terrible feeling of being encapsulated in a black bottomless pit. . . . [I]t was as though my net of words had been ostracized and banned to another unknown recess of my mind.” A third was more pithy: “I seemed to have become an idiot.”¹¹ These quotations provide striking evidence of the importance of a mastery of language to the sense of self.

The “aphasic” that emerged in the course of the later nineteenth century can thus be considered both as the object of a clinical-scientific gaze and as the product of an extensive work process. We can identify various aspects of this process. It included the verbal and physical examination of patients and the dissection of cadavers along with the incidental preparation of pathological specimens. But (with the exception of some surviving museum artifacts) we only know these things through the medium of the literary aspect of aphasiological work; all these other operations were preliminary to the generation of texts.¹² The “facts” of aphasiology attained their final form as written statements available to a community of readers. One of the goals of this study is to explore the ways in which the structure of these documents creates certain forms of heuristic possibility while eliding others.¹³

The aphasic who, in all his particularity and partiality, inhabits these texts is necessarily a fragmentary being. That partiality is in important respects a matter of gender: I will argue that the aphasic is conceived as an impaired *man* regardless of the sex of the patient—hence my use of the masculine pronoun to describe him. He is the speechless person seen from a determinate point of view—a viewpoint endowed with the power to ensure its exclusivity: “Every idea originates through equating the un-

¹¹ Gill Edelman and Robert Greenwood, *Jumbly Words, and Rights Where Wrongs Should Be: The Experience of Aphasia from the Inside* (Kibworth: Far Communications, 1992), pp. 83, 98–99, 119. For other firsthand narratives see: David Knox, *Portrait of Aphasia* (Detroit: Wayne State University Press, 1971); Helen Harlan Wulf, *Aphasia, My World Alone* (Detroit: Wayne State University Press, 1979). A more recent collection makes the assumption that the recollections of physicians and neuroscientists who have themselves suffered from some neurological condition are of special value: Narinder Kapur, *Injured Brains of Medical Minds: Views from Within* (Oxford: Oxford University Press, 1997). See pp. 49–116 for firsthand accounts of aphasia. It is notable that these narratives are not allowed to speak for themselves; an editorial “commentary” is appended to each patient’s account.

¹² On the role of narrative construction in medical work see: Kathryn Montgomery Hunter, *Doctor’s Stories: The Narrative Structure of Medical Knowledge* (Princeton: Princeton University Press, 1991). Bruno Latour and Steve Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (Beverly Hills: Sage, 1979) stresses the central importance of documents in the everyday life of modern laboratory science; see especially pp. 52–53.

¹³ On how narrative structures shape medical investigation see: Allan Young, *The Harmony of Illusions: Inventing Post-Traumatic Stress Disorder* (Princeton: Princeton University Press, 1995), pp. 169–70, 190.

8 INTRODUCTION

equal.”¹⁴ These inequalities, if recognized at all, are dismissed as irrelevant to the task in hand. The individual case matters only in so far as it serves to help build “a pyramidal order with castes and grades, to create a new world of laws, privileges, sub-orders, [and] delimitations.”¹⁵

The partiality of a discourse is manifested in its ruling metaphors.¹⁶ Sometimes these metaphors are manifest and clearly distinguished from the nonfigurative parts of a text. Thus when Jean-Baptiste Bouillaud writes of the “great cerebral university, corresponding to this grand university in which are comprised all the sciences, all the arts,” he is making overt use of a rhetorical figure in the context of a more strictly scientific account of the brain couched in more prosaic language.¹⁷

However, such examples give an inadequate impression of the operations of metaphor in scientific texts.¹⁸ Later in the same discourse Bouillaud describes language as one of the most elevated among “the fundamental faculties . . . which by their concurrence, their fraternal association, and, if I may say so, their holy alliance, constitute the complete system, the general body and UNITY [*faisceau général et UN*] of our mind [*entendement*].”¹⁹ In this instance is the use of “faculty” still a metaphoric allusion to the constitution of a university or to be taken as a literal reference to a particular theory of the constitution of mind?²⁰

Close reading reveals that metaphor pervades even the most overtly literal forms of writing; the most powerful metaphors are those no longer recognized as such.²¹ Nietzsche again provides a valuable point of refer-

¹⁴ Friedrich Nietzsche, “On Truth and Falsity in their Ultramodern Sense,” in *The Complete Works of Friedrich Nietzsche*, edited by Oscar Levy, vol. 2 (London: T. N. Foulis, 1911), p. 179.

¹⁵ *Ibid.*

¹⁶ I pass over the various other social processes by which any particular view of reality is established as the basis for a program of research. For some suggestive comments see: Young, *Harmony of Illusions*, pp. 102–3, 121–24.

¹⁷ Jean-Baptiste Bouillaud, “Discussion sur la faculté du langage articulé,” *Bulletin de l'Académie Impériale de Médecine* 30 (1864–65): 575–638, on p. 594.

