"The Gesture Speech of Mankind": Old and New Entanglements in the Histories of American Indian and European Sign Languages

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Between the 1880s and the 1920s, Americans became fascinated with newly "discovered" manually coded languages among western Indian groups. Members of the recently established Bureau of American Ethnology recorded fully conventional sign languages in the Great Plains, Great Basin, and Plateau regions of western North America, notably among the Arapaho, Cheyenne, Lakota, Blackfoot, Comanche, Paiute, and Crow peoples.[1] These sign language systems served the Indian societies who used them as what linguists call an "international auxiliary language"—a *lingua franca* shared by two or more distinct linguistic groups, allowing communication across language barriers, such as between trade or military partners. But, more unexpectedly,

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[1] By "conventional sign language" I mean formally established communication systems of hand and arm signs functioning as a separate language within a specific culture. While all idiosyncratic gestures within a culture are to some extent conventional (coded, or culturally established), only some systems constitute sign languages proper. The Bureau of American Ethnology was created by an act of Congress in 1879 as an independent research branch of the Smithsonian Institution, making early anthropological/ethnological research among American Indians a primarily government-sponsored initiative. The most important works of the period on this subject were authored by a veteran of the U.S. military, Garrick Mallery. Mallery's work was originally published as *Introduction to the Study of Sign Language among the North American Indians as Illustrating the Gesture Speech of Mankind* (Washington, D.C., 1880); an expanded and revised version was published the following year as *Sign Language among North American Indians, Compared with That among Other Peoples and Deaf-Mutes* (Washington, D.C., 1881) and included that same year in J. W. Powell, ed., *First Annual Report of the Bureau of Ethnology of the Smithsonian Institution for 1879–1880* (Washington, D.C., 1881), 263–552. Mallery also produced a 329-page long report that was circulated only among collaborators at the Smithsonian, titled *A Collection of Gesture Signs and Signals with Some Comparison* (Washington, D.C., 1880). Other studies from that period include William P. Clark, *The Indian Sign Language, with Brief Explanatory Notes of the Gestures Taught Deaf-Mutes in Our Institutions for Their Instruction, and a Description of Some of the Peculiar Laws, Customs, Myths, Superstitions, Ways of Living, Code of Peace and War Signals of Our Aborigines* (Philadelphia, 1885); Lewis F. Hadley, *Indian Sign Talk* (Chicago, 1891); Ernest Thompson Seton, *Sign Talk: A Universal Signal Code, without Apparatus, for Use in the Army, Navy, Camping, Hunting, and Daily Life* (New York, 1918); William Tomkins, *Universal Indian Sign Language of the Plains Indians of North America* (San Diego, Calif., 1926).

Plains Indians Sign Language (PISL), as it came to be known, also functioned as an "alternate sign system," by which is meant a separate, internal language that is completely autonomous from speech and is used by speaking-hearing communities who share the same dialect. Belying the common assumption that manual signing is used only when speech is unavailable, Indian sign languages were thus summoned on certain occasions when spoken conversation was possible but silence was preferred, for instance in ceremonial settings or when hunting, as well as in conjunction with formal oratory.[2]

Rather than focusing on the critical dialogic relationship between verbal and nonverbal modes of expression, however, government-sponsored scientists at the turn of the century conceptualized Indian sign languages in conjunction with their most obvious equivalent in Western culture, the sign languages of deaf communities. Following decidedly evolutionist perspectives that presupposed the subaltern status of signs to verbal languages, they conducted several methodical experiments to compare examples of indigenous sign language with the still-nascent American Sign Language (ASL) in which Anglo-American hearing-impaired pupils were instructed.[3] On March 6, 1880, seven Ute men were taken by Lieutenant-Colonel Garrick Mallery to the National Deaf-Mute College in Washington, D.C. (today Gallaudet University), where researchers observed what happened when deaf students told the Indians scripted stories using ASL signs.[4] Despite a few inaccuracies and impasses in the translation process, most of which were attributed to cultural differences rather than communicative deficiencies, the reports were overwhelmingly positive. Mallery, the foremost specialist of the time in the study of Indian signs, used the case study to argue that "what is called *the* sign language of Indians is not, properly speaking, one language, but . . . it and the gesture systems of deaf-mutes and of all peoples constitute together one language—the gesture speech of mankind—of which each system is a dialect."[5] In this statement, Mallery captured the two most prominent and problematic concepts attached to the observation of American Indian sign languages in

[2] The best recent study of PISL is Jeffrey E. Davis, *Hand Talk: Sign Language among American Indian Nations* (Cambridge, 2011). Davis, who keeps his focus on the Western Plains and developments since the 1800s, states that "this book is the first of its kind published in more than one hundred years" (xviii), in part because of the predominant dismissal of PISL in the field of sign language studies. See also Brenda Farnell, *Do You See What I Mean? Plains Indian Sign Talk and the Embodiment of Action* (Austin, Tex., 1995); Jeffrey Davis and Samuel Supalla, "A Sociolinguistic Description of Sign Language Use in a Navajo Family," in Ceil Lucas, ed., *Sociolinguistics in Deaf Communities* (Washington D.C., 1995), 77–106.

[3] ASL was still in the process of being strictly standardized in the late nineteenth century, incorporating signs from the old French system as well as American "home signs"—i.e., simple non-language-like signs spontaneously developed by a deaf person or community in the absence of a taught sign language. Thomas Hopkins Gallaudet, a Congregationalist minister, founded the very first school for the deaf in the United States in 1817 after visiting institutions in France, and later founded his renowned eponymous college in Washington, D.C., in 1864. ASL achieved the status of a formal language only in the 1950s, after linguist William Stokoe transcribed it in written form. On the recording of native languages by early ethnologists, see Brian Hochman, *Savage Preservation: The Ethnographic Origins of Modern Media Technology* (Minneapolis, 2014).

[4] It is not clear, in the account of this experiment, whether the Utes' participation was voluntary or in what context they came to Washington, D.C. Mallery also noted that their tribe, "according to report, is unacquainted with sign language"; *Sign Language among North American Indians*, in Powell, *First Annual Report*, 321.

[5] Ibid., 323. The term "deaf-mute," considered acceptable at the time, has since fallen into disuse and is today considered a loaded and inaccurate term. It will appear in this essay only in direct historical quotes.

the modern era: the question of whether manual languages had "universal" properties that could transcend cultural, geographical, and linguistic barriers, and the misguided conceptual association of Indian signs with the various nationally based sign languages of deaf communities in the industrialized Western world.

