In his 1784 essay “An Answer to the Question: What Is Enlightenment?” Immanuel Kant argued that enlightenment depended on a literate public and the ability of authors to write freely in that public, namely through the medium of print. He tied the emergence of this newly literate public to the rise of the Enlightenment, arguing that one could not have occurred without the other. This public was dependent on a steady stream of uniform ideas in the form of books and papers which could be critically read, discussed, and acted upon (Kant 1996). For Kant and many others since, print and an enlightened public constituted each other.

Print, with its strong visual bias, was indeed a leading factor in shaping the Enlightenment on many levels. The flow of printed materials from the presses increased exponentially during the Enlightenment. The changes this wrought are often overshadowed by the even more impressive growth of print culture in the nineteenth century, which dwarfed Enlightenment print production in much the same way as Enlightenment print production dwarfed that of the
preceding two centuries. The Enlightenment changes are nonetheless important, for it is in the mid-eighteenth century that the point of inflection on the curve of production is to be found, marking a moment of what David Hackett Fischer calls "deep change" (Fischer 1999: xv). In this case, the inflection point signals the beginning of the move toward mass print culture, toward a market so saturated with print that it affected even those who did not read. The Enlightenment-era emergence of mass print culture is in itself sufficient to warrant increased attention, but there are other reasons too, especially once the senses are taken into consideration.

Combining Kant’s definition of enlightenment as residing in a literate print-based public with a sensory understanding of print media helps us understand the role of the senses in the Enlightenment; such a perspective clarifies as well as complicates our understanding of how media worked in the process. Taking in massive amounts of information through the eyes (as in reading) probably did something to the ways Europeans and their colonist kin quite literally made sense of their worlds.¹ When scholars consider sense perception at all, it is

usually through vision alone, its dominance germinating in classical times to fully bloom in the Enlightenment (Jay 1993: 1–106). Another strand of thought has treated the printing press as an agent of change and attributed to it a massive societal shift in politics, religion, science, and the arts. Yet with the important exception of Marshall McLuhan’s idiosyncratic work, print’s ersatz agency or lack thereof has been debated with little or no reference to the senses (Eisenstein 1979; Johns 1998; McLuhan 1964, 2012). Print was no doubt a generative medium, though attributing agency to it moves us too far in the direction of technological determinism. Its possibilities were unraveled slowly, over the course of centuries (rather than through the oft-proclaimed print revolution). As a result of this gradual unfolding, some of the most telling consequences of accelerating literacy rates and better access to printed goods emerge only in the Enlightenment rather than during the first two centuries of print.

Historical evidence tempers claims of vision’s outright conquest of the senses. The other senses never go out of play, and when we begin to listen, touch, smell, and taste the past as well as look for it, a much more nuanced understanding of Enlightenment sensory milieus emerges, one in which all the senses both shape and are shaped by the various media of the eighteenth century (Classen 2012; Erlmann 2010; Schmidt 2000). When considering media, the most profound shifts can be seen in the ways that people worked sonic and visual media together to constitute complex communication networks in the eighteenth century. Sermons, reading aloud, tavern talk, town criers, gossip networks, emerging distribution networks of capitalist markets: all of these have important sensory elements beyond the visual which complicate and enrich our understanding of Enlightenment media as a society-wide phenomenon rather than a decontextualized, abstract vision based solely on print (Slaughter 1982).

In order to make sense (again, quite literally) of media in the Enlightenment, we need to consider media as process—mediation—as much as thing, attending carefully to how mediation shifted and flowed in time. Consider the etymology of the word “media”: in the original Latin, it means roughly “the ways between.” “Ways” always imply process and the passage of time. Remove the temporal and the passage becomes, of course, immediate. What, then, are these ways between? They allow the passage of thoughts, ideas, commands—in short, what we now call information—from the relational self or selves of their origin to one or many other such selves.

This invocation of relational selves is important for two reasons. First, they are not individualistic constructions. Relational selves are the paragon of social construction: each one is always in relation to other selves, with this web of
relations constituting each. At the same time, relational selves sidestep the problem of scholars who reify the social as an unchanging thing in the same way the individualists do with the individual. The web of relations for each self will be different, but in order for it to work, some of the construction of self must align with how at least some others construct themselves for the possibility of communication to exist. The idea of the relational self is central to unpacking the Enlightenment sensorium and making sense of the rise of individualism.

Second, the senses play a key role in the construction of the relational self and by implication, to the construction of media, to the point that mediation can be thought of as having an internal or representational element—the senses that get extended and numbed to define a particular medium—and an external communicative element, the usual domain of the term “media.” The communicative aspects of mediation are thus entirely external to the senses and the self, but reachable by no other means and therefore vitally connected to the sensory realm.

The senses are thus integral to our understanding of media and mediation, so it pays to attend not only to their historical and cultural construction but to their physical limits as well. Anyone who has ever jumped at a sudden sound while deeply engrossed in the visual realm of reading knows the limits of sensory attention intuitively. The senses act as filters as much as they do conduits, and the amount of sense data that can be “made sense of” at any one time is limited. This makes ratios between the different senses—which are central to McLuhan’s argument that print played a central role in bringing about the Enlightenment—a zero-sum game. Using this common-sense notion of sensory attention it becomes easy to see how taking in ever-increasing amounts of information through the eyes would numb the other senses, particularly hearing.