¹⁸ For extended discussions of the instability of the distinctions between figurative and referential language in scientific texts see: Andrew E. Benjamin, Geoffrey N. Cantor, and John R. R. Christie (eds.), *The Figural and the Literal: Problems of Language in the History of Science and Philosophy, 1630–1800* (Manchester: Manchester University Press, 1987).

¹⁹ Bouillaud, “Discussion,” p. 605. For a general discussion of metaphor in the history of psychology and the neurosciences see: John C. Marshall, “Minds, Machines and Metaphors,” *Social Studies of Science* 7 (1977): 475–488.

²⁰ I forgo the opportunity to tease out the many other interesting features of this passage. What are we, for instance, to make of the phrase “holy alliance,” an apparent allusion to a political configuration from the recent past that was repugnant to Bouillaud’s party?

²¹ Richard Rorty has, for instance, shown how the whole of Western metaphysics rest on a suppressed metaphor, namely, the supposed analogy between knowledge and perception: *Philosophy and the Mirror of Nature* (Oxford: Blackwell, 1980), pp. 159–63.

INTRODUCTION 9

ence. He pointed out how, for instance, the supposed “mechanism” of auditory perception was tacitly figural: “A nerve-stimulus; first transformed into a percept! First metaphor! The percept again copied into a sound! Second metaphor!”²² One of the aims of this book is to draw attention to some of the constitutive but effectively invisible metaphors that permeate discourse about language and the brain.²³

While the construction of the aphasic is primarily of significance as an addition to the burgeoning of a neurological literature in the later nineteenth century, it possesses a wider cultural relevance. It was, in the first place, dependent on the conjunction of events earlier in the nineteenth century that Foucault calls the “Birth of the Clinic.”²⁴ This development produced a material and epistemological machinery that made patients and their pathologies available for novel forms of medical productivity. Hospital patients whose treatment was seen more as a privilege than as a right were, in particular, adapted to these purposes. The literary forms of aphasiology—the case history and the autopsy report—are the typical tools of all hospital medicine.

Because of their peculiar subject matter, however, this literature also possesses unique dimensions. They deal with what came to be known (in a telling phrase) as the diseases of the “higher,” most distinctively *human*, functions of the brain. The aphasiological text therefore also possesses an anthropological import: it constitutes a moment in the emergence of a natural science of man.²⁵ The ability to speak and use language in other ways was of special importance in defining humanity; indeed, the ability to speak was often deemed *the* defining characteristic of man, the character that distinguished him from the mere brute. There was, in particular, a close association between language, thought, and individual liberty. Through language—and above all through speech²⁶—the human essence represented itself to its fellows, to those capable of recognizing such utter-

²² Nietzsche, “On Truth,” p. 178.

²³ It is worth noting in passing that the linguist, Roman Jakobson, used the figure of the metaphor, and of the contrasting trope of metonymy, in his efforts to arrive at a classification of the language deficits characteristic of different forms of aphasia: “Two Aspects of Language and Two Types of Aphasic Disturbance,” in *Selected Writings*, vol. 2 (The Hague: Mouton, 1971), pp. 239–59.

²⁴ Michel Foucault, *The Birth of the Clinic: An Archaeology of Medical Perception*, trans. A. M. Sheridan Smith (New York: Pantheon Books, 1975).

²⁵ I am of course aware of the exclusions involved in the assumption that “man” represented the whole of humanity. On this partiality of vision see: Ornella Moscucci, *The Science of Woman: Gynaecology and Gender in England 1800–1929* (Cambridge: Cambridge University Press, 1990), pp. 31–32. The aphasic is to be considered as a damaged version of this distinctly masculine construct.

²⁶ See the remarks on “phonocentrism” in Jacques Derrida, *Of Grammatology* (Baltimore: Johns Hopkins Press, 1976), pp. 11–12.

10 INTRODUCTION

ances for what they were, tokens of a deliberative and determining person.²⁷ Witness, for example, the importance attached to the right of free speech in liberal democratic systems.

Within this framework the aphasic was a peculiarly portentous being. Because of the impairment of his ability to utter and comprehend words, he attained a liminal status; his human identity was open to question: “Nothing deserves the name of man except what is able to speak.”²⁸ Rather than being a sovereign individual in command of his organs, his body seemed to overpower efforts at self-expression.²⁹ These links between language, humanity, and mental presence do much to explain the fascination of the aphasiological project.

The aphasic was portentous not only, however, on account of the nature of his impairment but also because of what he revealed about the conditions for the healthy exercise of man’s defining characteristic. The literature of aphasia established an intimacy and dependence between what had been regarded as a uniquely spiritual faculty and man’s corporeal part. Aphasia showed that language possessed a bodily organ—or, perhaps more to the point, that a material organ possessed *it*. Language was, in other words, endowed with the status of a function; it was part of the proper domain of biological science.