The late-nineteenth-century interest in PISL arose from a larger concern among those in the emerging fields of ethnology and cultural anthropology with the need to document "vanishing" Indian cultures, as well as with ongoing questions about the origins of human language that first arose in the late seventeenth and eighteenth centuries.[6] If signs preceded verbal language, the logic went, then one had a better chance of recovering philological inceptions among signing peoples whose cultures were perceived as primeval and unchanging. (See Figure 1.) This quest was only the latest chapter in a long line of Western reflections regarding the reversal of Babel that took place in subtle dialogue with the languages of the New World after the fifteenth century.[7] The story of Indian sign language in Western thought, however, is marked by historical amnesia and historiographical myopia. Thus it affords the perfect opportunity to illuminate the value of interdisciplinary, geographically comparative, and diachronic approaches in reconsidering the entangled intellectual, linguistic, sensory, and cultural histories of indigenous America and Europe. In much the same way that scholars in a number of disciplines today tend to overlook or dismiss some of the crucial, albeit often racially tainted, contributions of the turn-of-the-century research on PISL, this first generation of American ethnologists were themselves mistaken in believing that they were the first Westerners to "discover" and document Indian signs. In fact, this scholarship reflected only one of the many moments of encounter between Western and indigenous kinetic literacies that took place after Columbus's crossing of the Atlantic. Bridging these temporal and disciplinary fissures not only challenges traditional understandings of native and European sign language histories, but also calls for a thorough methodological and conceptual reframing of the four centuries of transatlantic intellectual exchanges to which they belonged.

The first step toward this goal is to historicize and dispel the pervasive (essentially post-Enlightenment) paradigm that associates sign language with speech deficiency or incapacity, a faulty model that has been severely damaging to our understanding and knowledge of both Indian and European sign language systems. Free from this distorted lens, we are then able to reexamine early colonial communication events in

[6] For an overview of language theory and science in the West, see James J. Bono, *The Word of God and the Language of Man: Interpreting Nature in Early Modern Science and Medicine*, vol. 1: *Ficino to Descartes* (Madison, Wis., 1995); Allison P. Coudert, "Some Theories of a Natural Language from the Renaissance to the Seventeenth Century," in *Magia naturalis und die Entstehung der modernen Naturwissenschaften* (Wiesbaden, 1978), 56–114; Jules David Law, *The Rhetoric of Empiricism: Language and Perception from Locke to I. A. Richards* (Ithaca, N.Y., 1993); Matthew Lauzon, *Signs of Light: French and British Theories of Linguistic Communication, 1648–1789* (Ithaca, N.Y., 2010).

[7] A number of recent studies have bridged intellectual developments in European philology/linguistics in the early modern period and the encounter with Indian languages in the Americas. See, for instance, Lauzon, *Signs of Light*; Sean P. Harvey, *Native Tongues: Colonialism and Race from Encounter to the Reservation* (Cambridge, Mass., 2015); Harvey, "'Must Not their Language Be Savage and Barbarous like Them?' Philology, Indian Removal, and Race Science," *Journal of the Early Republic* 30, no. 4 (2010): 505–532; Patrick Erben, *A Harmony of the Spirits: Translation and the Language of Community in Early Pennsylvania* (Chapel Hill, N.C., 2012); Sarah Rivett, "Learning to Write Algonquian Letters: The Indigenous Place of Language Philosophy in the Seventeenth-Century Atlantic World," *William and Mary Quarterly* 71, no. 4 (2014): 549–588.

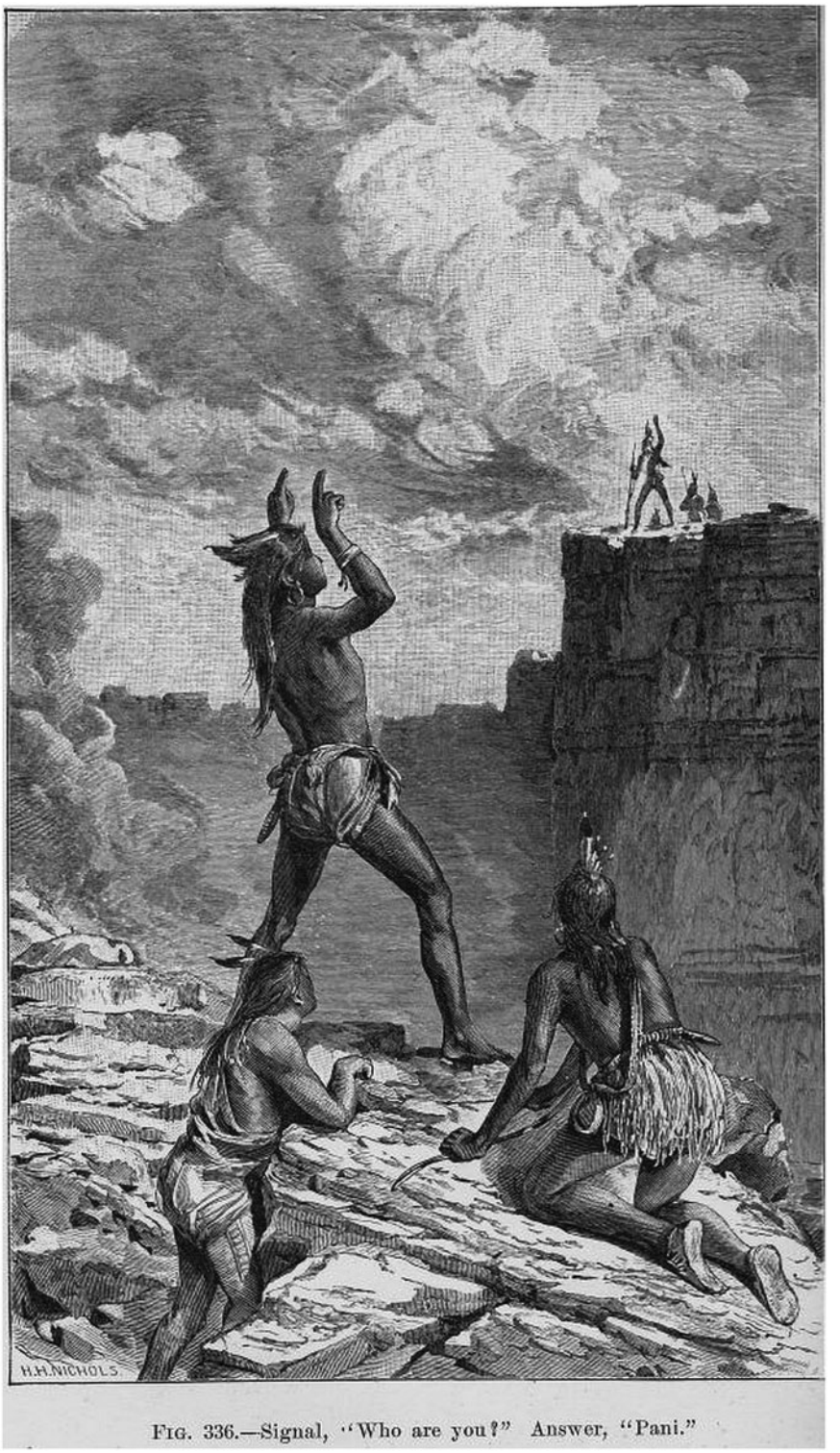

FIG. 336.—Signal, "Who are you?" Answer, "Pani."