While there probably is some validity to such sweeping statements that quantify the senses in a hierarchy, it is very difficult to get past anything more exact than “more or less” in describing changes in sensory ratios. A more productive approach is to return to our idea of ways and the process of mediation. Asking in what ways seeing and hearing shifted along with the great shifts in media during the Enlightenment yields more useful results than trying to quantify and order the importance of individual senses, implicitly or explicitly.

The approach taken here will be to focus on mediation and ways that the senses shifted, not only vision, but the other senses as well (hearing in particular). This chapter develops a complex relationship between the senses and the Enlightenment as that relationship shifted in the late seventeenth and
early eighteenth centuries. That shift was intimately tied to the concurrent rise of cheap print, and the pressure exerted by the reading public—the enlightened public sphere—that led to the experiments with new kinds of government that marked either the culmination or the end of the Enlightenment.

While print made reading—consumption—cheaper, production required a press, which was a significant investment. Literacy became more common than the ability to write. By the beginning of the Enlightenment, vast media and commodity circuits emerged with complex mechanisms of feedback and feed-forward that shaped what was written, sold, and read in ways that saturated Western society in the eighteenth century. This mass print culture transformed publication from its older meaning of “to make something public,” which could be done through reading a manuscript aloud or by means of a town crier, into its Enlightenment meaning, which defaulted to “making public by means of print.”

One approach to mass print culture would conceive of it as a chain, beginning with the author as creator staring silently at John Locke’s blank slate proceeding through print and publication, and ending under the silent gaze of the reader. The conception of this process as silent and serial is itself perhaps the product of the internalization of literacy with its inexorable visual march from left to right and down the page (at least in the Latin script used in the Enlightenment). If we attend to other sensorial modalities, particularly hearing, the line gets complicated and becomes a circle or something more rhizomatic (Deleuze and Guattari 2004: 3–28), a circuit or more specifically for present purposes, a network of different but related media circuits.³

Applying this idea of a network of media circuits, this chapter follows the trail of print from authorship through the printing and distribution processes, to reading and then back to authorship. Along the way, it will consider all the senses in relation to the print circuit as well as other media circuits like oral communication, material culture, sermons, bells, and more.

THE AUTHORITY OF AUTHORS

Prior to print, publication depended on many people reading a single copy or hearing the same utterance made publicly. This was in fact the earlier meaning of “publication” and even written publications were announced vocally with the cry of “oyez oyez.” In fact, town criers were able to remain gainfully employed as publishers throughout the eighteenth century. Announcements made via bells took on new roles combined with print. Sermons and manuscripts remained a first line of publication. In places like France, where the state tightly
controlled print, the older methods of publication remained particularly important (Darnton 2000).

Sermons were of course read aloud, and (less obviously to a visually-oriented reader) already published in the older audible sense when they were spoken at the pulpit. Before reaching print, they might have circulated through hearsay or the sermon notes taken by an audience member, though the latter was probably more often for personal use and to bolster memory when discussing it. The point is that sermons had complex multimedia and multisensory lives prior to—and after—reaching print. Publication was a heard as well as seen phenomenon. Authors, whether of sermons or other titles, wrote not on a blank slate but from within a rich sensory and social context.

Authorship, that seemingly lonely and silent process, was often socially connected once we begin to listen to as well as visualize it. Consider the case of John Gyles, a nine-year-old Puritan boy who was captured late in 1689 and began eight years in captivity, first to the Micmac Indians, and toward the end, to the French. After his release, he parleyed his experience and new linguistic skills into a distinguished career as a translator, transforming the sounds of Algonquian languages into those of English and back. Apparently he was asked to tell the story of his captivity frequently, for his second wife, Hannah, asked him to set it to paper for posterity. Although Gyles was literate, his writing was limited to a signed paragraph at the end of the resulting manuscript that affirmed the truth of his story. The rest is in another hand (Gyles 1730). Perhaps one of his sons carefully wrote as his father spoke. Before it ever saw print publication, Gyles’ narrative circulated out loud, and the process of creating the manuscript was in part a verbal one, not a voiceless scratching of words on the page.

Traces of Gyles’ vocal delivery flavor the manuscript. It reads better aloud than silently, as if that were its purpose, not just its origin. Sentences run on indefinitely. Punctuation is minimal. Paragraphs are marked with infrequent hash marks hurriedly thrown down in the middle of a line so as not to miss the next spoken word. Snippets of other people’s vocalizations—whether in the form of Algonquian language quotations, neighbors’ dying sounds, or cries of alarm—are seamlessly woven in with no quotation marks to offset the voice of the narrator from the voice of other denizens of the story. Of course the narrator’s tone functioned to do this in the telling, but that was lost in the dictation other than by inference or reading the resulting manuscript aloud to interpretively reconstitute it. It had no chapter breaks. The story flows out all at once, with tangents and repetitions.