The discovery of aphasia thus formed part of a larger movement, one in which “Man’s finitude is heralded.”³⁰ The nineteenth century was an epoch when what had been formerly deemed transcendent faculties of perception and cognition were found to have anatomico-physiological conditions; the positive contents of biological sciences demonstrated the necessary limitations of human knowledge.³¹ The case of aphasia revealed that

²⁷ A contemporary statement of this vision of the centrality of language and of the profound and far-reaching consequences for the individual when it is damaged is found in the definition provided by the American National Institute on Deafness and Other Communication Disorders: “Language is the expression of human communication through which knowledge, belief and behavior can be experienced, explained and shared. The ability to manipulate language to satisfy needs and desires and to express thoughts, observations and values is an important human pursuit that directly influences the quality of life for any individual. Language impairments impede social development, academic performance, employment opportunities and economic self-sufficiency.” <http://www.nih.gov/nidcd/language.htm>

²⁸ Max Müller, “Lectures on Mr Darwin’s Philosophy of Language. Second Lecture,” *Fraser’s Magazine* 7 (1873): 659–78, on pp. 666–67.

²⁹ See the suggestive comments in: Derek Attridge, *Peculiar Language: Literature as Difference from the Renaissance to James Joyce* (London: Methuen, 1988), pp. 160–62.

³⁰ Michel Foucault, *The Order of Things: An Archaeology of the Human Sciences* (London: Routledge, 1974), p. 313.

³¹ On the corporealization of vision during this period see: Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, Mass.: MIT Press, 1990), especially pp. 70–71, 79–81.

INTRODUCTION 11

there was a *nature* to language, a faculty previously associated with the immaterial part of man abutting on a supernal realm.

The existence of a bodily mechanism for the execution of linguistic performances had, of course, been recognized long before. What changed in the nineteenth century was that such structures as the tongue and larynx were now revealed as strictly secondary, surface organs. The primary organs of language resided in the uncharted territories of the brain. There was, in short, a secret to language that only a particular medical-scientific endeavor could unravel. The aphasiological project was the self-conscious response to this novel problematic.

Alluding in *The Order of Things* to some of the products of this enterprise, Michel Foucault drew a distinction between this biological assault upon the seat of language and the linguistic studies proper to the “human sciences” that had commenced about the same time. He insisted that

the anatomy of the cortical centres of language, cannot in any way be considered as sciences of man. This is because the object of those sciences is never posited in the mode of being of a biological function . . . ; it is rather its reverse, or the hollow it would leave; it begins at the point, not where the action or the effects stop, but where that function’s own being stops—at that point where representations are set free . . . ; research into the intracortical connections between the different centres of linguistic integration (auditive, visual, motor) is not the province of the human sciences.³²

Foucault here indicates the conventional distinction between the social and the biological sciences. Man is a proper object of study in both fields; but while the latter delineate his material nature, the former are concerned with his cultural activity. In the one man is a passive object shaped by forces undetermined by the array of representations available to him; in the other he is an active agent who, within limits, makes his own destiny.

The discovery of the aphasic had, however, implications that threaten to overwhelm this agreeable division of labour. Aphasiology shows that the most basic of man’s representational powers—the ability to form concepts and to employ words—is rooted in his material nature. All dichotomies between the cultural and the biological are therefore at most provisional or tendentious. The chapter in the history of science with which this book deals thus constitutes an episode of some moment in the emergence of a comprehensive scientific naturalism. The demonstration that language too was a function of man’s animal part brought it within the domain of the natural sciences; it was no longer the sole preserve of *Geisteswissenschaft*.³³

³² Foucault, *Order*, p. 352.

³³ This encroachment of natural science on the territory of the humanities provoked particular resistance in Germany; the issue came to a head in a 1874 debate on aphasia at the

12 INTRODUCTION

The Historiography of Aphasia

The writing of the history of aphasia began at virtually the same time as the invention of the concept. A number of interconnected threads can be distinguished within this literature. There was, on the one hand, a paradoxical attempt to deny the historicity of the condition. Because the aphasic was deemed to be a natural object he should occur in all periods and in all cultures—wherever man existed as a language user. Thus old texts were scoured for instances of aphasia before the name: this quest of course encompassed medical texts, beginning with the works of Hippocrates and extending to more recent sources such as the writings of William Cullen, the two Franks, and Phillipe Pinel. All of these writers had, it was claimed, recorded conditions which could in retrospect be identified as of aphasia.