FIGURE 1: Example of conventional sign language used as intertribal *lingua franca*: upon encounter, one party makes a sign inquiring about the identity of the others, who respond with the tribal sign for "Pani" (Pawnee). From Garrick Mallery, *Sign Language among North American Indians* (Washington, D.C., 1881), facing 531.

the light of a more nuanced understanding of the full diversity and multimedia qualities of Indian modes of communication, taking into account the wide visual-kinetic spectrum available to early modern participants in these cross-linguistic encounters.[8] Although the work of early ethnologists from the Smithsonian Institution and the Bureau of American Ethnology has its limitations, it must be more critically and carefully mined in parallel with both colonial sources and recent scholarship for information about the connections between culture, language, paralanguage, and kinesics, and what they reveal about indigenous and European epistemologies and their interactions in the *longue durée*. Revising our approach to American Indian nonverbal communication strategies has the potential to challenge ideas about unbridgeable cultural divides, communicative impermeability, and clashes between oral/aural and alphabetic/alternate literacies in the Americas.[9] The histories of Indian and European sign language traditions, which have intersected and sometimes blurred together for better *and* for worse since the early modern period, should not be separated, and in fact have much to gain from being put in a transatlantic and diachronic dialogue with one another. Their relationship, however, must be considerably reassessed, with potentially significant benefits to several fields of inquiry.

More than three centuries before U.S. officials ventured into the Far West, early modern Europeans had already come into close contact with Indian signs and complex indigenous systems of visual-kinetic communication in the context of the early colonization of the Americas. Their records of some of the nonverbal indigenous practices they witnessed strikingly resemble nineteenth-century observations of PISL and its role as an "alternate sign system" being used alongside speech in hearing societies. A French Jesuit conducting a mission in seventeenth-century Guiana, for instance, noted that the Galibi Indians (modern Kali'na) "also use gestures to express what they want to say, treating and conferring with each other, without their being deaf and mute, however; which they particularly do to designate numbers, despite the fact that there are words to express several of them."[10] This commentator was unusual in his comparison of native gestures with deaf signs. Unlike Mallery and nearly every post-Enlightenment scholar of the subject, most early modern observers who encountered Indian signs did not think systematically, primarily, or necessarily even at all about deafness and speech impairment. Non-standardized instances of communicative signs among hearing-impaired peoples had been well-known in Europe since antiquity, but no conventional system of manual signing for the explicit purpose of

[8] Most of my primary research is grounded in early published accounts and travel narratives by explorers, missionaries, officials, and soldiers from sixteenth- and seventeenth-century French, British, and Spanish America. Translations are mine unless otherwise noted.

[9] In the words of Gordon M. Sayre, "our conviction of the extreme cultural difference between Europeans and Indians at the time of initial contact has affected too strongly our reading of the accounts of that contact." Sayre, *Les Sauvages Américains: Representations of Native Americans in French and English Colonial Literature* (Chapel Hill, N.C., 1997), 27.

[10] "Ils se servent aussi de gestes, pour exprimer ce qu'ils veulent dire traittant, et conferant ensemble, sans estre pourtant ny sourds, ny muets: ce qu'ils font particulierement pour designer les nombres . . . bien qu'ils aient des mots pour en exprimer plusieurs." Pierre Pelleprat, *Introduction à la langue des Galibis, sauuages de la terre ferme de l'Amerique Meridionale* (Paris, 1655), 13–14.

instructing the deaf would emerge until the late eighteenth century.[11] The cultural sensibilities and practices of colonial visitors, however, placed them in a better position than subsequent observers to appreciate the dynamic interplay of speech and manual signing among Native Americans. In the second half of the twentieth century, the notion emerged that Indians had "borrowed" pictographs and manual signs from Euro-Americans, or that these had developed as a result of intercultural encounters that took place after contact. When scholars visited Plains Indians in an effort to update and further the original findings of the Bureau of Ethnology in the 1970s, they concluded that the combined use of gestures and speech was a "modernism," once again rooting the initial emergence of sign language in some necessity born out of muteness, a statement that Mallery—who published two unprecedented and largely unsurpassed studies on Indian sign language during his career, as well as several works on pictographs—would no doubt have strongly refuted.[12] PISL also came to be seen as an exception specific to the western regions of North America rather than a remnant of a larger set of indigenous cultural practices that at one time may have spanned the continent. Mallery and his peers were simultaneously foundational in shaping the misconceptions that plague the study of the topic, and critical in documenting Indian signs and laying the groundwork for some of the most solid knowledge we have about it. Their work must thus be kept at the center of any discussion of indigenous nonverbal communication, even as one looks back toward the sixteenth and seventeenth centuries in search of the earliest-documented instances of Indian sign systems.

From the time of their first encounter, in the face of seemingly insurmountable cultural and linguistic barriers, Europeans and Native Americans across the early Americas turned to signs and gestures, both improvised and conventional, in order to communicate. Such nonverbal utterances originated in the cultures of all the groups in contact, and allowed for a degree of communication that, given the circumstances, was often considered more than satisfactory. The earliest and perhaps best-known example comes from Christopher Columbus's diary, in which the Genovese captain deplored the absence of a mutual linguistic understanding with the Taíno Indians of Hispaniola, while also making frequent use of phrases such as "they told me," "I asked them," and "they replied" to express the results of conversations that were essentially mediated through signs.[13] In the decades that followed, instances of

[11] Here I mean systems of arbitrary and conventional signs forming a fully grammatical language; manual alphabets to spell individual spoken words were known well before the eighteenth century. Adam Kendon, *Gesture: Visible Action as Utterance* (Cambridge, 2005), includes excellent chapters that trace the international history of gesture speech and deaf signs in Western culture; see also Lois Bragg, "Visual-Kinetic Communication in Europe before 1600: A Survey of Sign Lexicons and Finger Alphabets Prior to the Rise of Deaf Education," *Journal of Deaf Studies and Deaf Education* 2, no. 1 (1997): 1–25; David F. Armstrong, *Show of Hands: A Natural History of Sign Language* (Washington, D.C., 2011); John Tabak, *Significant Gestures: A History of American Sign Language* (Westport, Conn., 2006); Renate Fisher and Harlan Lane, eds., *Looking Back: A Reader on the History of Deaf Communities and Their Sign Languages* (Hamburg, 1993).

[12] "The chief modernism was that the executants now duplicate their sign communication by simultaneously speaking the corresponding words." A. L. Kroeber, "Sign Language Inquiry," *International Journal of American Linguistics* 24, no. 1 (1958): 1–19, here 1.