Striking references to non-linguistic sounds pepper the manuscript, so that sound shaped not only the medium but the message. The boy’s ordeal began
around a series of sounds, with young Gyles first hearing the “great guns” from the fort, hoping it was good news. He and the other settlers quickly learned it was an Indian attack by “their yelling noise and the whistling of their shot.” He heard his father “call to them what now, what now.” “The noise of the Indians shots,” disclosed Gyles, “terrified me,” and he tried to run away but was captured unharmed. As the Indians silently marched the captive boy along, he noted the audible signs of the wreckage: here the dying departed saying “O Lord,” there they died without a sound, or like his father, passed on “with a cheerful voice.”

It would be tempting to listen for Algonquian features in the manuscript, passed on to Gyles as a youth, but any such influence was effaced (if it existed at all) by the purpose of this story, which belongs to the genre of the captivity narrative. Captivity narratives, whether spoken, written, or printed, were used by the returned captive to demonstrate the workings of providence and to ritually show a re-entrance to Puritan society. Micmac beliefs not run through the filter of Puritanism would have been a sign that Gyles had “gone wild” and had not made it back (Rath 2003: 147–8). Any Micmac names for the spirits Gyles said he encountered were translated either by his own Christian beliefs or pressure from the Christian society to which he returned into so many devils. He never grasped the Algonquian idea of the world as a set of relations, human and non-human kin. While he had a keen understanding of the Micmac people with whom he lived for several years, the quirks of the manuscript seem wholly attributable to Puritan oral culture rather than Algonquian.

As can be seen—and heard—from the manuscript, when we attend to the ways sound and vision worked together in creating authorship (and, not coincidentally, authority) we uncover a world much richer and more complex than can be captured by visual culture alone or a hierarchy of the senses. Vocal and scribal publication were alive and well throughout the colonies, and Europe, well into the eighteenth century (Darnton 2000; Hall 1996). The authority with which the author is invested came in part from the social processes that existed prior to the print shop, processes that had a crucial sonic context. Using the senses other than vision, particularly hearing, complicates the influential notion of print discourse as an abstract space (a hallmark of visual culture) where ideas freely competed on merit alone—the public sphere (Habermas 1991). But print’s authority also came at least in part from the next stage of the circuit, when the manuscript was transformed into a book, pamphlet, or broadsheet.

Gyles provides one of the few examples we have of the process of transforming a manuscript into a book. Usually such manuscripts were
ephemeral, used up by the process of circulation or in setting them to print. An editor, perhaps the minister and perhaps in verbal consultation with Gyles, as well as the compositor (about whom more below) massaged the document, reorganizing it and adding the visual hallmarks of print. The manuscript was divided and subdivided into chapters and sections, with some sections moved from their original order and others added to meet the demands of the book market. For example, Gyles’ endorsement, narrating the trip to publication, appeared at the end of the manuscript. In the book it, along with a long quote from Homer and a somewhat reluctant homage to his father, comprised the introduction, which is completely absent in the manuscript. Whole sections on natural history (24–7) and manners and customs (28–32) were added, probably at the behest of the publisher.

The book was virulent in its stance toward the Micmacs and all other Native Americans, especially when juxtaposed with the relatively respectful tone found in the manuscript. The book included marginal summaries of each section that allowed the reader to set it down and pick it up later, reading a section at a time, perhaps even at random, and then visually re-orienting herself later. Run-ons were chopped into neater sentences. Paragraphs and punctuation were introduced systematically, breaking up the spoken quality of the manuscript. Fonts were used to replace tones of voice, setting off emphasis, foreign words, names, and quotations. The Indians’ yelling and the whistling of their shot during their attack was relegated to a footnote, literally marginalizing the auditory (Gyles 1736).

All of these changes were editorial gestures toward an imagined reader. Did the editor impose a visual-centered approach to text? Or was he responding to a market that demanded their books come with these features? Critically, neither way reflects changes in Gyles’—the author’s—mindset. If the storied rise of visual culture in the Enlightenment was so thin on the ground in what the author actually wrote, who is to say what all the manuscripts that were used up in the publication process could tell? Any shift in the ratio of senses, while perhaps demonstrable at the level of the medium, the book, was never absolute, and involved both hearing and vision in a complex process of mediation.

Authors and readers have received much attention, perhaps because for scholars authorship and reading are the two most familiar facets of the medium. Two other circuits intervened between the author and the reader, often folded into the rather abstract notion of publication, the printing process itself and distribution. Studies of printers and booksellers have spent time on their business networks and social relations (Johns 1998), and on the content of the
trade, tracking particular titles or shipments for example (e.g. Lyons 2003: 127–32), but not much on the physicality of the print shop and the emerging capitalist distribution network. The senses are inherently embodied, and to understand print it makes sense to explore the material culture of the printing process itself, in part to ground the ideal nature of the Enlightenment in the lived reality of those actually producing and moving in the medium.