More obscure authors could also yield similar anticipations. In a 1950 article Wladimir Eliasberg questioned Walther Riese's claim that after 1861 "the problems involved in aphasia appeared in their totality with almost explosive suddenness."³⁴ Eliasberg cited an eighteenth-century account of a case of language loss to show that these issues had been aired at an earlier date. He had no doubt that the disorder in question had been one "which we today would describe as a combination of subcortical motor aphasia with conduction aphasia." The contemporary attempts to explain the case were, however, inadequate because "Those early psychologists relied on too few, too casual, and too superficial observations."³⁵

The search was, moreover, not confined to medical works; a much wider range of sources, including the Bible and classical texts, were also mined to provide further instances of the presence throughout time of the imperfectly recognized aphasic. William A. Hammond claimed that "The fact that the faculty of speech may be deranged independently either of the will, paralysis, or loss of voice, appears to have been noticed at a very early period in the progress of science." He proceeded to corroborate the point by citing a miscellaneous collection of texts—beginning with the Book of Isaiah.³⁶

Berlin Anthropological Society. See: Michael Hagner, "Aspects of Brain Localization in Late XIXth Century Germany," in Claude Debru, *Essays in the History of the Physiological Sciences*, *Clio Medica* 33 (Amsterdam: 1995), pp. 73–88; idem, *Homo Cerebralis: Der Wandel vom Seelenorgan zum Gehirn* (Berlin: Berlin Verlag, 1997), pp. 279–93.

³⁴ W. G. Eliasberg, "A Contribution to the Prehistory of Aphasia," *Journal of the History of Medicine* 5 (1950): 96–101, p. 96.

³⁵ Ibid., pp. 99, 100.

³⁶ William A. Hammond, *A Treatise on the Diseases of the Nervous System*, 8th ed., (New York: D. Appleton, 1886), p. 183.

INTRODUCTION 13

Another thread in the historiography of aphasia was more rigorous and more purposeful than this species of antiquarianism. While it did not deny the natural status of the aphasic, this tradition shifted the emphasis to establishing which authors had first adequately represented the existence of this entity. The point of the history now became to determine what *credit* belonged to the various individuals who had contributed to the emergent discourse of aphasia.

This variety of historiography tended to a more saltatory—almost catastrophic—view of the relation between past and present. Speaking at a meeting of the Académie Impériale de Médecine in 1865, Armand Trousseau poured scorn on those who scoured old case histories for instances of what might now be called aphasia, but at the time had been described as “*alalia*,” or dumbness. He declared that “*Sauvages* [and] *Cullen* have written the most deplorable things about *alalia*. Monstrous clinical and physiological errors occur.” Likewise, although the “*erudite*” Joseph Frank had described many cases of *alalia* he had not distinguished any facts that were pathognomonic of aphasia; it was clear that “he had not known how to make the distinction.”³⁷

In the clinical lectures he delivered at the Hôtel-Dieu of Paris, Trousseau was more specific about what constituted the inadequacy of premodern observations of speech loss: they failed to address the crucial question of the cerebral localization of the linguistic faculties.³⁸ This was a task reserved for the moderns. He then turned to the task of specifying the particular achievements of those individuals who had—or were alleged to have—contributed in one way or another to seminal investigations in the field of language and the brain.

During the early days of the discourse these discussions tended to revolve around relatively few names. There was much dispute about whether Franz Josef Gall, the originator of the doctrine that each psychological faculty possessed its special organ in the cerebrum,³⁹ should be accorded a place in the genealogy of modern notions of the subject on the grounds of his identification of a “*seat*” for the faculty of language in the anterior portions of the brain. The general view was that although Gall was eventually proved to be correct, this was something of a lucky guess; he was right for the wrong reasons. Jean-Baptiste Bouillaud’s contribution (see chapter 1) was somewhat less difficult to acknowledge and evaluate. He was an avowed follower of Gall; but while his master had based his localization

³⁷ A. Trousseau, “*Sur la faculté du langage articulé*,” *Bulletin de l’Académie Impériale de Médecine* 30 (1864–65): 659–675, on pp. 660–661.

³⁸ A. Trousseau, *Clinique médicale de l’Hôtel-Dieu de Paris* (Paris: Baillière, 1865), p. 593.

³⁹ On Gall’s “*organology*” see: Edwin Clarke and L. S. Jacyna, *Nineteenth-Century Origins of Neuroscientific Concepts* (Berkeley: University of California Press, 1987), pp. 220–44.

14 INTRODUCTION

upon spurious anecdotal evidence, Bouillaud proceeded upon the sound principles of the clinico-pathological method.

But by far the most important issue addressed in these debates was the significance to be assigned to the contributions made by Paul Broca in the 1860s to a scientific understanding of the relations between the faculty of articulate language and certain portions of the cerebral hemispheres. Broca's place in the genealogy of aphasia was for a time controversial: the originality of his observations was in particular challenged by Dax *père* and *fils*.⁴⁰ By c.1870, however, Broca had attained a secure status within the historiography of aphasia studies. Indeed it was generally conceded that his work *inaugurated* the modern era in the understanding of the relations between language and the brain. Broca thus acquired the status of the founding father of true aphasia studies. There was clearly a felt need for some such paternal presence in this as in other branches of science.