[13] Oliver Dunn and James E. Kelley Jr., eds., *The Diario of Christopher Columbus's First Voyage to America, 1492–1493* (Norman, Okla., 1989). In the fields of literary and disability studies, Jason Farr has suggested that colonial travel accounts such as Columbus's have had a lasting impact in shaping representations of the deaf as a separate "tribe" outside of the social order because of their lack of education.

kinetic-visual communication became a staple of colonial encounters and writings for other Spanish, Portuguese, French, English, and Dutch voyagers who landed on the North and South American mainland and in the Caribbean region. At almost every turn throughout the account of his taxing journey through southeastern North America between 1528 and 1536, Álvar Nuñez Cabeza de Vaca mentioned both speaking to Indians and being answered by them "by signs," generally without further specification.[14] Over the course of an hour-long exchange with an Indian leader wearing full regalia, the Spaniards, for instance, reportedly "[b]y signs . . . told him we were going to Apalachee, to which he replied by signs that seemed to indicate that he was an enemy of the people of Apalachee and that he would go with us to help us against them."[15] Other texts offer more detailed descriptions, especially of formal greeting signs or salutations used by certain Indian nations. In sixteenth-century Florida, Timucua Indians were said by French observers to have saluted their leader one by one each morning before holding council, by "raising both hands twice in front of their face, saying *ha, he, ya, ha, ha* and the rest [of the assembly] responds *ha, ha*."[16] (See Figure 2.) The account of French explorer Jacques Cartier's second voyage to the Saint Lawrence River in 1535 similarly makes mention of a peculiar greeting by a local Iroquoian chief, which the chronicler found himself lacking the words to specifically depict: "After he had with certayne signes and beckes saluted our Captaine and all his company, and by manifest tokens bidde us all welcome, he shewed his legges and armes to our Captaine, and with signes desired him to touch them, and so he did, rubbing them with hys own hands."[17]

While the exact nature and meaning of these gestures may forever remain elusive, they were most often clearly rooted in native ritual conventions rather than invented on the spot or borrowed from European practices.[18] Enough consistency in sign usage across wide distances and long periods of time also suggests that what the Europeans occasionally reported in their writings were well-established gestural codes

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Farr, "Colonizing Gestures: The Universality of Hand Sign in Daniel Defoe's *Robinson Crusoe* (1719)" (paper presented at the 45th ASECS Annual Meeting, March 22, 2014, Williamsburg, Va.).

[14] See, for instance, Álvar Nuñez Cabeza de Vaca, *The Account: Álvar Núñez Cabeza de Vaca's "Relación,"* trans. Martin A. Favata and José B. Fernández (Houston, Tex., 1993), 38, 43, 55, 58. See also Rolena Adorno and Patrick Charles Pautz, *Álvar Núñez Cabeza de Vaca: His Account, His Life, and the Expedition of Pánfilo de Narváez*, 3 vols. (Lincoln, Nebr., 1999).

[15] Cabeza de Vaca, *The Account*, 39. On early communication in Spanish America, see Julianna Barr, *Peace Came in the Form of a Woman: Indians and Spaniards in the Texas Borderlands* (Chapel Hill, N.C., 2007); and Alejandra Dubcovsky, *Informed Power: Communication in the Early American South* (Cambridge, Mass., 2016).

[16] René de Laudonnière, *L'histoire notable de la Floride* (Paris, 1586), sig. 5^{v}.

[17] Jacques Cartier, *A Shorte and Briefe Narration of the Two Nauigations and Discoueries to the Northweast Partes Called Newe Fraunce* (London, 1580), 53. There are two succinct French-language studies of the prominence of gestural signs in Cartier's account, but both dismiss the possibility of actual indigenous kinetic communication systems. Réal Ouellet, "Gestualité et perception de l'autre dans les *Relations* de Cartier," in Jaap Lintvelt, Réal Ouellet, and Hub. Hermans, eds., *Culture et colonisation en Amérique du Nord* (Sillery, 1994), 27–48; Gilles Thérien, "Jacques Cartier et le langage des signes," in *Colloque Jacques Cartier: Histoire, Textes, Images* (Montréal, 1985), 229–267.

[18] Indians also mimicked and emulated European gestures, and vice versa. For instance, during Giovanni da Verrazzano's exploration of the North Atlantic coast in 1524, "We reassured them somewhat by imitating their gestures, and they came near enough for us to throw them a few little bells and mirrors and many trinkets, which they took and looked at, laughing, and then they confidently came on board ship." "Giovanni da Verrazzano to Francis I," July 8, 1524, in David B. Quinn, *New American World: A Documentary History of North America to 1612*, 5 vols. (London, 1979), 1: 280–292, here 284–285.

FIGURE 2: Johann Feyerabend for Theodor de Bry, "Wie die Wächter irer Fahrlessigkeyt halben gestrafft werden." From Jacob le Moyne, *Der ander Theyl der newlich erfundenen Landtschafft Americae, von dreyen Schiffahrten, so die Frantzosen in Floridam (die gegen Nidergang gelegen) gethan* (Frankfurt a.m., 1591), pt. II, plate XXXII. John Carter Brown Library Archive of Early American Images, 08915-37. De Bry's engravings were based on the work of artist Jacques Le Moyne de Morgues, who accompanied Ribault and Laudonnière (here represented attending a public execution with a Timucua chief) to Florida in the early 1560s. De Morgues's illustrations are particularly rich in communicative gestures, which are often echoed in the written chronicles.

that had their origins in cosmological and epistemological commonalities (often also manifest in oratorical patterns) and connected native groups across language families, regions, and tribal identities before the arrival of Westerners. Perhaps because they were themselves versed in a wide range of three-dimensional nonverbal repertoires associated with speech and with a number of specific occupational skills (including ocean navigation and preaching), many of these early explorers and settlers expressed confidence in their ability to comprehend and use sign language in the New World. Elsewhere in the account of Cartier's Canadian explorations, it is said that a local Indian chief "made a long sermon, upon coming and arriving on board, showing by *evident signs* with his hands and other ceremonies that the said River, further upstream, was very dangerous."[19] From the earliest contacts between the groups, conversations in which geographical directions were given or trade rendezvous were arranged for later dates were among the most frequent exchanges to use gestures. They were also among the most successful, according to the colonial chroniclers, who derived a great deal of confidence in cross-cultural communication from the outcomes of such emplaced kinetic conversations. While they reflected the specific concerns and economic goals of Europeans, these exchanges also inform us about the variety of native communicative strategies. Recent works on Indian non-alphabetic forms of recording and material representation have challenged the image of Native American societies as defined by their orality alone, while our understanding of the multidimensionality of Indian oratorical and narrative traditions has been enriched.[20] Thanks to a number of remarkable ethnohistorical analyses, we now know a lot more about complex alternate literacies in indigenous America, including mapping and the use of mnemonic devices such as wampum, memory sticks, and other pictographic markings (winter counts, bark scrolls, petroglyphs, and the like), which suggest a high level of cultural fluency in impermanent and other-than-verbal modes of communication among Native American groups.[21] Scholars in recent years have in partic-

[19] H. P. Biggar, ed., *Voyages of Jacques Cartier* (Ottawa, 1924), 142–143, my emphasis. Biggar's translation is based on the oldest-known French version of the account (1545). The 1580 English version of the *Shorte and Briefe Narration* has the following wording: "Many boates and barkes came unto us, in one of whiche came one of the chiefe Lordes of the Countrey, making a long discourse, who beyng come neere us, did by evident signes and gestures shewe us, that the higher the River went, the more daungerous it was, and bade us to take heede of ourselves." Cartier, *A Shorte and Briefe Narration*, 45.