THE MATERIAL CULTURE OF PRINTING

The process of printing began long before the pressman ever printed a sheet. Ink was made in-house, a difficult, dangerous, and putrid task. In 1683 Joseph Moxon wrote that the process was “as well laborious to the Body as noysom and ungrateful to the Sence” (1896: 79). Eight decades later, William Lewis noted that “the oil emits, during the whole time of boiling, very offensive penetrating fumes” (1763: 372). Different batches had different consistencies, and the journeyman printer had to gauge the viscosity by feeling its resistance when stirred in order to mix the inks to the right consistency.

The manufacture of type was a hellish process that required a combination of strength, endurance, and fine motor skills. The alloy for the type had to be prepared first. Lead was melted with iron and antimony, the latter of which gave off poisonous fumes when added. The single-use sealed furnace was built around the metal and fire outdoors to avoid poisoning the workers. They would “lay their Ears near the Ground and listen to hear a Bubling in the Pots” to measure when the metal was molten (Moxon 1896: 166). They then broke open the upwind side and two men, working directly over the flames and fumes, stirred in more lead. Once mixed, it was ladled out into smaller containers to cool until casting. Finished with the worst, the print shop owner gave each of the furnace crew a half pint of sack mixed with salad oil, “intended for an Antidote” (Moxon 1896: 168).

At the shop, the type caster reheated and ladled the alloy into the molds, typically producing about 4,000 characters per day. Apprentices broke out the characters and “rubbed” the type against a long grindstone to remove outer imperfections, using finger cots made of scrap leather to keep their skin from rubbing off (Moxon 1896: 176). More experienced workers then dressed the letters, removing the last imperfections with specialized tools for the task.

Next came the compositor. If the supply of characters was new, he filled his case with the proper letters in the proper slots. Usually, however, he had to recycle type from used plates which had been washed in lye to make the ink adhere. The compositor or an apprentice washed the characters by tumbling
them in water bare-handed. With his cases filled, the compositor set the type. He and the press men, more than anyone else, made the manuscripts into the silent visible language of print. The compositor had to eye up and remember five or six words at a time and quickly spell them out in his composing stick, a small box which held a few lines of type. Here was the paragon of the typographical man, breaking language into letters and placing them on the page serially, right to left, on down the page, “so that his Thoughts run no faster than his Fingers” (Moxon 1896: 213). A good compositor’s eye-hand coordination made it appear that he could work with preternatural speed, laying out the page and making aesthetic and practical decisions on the fly.

Running a press was hard physical work that shaped, even deformed, the bodies of the pressmen. Every motion was calculated and optimized. The machine required strenuous twists, always in the same direction, that wrought the bodies of the pressmen like trade winds shape the trees. The work was hard and the two pressmen traded jobs every few hours, with one pulling while the other inked the type.

McLuhan argued that movable type regimented the print shop and provided the impetus for the rationalization of labor into discrete, repetitive, interchangeable tasks that characterized industrialization. This much is evident in Moxon’s carefully disaggregated recipes. What is not as clear is whether this

FIGURE 9.2: William Caxton showing specimens of his printing to King Edward IV and his Queen. Wikimedia Commons.
rationalization came before or after the rise of the print shop. It seems to have co-occurred, with print being a generative medium that fed into a propensity for rationalization of labor that was then spreading through Europe (Sewell 1980). That propensity drove further rationalization of the work flow that would have made Frederick Winslow Taylor envious.

The idea of Moxon taking this multifaceted and extremely complex process and rendering it into discrete tasks right down to the placement of the body, hands, and feet speaks to an optimism combined with atomism that characterized the rise of Enlightenment individualism. The task for Moxon's imagined reader, and a highly difficult one, was to visualize each move from reading the text in his (or occasionally, her) mind's eye. The book was not for workers, there was no time in a properly run print shop for reading. Moxon's *Mechanick Exercises*, and others like it, provided a set of prescriptions so that the shop owner, the master printer, could make sure everyone was performing his job. In effect, the book provided an early version of the visual discourse of surveillance that Foucault (1997) and others have associated with the late Enlightenment. Moxon's status as a master printer both grounded his prescriptions in experience and granted him his authority on the topic.

**DISTRIBUTION**

Once the sheets were cut into pages and bound into books or folded into newspapers, the next phase of the print circuit took over. The distribution of books and newspapers, both as commodity and for their content, was part and parcel of the rise of modern capitalistic markets. London and continental printers found buyers for their products well beyond the doors of their shops, though those too remained an important factor during the eighteenth century. Particularly in North America, with its relatively high rates of literacy, wealthy and middling people yearned for a connection to the wider European world—and even beyond—that books and news from London and other colonial centers fulfilled. Without a medium of distribution, there could be no reading public, and thus, following Kant's logic, no Enlightenment. Without this vast system, print remained ever local.

In the Atlantic world, printed goods from the home country were carried through a multiracial, partly enslaved, partly free—and partly neither—network of human motion: the carters, stevedores, sailors, dockworkers, and laborers who moved printed goods from one place to the next. Their contribution to the history of print in the Enlightenment has been rendered mostly invisible and silent to us in the present, yet the commodities were
moved, and a sensory approach to this portion of the circuit helps us to recover this key connection between the print shop and the reader.