Bouillaud already adumbrated this view in 1865 when he wrote of the dawn of a "new era" in the aftermath of Broca's conversion to the doctrine of the localization of the faculty of language in the brain.⁴¹ But Bouillaud maintained that Broca's efforts were part of a larger "movement" in medicine rather than as merely the achievement of an individual. He was especially anxious to uphold his own claims and those of his son-in-law Simon Alexandre Ernest Auburtin to have contributed as least as much to the localizationist enterprise. The secular tendency was, however, to demote Bouillaud and his like to the status of precursors who had approximated to an insight that Broca alone had fully attained.

Thus in an 1884 discussion of researches and speculations on language and the brain, Charles Féré insisted, after reviewing various of these precursors, that:

It is Broca (1861) who first conjoined a good clinical observation to a proper autopsy; it is he who first related the loss of articulate language, motor aphasia precisely defined, to a lesion accurately localized in a defined area of the cerebral cortex, in the posterior part of the third frontal convolution. . . . No doubt one can go back to Hippocrates . . . [for] the first observation of impaired language; but it is not enough to observe, it is necessary to comprehend.

⁴⁰ This particular contest has received a good deal of attention. See: Francis Schiller, *Paul Broca: Founder of French Anthropology, Explorer of the Brain* (Berkeley: University of California Press, 1979), pp. 193–97; Daniel Roe and Stanley Finger, "Gustave Dax and his Fight for Recognition: An Overlooked Chapter in the Early History of Cerebral Dominance," *Journal of the History of the Neurosciences*, 1996, 5: 228–40.

⁴¹ Jean-Baptiste Bouillaud, "Sur la faculté du langage articulé," *Bulletin de l'Académie Impériale de Médecine* 30 (1864–65): 584.

INTRODUCTION 15

In other words, Broca's contribution was valid because it conformed to what was deemed the correct literary form. To reinforce the point Féré drew an analogy between aphasia and hysteria. If "two centuries ago a magistrate's clerk described the contortions of a convulsive, which we today recognise as the classic episodes of an hysterical seizure, are we to say that he understood and described hystero-epilepsy?"⁴² Before an affliction could be given its right name, the conditions for its understanding and representation had first to exist.

Some years earlier Carl Wernicke had made much the same point more succinctly. In the preamble to his own classic aphasiological text Wernicke announced that

I shall pass over the host of older works regarding this problem . . . and shall turn immediately to Broca. This author was first to reject broad, indefinite expanses of the cortex as sites of speech areas and instead ventured to designate a very circumscribed, anatomically-specific region as the seat of this function.⁴³

Here the particularity of Broca's achievement is specified more closely; it lay in the fact that he provided localization of a certain kind: one that conformed to Wernicke's standards of scientific precision.

By the end of the nineteenth century Broca's once controversial writings on the seat of language had attained a monumental standing. They constituted an originating text for the discourse of aphasia. This near sacred status goes far to explain why Pierre Marie's attack early in the twentieth century upon what had become Broca's dogma was deemed so shocking a piece of iconoclasm (see chapter 6).

Broca therefore possessed a unique status in the history of aphasia; he stood as a patriarchal figure who had engendered all the writing on the subject that followed. With time, however, other towering individuals emerged whose contribution to the development of the discourse was deemed almost as significant. When in 1888 M. Allen Starr attempted to

⁴² Charles Féré, "Des troubles de l'usage des signes," *Revue philosophique* 17 (1884): 593–606, on pp. 595–596. For a similar vindication of Broca's claims against the pretensions of others (including Bouillaud) see: Désiré Bernard, *De l'aphasie et de ses diverses formes* (Paris: Lecrosnier et Babé, 1889), pp. 8–9. Féré's analogy between aphasia and the emergence of a scientific understanding of the symptoms of hysteria had extensive implications. For the cultural and political import of hysteria studies in late nineteenth-century France see: Jan Goldstein, *Console and Classify: The French Psychiatric Profession in the Nineteenth Century* (Cambridge: Cambridge University Press, 1987), pp. 371–74.

⁴³ Carl Wernicke, "The Aphasia Symptom Complex: A Psychological Study on an Anatomical Basis," in Gertrude H. Eggert (ed.), *Wernicke's Works on Aphasia: A Sourcebook and Review* (The Hague: Mouton, 1977), p. 100.

