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SABINE ARNAUD

# Fingerspelling and the Appropriation of Language: The Shifting Stakes of a Practice of Signs

## Abstract

Recent studies have proven the specificity and advantages of fingerspelling from a linguistic point of view. However, while the use of fingerspelling is widespread today, it is limited to sign language interactions. The appreciation for both sign language and fingerspelling is recent; in fact, the two systems were often opposed to each other in the late eighteenth and throughout the nineteenth century worldwide. While a number of teachers, doctors, and politicians considered fingerspelling, or dactylology, to be a communication method that could stand on its own, it was the object of a double controversy concerning its use in school and in society and concerning the proper production of signs. This article will focus on the invention of manual alphabets and the debates around them, which divided the deaf-mute community in France in the time between Jacob Péreire's work in 1750 and F. Legrand's in 1902.

TODAY, FINGERSPELLING is in common use within national sign languages to communicate names and phrases, or to introduce new words. If the sign is unknown to the interlocutors or has yet to be created, switching back and forth allows for the swift integration of new concepts and names in sign language communication (Brentari and Eccarius 2010). Carol Padden and Darline Clark Gunsauls (2003)

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have characterized the role of the constant shift between ASL and fingerspelling as a producer of meaning. They have outlined its capacity to qualify specific aspects of the discourse while signifying the integration of scientific, foreign, or other specific terms, thereby qualifying the type of concept involved in the users' discourse. Beyond fingerspelling's use as a cross-modal bridge between ASL and English, Joshua T. Williams and Sharlene D. Newman (2016) have delineated many of the ways in which it encourages literary acquisition in children and facilitates the mastery of spelling and reading.

The significant proportion of fingerspelling communications within ASL,<sup>1</sup> and the increasing number of linguistic studies gauging its contribution in the last decade, might make us think that it has always accompanied sign language as a necessary complement and that the history of the support or rejection of fingerspelling closely mirrors that of sign language itself (see, for example, Brentari 2011; Johnson and Liddell 2011; Padden 2006; Padden and Ramsey 2000). Yet that is far from being the case. From the late eighteenth century on, its role has been the object of much discussion among French deaf and hearing teachers and doctors.<sup>2</sup> While many of its defendants have seen in fingerspelling a pedagogical, intellectual, and social tool, offered new versions of it, and strove for its improvement, its detractors have looked upon it with distrust. From these detractors' perspective, fingerspelling stands for letters, which express sounds and not meanings. As evidenced by Padden and Gunsauls, who study its contemporary use, "The controversy centers around whether it is a friendly partner of sign language or is antagonistic to it. Ironically, the structural properties of the manual alphabet lend themselves to either purpose: Like sign languages, the manual alphabet represents visible language, yet like speech it consists of a finite set of arbitrary symbols used in sequences to build words and sentences" (Padden and Gunsauls 2003, 13). From the late eighteenth century on, dactylology was the object of shifting visions that either placed it in opposition to sign language or saw in it a worthy complement.

This article will examine the stakes that motivated the use of fingerspelling from its limited adoption congruent with the development of deaf education in France in the 1760s until the 1880 Milan Congress, after which sign language and fingerspelling were banned

in favor of speech. To see how the conceptualization of fingerspelling evolved with the development of deaf education in the late eighteenth century, I will first describe some of the early publications of fingerspelling alphabets in the sixteenth and seventeenth centuries, on an international scale. The varying claims that supported sign language and fingerspelling will stand out all the more as I focus on France, where, during this period, it is well known that the preference was for sign language rather than speech. Moving from Jacob Péreire's teachings to F. Legrand's phonoscopy, this article will investigate how pedagogical and social claims shaped these relationships while showing how the selection of a system of communication represented a strategic choice for the integration of a community. After examining the objections to fingerspelling that dominated the Institut National des Sourds-Muets in Paris (whose name kept being changed by successive governments, back and forth among National, Imperial, and Royal Institute for Deaf-Mutes), I will then consider how a new wave came to champion fingerspelling as an essential tool, which led to a creative outburst of dactylogologies throughout nineteenth-century France.

A note about terms: throughout the nineteenth century, *dactylogology* is the most common term used for fingerspelling, and for the sake of historical accuracy, I will use the terms favored by each author discussed in the article, reserving *fingerspelling* for discussions about the practice itself. I retain the terms *deaf*, *deaf and mute*, and *deaf-mute* when they are used in the original quotes.

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Relatively little is known about the use of fingerspelling in the sixteenth and seventeenth centuries (Fischer 1996). Teaching deaf people was only one of its functions. At the turn of the seventeenth century, sign language was used in contexts as divergent as Catholic monasteries (see Bruce 2007; Delaporte, Renard, and de Saint-Loup 1997), harems, communication between native Americans and emigrants to the United States (see Bonvillian, Ingram, and McCleary 2009; Lang 2007; Montgomery 2002), and the private education of British aristocrats. Early Catholic treatises on comportment valued silence and criticized speech as unchaste (Affinati d'Acuto 1602, 123; see also Allestree 1667), offering such advice against sinning as: "When you enter someone's

house, it is best to be deaf and mute.” (Affinati d’Acuto 1602, 43; Bruce 2007) Sign language and fingerspelling in the harem of the Turkish sultan is mentioned in Occidental literature as the language of political secrecy (see Duret 1619). A fascination for these forms of communication, which could convey all kinds of nonrepeatable information, grew, and some soon saw in them marvelous creations. This fascination led writers such as Athanasius Kircher and Heinrich Cornelius Agrippa to invent secret symbolic writings to aid in accessing occult ancient philosophy. In the opposite direction, the Italian Franciscan monk Cosmas Rosselius provided a dactylogical alphabet in his 1579 pedagogical initiative (Rosselius 1579). In Spain, numerous texts mention Pedro Ponce’s use of dactylogy in the sixteenth century, though he himself did not leave an account of his practice (see Plann 1997; Santander San Juan 1841). Franciscan monk Melchor de Yebra from Madrid published a dactylogy in 1593 (see Van Cleve and Crouch 1989, 11), which was attributed to the thirteenth-century monk Saint Bonaventura. Juan Pueblo Bonet included a different version in his *Reduccion de las letras y arte para enseñar a hablar los mudos* [Summary of the Letters and the Art of Teaching Speech to the Mute] from the 1620s, which was, over the centuries to come, to become the main reference throughout continental Europe and the United States (see Bonet 1620; Eriksson 1996; Günther 1996. On Bonet, see Presneau 1998, 67–78, 82).

In their early fascination for sign language and dactylogy, scholars in Britain stood out. They created a dactylogical alphabet that would remain almost exclusively in use in Great Britain, even as Bonet’s was spreading to many countries. Throughout the seventeenth century, the greatest number of works on sign language were published there, and the amount of signs created and the diversity of their uses is startling—the latter include intentions as different as deaf education, the creation of a universal language, and literary works meant to delight. With his 1644 *Chirologia* as the natural language of the hands, John Bulwer focused on education; his *Chironomia* concerned the art of manual rhetoric (Bulwer 1644). Writing in 1641 about universal language and sign language, Scottish philosopher George Dalgarno and British polymath John Wilkins each created pasigraphies—systems of conventional signs organized according to a new classification.