Nothing moved without the touch of this human network, including all the information carried in print. It was a medium in its own right, perhaps what Lewis Mumford called a “container technology,” one that carried another medium rather than its own information, much like the earliest books, called incunabula, contained the texts of older manuscripts (Febvre and Martin 1976; Mumford 1963: 12–14; Sofía 2000). But labeling it only as a container fails to capture the full picture, for this network also carried spoken information as an unintended but unavoidable consequence of putting people in touch with each other.

Here we need to pause for a moment to consider media as communication. During the Enlightenment and well into the nineteenth century, communication referred to routes, roads, and bodies of water in addition to the now-disembodied information we usually associate with the term. This made perfect sense in a world where information—with a few exceptions such as village bells or the drum languages of African American slave revolts—could travel no faster than the humans who carried it. Printed news was always late to the party. Printed goods traveled along the same networks as speech, but only revealed their information, their news, long after the human network had finished its dual work of conveying its messages and its commodities. The people on the far ends of the distribution networks, readers, were in effect the last to know.

This communicative aspect of the distribution medium was a marvel of speed and efficiency, a fact not lost on workers or their would-be betters. It relied on partial publics, where news and knowledge traveled efficiently, but only in some circles, not others. In the case of enslaved laborers, they often knew of—and relayed to other working people both enslaved and free—news of (those drum-language led) revolts and uprisings throughout the Americas before their masters, a fact that the masters found supremely disconcerting.

For example, enslaved Africans in the southern USA knew about the revolt in Saint-Domingue before their masters because the enslaved worked on the docks and spoke with people in the ships who had spoken to people who were closer to the events (Scott 1986). By the time it arrived in print, that news was already old. This knowledge that their ersatz property knew more than they did, and sooner, kept planters in a constant state of anxiety. In another case, an African American man, Briton Hammon, with an ambiguous status as neither slave nor free, was both helped and hindered by the partial public. When he was in jail, he was unable to get a message out to his patron, an outsider to the
network, as to his whereabouts, but later he was able to effect an escape to sea through conversations at one of the hubs of the maritime communication network, the “publicke House.” And when by chance his former master was on board another voyage—on which he had also gotten work through a meeting at a tavern—Hammon knew of it first and was able to remain anonymous until a chance encounter (Hammon 1760). Peter Linebaugh and Marcus Rediker underscore the importance of these worker-led, multi-ethnic, oral (and thus sound-based) maritime networks in spreading a radical working people’s revolutionary ideology throughout the Atlantic world (Linebaugh and Rediker 2000).

READING AND HEARING

Once printed goods made their way through the distribution system to consumption, the world of print looks familiar and well-trodden at first. Kant’s enlightened public took shape from its literacy and reading habits. If we pay closer attention to the sounds as well as the sights of reading then new dimensions to our understanding of Enlightenment politics and governance open up. Whether through newspapers, bells, street poetry, or all of the above and more working in tandem, reading was a social activity and was often connected through sound in the form of heated discussions, to praxis, the place where thought and action meet and inform each other. Without readers, the Enlightenment was nothing more than the thoughts of a few dozen thinkers. When those readers began to take Enlightenment ideas into the world, particularly in the realm of governance, a great social shift was set into motion. That process of readers taking ideas garnered from reading into the world both constituted and was made possible by the onset of mass print culture. At different times and places during the eighteenth century, the output of the presses, the extent of the market, and the consolidation of vernacular languages reached an inflection point at which print culture became a powerful force not just among the literate, but in the whole universe of the Enlightenment. The onset of mass print culture marked the point where print and literacy shaped the ideas and the senses of all members of a given society, regardless of their literacy or access to print. That shaping was not, however, unidirectional: in engaging with the ideas of the Enlightenment, people reshaped them to fit their realities, and to some degree the Enlightenment, if not all of its thinkers, took note. It is only once we move beyond the treatment of the era as only visual that the dynamism of this circuit, as well as some of its shortcomings, becomes apparent.
Visually soaking up information from news and books made for an informed citizen. With print, the message—at least of a particular press run of a particular item—remained the same across all copies, creating a community of readers who were all reading the same information. Benedict Anderson, in an analysis borrowed from McLuhan, dubbed this creation of large bodies of readers taking in the same message the “imagined community” and argued its centrality to the emergence of the modern liberal nation state, perhaps the central political development of the Enlightenment.\(^5\)

McLuhan, riffing on Alexis de Tocqueville, further claimed that print’s individuation of language, breaking it into the base units of visible, interchangeable characters, was reflected in Enlightenment governance in the idea that the fundamental unit of society was the citizen, each of whom had the same rights as each and every other citizen. He argued that nationalism derives from this repeatability and from the “fixed point of view” that arrived with print, perspective, and visual quantification. Print culture had a homogenizing effect on language and even speech (McLuhan 2012: 218–25). As publishing centers arose, their dialects dominated the emerging standards, provincializing and to some extent replacing outlying dialects even as far away as the colonies.