16 INTRODUCTION

identify the most important moments in the growth of knowledge “regarding disturbances of speech and their important bearing upon the theory of localization of cerebral functions,” he concluded that “There have been three epochs in the history of aphasia, each of which has been marked by a decided advance in knowledge.”⁴⁴

The first of these epochs was “*the Epoch of Broca*,” which extended from 1864 to 1874. During this period “the claim of Broca that lesions of the posterior portion of the third frontal convolution on the left side produce a loss of speech was established upon an impregnable basis.” In the second epoch—“*the epoch of Wernicke*, from 1874 to 1883”—the distinction between motor and sensory aphasia was recognized. This brought Starr to the third and current epoch in aphasia studies—*the epoch of* [Jean-Martin] *Charcot*—who, “with his sharp clinical insight and masterly power of analysis saw that further distinctions were possible.”⁴⁵ Progress is here equated with the making of ever finer distinctions, a view of the point of aphasiological work that was quite typical (see chapter 3).

The last of Starr’s epochs is more controversial than the other two: there would be some dispute as to whether Charcot’s contribution was of such magnitude as to merit an eponymous era. However, the general features of his organization of aphasiological time are typical of what might be characterized as “textbook” history. Apart from an emphasis upon the crucial contributions made by outstanding individuals, the most salient feature of such history is its insistence on the cumulative, progressive nature of the growth of knowledge. Each giant stands on the shoulders of his predecessor in order to build an ever more imposing edifice.

Around 1900 some challenges to this optimistic, relatively uncomplicated narrative began to appear; aphasia studies reflected the widespread questioning of nineteenth-century certainties that occurred at the *fin de siècle*. Revisionist readings emerged in which the path to truth seemed more tortuous than had previously seemed the case; as well as heroes the story of aphasia studies, moreover, was now seen to have its villains who retarded rather than advanced knowledge. Truth might eventually win out but often it had first to triumph over much adversity.

Henry Head began his 1920 review of the aphasiological literature with an apparent endorsement of the metaphors of organic growth and the triumphalist tone that had dominated previous accounts. “The evolution of knowledge of cerebral localization,” he declared, “is one of the most astonishing stories in the history of medicine.”⁴⁶ Head went on to review

⁴⁴ M. Allen Starr, “Discussion of Cerebral Localization: Aphasia,” *Transactions of the Congress of American Physicians and Surgeons* (New Haven: The Congress, 1889), p. 330.

⁴⁵ *Ibid.*

⁴⁶ Henry Head, “Aphasia: An Historical Review,” *Brain* 43 (1920): 390–411, on p. 390.

INTRODUCTION 17

the role of Gall, Bouillaud, and Broca in this story in a more or less conventional fashion. He then described the spread of interest in the question of aphasia to Britain, introducing a new character, John Hughlings Jackson, who debated the issue with Broca at the 1868 meeting of the British Association for the Advancement of Science. This early mention signalled Head's intention to repair the unfair neglect that Jackson's contributions to aphasiology had suffered in previous histories.

At this point Head's account began to diverge from the received version in more significant ways. Subsequent investigators, he charged, "took no care to emulate the clinical acumen of Broca or the psychological insight of Hughlings Jackson." Instead such aphasiologists as H. Charlton Bastian had proceeded along lines so ill-advised that they exerted an "evil influence on the subsequent course of the discussion." Bastian and his like were guilty of preferring facile procedures which led to error to the "difficulties and complexities" of Jackson's approach.⁴⁷

The details of Head's attack on classical aphasiology are considered elsewhere in this book.⁴⁸ Here I wish only to point out how Head's work exemplifies a tendency in twentieth-century aphasia studies to use history as a polemical tool in the furtherance of various disciplinary programs. The controversy between so-called holist and localizationist neurologists has, in particular, involved tendentious readings of canonical aphasiological texts.

Thus in an 1960 paper Walther Riese also embraced Jackson as a prophet of sound aphasiological principles—although he observed that "Jackson himself did not grasp the full scope of his own observations."⁴⁹ Riese's aim was to illustrate the need for a more patient-centered, biographical approach to neurological disease especially when impairment of the higher, most distinctively human functions, was involved. Classic aphasiology's emphasis upon diagnosis rather than prognosis and therapy, and on anatomical localization rather than detailed patient history was a deviation from the proper concerns of clinical medicine. "Holist" neurologists, including Jackson, but more particularly continentals like Constantin von Monakow and Kurt Goldstein, had provided a necessary corrective to this unfortunate tendency.

Four years later Norman Geschwind described this version of events as "what to a very great extent has become the 'standard' history of aphasia." Geschwind called for a new revisionism. He had himself subscribed to this

⁴⁷ Ibid., p. 396.

⁴⁸ Head considerably expanded his history of the discipline in a later monograph: *Aphasia and Kindred Disorders of Speech*, 2 vols. (Cambridge: Cambridge University Press, 1926), vol. 1, pp. 1–141.

⁴⁹ Walther Riese, "Dynamics in Brain Lesions," in *Selected Papers on the History of Aphasia* (Amsterdam: Swets, 1977), pp. 70–85.