Considering their usefulness for deaf people, Dalgarno coined several terms to name new linguistic practices with a more universal scope: “Pneumatology, (or if any think Echology more proper) . . . Interpretation by Sounds conceived thro the Ear; Schematology by Figures to the Eye; and Haptology by a mutual contact, skin to skin” (Dalgarno 1661). In his dactylology, the right hand points to specific phalanxes of the left hand, each of which stands for a letter. The same year, Wilkins published *Mercury, or the Secret and Swift Messenger*, which also shifted the direction of the research of signs toward the search for a philosophical language and cryptology (Wilkins 1641). Both Dalgarno and Wilkins were working toward new languages whose epistemological value, they believed, would be equal to their mnemonic value, thus correcting and perfecting knowledge. As such, their works were intended for the pursuit of knowledge by the already initiated and aimed firmly at the upper class. Several books building on their work and presenting dactylologies were then published in Britain, including a 1692 work by a Monsieur La Fin that left aside claims of universality to turn language into a tool for secret communication (La Fin 1692; see figure 1). The title of the work is itself a description:

Sermo Mirabilis Whereby one may learn perfectly in the space of six hours, how, to impart his mind to his Friend in any Language, English, Latin, French, Dutch, &c. tho never so deep and dangerous a Secret, without the least Noise, Word or Voice; and without the Knowledge of any in Company

Being A Wonderful Art kept secret for several Ages in Padua, and now published only to the wise and prudent, who will not expose it, as a Prostitute, to every Foolish and Ignorant Fellow

Another, anonymous work from 1698 was entitled:

Digiti-Lingua: or, The most compendious, copious, facile and secret way of silent Converse ever yet discovered. Shewing, how many two persons may be capable, in half an hour time, to discourse together by their Fingers only, and as well in the dark as the light.

The Directions herein given are so clear, and the Method so extensive, (yet both superlatively easie) that if six persons are in company, (and each of them well versed in the design) yet two of them may discourse together, and the other four wholly ignorant of what they mean.

By a person who has conversed no otherwise in above nine Years.



FIGURE 1. La Fin. 1692. *Sermo Mirabilis* Whereby one may learn perfectly in the space of six hours, how, to impart his mind to his Friend in any Language, English, Latin, French, Dutch, &c. tho never so deep and dangerous a Secret, without the least Noise, Word or Voice; and without the Knowledge of any in Company, Being A Wonderful Art kept secret for several Ages in Padua, and now published only to the wise and prudent, who will not expose it, as a Prostitute, to every Foolish and Ignorant Fellow. Courtesy of the UCL Ear Institute and Action on Hearing Loss Library.

Both of these British works endorsed the use of signs as an art aimed at the upper classes, who enjoyed the leisure to entertain such games, the benefits of which could be both intellectual and political. As these creations were meant to delight and not to convince, they could emerge at about the same time without leading to any conflicts between their authors about dactylology. In contrast, mentions of dactylology were extremely rare in French works of the time, even in the case of works on cryptology (de Vigenère 1586; Lamy 1701). However, even as it faded in other countries, in late eighteenth-century France the excitement over dactylology took an unexpected turn, leading to radical new claims, as I will show. Then, in the nineteenth century, conflicts arose in France concerning the use of dactylology. One objective suddenly united these publications—the teaching of deaf pupils—which led to a wealth of position-taking about the true role of fingerspelling. Even if the work of Bulwer, Dalgarno, and Wilkins was later found in institutes for deaf people throughout Europe, their legacy remained limited, as their philosophical endeavors probably

rendered them less attentive to teachers' needs. It was Bonet's dactylo-logical alphabet, instead, that spread with the development of schools and institutes for deaf people.

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Portuguese educator Jacob-Rodrigues Pereira (who changed his name to Péreire when he arrived in France around 1740) first brought attention to the use of dactylology in the teaching of deaf children (Presneau 1998, 81–94). Working throughout France as a preceptor teaching aristocratic deaf pupils to speak, he was the first and the principal teacher in France to actively promote the use of dactylology as a pedagogical tool for the acquisition of language. He made it the first step in the education of speech: his students would learn to spell with their fingers before learning to write and/or speak. Saboureux de Fontenay and Mademoiselle Marois wrote positively about their experiences with his teaching of speech, which was also acclaimed in a report to the Paris Academy of Sciences written in the early 1750s by René Antoine Ferchault de Réaumur, Charles Marie de la Condamine, and Georges-Louis Leclerc de Buffon. If today we don't know anything about Péreire's dactylo-logical alphabet, it's because the preceptor refused to share his method for free. By the nineteenth century, it had already disappeared, despite several teachers' attempts to recover it. Nevertheless, his work would continue to reverberate throughout the century: Edouard Seguin, a teacher who specialized in those who were called "idiots," wrote a large biography of him, and several teachers and administrators for deaf pupils who were in favor of speech, including Marius Magnat, Ernest La Rochelle, and Felix Hément, general inspector of instruction, dedicated entire works to him (Hément 1879; La Rochelle 1882; Magnat 1876; Seguin 1847b). But as their main interest was speech, they left aside the role Péreire had played in the development of dactylology.

De Fontenay gave the most detailed account of Péreire's method. He tells us that Péreire invented his own dactylo-logical alphabet, endowing it with as many sounds as pronunciation entails, which he estimated to be thirty-four, and as many liaisons as in regular French pronunciation, which he assessed at thirty-two (de Fontenay 1854). Péreire's dactylography drew on the phonological properties of each



sound. Seeing in it the first step toward the acquisition of speech, Péreire's objective was for the alphabet to suit French pronunciation as much as its spelling; the idea was that the movements of the fingers would mirror the speed and pauses used in speech. In dark environments, Péreire would take the hand of his pupil and compose with it the phrases he wanted to convey—touch, therefore, replaced sight. Despite the fluidity of this method, his contemporaries say that de Fontenay used a tablet for communication with the hearing-speaking, favoring writing over dactylology (see Seguin 1847a). The fact that Péreire taught his dactylology only to his few pupils limited its spread.

Péreire's contemporary, Abbé de l'Épée, who developed one of the first schools for deaf pupils, advocated instead teaching with what he called "methodical signs."<sup>3</sup> While natural sign language had its own syntax, methodical sign language was related to spoken language in that it made clear, with additional signs, the gender, number, and exact tense, and followed the syntax employed in speech. Yet it bore no relation to phonology, and this series of grammatical rules was superimposed on signs that stood to directly signify the meaning to be conveyed. Right from the start, the subject of dactylology found the two teachers in opposition. De l'Épée's earliest publications attacked its use with great violence—yet, apparently heedless of the paradox, he also asserted that he made daily use of it as part of a teaching technique to spell names unknown to deaf pupils (see de l'Épée 1776). At that time, fingerspelling with two hands was very common among hearing pupils in school; they would teach each other this silent means of communication in order not to be heard by their teachers, and de l'Épée recounted having used it himself as a child to communicate with his schoolmates. He recounts how one day a visitor brought him a Spanish manual in which Bonet's dactylology was reproduced. He even claims to have used fingerspelling with his pupils before he knew about Bonet's dactylology, but he implied that he alone knew how to use it on the limited basis he believed it merited.

In fact, he made a number of highly polemical statements about dactylology. In his 1774 work, he characterized dactylology as "tasteless and boring" and "hermetic to the moral universality of humankind"<sup>4</sup> (de l'Épée 1774, 92). In 1776, he announced that "any manual alphabet is nothing other than a writing of convention" (de l'Épée 1776, 29),

which he opposed to signs that conveyed meaning—which ignored the obvious fact that writing is itself nothing other than a convention. Presenting Péréire as a rival who misunderstood the needs of deaf pupils, de l'Épée claimed that dactylology was worth using only at the very beginning of a pupil's education, because prolonged use, he argued, would keep pupils at the low level of parrots (de l'Épée 1774, 151). His chapters kept presenting reasons to refrain from using it; in the beginning, he said, it signifies only letters, whereas his signs convey meaning directly. He went on to claim that dactylology was cumbersome and even useless for many, and in fact we should remember that the majority of the population of the time would have been illiterate (de l'Épée 1776, 93–94). He added that such a tool becomes totally useless to deaf pupils whose education is at an advanced stage; he insisted that it does not in itself communicate any degree of intelligence and that it is an insufficient means of developing the intellect of deaf children. Without any mercy for Péréire and his method, de l'Épée added that de Fontenay, whose competence he acknowledges elsewhere, owed to the use of dactylology and the lack of interlocutors with whom to communicate using it his “gloomy” bearing, which was “unpleasant for his witnesses” (de l'Épée 1776, 108), a bearing that only changed when he pulled out his tablets to communicate by writing.