[20] Two seminal works in challenging Western definitions of literacy as strictly alphabetic are Elizabeth Hill Boone and Walter D. Mignolo, eds., *Writing without Words: Alternative Literacies in Mesoamerica and the Andes* (Durham, N.C., 1994); and Gordon Brotherston, *Images of the New World: The American Continent Portrayed in Native Texts* (London, 1979). See also Kathleen J. Bragdon, "The Pragmatics of Language Learning: Graphic Pluralism on Martha's Vineyard, 1660–1720," *Ethnohistory* 57, no. 1 (2010): 35–50; Galen Brokaw, "Indigenous American Polygraphy and the Dialogic Model of Media," ibid., 117–133. On Indian oratory and issues of textualization by Westerners, see Andrew Wiget, "Native American Oral Literatures: A Critical Orientation," in Wiget, ed., *Handbook of Native American Literature* (New York, 1996), 3–18; William M. Clements, *Oratory in Native America* (Tucson, Ariz., 2002).

[21] Julianna Barr and Edward Countryman, eds., *Contested Spaces of Early America* (Philadelphia, 2014); Matt Cohen, *The Networked Wilderness: Communicating in Early New England* (Minneapolis, 2009); Lisa Brooks, *The Common Pot: The Recovery of Native Space in the Northeast* (Minneapolis, 2008); Birgit Brander Rasmussen, *Queequeg's Coffin: Indigenous Literacies and Early American Literature* (Durham, N.C., 2012); Alejandra Dubcovsky, "One Hundred Sixty-One Knots, Two Plates, and One Emperor: Creek Information Networks in the Era of the Yamasee War," *Ethnohistory* 59, no. 3 (2012): 489–513; Barr, *Peace Came in the Form of a Woman*; Tracy Neal Leavelle, *The Catholic Calumet: Colonial Conversions in French and Indian North America* (Philadelphia, 2011); Joshua David Bellin and Laura L. Mielke, eds., *Native Acts: Indian Performance, 1603–1832* (Lincoln, Nebr., 2011); Germain

ular emphasized the degree of sophistication of Native American cartography.[22] Indigenous informers drew maps on the ground with sticks and their fingers and used "hand maps" to describe the local landscapes. They painted and carved information on peeled trees, and they relied on conventional signs to express directions and duration of travel—however accurate or purposefully misleading that information may have been.[23] During his second voyage to the Arctic in 1577, for example, Martin Frobisher reported that some of the Inuit people he had conversed with "hastily departed, holding up three fingers and pointing at the sun to indicate that they meant to return in three days."[24] And yet, acknowledgment of these communicative strategies often paradoxically coexists in scholarship and in popular perceptions with a tenacious dismissal of the possibility of formal indigenous sign languages prior to contact, and is typically disconnected from discussions of the successes and limits of cross-linguistic manual exchanges in the colonial period.

Understandably, much of the scholarly attention that has been given to gesture as communicative utterances between Europeans and Indians in America has focused on the early period of their relationship, despite the fact that there were mentions of signs and kinetic elements of Indian speech well into the late eighteenth century (in fact, gestures were continuously used by Euro-Americans and native groups to communicate as the former expanded westward through the early republic and the later nineteenth century). Whether expressing skepticism about their efficacy or pointing to their crucial role in mediating accommodation through shared enacted ceremonies, historians have tended to associate kinetic-visual modes of communication primarily with the need to overcome the linguistic barrier during the early phases of colonial contact.[25] The historiography, in short, has held that gesture was an inade-

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Warkentin, "In Search of 'the Word of the Other': Aboriginal Sign Systems and the History of the Book in Canada," *Book History* 2, no. 1 (1999): 1–27.

[22] G. Malcolm Lewis, ed., *Cartographic Encounters: Perspectives on Native American Mapmaking and Map Use* (Chicago, 1998); Julianna Barr and Edward Countryman, "Introduction: Maps and Spaces, Paths to Connect, and Lines to Divide," in Barr and Countryman, *Contested Spaces of Early America*, 1–29; Barbara Belyea, "Inland Journeys, Native Maps," *Cartographica* 33, no. 2 (1996): 1–16; Mark Warhus, *Another America: Native American Maps and the History of Our Land* (New York, 1997); Gregory A. Waselkov, "Indian Maps of the Colonial Southeast," in Peter H. Wood, Gregory A. Waselkov, and M. Thomas Hatley, eds., *Powhatan's Mantle*: *Indians in the Colonial Southeast* (Lincoln, Nebr., 1989), 292–343, here 324–329; Barbara Belyea, "Amerindian Maps: The Explorer as Translator," *Journal of Historical Geography* 18, no. 3 (1992): 267–277. Paul W. Mapp emphasizes the crucial importance of verbal elucidation for the comprehension and efficacy of Indian maps; it seems that nonverbal elucidations could also be used. Mapp, *The Elusive West and the Contest for Empire, 1713–1763* (Chapel Hill, N.C., 2013), chap. 2.

[23] In addition to Malcolm Lewis's magisterial work on native cartography, for Eastern Woodland pictography and bark/peeled tree markings, see Heidi Bohaker, "Reading Anishinaabe Identities: Meaning and Metaphor in *Nindoodem* Pictographs," *Ethnohistory* 57, no. 1 (2010): 11–33; Scott Meachum, "'Markes upon Their Clubhammers': Interpreting Pictography on Eastern War Clubs," in J. C. H. King and Christian Feest, eds., *Three Centuries of Woodland Indian Art*: *A Collection of Essays* (Altenstadt, 2007), 67–74; Selwyn Dewdney, *The Sacred Scrolls of the Southern Ojibway* (Toronto, 1975).

[24] W. A. Kenyon, *Tokens of Possession: The Northern Voyages of Martin Frobisher* (Toronto, 1975), 64.

[25] William C. Sturtevant, general ed., *Handbook of North American Indians*, 20 vols. (Washington, D.C., 1978), especially vol. 17: Ives Goddard, ed., *Languages*; Edward G. Gray and Norman Fiering, eds., *The Language Encounter in the Americas, 1492–1800: A Collection of Essays* (New York, 2000); James Axtell, "Babel of Tongues: Communicating with the Indians," in Axtell, *Natives and Newcomers: The Cultural Origins of North America* (New York, 2001), 46–75; Marcus P. Meuwese, "'For the Peace and Well-Being of the Country': Intercultural Mediators and Dutch-Indian Relations in New Netherland and

quate alternative to speech, emerging out of necessity and largely based on improvisation, occasionally leading to convenient but serendipitous partial understandings or misunderstandings.[26] According to that reading, gestures are believed to have faded into gradual disuse as linguistic understanding developed over time. Once pidgins, jargons, interpreters, and other bilingual go-betweens emerged in early America, the story goes, the inferior medium of gestural communication lost its prominence and *raison d'être*. The fact that Europeans expressed confidence in their ability to decipher Indian signs has consistently been seen as a product of wishful thinking and colonial propaganda, which it in fact often was. Failing to trace the enduring use and complex array of signs in early America, and missing their important association with speech rather than muteness, most studies so far have tended to agree with one scholar's conclusion that "[d]espite these dramatic gestures and signs, the various non-verbal communication strategies . . . were ultimately of limited use in establishing intercultural contact."[27] Most studies of colonial encounters also typically ignore (or seem unaware of) later documented instances of formal Indian sign language systems and reveal a core misunderstanding of how human kinetic communication functions. In turn, studies that make mention of PISL as recorded by Mallery and others in the nineteenth century assume that this was one of the earliest encounters between Westerners and Indian signs, unconnected to their larger trans-hemispheric and early modern (even pre-Columbian) precedents. The ingrained and often implicit ideas that fully developed sign languages appear only in conjunction with congenital deafness, that such sign language systems are an exclusively Euro-American invention, and that all other gestures falling outside the limits of such codes are only improvised are instrumental in this prominent oversight among colonial scholars. The artificial hierarchies we establish between kinetic and verbal communication, however, like these ideas, not only are defective but also are a product of rather recent intellectual developments.