18 INTRODUCTION

account but had come to see it as outrageously unfair to “people who had left their mark so indelibly in many areas of neurology.” Geschwind found it impossible to believe that such figures as Wernicke, Bastian, and Charcot “could apparently have shown what was asserted to be the sheerest naivete and incompetence in the area of the higher functions.”⁵⁰ It is noteworthy that whereas Riese was concerned at the historical neglect of the patient, Geschwind felt impelled to remedy injustices to the reputations of the great men of his profession.

Geschwind did not seek to denigrate the reputations of the neurologists on the “other,” holistic side of the dichotomy posited by the standard history of aphasia. Goldstein too was a “great figure.” What he did attempt was to minimize the differences between the localizationist and the holist schools—in effect to reinstate a version of the old view of the history of aphasia studies as a continuous process of gradual evolution.

One technique he adapted to this end was to subject one text—Goldstein’s *Language and Language Disturbances*—to a close reading to show the inadequacy of the received notion of this author’s work. This exercise revealed that if one ventured beyond the introductory theoretical section of the book to the more technical sections that followed, then it emerged that Goldstein was, in fact, “highly classical” in many of his statements on the representation of function in the cortex. Despite his avowed break with classical views on aphasia, Geschwind was able to quote passages which appeared to endorse views that “could have been written by the staunchest of classicists.”⁵¹ Such evident discrepancies raised the question, “Which is the real Kurt Goldstein?”⁵²

Geschwind maintained that it *was* possible to discern the outlines of a “real” Goldstein lurking behind the cruces of the text. This assumption draws attention to some of the interpretative issues with which this book is concerned. Approaching a text in the expectation of finding an authorial essence is at best a highly problematic exercise. There will be much meaning in a text which is irreducible to any notion of authorial intent. That meaning is, moreover, never passively received but always actively constructed in acts of reading. The character, interests, and intentions of an author are always open to negotiation. The issue of these negotiations is identity.

The historiography of aphasia illustrates the divergent interpretations that this unfolding episode in the history of science and medicine has

⁵⁰ Norman Geschwind, “The Paradoxical Position of Kurt Goldstein in the History of Aphasia,” in *Selected Papers on Language and the Brain* (Dordrecht: Reidel, 1974), pp. 62–72, on pp. 62–63.

⁵¹ *Ibid.*, pp. 67–68.

⁵² *Ibid.*, p. 69.

INTRODUCTION 19

received. These various readings can be glossed in several ways. They can be seen as the expression of personal, disciplinary, regional, sectarian, or national interests; or as imbued with the notions of class and gender endemic in the cultures in which they were written. These readings also show how the history of aphasia has served as a space for the exposition of differing conceptions of the nature of medical science and of its relation to medical practice.

Humanistic notions that stress the need to preserve and respect the personality of a patient who has to some degree lost what is deemed a definitive human characteristic have conflicted with scientific notions that seek to elide the individuality of any given case in the pursuit of universal natural laws. These competing ideals are not mutually exclusive; at certain moments in the dialectic they are, indeed, shown to be simply differences of emphasis or as different aspects of the same moral order.

In either case the moral order pertains to the profession charged with the study and management of those afflicted with aphasia. The speechless man or woman is fixed in a medical gaze whatever modulation of ethical rhetoric obtains at a given time or place. The persistent asymmetry in the power to produce narratives and representations is a more fundamental dichotomy in the literature of aphasia. It is, moreover, important to recognize this asymmetry as a *condition* of the science of aphasiology.⁵³ The corollary of the power exerted by the discourse over the voiceless patient is the empowerment of a community of practitioners made capable of generating a vast literature on the relations of language and the brain.⁵⁴

My own readings of these texts have been informed by a number of interpretative resources. I depend heavily on Friedrich Nietzsche's notion of the inescapability of metaphor. My reliance on Michel Foucault's char-

⁵³ A perceptive rendition of this dichotomy is found in Pat Barker's novel *The Eye in the Door* (London: Penguin, 1994), p. 146: "[Rivers] watched Head's expression as he looked at Lucas's shaved scalp, and realized it differed hardly at all from his expression that morning as he'd bent over the cadaver. For the moment, Lucas had become simply a technical problem. Then Lucas looked up from his task, and instantly Head's face flashed open in his transforming smile. A murmur of encouragement, and Lucas returned to his drawing. Head's face, looking at the ridged purple scar on the shaved head, again became remote, withdrawn. His empathy, his strong sense of the humanity he shared with his patients, was again suspended. A necessary suspension, without which the practice of medical research, and indeed of medicine itself, would hardly be possible, but none the less identifiably the same suspension the soldier must achieve in order to kill."

⁵⁴ Corfield notes: "that language works through domination is open to challenge. Linguistic communication may equally encompass cooperation, convergence, and community." "Introduction," p. 24. Language can, however, function in *both* these modes depending on an individual's, or a category of individuals, situation within a discourse. See also Mario Biagioli's discussion of the role of discrete linguistic codes in the establishment of coherent and viable scientific communities: *Galileo, Courtier: The Practice of Science in the Culture of Absolutism* (Chicago: University of Chicago Press, 1993), pp. 241–44.