As such, the development of methodical signs marked the start of a conflicted relationship with dactylology. The opposition was radical. If methodical sign language promoted the communication of ideas and concepts before its users had acquired written language, dactylology resorted to words commonly in use as a primary step to accessing meaning via the acquisition of language. In fact, the period in which methodical sign language and writing dominated almost exclusively, between 1770 and 1820, was also a period of almost unilateral dismissal of, and opposition to, dactylology.

In the wake of de l'Épée, most of the professors at the National and soon Imperial Institute in Paris spurned dactylology in favor of methodical signs, which were meant to function as an intermediary between written French and natural signs. Officially, teachers stood united in the defense of a bilingual system of communication—writing and methodical signing. They referred very rarely to dactylology,

instead advocating communicating with the hearing-speaking via writing.

De l'Épée did not include the dactylological alphabet in his publications. Abbé Sicard's reproduction of the alphabet in 1800 came with a note on the table itself that it was to be used for names and places, thus immediately reducing the context of its use (Sicard 1800). Despite this inclusion, there is no further mention of dactylology in Sicard's teaching method. Roch-Ambroise Auguste Bébien, who also reproduced the alphabet in his 1827 manual, actively took a position against it (Bébien 1827). He reminded his readers that the invention was just a new way of figuring letters and could in no way develop into a specific teaching method, and he claimed it was of no interest. In fact, deaf people faced difficulties when attempting to communicate with people who tended to spell phrases intuitively, according to their pronunciation, and who sometimes were not able to correctly distinguish words (see Farge 1992). Deaf pupils, on the contrary, having no phonological reference for words, had been trained to spell words correctly, according to how they were written, which led to inevitable difficulties on both sides in identifying words.

Ferdinand Berthier, a deaf teacher at the by then Royal Institute in Paris, did not hesitate to further condemn dactylology. In a report addressed to the members of a commission of the Royal Institute, Berthier rated the invention of a new system of dactylology created by Lemenager as of "no importance" and "irrelevant" (Berthier 1854a, 289). Berthier argued that dactylology would be best used only for the names of people and places until they were granted a conventional sign. No improvements would help—dactylology was simply not designed for intelligent communication. A few years later, after he was once again commissioned to evaluate a dactylological alphabet, this time invented by Charles Wilhorgne, Berthier complained, "Trying to bring back dactylology today is looking backward . . . the importance of dactylology diminishes each day that our teaching progresses" (Berthier 1854b, 290–91). Berthier advocated any other means of communication instead: sign language, writing, drawing, even articulation for those who were able to learn it (Berthier 1854b, 290). His colleagues also tended to oppose the use of dactylology, seeing it as a technique relying exclusively on speech and providing

for no autonomy of expression. Berthier reminded his readers of the need to consult the actual users of the language, so that the real service they could render would not get lost (see the report cited in Berthier 1854b, 291). Nevertheless, as we will see, deaf teachers themselves could not agree on which language they wished to advocate.

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One publication shows that the learning of dactylogy was not completely scorned in France at the turn of the nineteenth century. A dactylogical alphabet was published in the year VIII after the French Revolution (between October 1799 and September 1800) in the form of a booklet. To my knowledge, it was the first published in France. The University College London Hearing Loss Library owns what may be the only extant copy (see figures 2 and 3).<sup>5</sup> Who decided to print this booklet, and for whom it was intended, remains a mystery. The year 1799 was a crucial moment in the history of the National Institute for Deaf-Mutes, for that is when Abbé Sicard was reinstated as its director by the consul Bonaparte. Most likely Citizen Alhoy,<sup>6</sup> Sicard's predecessor and the school's first teacher, ordered this publication for the opening of the school on the 15 brumaire of that year (November 6, 1799, according to our calendar). Alhoy may have decided upon it as a complement to his text entitled *De l'Education des sourds-muets de naissance considérée dans ses rapports avec l'idéologie et la grammaire* [On the Education of Deaf-Mutes from Birth Considered in Its Connections to Ideology and Grammar]. Sicard's inclusion of a dactylogical table a few months later at the end of his own *Cours d'instruction* might have been a result of the fact that he was eager to see people use his work instead, and as dactylogy was of no real importance to his technique, that might explain why copies of the booklet remained limited in number. Or did Sicard perhaps order it as a gift for Bonaparte and his wife when he met them in the company of Massieu, his famous pupil, in 1800?

We might think that the authority of Abbé de l'Épée, Bébien, Sicard, and Berthier for French deaf pedagogy would have been enough to stifle any nascent interest in dactylogy. Yet it grew—from beyond the gates of the Royal Institute. From the time of Sicard's death (1822) onward, doctors, teachers throughout France, and independent

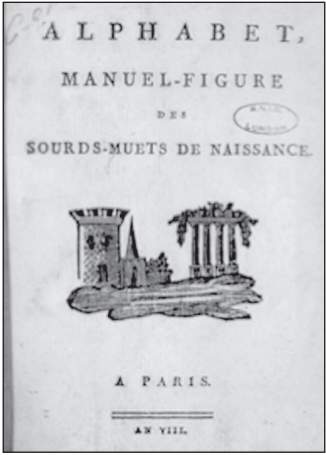


FIGURE 2. Anonymous. An VIII. 1799–1800. *Alphabet; Manuel-Figure des Sourds-Muets de Naissance*. Paris, Cover Page. Courtesy of the UCL Ear Institute and Action on Hearing Loss Library.

scholars started to publish statements about the merits of dactylology. In their quest to facilitate communication between themselves and their patients, physicians were active in advocating dactylology, often including the alphabet in their publications. The physician Le Glay included it in a publication in homage to Massieu, and the physician



FIGURE 3. Anonymous. An VIII. 1799–1800. *Alphabet; Manuel-Figure des Sourds-Muets de Naissance*. Paris. No page number. Courtesy of the UCL Ear Institute and Action on Hearing Loss Library

Blanchet added it to his large volume on deafness (see Le Glay 1835). Teachers in the provinces developed completely new methods based on the teaching of dactylology. Clearly, for them, the full potential of dactylology had not yet been realized. Dactylology was first and foremost a tool for the rigorous learning of language. Reminding readers that most hearing-speaking people evolved with one language only, some asked why teachers expected deaf pupils to be bilingual and to learn both sign language *and* written French, when their access to language was already so difficult. For these people, dactylology represented a useful means of enhancing instruction by providing a unique language of communication, both in hand signs and in writing, and offering the strict equivalent to speech for hearing people. Others saw in dactylology an incomplete tool that still had to be complemented by sign language.

In his 1822 work presenting a new system of sign language, Abbé Jamet actively defended dactylology (Jamet 1822). A canon in Bayeux, he was a teacher of deaf children and a member of the Royal Academy of Sciences, Arts, and Letters in the towns of Caen and Rouen. While insisting that his intention was only to complement the method in use at the Royal Institute in Paris, he in fact presented a fully new system of signs offering new access to language and the teaching of language. Keeping his distance from the techniques of the Royal Institute, Jamet envisioned a system of sign language intended to be used only to explain meaning to pupils. Dactylology, on the other hand, would be for daily use because it was faster. Dactylology was emerging as a primary means of communication.