Literacy, McLuhan argued, shifted the sensorium away from hearing and toward vision, and in the process changed the way Europeans and European Americans saw and made sense of their worlds. However, when we look and listen a little closer, this version of visual domination gets complicated. Europeans and Americans did not suddenly grow deaf, and even in the most literate places, sound and vision still worked together in interesting and changing ways. Nor was reading the lonely exercise it has become today. One particular form of print, one of the most ephemeral, helps to show how vision and hearing were part and parcel of each other.

Newspapers, which really came into their own in the eighteenth century, were an integral part of the creation of the enlightened public about which Kant wrote, at least in the countries where newspapers were allowed. While news of major events such as slave uprisings or revolution might travel faster through the North American commodity distribution network than the papers, other less drastic events tied the Americas to the rest of the world, and increasingly across the eighteenth century, tied one colony to another. The earliest newspapers often focused extensively on what was being shipped as well as what news came in with the ships. The shipping news often drifted imperceptibly across the border into the advertisements. Here was the heart of what made a colonial newspaper useful, often comprising nothing more than column-length lists of the contents of this or that ship and how
those goods were to be sold. Lists are, of course, another of the visual hallmarks
of print culture. The interspersed advertisements often sold books, but might
also seek the return of human commodities who had used the distribution
network for their own own ends—runaway servants and slaves. The news
itself was seldom local except to editorialize early on. Everyone knew what
happened locally already. Instead the early papers told the stories collected
from where the ships had been, especially England.

In the wake of the Seven Years War, a shift took place in American newspaper
content. Local stories with an editorial slant proved popular, and as the colonies
increasingly found themselves at loggerheads with the king and Parliament,
local began to stretch out into something bigger, Anderson’s imagined
community, where people from Boston to Charleston began to consider
themselves as Americans. The news from other parts of the continent was
rendered visible at home, and people who would never meet face-to-face began
thinking of themselves as belonging to the same entity, “America.” All this
seems to be a visually dominated process until we consider the intersection of
print with another medium that played to a different sense, bells.

Bells had long been used locally as a coded medium, marking births, deaths,
and marriages along with calls to worship, alarms, and other announcements
(Corbin 1998; Rath 2003: 43–68). During the seventeenth and eighteenth
centuries, the British royal family had sought to use them as a local-to-central
tool for creating national unity and identity. Bells would be rung for the same
life events as for local people, but all across the kingdom at the same time for the royals. Declarations of war, victories, and defeats were all tolled (Cressy 1989: 67–76). The simultaneous nationwide tolling for royal demographic moments rang the nation into being from the local rather than creating it authoritatively and having it trickle outward, as in theories of nationalism that focus only on print culture. For a century or so during the Enlightenment, bells and print, urban and rural, secular and religious, mingled creatively before coming apart at the seams to be reformulated yet again in the nineteenth century, a process that Alain Corbin maps beautifully in the case of the French countryside (Corbin 1998).

Nowhere was this mix so potent as in the American colonies during the eighteenth century, where the aural medium of bells worked in conjunction with print media, particularly newspapers. I have counted 1,724 examples of bell-ringing in a database of colonial newspapers (Corry et al. 1997). At first glance it looks like the newspapers silenced the bells to some extent by moving them from the immediate experience of sound to the realm of visual symbol, something to be read about rather than heard. The local tintinnabulations did not cease however. Early in the century, reports of bells ringing in London could set them off in Boston or New York as well. After the Seven Years War, reports of bells in Charleston might set them ringing in Boston. In fact, the bells, combined with the reports from other places, served as a powerful unifying force, first in a common experience of British monarchical nationalism, and then later as Americans. Thinking about the relationship of bells and print as they worked together this way complicates sensory hierarchies and narratives of substitution and replacement. The sound of a local bell could carry meaning generated elsewhere.

In particular, the protests against the Stamp Act in 1765 and 1766 generated at least 197 reports of bells being rung in protest or at the repeal of the act. Only twenty-eight of those events were in England, the remaining 169 were in the British colonies. One hundred twenty-six of those articles reported bells rung in cities different from the location of the paper, a broadening of continental concerns from the earlier pattern of localism combined with Anglophilia. None of the bells being rung were in the newly acquired British Canadian colonies, and only two were reported from the Caribbean, aligning almost perfectly with the colonies that would revolt a decade later, which shows the beginnings of an emerging American national identity before the Revolution.6

The range of the bells was extended by newspapers, echoing McLuhan’s construction of media as extensions of the senses. In this case the effects were
two layers thick at least. Even as their range grew from rendering them in print, their sounds were lost in the translation: extension combined with numbing. They became an absent presence (Gergen 2002) unless reconstituted by local peals.

Enlightened publics took many different forms, so it is impossible to simply extrapolate from print alone. In France, layers upon layers of traditional governance seemingly held fast in the mid-eighteenth century. Newspapers were banned, but in Paris and elsewhere, an informed and critical public still thrived—if indeed something that needed to be discrete to avoid police hounding could be called a public. But that very response indicated that the repressed or covert public, just by being repressed, was in fact at least effective in getting the word, or in many cases, the song, out (Darnton 2000, 2010).