20 INTRODUCTION

acterization of the power/knowledge nexus should also be apparent; it is indeed central to my account of the discourse of aphasia. I also owe a more general debt to such sociologically aware historians of science as Steven Shapin and Simon Schaffer. Their emphasis upon the rhetorical aspects of scientific writing and on the artifice involved in the demonstration of natural facts is reflected throughout this book. A rich body of literature in both art history and the sociology of science has guided my discussion of nonverbal representation in aphasia studies. Finally, *Lost Words* should be seen in the context of the recent tendency in the history of medicine, of which Roy Porter has been perhaps the foremost exponent, to seek to reinstate the patient's point of view—even if in the present instance this is chiefly a matter of articulating the ways in which the patient's point of view is *absent* from a body of medical literature.

Chapter 1 explores the emergence of the genre of the aphasiological case history. It contrasts two accounts of speech loss from the first half of the nineteenth century, both of which were written by medical men. The differences between the one that was to become canonical and the other that was relegated to a marginal status in the literature illustrate both what was definitive and what was systematically excluded from subsequent writing on aphasia.

While Lordat's and Bouillaud's "contributions" belong to the prehistory of aphasiology, chapter 2 deals with what is generally regarded as the originating moment of the enterprise proper: the 1861 debate at the Société d'Anthropologie at which Paul Broca first associated the faculty of articulate speech with the third frontal convolution of the brain. Through a study of this polyvocal text I seek to show some of the cultural ramifications of this discovery of the organic seat of language.

Chapter 3 treats the multiplicity of writing on aphasia in the period after 1861 as a single text with a collective authorship. These various contributions are seen as the surviving traces of the labour process that the discovery of a determinate relationship between language and the brain engendered. The chapter seeks in particular to identify the conditions that ensured the coherence and viability of this enterprise. As well as its literary aspects, the visual forms of representation employed in classical aphasiology are considered.

In contrast, chapters 4 and 5 deal with the writing on aphasia of two individuals, both of whom are usually regarded as somewhat at odds with the dominant tendency of aphasia studies. In the received history of the field John Hughlings Jackson figures as a neglected innovator whose efforts were unjustly neglected by contemporaries; their significance only became apparent in retrospect. What was said to distinguish Jackson's contribution to the field was his insistence on the need to consider the *psychological* aspects of aphasic disorders. Jackson attempted to give an

INTRODUCTION 21

account of the inner world of the aphasic: a narrative that was structured by assumptions about the dynamics of the mind fundamental to Western philosophy.

Henry Head's writings on aphasia make a natural complement to those of Jackson. It was largely due to Head's proselytizing that interest in Jackson's work was revived. Chapter 5 attempts to combine a more conventional approach to its protagonist with a close and critical reading of texts. Head saw his own contribution to aphasia studies as a continuation of Jackson's psychological approach to the subject. He maintained that the special circumstances surrounding his researches facilitated this endeavor. Head maintained that aphasias generated by wounds to the brain suffered by war casualties were especially instructive. Wounded *officers* were of particular heuristic value. Chapter 5 discusses the peculiar characteristics of the case histories that Head produced through his interactions with this class of patient. The chapter also considers the material and social technologies Head devised to produce serviceable three-dimensional representations of the inaccessible brains of these aphasics.

Chapter 6 also deals with writing that dissented from the orthodoxies of classic aphasiology. It analyzes well-known texts by Sigmund Freud and Pierre Marie that pay special attention to the use of metaphor, rhetorical strategies, and deployment of narrative devices with the aim of undermining some of the certainties of the discourse of aphasia. The account of Henri Bergson's discussion of aphasia reprises some of the themes of chapter 2; it shows how at the end of the nineteenth century the theme of language and the brain still possessed implications that transcended the domains of medicine and natural science narrowly conceived.

The seventh chapter deals with what amounts to a rather anomalous appendix to the aphasia literature. Reading the mass of these case histories one is struck by their emphasis upon diagnosis and classification; therapy scarcely merits a mention. By the 1880s, however, there was a burgeoning discussion of how the aphasic might through medical intervention be helped to recover at least part of his lost capacity. This discussion received a renewed impetus in the aftermath of the First World War when the medical profession, and society in general, was confronted with the problem of how to rehabilitate large numbers of soldiers who had suffered head wounds. The most dramatic remedy was direct surgical intervention. However, treatment usually took the form of speech therapy which often extended over considerable periods of time. Texts describing these regimes provide a view of both patient and practitioner that differs in important respects from that inscribed in the main body of the aphasia canon. By means of ingenious techniques the aphasic is made to utter new truths about his condition; but at the same time the doctor reveals previously unknown sides to his nature.