Joseph Piroux was soon to reinforce such claims and to become dactylology's strongest advocate in the nineteenth century. After discovering his vocation while teaching three deaf children, Piroux got support from officials in Nancy, a rich town in northeastern France, to go to Paris for two years to learn pedagogy at the Royal Institute for Deaf-Mutes. When he returned to Nancy, he founded and directed an institute for deaf pupils; he was able to gain the support of officials not only in his *département* but also in three neighboring ones. In order to provide for the needs of his several classes, he hired as a teacher Claude-Joseph Richardin, who had been a pupil in the Royal Institute in Paris and whom Piroux met during his time there. Piroux went

on to publish over fifty works in the course of his lifetime, including letters to officials, to parents, and to deaf people, and methods developed for teachers in ordinary schools. He edited the journal *L'Ami des sourds-muets* from 1838 to 1843—for which he was also the main and almost sole writer. While Piroux never obtained enough support to turn his institute into a national one, he was a member of numerous academies and secured help from various officials. Convinced that the instruction of deaf children had to begin as early as possible, he enjoined parents, priests, and teachers at elementary schools to start early in order to make up for the late admission of deaf pupils (between the ages of nine and twelve) into the national and regional institutes, as well as to compensate for the lack of bursaries and places to welcome all deaf pupils. Piroux won over to his cause the prefect (administrator of the region), who distributed his publications to elementary school teachers and defrayed the costs for teachers in his region to spend a month with him learning his methods. In a 1859 publication, Piroux boasted that thanks to his efforts to train ordinary teachers and parents, among the 120 deaf pupils who were admitted to his institute in 1837–38, over a hundred had already been to school or been educated by their parents and, thus, already had a sense of language and its conventions, which greatly enhanced their ability to learn (Piroux 1859, 13). The instruction they received was based, precisely, on dactylology, which allowed a common means of expression throughout schools and families and alleviated the need to learn sign language, which, due to the number of signs needed, rendered the task difficult.

Piroux saw in dactylology the best opportunity for deaf pupils to learn French. He was opposed to the teaching of methodical signs, which he considered unnecessarily complicated for their combination of the natural quality of signs and grammatical information. The use of dactylology avoided the difficulty raised by the teaching of speech, and it secured the clarity and precision of communication. “Language of action” (*langage d’action*) was a form of mimetic language that proceeded by pointing at objects mentioned and signifying what one wanted by signs using the surrounding context; exteriorization was intended to disappear progressively as words were mastered. As such, Piroux’s vision of the use of dactylology and its merits was quite close to Jamet’s—though Piroux never mentioned him.



Piroux advocated the teaching of dactylology to all hearing pupils, too, predicting that they would rejoice in using it, seeing it as a game. This in turn would lead deaf children to take better advantage of it, he believed; while using it with their hearing counterparts, they would fully appropriate it and make progress without even trying. He used it in classes for pupils' tests, along with several other teachers, including Jean-Jacques Valade-Gabel, who taught in the Royal Institute for Deaf-Mutes in Paris before he was hired as a director of the Royal Institute of Bordeaux. Piroux used Bonet's dactylology, in which each letter was determined by a fixed position, abandoning it only for the *j* and the *z*, which are made by small movements of the pinky and the index finger (Piroux 1856, 42–43).

In an article to which he appended a dactylological table, Piroux stated that “instead of enslaving thought, dactylology will rival speech for the moral and intellectual commerce of souls, and deaf-mutes will not only immediately speak it with more warmth, but they will enrich it with all the physiognomy it involves, painting the feelings that always accompany thought” (Piroux 1838, 18). This meant, at first, going back and forth between “language of action” and dactylology. Following numerous articles (see figures 4 and 5) that Piroux dedicated to the

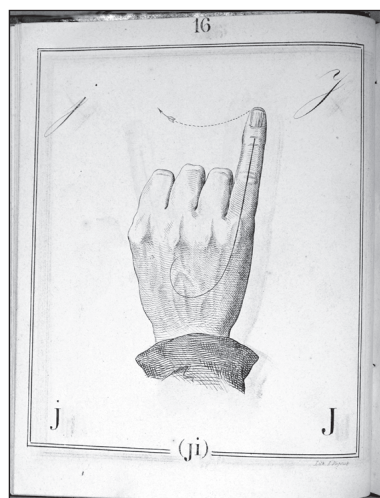


FIGURE 4. Piroux, Joseph. 1846. *Méthode de Dactylologie de lecture et d'écriture à l'usage des sourds-muets dans leur famille dans les écoles primaires, dans les écoles spéciales et dans le monde*, Nancy, Paris: Hachette, p. 16. © Bibliothèque de l'Académie nationale de médecine



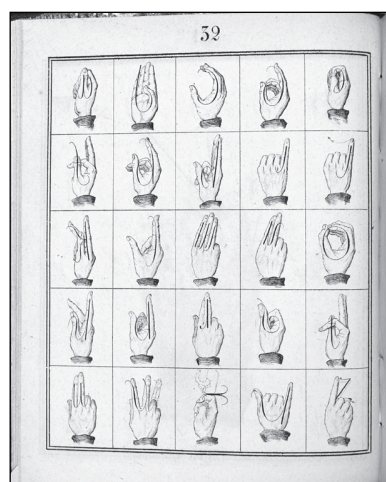


FIGURE 5. Piroux, Joseph. 1846. *Méthode de Dactylogie de lecture et d'écriture à l'usage des sourds-muets dans leur famille dans les écoles primaires, dans les écoles spéciales et dans le monde*, Nancy, Paris: Hachette, p. 17. © Bibliothèque de l'Académie nationale de médecine

subject in his journal, in 1856 his *Méthode de dactylogie* (republished by Hachette in 1864) detailed its use for the education of deaf children (Piroux 1864). Illustrations in his *Méthode* showed how to employ the language of action, which could be used almost without previous knowledge of signs, to explain the meanings of new words. For Piroux, bilingualism was the key to learning, since “signs of action” would be there to explain the words that dactylology would provide.

The role of parents was essential, as dactylology was meant to be taught as the “mother tongue.” Parents had to learn this alphabet in order to use it with their children (Piroux 1864, 63). In fact, for Piroux, there was a dramatic difference between the use of dactylology and the use of written language. He wrote: “When one writes [a language] on paper, it is no longer a maternal language, and becomes purely intellectual. It then develops merely in the head and no longer in the heart, and emotional sensations stiffen affectionate feelings. Pride, duplicity, ingratitude, injustice, rash judgments come into the open, and the infirmity spreads instead of being healed” (Piroux 1856, 22). This radical statement reduced the methods used in the Royal Institute in Paris not only to inefficacy, but to dangerous inefficacy. Piroux made the separation between sign language and written language the source of a gap opposing the heart and the head. Up until

then, the relationship between natural signs created by deaf people and methodical signs, to which the grammatical structure of French had been added, had led commentators to endow sign language with the innocence of the early stages of humanity. Signs were still seen as a remnant of humans' first language, before civilization corrupted people with superficial needs. For most teachers, such an association supported a positive vision of the moral value of sign language, even though in most cases this was not articulated, but simply implied. With Piroux, the use of sign language was instead suddenly presented as a force independent of the intellect. Reduced to strengthening the ego, it would, he believed, accentuate the isolation of deaf people by leading them to react only according to their perceptions. In contrast, dactylology was meant to reconcile thinking and feeling by providing a single means of communication, to be used in any intercourse as well as in writing. Piroux went so far as to write: "Once the habit has become second nature, dactylology is really like a source from which divine light beams in all directions" (Piroux 1856, 40–41). An etching in the booklet illustrated this conception: dactylology is at the center, radiating eight arrows, each of which bears a qualification: morals,

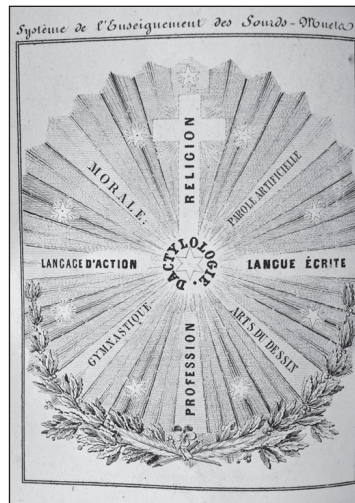


FIGURE 6. Piroux, Joseph. 1846. *Méthode de Dactylologie de lecture et d'écriture à l'usage des sourds-muets dans leur famille dans les écoles primaires, dans les écoles spéciales et dans le monde*, Nancy, Paris: Hachette, 32. © Bibliothèque de l'Académie nationale de médecine

religion, artificial speech, written language, arts of drawing, professions, gymnastics, and language of action (see figure 6).