Dutch Brazil, 1600–1664" (Ph.D. diss., University of Notre Dame, 2003); Lois M. Feister, "Linguistic Communication between the Dutch and Indians in New Netherland, 1609–1664," *Ethnohistory* 20, no. 1 (1973): 25–38; Frances Karttunen, *Between Worlds: Interpreters, Guides, and Survivors* (New Brunswick, N.J., 1994); Patricia Seed, *Ceremonies of Possession in Europe's Conquest of the New World, 1492–1640* (Cambridge, 1995); Alida C. Metcalf, *Go-Betweens and the Colonization of Brazil, 1500–1600* (Austin, Tex., 2005); Karen Ordahl Kupperman, *Indians and English: Facing Off in Early America* (Ithaca, N.Y., 2000).

[26] Some scholars have particularly denied any possibility of actual understanding between the groups and have minimized the importance of native agency and literacies in mediating contact. Stephen Greenblatt, *Marvelous Possessions: The Wonder of the New World* (1991; repr., Chicago, 2008); Seed, *Ceremonies of Possession*.

[27] Meuwese, "'For the Peace and Well-Being of the Country,'" 47. Meuwese at times seems to contradict himself in acknowledging the efficacy and diversity of these techniques: "while . . . gestures were somewhat useful in establishing rudimentary contacts, both sides complemented the ambiguous and easily misunderstood sign language with more elaborate non-verbal forms of communication such as the exchange of gifts and food" (43). In "Linguistic Communication between the Dutch and Indians in New Netherland," Feister similarly describes nonverbal communication as an unimportant early stage of cultural and material exchange between the groups, which became more sophisticated as linguistic fluency emerged. French-speaking scholars who have written on the subject of gesture and communication are also highly skeptical of the results of such exchanges; for instance, Ouellet, "Gestualité et perception de l'autre dans les *Relations* de Cartier"; Thérien, "Jacques Cartier et le langage des signes"; and Dominique Bertrand, "Verbal et non verbal dans les relations entre Européens et Caraïbes: Échanges réels et imaginaires," in Frank Lestringant, ed., *La France-Amérique, XVIe–XVIIe siècles: Actes du XXXVe colloque international d'études humanistes* (Paris, 1998), 419–431.

In its worst expression, the Eurocentric understanding of Indian signs as tied to speech deficiency has led scholars to argue that PISL as observed in the late nineteenth and twentieth centuries was an anomaly in the indigenous American linguistic landscape and was the product of the colonial encounter itself. Indian signs are thus conceived either as clever but ad hoc adaptations to the necessities of colonial communication or, worse, as borrowed from the superior communicative toolkit of Europeans.[28] As recently as the late 1980s, William J. Samarin thus suggested that it may have been the Spaniards who introduced American Indians to the practice, and expressed doubt that PISL could have predated the arrival of Europeans.[29] Efficiently challenging this interpretation, Susan Wurtzburg and Lyle Campbell published an important (but often underutilized) essay in the *International Journal of American Linguistics* that argued for the probable existence of Indian sign language before contact, independent of European presence.[30] Even if it is likely that Indians adopted some gestural habits from the Europeans (and vice versa) along with words through frequent contact in the colonial era, for thousands of years before the Europeans even knew of the existence of the New World and for hundreds of years after, American Indian peoples also actively interacted with each other through a rich variety of communicative means. As linguist Jeffrey Davis recently pointed out in his excellent study of PISL, "After all, there were already many separate languages spoken by numerous native groups, and sign language could just as easily have originally emerged in these North American multilingual communities without the influence of explorers or colonizers. This is comparable to the emergence of sign language that has been

[28] The "Caucasian stimulation" theory is in essence a denial or trivialization of the long history that American Indian nations had in the American continent before 1492. "As for the non-rock-carved pictography of the Indians of the United States and Canada which communicates information on events, the first question is how much if any such visible communication there was before Caucasian stimulation. Personally, I feel quite dubious whether there was any. All the recorded pictographic messages and letters may be products of stimulus diffusion from observation of alphabetic writing . . . it is also possible that the sign language is post-Caucasian." Kroeber, "Sign Language Inquiry," 15.

[29] William J. Samarin, "Demythologizing Plains Indian Sign Language History," *International Journal of American Linguistics* 53, no. 1 (1987): 65–73; Susan Wurtzburg and Lyle Campbell, "North American Indian Sign Language: Evidence of Its Existence before European Contact," *International Journal of American Linguistics* 61, no. 2 (1995): 153–167. A recent review summarized the terms of the debate: "Some have claimed an early, pre-Columbian origin, others a genesis in the Plains in the late 1700s." Peter Bakker, review of *Hand Talk: Sign Language among American Indian Nations* by Jeffrey E. Davis, *International Journal of American Linguistics* 78, no. 1 (2012): 127–132, here 128.

[30] Campbell and Wurtzburg's "North American Indian Sign Language" places the birthplace of Indian sign language around the Gulf of Mexico, supporting the idea of a northward dissemination of the practice rather than multiple simultaneous origins of sign language. This conclusion could be due to the limited historical range of their sources since they primarily rely on native oral traditions collected by U.S. military envoys in the late 1800s, which also hinted at the idea of a southward origin for the sign system: "The Plains Indians themselves believe the sign language was invented by the Kiowas, who holding an intermediate position between the Comanches, Tonkaways, Lipans, and other inhabitants of the vast plains of Texas, and the Pawnees, Sioux, Blackfeet, and other northern tribes, were the general go-betweens, trading with all, making peace or war with or for any or all." Mallery, *Sign Language among North American Indians*, 316. Wurtzburg and Campbell, along with linguist Allan R. Taylor, among the few scholars to seriously inquire into this issue, all cite in their works, as the "earliest" historical mentions of signs in encounter settings, the accounts of Cabeza de Vaca (1542) and Coronado (1541), which references they also borrowed from nineteenth-century sign language authorities, especially Garrick Mallery. The next "early" source used by these authors is the La Salle expedition in Louisiana and South Texas by the Talon Brothers, which dates from the 1690s, as well as later eighteenth-century sources. They do not inquire into earlier Spanish and non-Spanish sources.

documented with other indigenous communities around the world."[31] More than an epistemological issue, the question of where sign language originated thus also has important ethical and racial implications for descending communities and historical representations of Native Americans. Enduring stereotypes, popularized by Hollywood western movies, depict speech-impaired Indians expressing themselves through a mixture of simplistic gestures and broken English, suggesting equally faulty cognition or even questionable humanity.[32]