Understanding the covert publics of Old Regime Paris flounders if one stops with Kant at the reader. According to Robert Darnton, the tree of Cracow in Paris “attracted nouvelistes de bouche, or newsmongers, who spread information about current events by word of mouth.” Other informal locations for “public noises” (bruits publics) existed in Paris: certain street corners, cafés, and boulevards developed reputations for news. Facetious broadsides caught one’s visual attention while hurdy-gurdy players fought for the ears with songs known to all for their double meanings, with imaginary farces about far-off places masking critiques of the king and court, often in bawdy terms (Darnton 2000: 2). Scraps of verse and stories were carried about and exchanged as well, many captured for posterity when their bearers were caught and sent to the Bastille. Salons catered to the better off, who had servants gather gossip which was used as the basis for comparing notes. Transcriptions of the salon gatherings were sometimes sold by subscription, often far into the countryside. Some of these newsletters were printed as the banned but widely circulated Mémoires secrets pour servir à l’histoire de la république des lettres en France. The media of the Old Regime were thus, as Darnton shows, mixed: “They transmitted an amalgam of overlapping, interpenetrating messages, spoken, written, printed, pictured, and sung” (2000: 9).

The lessons of the bells and the French newsmongers is that without understanding at least hearing as well as visual culture, we miss the moments of praxis, the times when thought and action met, putting words and ideas into deeds, which then informed and reformed the words and ideas. Reading was a socially situated act. It was often done aloud, sometimes with an audience of family members, sometimes in public, and sometimes for practice alone.

Once purchased, a book, pamphlet, or newspaper may have been taken home and silently read, but if it was a good one, that was the beginning of its
life rather than the end. In the American colonies, texts could be passed around to multiple readers. Many came to be located in the libraries of coffeehouses and public houses (taverns) where they might be read aloud, discussed, and perhaps if the ideas were compelling enough, put into action in some form or another. Bernard Bailyn made the case that pre-revolutionary pamphlets reflected the commonwealth strand of Enlightenment political thought that shaped the ideological underpinnings of the American Revolution (Bailyn 1968). Public houses almost always had reading material on hand, some even holding enough to qualify as having a library of sorts (Conroy 1995). No doubt some of the commonwealth pamphlet ideas were worked into actions over a mug of beer. Tavern talk could result in praxis heading in the other direction too, with “many pamphlets and newspapers mirroring tavern speech” (Thompson 1999: 10). This social reading space constituted Kant’s enlightened

public as well as the idea of the public sphere, but, as in Paris, it played out in
many scenarios beyond the genteel salons of those authors’ theories. Here the
affect- and status-free theorized world where nothing mattered beyond the
merit of an author’s ideas met with the cantankerous realities of the pub. It was
in these and other social reading spaces, some public, some private, that the
ideas of the Enlightenment began to take shape as actions in the world.

In 1749, Ben Franklin, the leading figure of the Enlightenment in North
America, argued that in ancient times, the best oratory by itself had “wonderful
Effects” in “governing, turning and leading great Bodies of Mankind, Armies,
Cities, Nations.” But, he continued, “Modern Political Oratory being chiefly
performed by the Pen and Press” was superior in the task of governing and
leading because its effects were “more extensive, more lasting” (Franklin
2002b). This did not mean however that “Pen and Press” were sufficient. In a
letter to Richard Price late in his life and as the revolution was winding down,
Franklin wrote:

The ancient Roman and Greek Orators could only speak to the Number
of Citizens capable of being assembled within the Reach of their Voice:
Their Writings had little Effect because the Bulk of the People could not
read. Now by the Press we can speak to Nations; and good Books & well
written Pamphlets have great and general Influence. The Facility with
which the same Truths may be repeatedly enforc’d by placing them daily
in different Lights, in Newspapers which are every where read, gives a
great Chance of establishing them.

Franklin 2002c

The reading he had in mind was not today’s lone individual silently perusing
*The Times*. Franklin knew that in order for the publication process to be
effective, the news had to be published a second time by voice for two reasons:
first, to spur discussion and then action, and second, to reach those without the
paper or who could not read.

Widely available cheap print in the form of newspapers, books, and
pamphlets had become the chief location of modern oratory according to
B. Franklin, printer. These works were printed with an eye, and an ear, to a
neighborhood reader finishing the job of publication by reading it aloud.
Franklin thought this art of public reading had fallen on hard times because
students learned to read aloud “as Parrots speak” and thus lacked the
understanding of what they read necessary for the right intonation to get a
point across. “For want of good Reading [aloud],” he wrote in 1751, “Pieces
publish’d with a View to influence the Minds of Men for their own or the
publick Benefit, lose Half their Force. Were there but one good Reader in a
Neighbourhood, a publick Orator might be heard throughout a Nation with
the same Advantages, and have the same Effect on his Audience, as if they
stood within the Reach of his Voice” (Franklin 2002a).