Many deaf teachers throughout France championed the teaching of dactylology; Pierre Pélissier, Claude-Joseph Richardin, Alphonse Lenoir, Benjamin Dubois, and L.A. Capon published works outlining its merits. Most of those who published papers supporting dactylology had become deaf after birth, and they taught all methods of communication: sign language, dactylology, writing, and reading. Several were in charge of articulation classes. Richardin, following in the wake of his director, Piroux, avidly championed dactylology. While working at the Institute of Nancy, he published a series of booklets, including one entitled *Dactylologie ou art de converser avec les sourds-muets instruits au moyen de l'alphabet manuel, suivi d'un coup d'œil général sur l'instruction des sourds-muets* [Dactylology, or the Art of Conversing with Deaf-Mutes Instructed by Means of the Manual Alphabet, Followed by a General Glance at the Instruction of Deaf-Mutes], a work that was reprinted twelve times (Richardin 1839) and translated into English (Richardin 1873). This booklet advocated both dactylology and sign language, mainly quoting Piroux for the former and Bébien for the latter. Richardin saw in their combination the opportunity to maximize communication. He also advocated the use of abbreviations to speed up the use of dactylology. He encouraged the hearing-speaking to learn dactylology, both in order to be able to communicate with deaf people and to be able to use it in society, where it was known by so few. He reproduced entire sentences in dactylology, such as “Hello, sir, how are you doing today? Wonderfully / well / not well.” The cost of Richardin’s booklet was 30 cents, which made it accessible to a wide readership (Richardin 1860, n.p.). Pierre Pélissier, who was educated by Abbé Chazottes in Toulouse, achieved some fame as a poet, gaining the attention of the famous French poet Alphonse de Lamartine. He was about a generation younger than Berthier and became a teacher at the Royal Institute in Paris. He included a dactylology in his 1846 *Les Sourds-muets au XIX<sup>e</sup> siècle* [Deaf-Mute People in the Nineteenth Century], which won a prize from the Society of Moral Sciences of Seine-et-Oise (Pélissier 1846). Pélissier characterized the technique as a work of genius, distinguishing between sign language as a means to explain language and dactylology as a way to replace speech between

hearing and deaf people. Five years later, his *Dactylologie à l'usage de ceux qui désirent parler avec les mains et entendre avec les yeux* [Dactylology for the Use of Those Who Wish to Talk with Their Hands and Hear with Their Eyes] expanded his positions; Pélissier added further cases in which dactylology could be used, including voice loss or ignorance of the spoken language in one's environment (Pélissier 1851, 5).

Alphonse Lenoir, teacher at the Royal Institute of Deaf-Mutes in Paris and vice president of the Society of Deaf-Mutes, dedicated a work to dactylology in 1848, an expanded edition of which he republished two years later. Following the model of Pélissier's works, Lenoir included the dactylological alphabet; excerpts from Berthier, Bébien, and Pélissier; and a series of anecdotes attesting to the power of this means of communication (a model later followed also by L.A. Capon, a teacher in the school for deaf children in Rouen. See Lenoir 1848, 1850). In his text, Lenoir recounted how, during a stay in London of several weeks, he noticed that British deaf people used dactylology in their daily intercourse. He commented that even though sign language "paints better and adorns with the brightest colors the thought it reproduces" ("le langage des gestes peint mieux et orne de plus vives couleurs les pensées qu'il reproduit," Lenoir 1850, 20), the alphabet familiarizes the user with words, which in turn facilitates writing. His advice was to follow the British example as much as possible (see Lenoir 1850, 20). Capon furthered Lenoir's claim by stating that, according to the journal *Magasin Pittoresque*, everybody in the United States was familiar with the manual alphabet (Capon 1868, 5).

Benjamin Dubois's 1867 *Dactylologie ou l'art de converser au moyen des doigts par l'abbé de l'Épée* [Dactylology, or the Art of Conversing with Fingers by Abbé de l'Épée] echoed Lenoir, insisting that dactylology is a means not only of communication, but also of instruction and pleasure (Dubois and de l'Épée 1867, 14–15). Deaf since the age of four, Dubois also joined the institute in Paris to teach there. He presented both a dactylology for use with both hands and one for use with one hand, evoking the existence of other dactylologies for one hand that have largely been forgotten. Describing the signs for punctuation and some abbreviations to speed up things, he advised that one first learn some words and then progressively replace all natural signs with dactylological signs. He reminded his reader that with such

a tool, one could start conversing with anyone who had mastered it without going through the thousands of instances of trial and error typically produced with the use of sign language.

Adolphe Franck, a philosophy professor, cited the merits of dactylology in a 1861 report to the Ministry of the Interior (Franck 1862). Sent to evaluate the teaching methods developed in two different deaf schools, the professor ended his report by supporting dactylology, which both schools were employing as a side practice despite the disparity of their methods. He noted that dactylology had also been used by Péreire and Abbé de l'Epée—who also differed radically in their teaching. To Franck, replacing the vocal organs with hand movements was an excellent way to learn spelling, the words themselves, and the construction of phrases, as well as to precisely recite lessons of all types (Franck 1862, 20).

As if to aid in putting Franck's report into practice, in 1873 Jérôme Clamaron published an *Alphabet Dactylogique* (see figures 7 through 12) in which he put to use techniques used in alphabets intended to teach hearing-speaking children to read (see Le Men 1984). Clamaron, who was director of the lithographic workshop of the National

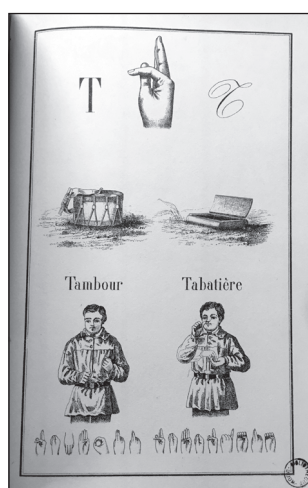


FIGURE 7. Clamaron, Jérôme. 1875. *Alphabet dactylogique, orné de dessins variés présentant deux exemples pour l'application de chacun des signes dactylogiques*. Paris: Institution Nationale des Sourds-Muets de Paris. No page numbers. Courtesy of the Bibliothèque Municipale de Dijon.

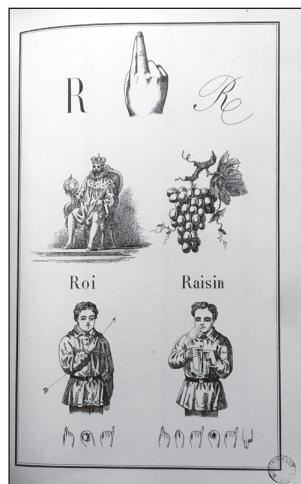


FIGURE 8. Clamaron, Jérôme. 1875. *Alphabet dactylogique, orné de dessins variés présentant deux exemples pour l'application de chacun des signes dactylogiques*. Paris: Institution Nationale des Sourds-Muets de Paris. No page numbers. Courtesy of the Bibliothèque Municipale de Dijon.



FIGURE 9. Clamaron, Jérôme. 1875. *Alphabet dactylogique, orné de dessins variés présentant deux exemples pour l'application de chacun des signes dactylogiques*. Paris: Institution Nationale des Sourds-Muets de Paris. No page numbers. Courtesy of the Bibliothèque Municipale de Dijon.