The pejorative correlation of gesture speech with incapacity rather than skill, in itself problematic for our contemporary treatment of deafness, has helped to drive scholarly attention away from Indian sign language.[33] But the damage done by this paradigm extends in the other direction as well. In part because of the well-intentioned work of people such as Mallery and the connections it established between signed communication and what were then seen as "savage races," in the late nineteenth and the early twentieth century the United States became the stage for a fierce anti–sign language campaign, which caused significant harm to deaf communities and their educational needs.[34] "Would a parent really want their deaf child to use sign language, as do Indian 'savages'?" emerged as a genuine concern at that time, explains Davis. He further notes that "[t]he 'primitive language' view and the notion of a 'Deaf race' underlie much of the writings of Alexander Graham Bell and other educators of that historical period," and that "[s]igns, gesture, body language, and even facial expression, were seen as indicative of 'primitive races' or of our 'animal past.'"[35] As PISL thereafter fell largely into obscurity, the sign languages of deaf communities stopped conjuring in most people's minds images of signing Indians. More generally, and in more recent years, however, reference to deaf sign languages and inattention to the crucial intersemiotic role of signs in the performance of ceremonial speech, for instance, has in turn continued to impair the ability of scholars in

[31] Davis, *Hand Talk*, 20. Allan R. Taylor also suggested that sign language in indigenous contexts "may have originated in the communication needs of deaf individuals, or in the spontaneous signing of other particular contexts: war and hunting situations where silence was mandatory, face-to-face contacts between persons of different languages, or situations where distance prevented adequate verbal communication," and added that "[t]rade may have been an important stimulus in the development of the sign language." Taylor, "Nonspeech Communication Systems," in Goddard, *Languages*, 275–289, here 275. Mallery suggested similar conditions: "The use of gesture-signs, continued, if not originating, in necessity for communication with the outer world, became entribally convenient from the habits of hunters, the main occupation of all savages, depending largely upon stealthy approach to game, and from the sole form of their military tactics—to surprise an enemy"; *Sign Language among North American Indians*, 312.

[32] A 1978 collection of essays on indigenous sign languages of the Americas and Australia began with an offensive but revealing discussion of the "conflicted feelings" anthropological linguists experienced when faced with signed communication: "On the one hand, our interlocutor, whether an Australian aborigine, an Indian of the North American Plains, or even a deaf compatriot, does not strike us as quite 'human' because he does not communicate to us in a spoken language which we are able to understand. On the other hand, his use of an elaborate set of significative gestures, while not quite conferring full humanness upon him, appeals to us as a graceful and 'dignified' form of communication ideally suited to service as a universal *lingua franca*, a bridge between men speaking mutually incomprehensible tongues, or, in recent years, with other, nonhuman primates, and thus in one way at least superior to spoken language." D. Jean Umiker-Sebeok and Thomas A. Sebeok, eds., *Aboriginal Sign Languages of the Americas and Australia*, vol. 1: *North America: Classic Comparative Perspectives* (New York, 1978), xiv.

[33] For the debates surrounding deafness today and the "integration" of the deaf into hearing society, see Josh Aronson's remarkable documentary film *Sound and Fury* (2000).

[34] Douglas C. Baynton, *Forbidden Signs: American Culture and the Campaign against Sign Language* (Chicago, 1996).

[35] Davis, *Hand Talk,* 68.

several disciplines to study indigenous sign language systems in non-mute contexts or in parallel with other nonverbal technologies in Euro-American and Indian cultures.[36] Recent inquiries into the history of deaf sign language in the United States have looked for its roots in Europe, dismissing Indian practices as irrelevant, without acknowledging the long history of contact with indigenous peoples of the Americas.[37]

Surprisingly, given the extensive engagement of Western thinkers with the issue of other-than-verbal modes of communication and their prolonged acquaintance with indigenous specimens, the origins, mechanics, and precise linguistic status of nonverbal communication (even its terminology) remain, to this day, nebulous and debated topics, further hindered, ironically, by the lack of communication between disciplines.[38] One of the most basic issues at the heart of the historiographical treatment of Indian-European communication is our tendency to conflate different types of signs and to blur the lines between ad hoc gestures and what might have belonged to full sign languages. Simply put, when we discuss "signs," it is often unclear what, exactly, we are speaking of. Early modern observers typically used fluid and imprecise terminology to describe the signs, gestures, and communicative bodily attitudes they witnessed and performed during these exchanges, rarely attempting to classify them. Our modern urge to bring typological order to what appears as an eclectic and polysemous ensemble of kinetic-visual utterances runs into several obstacles, including the fact that there is still much disagreement among today's experts on the subject, and that the taxonomy of gestural communication varies enormously over time, depending on the chosen criteria. Early visitors to the New World generally perceived Indian gestures either as intentional/communicative, intended to express a specific message, or as unconscious but still revealing of the speaker's inner character and intentions. They also conceived of gestures in terms of the ancient binary distinction between *gestus* and *gesticulatio*—between regulated gestures and posture deemed essential to the proper delivery of speech (as typified by the art of oratory), on the one hand, and undisciplined gesticulations akin to those of actors, on the other.[39] This

[36] Even just a few decades ago, anthropologists recording indigenous sign languages in parts of South America and Australia struggled to reconcile their findings with the absence of strong evidence of high concentrations of congenital deafness, in which they assumed the sign languages were bound to have originated. Jim Kakumasu, "Urubú Sign Language," in Umiker-Sebeok and Sebeok, *Aboriginal Sign Languages of the Americas and Australia*, vol. 2: *The Americas and Australia* (New York, 1978), 247–253.

[37] "The historical contact between early European-American signing communities and American Indian signing communities is sometimes mentioned, but little described in the sign language literature of recent times. When it is written about, it is typically glossed over, footnoted or dismissed altogether as not being relevant to our studies of the sign languages of Deaf communities." Davis, *Hand Talk*, xvi.

[38] Thomas A. Sebeok wrote that "the formula 'communication minus language = nonverbal communication' is clumsily negative, simplistic, and obscurantist." Sebeok, "The Semiotic Web: A Chronicle of Prejudices," *Bulletin of Literary Semiotics* 2 (1975): 1–63, here 10. Several experts have "voiced their discontent" with the term, as explained in Fernando Poyatos, ed., *Nonverbal Communication across Disciplines*, vol. 1: *Culture, Sensory Interaction, Speech, Conversation* (Philadelphia, 2002), xviii. Poyatos also points to the issue of the lack of scholarly dialogue across time periods, topics, and methodologies (xv).