Franklin was making the opposite case from McLuhan, that voice extended
the reach of print, rather than vice versa. The print author/orator could literally
be heard because of secondary publication, the reading aloud of the paper in
public. Thus print alone was not enough to get national ideas across. They had
to be read well and heard to get them into circulation as ideas that people
talked about and acted upon. Without the discussion and the impetus to act,
print was nothing but ideas rendered visually. It was still in the realm of the
voice and hearing that ideas began to turn into actions. Thus, theories of the
public sphere and nationalism need to be grounded by Franklin’s praxis.

Franklin was not, however, calling for a return to oral culture. The goal of
teaching people to read aloud well was to allow them to reproduce the effect
of a printed text for those with no access to it, either through illiteracy or
through lack of resources to obtain the printed version. Franklin wanted not a
parrot, but a person who had completely learned and internalized the ideas of
the author, a somewhat perturbing fantasy of control and homogeneity.
Tellingly, what Franklin the printer wanted was the mass-production of
language, just like in print, but by voice. A simple invocation of oral culture
fails here, where Franklin hoped that the printed word’s repeatability could be
instilled in auditory readers to achieve national political ends at the level of the
neighborhood.

The last segment of the circuit of print mediation sketched here is also the
first, the socially embedded author/reader. Reading spurred new writing,
creating a feedback loop. Following generic principles of marketing, printers
were on the lookout for writing that would sell, a predictive process of feed-
forward. Discussions shaped by both experience and reading incubated ideas
and caused new manuscripts to be written to be transformed yet again by the
multisensorial alchemy of print as mediation rather than medium. Here we
return to the circuit that led to the writing and publication of Gyles’ narrative.

If we focus all our attention on the medium or even the printer in our media
history, we lose half the story. By following the process of mediation all the way
through from authorship through print, reading aloud, discussion, and action,
and then, crucially, connecting those actions back to authorship and publication,
we get a much richer explanation of how media, the senses, and the rise of
nationalism were all tied together.
CONCLUSION

In the discussion of media, the senses, and enlightenment, the proximal senses—smell, taste, and touch—necessarily take a back seat to the distal senses. On the one hand, handshakes, kisses, or perfumes could all add layers of meaning to spoken and sung (if not so much to the printed) media. For example, the French king’s touch served as a medium of royal power. On the other hand, pushing the proximal senses too far as media in their own right shades into metaphor because the sources of touch, taste, and smell sensations were often not intentional acts meant to carry information: they did so only indirectly and often accidentally.

The place where the proximal senses do come into play is in their repression along with that of their association with the body, which we can tentatively explore as a response to increasing reliance on the distal senses. Alain Corbin’s seminal work on smell in France attributes the increased sensitivity to and repression of smell to the rise of science (Corbin 1986). Perhaps the abstraction that the visual medium of print represented could have played a role in changing the written response to smell, repressing it in the medium rather than in the world. This in turn may have fostered desires for the removal of odors, the refinement of taste, and the repression of touch that scholars have found in the later years of the Enlightenment (Classen 2012).

In conclusion, to get to the relationship of the senses to mass print culture, and from there, to an enlightened public, we need to develop the analysis beyond the eyes. By taking the focus off the media themselves and their enabling technologies, and attending more to mediation, the actual lived processes by which the spread of ideas, knowledge, and information moved from creation to consumption and back again, we arrive at a much richer understanding of the forces at play in creating and maintaining the Enlightenment. When we consider mediation as processes rather than media as things, we uncover the central role played by the senses in the dynamism and revolutionary changes set in motion by the Enlightenment. In particular, the sense of hearing comes back into the foreground as the location of praxis: for the ideas conveyed in print to effect change in the world, people had to discuss them with each other and decide how and whether to implement them, not just assent or dissent to printed authority.
14. On the rise and waning of the paradigm of music as a kind of language, see Thomas (1995: 20–33).

Chapter Nine

1. However, there is not agreement on whether this is true at all, much less on what that “something” is (Eisenstein 2002a, 2002b; Johns 2002).

2. Jonathan Zittrain defines a generative technology as one with an “overall capacity to produce unprompted change driven by large, varied, and uncoordinated audiences” (Zittrain 2006). In the past as well as the present, generative media have often taken decades or even centuries to unfold (Rath 2008: 429). For social constructionism and its foil, see Daniel Chandler’s Technological or Media Determinism (1996).


4. A partial public is a concept related to but distinct from Michael Warner’s (2002) notion of counterpublic. Whereas counterpublics seem always to be aimed at becoming full-blown publics with hegemonic if not universal claims to attentions, partial or covert publics were meant to be public only to some while remaining beyond the comprehension, even if not out of the sight or hearing, of others. An example would be African American uses of drum languages to organize revolts, which could be heard but not understood by planters (Rath 2003: 78–96).


7. Darnton notes that its cessation in 1744 “signaled the end—or at least the beginning of the end—of the roi-image, the sacred, thaumaturgic king . . . By mid-century, Louis XV had lost touch with his people, and he had lost the royal touch” (2000: 15).