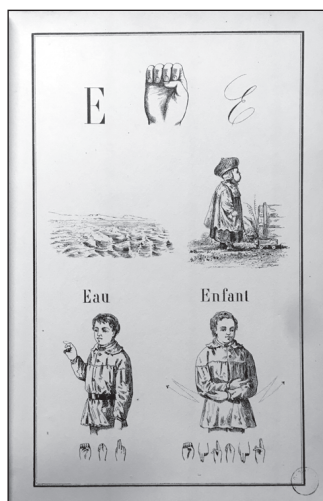


FIGURE 10. Clamaron, Jérôme. 1875. *Alphabet dactylogique, orné de dessins variés présentant deux exemples pour l'application de chacun des signes dactylogiques*. Paris: Institution Nationale des Sourds-Muets de Paris. No page numbers. Courtesy of the Bibliothèque Municipale de Dijon.

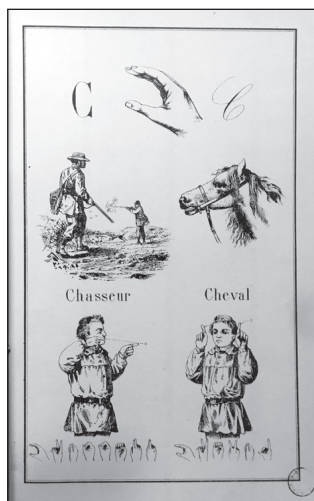


FIGURE 11. Clamaron, Jérôme. 1875. *Alphabet dactylogique, orné de dessins variés présentant deux exemples pour l'application de chacun des signes dactylogiques*. Paris: Institution Nationale des Sourds-Muets de Paris. No page numbers. Courtesy of the Bibliothèque Municipale de Dijon.



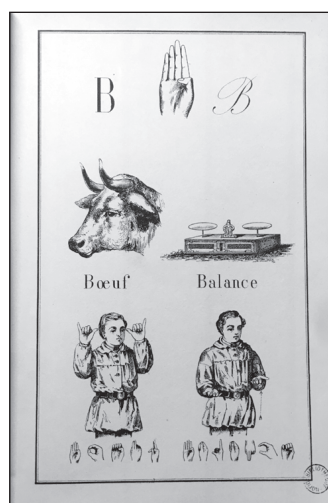


FIGURE 12. Clamaron, Jérôme. 1875. *Alphabet dactylogique, orné de dessins variés présentant deux exemples pour l'application de chacun des signes dactylogiques*. Paris: Institution Nationale des Sourds-Muets de Paris. No page numbers. Courtesy of the Bibliothèque Municipale de Dijon.

Institute, included for each letter in his booklet two fine drawings of an object, an animal, or a trade, the name of which begins with this letter, thus making use of acrology to facilitate memorization. It also included full names reproduced in dactylology with a series of hands, as well as drawings of a pupil performing them, using a gray tint to indicate subsequent movements. The care given to this booklet, so much more elaborate than the simple dactylological table first reproduced by Sicard, is striking. The finesse of the drawings insisted upon the richness of a way of communication initially largely dismissed by the teachers of the institute and made it an ideal companion for practicing. The booklet insisted on the combination of hands in the full expression of words to position dactylology as a kind of bridge that would lead deaf people to replace sign language and familiarize themselves with letters.

In the meantime, dactylology was spreading and was being conceptualized in a wider context. In a large, illustrated volume from 1850, Joseph Barrois made the claim that he could trace the universal, atemporal, and identical use of dactylology on historical monuments such as obelisks, asserting that dactylology was derived from patriarchal



language and had long been used along with “signs of action.” Used by both hearing and deaf people, signs of action were mostly indexical signs and iconic gestures created in context to communicate with people in one’s immediate surroundings. According to Barrois, this collage of signs whose meaning could be easily guessed was intended to ensure the unity of the children of Noah at the time of Babel and the linguistic differentiation (Barrois 1850, 51). First used, he wrote, to complement speech when new languages were being shaped, all nations subsequently abandoned these signs of action. Another work Barrois published in 1853 made claims for dactylology as the direct follow-up to cuneiform writing (Barrois 1853). The following year, Abbé Migne, editor of the Universal Library of the Clergy, a sort of encyclopedia, dedicated a large section to dactylology in which he included excerpts from eighteenth- and nineteenth-century pedagogues and deaf writers, along with some personal analysis; he also gathered texts on sign language and articulation, as if they were merely a subsection of dactylology (Migne 1854).

While the theorization of the role and uses of dactylology kept changing over the course of the century, new dactylological systems were also continually being created, with the aim of enhancing its potential and questioning the use of methodical signs. Starting in the 1820s, a myriad of initiatives attempted to spread dactylology among parents, doctors, deaf people, and hearing-speaking people. Dactylology was reconceptualized in order to both simplify it and to speed it up. These initiatives also ventured to rethink the alphabet and its use; some attempted to rethink spelling, others claimed to rationalize it, and still others to rethink its written form (see, for example, Ackermann 1838; Faure-Lacroze 1831; Guinand 1868; Lagache 1897).

Engineer Jean-Baptiste-Antoine Recoing, whose only qualification on his title page was that he had studied at l’Ecole Polytechnique, published a *Syllabaire dactylogique ou tableau d’une langue manuelle à l’usage des sourds-muets* [Dactylological Table of Syllables, or Table of a Manual Language for the Use of Deaf-Mutes] in 1823 (Recoing 1823). In the book, he tells us that he undertook the education of his deaf son well before learning of the methods in use at the Royal Institute. The work offers what what De Gérando called a “tachygraphie



FIGURE 13. Recoing, Jean-Baptiste-Antoine. 1823. *Syllabaire dactylogique ou tableau d'une langue manuelle à l'usage des sourds-muets*. Paris: Verret. Plate XV. Courtesy of the Médiathèque de Troyes.

manuelle” [dactylological shorthand] based on 500 signs created with the hands only (De Gérando 1827, 260). The advantage of this system was that not all of each word had to be spelled. The aim of speeding up communication lessened the connection to written words; specific positions for groups of letters were independent of syllables and meaning (see figures 13 and 14). It proved to be a challenging task for the memories of both deaf and hearing interlocutors (the challenge was probably even greater for hearing people than for deaf people, who could be taught from the start in that fashion). In 1829 Recoing published a second version, *Le Sourd-muet entendant par les yeux ou triple moyen de communiquer* [The Deaf-Mute Listening with His Eyes, or, Triple Means of Communication], following his elaboration of a stenographic system in 1826 (Recoing 1829). (See figures 15, 16, and 17.) This second version drastically reduced the number of signs in the hope of rendering the system more accessible. Instead of “writing with the fingers,” this dactylology included pointing to specific parts of the open hand, which stood for syllables and groups of letters. Although his work does not seem to have garnered reviews other than harsh criticism from Berthier, Recoing was offered the position of director of the Royal Institute, which he refused (see Feller 1850). Recoing’s dactylology took full advantage, in the wake of Péreire, of the dual



FIGURE 14. Recoing, Jean-Baptiste-Antoine. 1823. *Syllabaire dactylologique ou tableau d'une langue manuelle à l'usage des sourds-muets*. Paris: Verret. Plate X. Courtesy of the Médiathèque de Troyes.

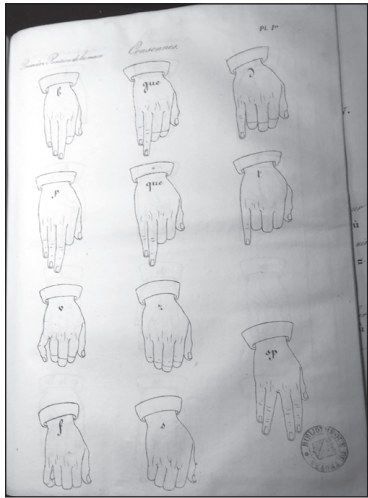


FIGURE 15. Recoing, Jean-Baptiste-Antoine. 1829. *Le sourd-muet entendant par les yeux, ou: Triple moyen de communication avec ces infortunés, par des procédés abrégatifs de l'écriture, suivi d'un projet d'imprimerie syllabique*. Paris, Troyes: Roret, Laloy, Sainteon. Plate I. Courtesy of the Médiathèque de Troyes.

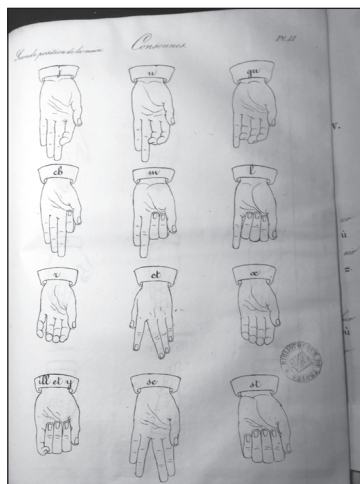


FIGURE 16. Recoing, Jean-Baptiste-Antoine. 1829. *Le sourd-muet entendant par les yeux, ou: Triple moyen de communication avec ces infortunés, par des procédés abrégatifs de l'écriture, suivi d'un projet d'imprimerie syllabique*. Paris, Troyes: Roret, Laloy, Sainteon. Plate II. Courtesy of the Médiathèque de Troyes.

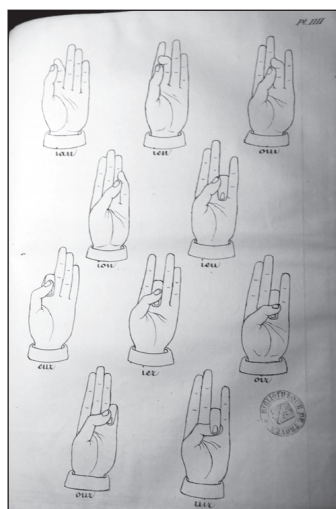


Figure 17. Recoing, Jean-Baptiste-Antoine. 1829. *Le sourd-muet entendant par les yeux, ou: Triple moyen de communication avec ces infortunés, par des procédés abrégatifs de l'écriture, suivi d'un projet d'imprimerie syllabique*. Paris, Troyes: Roret, Laloy, Sainteon. Plate IV. Courtesy of the Médiathèque de Troyes.

nature of the medium. For him, dactylogy was not a way to learn the correct spelling of words, but a means to learn pronunciation. Eyes were no longer meant to *read* the words fingers are spelling, but to *listen* as they recognize the word by “reading” its sound. In fact, it was a paradoxical way to communicate in visual ways—by referring to what one should hear and not to what one would read if reading the same word in a book. Dactylogy was no longer a replacement for chalk and slate or an attempt to create a speedy form of writing, but was to provide a pedagogical tool for phonetics. Reversing the method of those who advise lip reading, Recoing was asking his interlocutors to decipher sounds in the reading of the phonetic information. Sixty years before Paul Passy’s invention of a phonetic alphabet, Recoing was creating some first attempts for deaf people. It had the ambitious aim of reorganizing words according to their pronunciation in order to sign them. His method’s main value was actually for the learning of speech, as it meant for every word the double task of learning both spelling and pronunciation, a requirement valuable only to a hearing world.

In December 1829, the physician Deleau le jeune shared his *Exposé d’une nouvelle dactylogie alphabétique et syllabique* [Presentation of a New Alphabetical and Syllabic Dactylogy] with the Academy of Sciences; it offered a new form of “tachygraphy,” which returned to a use of dactylogy that was faithful to spelling (Deleau 1830). In his system, Deleau divided words into syllables that were to be reproduced by pointing to specific spots on the fingers with the thumb. The right hand’s phalanges and palm would stand for consonants or their combination when read together (such as *ch*, *gn*, *ill*, *qu*); the vowels and their combinations were distributed across the left hand (see figures 18–20). Deleau traced imaginary lines to place the letters exactly on various parts of the hand, and he suggested the use of gloves for new users. He referred to the hand as a speaking organ that could reach the speed of speech with the use of abbreviations. By no longer dividing words into letters but rather into syllables, he intended for his system to offer the closest mode of intercourse to speech. Yet, in order to fit in all the options, Deleau sometimes had to place two syllables on the same phalanges. The challenging dexterity required might well have been the cause of its lack of success.

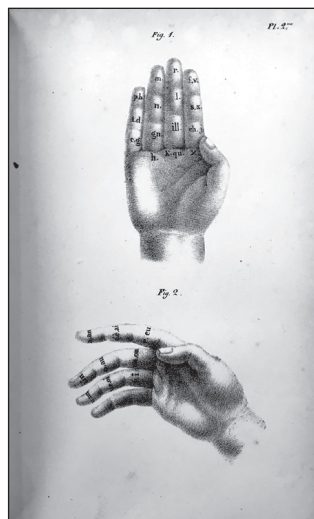


Figure 18. Deleau, Nicolas. 1830. *Exposé d'une nouvelle dactylogologie alphabétique et syllabique, indispensable aux personnes qui veulent commencer l'instruction des sourds-muets*, Mémoire lu à l'Académie des Sciences de Paris, le 14 décembre 1829. Cambrai: impr. de A.-F. Hurez. Plate II. Courtesy of the BIU Santé.

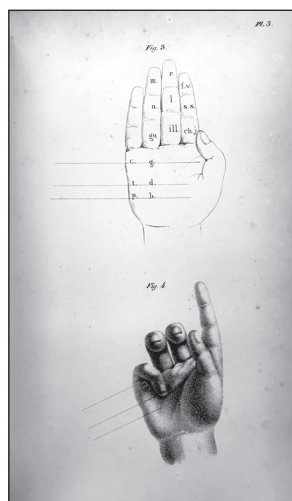


Figure 19. Deleau, Nicolas. 1830. *Exposé d'une nouvelle dactylogologie alphabétique et syllabique, indispensable aux personnes qui veulent commencer l'instruction des sourds-muets*, Mémoire lu à l'Académie des Sciences de Paris, le 14 décembre 1829. Cambrai: impr. de A.-F. Hurez. Plate III. Courtesy of the BIU Santé.

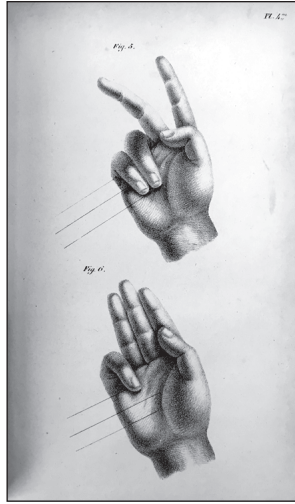


Figure 20. Deleau, Nicolas. 1830. *Exposé d'une nouvelle dactylogologie alphabétique et syllabique, indispensable aux personnes qui veulent commencer l'instruction des sourds-muets, Mémoire lu à l'Académie des Sciences de Paris, le 14 décembre 1829*. Cambrai: impr. de A.-F. Hurez. Plate IV. Courtesy of the BIU Santé.

Other experiments were published, also without success, but that did not discourage new attempts, which emerged from all over and were often prompted by the contemporaneous interest in stenography. Such was the case of C. Petitpoisson, who offered a stenography of dactylology, and of J.-M Duvernois, who called himself a “student of nature” (Duvernois 1846, title page; Petitpoisson 1840). The latter presented his dactylology, which identified eight positions for letters on the hand, themselves changing depending on the four possible positions of the wrist, as a “natural alphabet.” How to apply it, however, was and remains mysterious, and nowhere does Duvernois refer to applications for deaf people (Duvernois 1846, 29). Others, such as the doctor D. Saintard, tried harder to tailor their works for their use. Saintard published his *Nouvelle méthode de langage par signes* [New Method of Language by Signs] in 1845 and republished it in 1864 (Saintard 1864; the second edition attracted no more reviews than the first), consisting of ninety-four illustrations in which letters were drawn on the hand, the torso, and the legs—so that all parts of the body could be made use of. The most developed alphabet, however,



was the one he planned for the use of the fingers and the palm of the hand. The end of each finger stood for one vowel. In addition to pointing to the specific places where the letters would be positioned, the movement showing them was to indicate whether these letters had an accent, and what kind, or a dieresis. Different spots on the hand denoted punctuation, quote marks, parentheses, and numbers. In 1845, Saintard also published, with M. de Saint-Gilles, a method for the instruction of both the blind and the seeing. No other traces remain of his activities.

The lawyer Charlemagne Wilhorgne was the next to offer a system, this time also intended for discourse with his deaf fellows: *Dactylographie ou sténographie des doigts, art de converser avec les sourds-muets avec ce procédé* [Dactylology, or Stenography of the Fingers, the Art of Conversing with Deaf-Mutes Using This Process] in 1847 (Wilhorgne 1846). His publication presented a mnemonic alphabet, which he hoped would offer a speedier version of dactylology, rivaling the speed of speech. It was similar in principle to the previous two, but much simpler. All letters were positioned either on a phalanx or one part of the right hand, and the twenty-two most frequent endings of words were signified by the phalanges and center of the left hand. His method conveyed its own simplicity by the fact that it could be fully represented on a poster, without any supplemental text. Wilhorgne also compiled a list of forty-one abbreviations, using one or two letters, of the most common words. He sent it for review to the Royal Institute for Deaf-Mutes, but Berthier's report did not recommend Wilhorgne's technique, and it was abandoned. Wilhorgne continued to push for the validity of his system, addressing letters to a teacher, Edouard Morel, to be published in his journal (Wilhorgne 1847, 1848). He offered to modify his system and to combine the use of endings with the Spanish dactylography in use at the time. He also suggested the use of a prepared glove until one had memorized the locations of all the endings on the fingers. The following year, he even imagined combining dactylology and sign language, but none of his attempts to establish his method were successful. The writer and socialist Paul Buessard's *Alphabet mimique vrai* [True Mimic Alphabet] offered another version, this time without any drawings, but simply a written description of the way to represent each letter with the fingers. He admitted that his



alphabet was slower than others but touted its enhanced intelligibility, which would enable deaf people to be understood by all.

New forms of dactylogologies to be used on a daily basis were also developed in teaching institutions, in particular by the Frères Saint Gabriel. After Gabriel Deshayes opened a school for deaf children in 1810, his order and the Sœurs de la Sagesse eventually operated fifteen schools dedicated to the teaching of deaf children, serving 1,000 pupils throughout France. Hoping to unify signs at the national level, the Frères Saint Gabriel shared and discussed their methods. Jean Pineau worked at the invention of a new system of signs called a “cheirol-ogy,” based on the use of hands rather than fingers (Pineau 1850). His work addressed what he saw as the greatest problem for deaf pupils: their lack of mastery of French. For him, this was easily explained by the fact of their using different sign language systems to communicate during class and for daily interactions outside school. The system they use, he argued, must be as close as possible to speech and must make use of stenography. He explained that he had tried to locate Péréire’s dactylogy but was unable to, and so he endeavored to create a new one based on spelling. Pineau’s work, published in 1850, was presented on a large poster that included a sizable table showing a combination of positions as well as a commentary on the side. His system respected spelling and was based on the use of ninety signs with both hands—so that one could sign syllables, or small or frequent words, along with word endings. Pineau relinquished the use of his method in 1854, when he decided, along with the Frères Saint Gabriel, in favor of phonodactylogy, which would enhance the ability to speak (Augereau 1856; see Chéory 2014).

Attesting to the continued interest in the creation of dactylogologies, even when speech had become the only official method taught to deaf pupils, in 1902 the chemist Legrand offered a new version which he entitled *La Phonoscopie* [Phonoscopy]. In this system, the fingers were to point only to specific places, very much in the fashion of Deleau. But this time, it was not the phalanges of the hand pointed to but an imagined position on a disk on which the consonants were positioned like the numbers on a clock, with the vowels at the center. Convinced of the potential uses of his invention, Legrand published

the small booklet at his own expense and sold it for 50 cents. In the booklet, he described phonoscopy's multiple potential applications: for deaf people, for general education, for industry, for advertising, and as a complement to the telegraph. Writing, he argued, would no longer be necessary for communication; pointing and reading the phonoscopy would replace it. Convinced that people would soon memorize the placement of letters just as they remember the placement of numbers on a clock, he insisted that, with a little practice, one could read the words even before they were pointed at with the hand. Predicting a rapid spread of its usage among both hearing-speaking and deaf people, he did not hesitate to recommend that deaf people never leave the house without it (Legrand 1902, 11).

From the moment it became associated with the teaching of deaf students, fingerspelling generated the most diverse claims, and its usage was linked to ideological choices in teaching methods diverging from those defending sign language. As phonological signs, the use of one system of dactylology became a defining feature of linguistic choices, and a problematic asset, attracting the interest of some and the disapprobation of others. The conflicting claims that either promoted or rejected the use of dactylology in teaching or in daily practice saw in the doubleness of its practice either better opportunities for the integration of pupils or a difficult dependence on speech. Nineteenth-century works show us that the deaf community was no more united in its linguistic choices then than it is today.

How can the increased interest in dactylology between the 1820s and the 1850s be understood when the later debate between speech and sign language virtually erased it? It can be surprising to see how many writers claimed to be theorizing a system of communication for deaf people without actually having any pedagogical relationship to them—they were in it, it seems, merely for the sake of the invention. For teachers, the interest in dactylology probably mostly emerged from an increased desire for a language that would provide deaf people with a means of communication they could use with anyone, and the hope that hearing-speaking people could also master it as primary schools slowly grew to provide everyone with the rudiments

of reading and writing. As a sign language directly related to written French, dactylogy appeared to some to be a perfect compromise.

Testament to an incredible creativity that constantly rethought dactylological systems, the breadth and depth of these publications has nevertheless been totally forgotten. Most of these books are available only in one or two libraries—though there are also probably copies in some institute archives that have not yet been catalogued. Their existence reminds us that even before advocates fought for the recognition of sign language, the choosing of a primary system of signs occurred without other systems being given the chance of a real trial (with the exception of the Frères Saint-Gabriel, who were unanimous in their choice of cheirology and, four years later, in the use of phonodactylogy). The recognition of a French sign language and fingerspelling meant a reduction to one system, a choice for which the system in use at the national institution played the main role—no matter which new methods were introduced. One can only think here of the constraints of historical research dealing with this time period, whose material is limited to written archives. Deaf people themselves most likely also created their own fingerspelling, teaching it to each other without publishing tracts about it, preferring live instruction to the format of a book. It will be for the anthropologist and the linguist to look further into the pursuit of such practices in recent times (See, for example, Bernard 2009; Delaporte 2007; Delaporte and Pelletier 2012; Delaporte and Renard 2007).

## Notes

1. From 12 percent to 35 percent; see Padden and Gunsauls (2003, 15).
2. In the context of this article I avoid using the word *Deaf* with a capital D because of its anachronistic character. Following Annelies Kusters, Maartje de Meulder, and Dai O'Brien's position in their introduction to their book, *Innovations in Deaf Studies*, I have decided to use the term *deaf* with a small "d" as the most inclusive term throughout the article, when no other term is prompted by the context (Kusters, de Meulder, and O'Brien 2017, 13–15). For historical accuracy, I retain the terms *deaf-mute* and *deaf and mute* when they are used in quotes and in the title of the institutions. At the time of de l'Épée and Pierre Desloges, the appellation in use was *deaf and mutes*. The compound word *deaf-mute* circulated in France from the French revolution, when it was decided to create several "National Institutes for Deaf-Mutes."

3. Many scholars have now established that Abbé de l'Epée's school was not the first; Etienne de Fay was one of his predecessors (see Presneau 1998, 63–66; Bézagu-Deluy 1990, 36).
4. All translations are mine.
5. Librarian Dom Stiles was the only one to write about this publication, on the library blog.
6. Many referred to themselves as Citizen in the wake of the revolution.

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