[39] "[I]n the entire classical and medieval tradition, theoretical and normative texts relating to gesture (from the domain of rhetoric as much as ethics), the negative and excessive *gesticulatio* of the actor [histrion] is opposed to the positive and moderate *gestus* of the good orator and the good Christian." Jean-Claude Schmitt, *La raison des gestes dans l'Occident médieval* (Paris, 1990), 262. See also Schmitt, "'Gestus'—'Gesticulatio': Contribution à l'étude du vocabulaire latin médiéval des gestes," in Yves Lefèvre,

basic division between "natural" or spontaneous gestures and "artificial" or coded manual signs is still essential to our current analyses of kinetic communication.[40]

The consensus among linguists today is that while some signs occur spontaneously across several cultures, and some iconic signs may be relatively transparent across languages, all signs are in fact to some extent conventional and not actually universal. Even when they belong to a culturally and socially established set of conventions, moreover, not all signs and gestures constitute a "language." In the 1980s, linguist Adam Kendon established a useful continuum for understanding the variety and interconnectedness of various forms of kinetic communication, progressing from spontaneous "gesticulation" to "language-like gestures," "pantomimes," "emblems," and, finally, fully coded "sign languages."[41] Sign languages such as PISL and the various systems developed by industrialized deaf communities possess their own grammar, syntax, delivery styles, and rhythms. Thus the sign languages of both indigenous and deaf communities around the world differ significantly not only from the spontaneous speech gesticulations used by individuals on a daily basis (such as speaking animatedly with idiosyncratic hand motions), but also from other socially conventional coded communicative manual actions that can occur with or without speech (such as accompanying the word "crazy" with a rotating finger gesture near one's head or performing the sign in lieu of speaking the word).[42] Linguists and historical observers agree that fully conventional signs belonging to a language system can hardly be mistaken for spontaneous gesticulations, which perhaps explains why so many colonial witnesses felt the need to explicitly mention them in their accounts. The nineteenth-century Natchez people, for instance, possessed seven different signs to express the concept of "chief," one of which was described as "Forefinger of right hand extended, passed perpendicularly downward, then turned upward in a right line as high as the head, [expressing] 'Rising above others.'"[43] Such "language-like" signs provide fluent communication only between individuals versed in the conventions of the specific sign language, but the coded and often iconic nature of the signs can also often foster an illusion of legibility for naïve observers. Colonials who encountered formal Indian sign languages, in other words, would have noticed them, and would likely have thought that they could understand them, but the signs would in fact not necessarily have guaranteed mutual understanding. Mallery's 1880 experiment with the Gallaudet pupils and the Ute signers may well have resembled the colonial encoun-

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ed., *La lexicographie du latin médiéval et ses rapports avec les recherches actuelles sur la civilisation du Moyen-Age* (Paris, 1981), 377–390.

[40] In his influential study *Hand and Mind: What Gestures Reveal about Thought* (Chicago, 1992), linguist David McNeill focused on "the spontaneous and idiosyncratic gestures that occur while one speaks," in contrast to "the more systematic language-like gestures that constitute sign languages" (36). Adam Kendon offers a different definition of gestures, as "actions that have the features of manifest deliberate expressiveness" and "tend to be directly perceived as being under the guidance of the observed person's voluntary control and being done for the purposes of expression rather than in the service of some practical aim"; *Gesture*, 15.

[41] Adam Kendon, "How Gestures Can Become Like Words," in Fernando Poyatos, ed., *Cross-Cultural Perspectives in Nonverbal Communication* (Toronto, 1988), 131–141.

[42] "[W]hat is characteristic of the sign language as an effective system of communication," explained anthropologist Alfred L. Kroeber, "is precisely that it did *not* remain on a level of naturalness, spontaneity, and full transparency, but made artificial commitments, arbitrary choices between potential expressions and meanings"; "Sign Language Inquiry," 16.

[43] Mallery, *Introduction to the Study of Sign Language among the North American Indians*, 18.

ter, in that it produced a mutually satisfactory, albeit far from flawless, exchange of information between two groups possessing diverging sign systems, because both were familiar with the inner workings of kinetic-visual expression.

Human kinetic-visual communication is thus best understood along a spectrum of often-coexisting diverse gestures and signs of various degrees of conventionalization, which function in parallel with speech on most occasions. While fully coded sign languages do tend to emerge spontaneously among groups when speech is impossible (as in communities with high rates of congenital deafness or in areas of dense linguistic diversity), coded communicative manual actions ("signs") also develop among peoples who have full access to speech.[44] Gestures are particularly prone to evolve into a more conventional language, David McNeill tells us: "There is . . . no resistance from the gesture medium to taking on language-like properties."[45] We naturally expect that Christopher Columbus, Martin Frobisher, Jacques Cartier, and other early explorers communicated with their native hosts primarily through gesture for lack of a "better" solution (interpreters, pidgins, jargons). Alongside these directly communicative culturally grounded signs used to bridge the language barrier, the colonial encounter was also a prime stage for performances involving gestures that carried ritual or symbolic meaning, initiated by both Indians and Europeans and originating in the conventions of both groups, for instance in the greeting or gift-giving process. Bowing, shaking hands, placing a crown upon someone's head, or rubbing one's arms and legs as a form of welcome belonged to this category and relied on socially coded gestural conventions that tended to merge and transform over time to create a new syncretic Atlantic repertoire of kinetic actions. At the far end of the spectrum, Europeans were also likely to have encountered more formal, language-like systems of signed communication, which they often lacked the ability to identify or clearly describe as such, because such systems were less developed in European societies prior to the late 1700s. The fact that the first published instances of conventional sign languages for the deaf, as well as universal language schemes centered on gestural signs, emerged in Europe concurrently with the formation of cross-cultural colonial societies in the Americas after 1500 suggests that the histories of Indian and European sign languages are indeed entangled, albeit in ways other than is usually assumed.

A FASCINATION WITH SIGN LANGUAGE has long surrounded its potential as a universal means of communication. "The assertion has been made by many writers, and is currently repeated by Indian traders and some army officers," wrote Garrick Mallery in 1880, "that all the tribes of North America have had and still use a *common* and *identical* sign-language of ancient origin, in which they can communicate freely

[44] There are a number of indigenous sign languages recorded among speaking-hearing communities. One of the best-known examples is the gesture language of the Warlpiri women and other aborigine groups of the north-central Australian desert. Warlpiri women communicate using this sign language during periods of mourning, when speech is banned, and as a "convenient alternative means of communication even when speech is ritually permitted, and . . . as an accompaniment to speech during storytelling and animated talk." McNeill, *Hand and Mind*, 39–40. See also Adam Kendon, *Sign Languages of Aboriginal Australia: Cultural, Semiotic, and Communicative Perspectives* (Cambridge, 1988).

[45] McNeill, *Hand and Mind,* 65.

without oral assistance." Such, however, was not the case, he argued, having observed instead that "[i]n numerous instances there is an entire discrepancy between the signs made by different bodies of Indians to express the same idea." Thus, "the alleged existence of *one* universal and absolute sign-language is, in its terms of general assertion, one of the many popular errors prevailing about our aborigines."[46] Mallery also attempted to find similarities between PISL and other historically recorded and contemporary instances of coded manual languages, going back to ancient Greece, Neapolitan sign language, and the sign languages of the deaf in Western countries such as France and the United States. From these observations, he developed a theory about the existence of many culturally and historically grounded dialects of sign languages, which varied in specific local conventions the same way that spoken languages did, but that he believed were all rooted in similar principles, allowing communication between users of the various forms. While the field of linguistics has since then greatly refined some of the concepts and terminology he used, Mallery's findings have not been directly contradicted by linguists. We should thus not be too quick to dismiss his idea of a "gesture speech of mankind" or assume that he used the word "universal" without nuance.[47] Rather than implying that all gestures were shared and mutually intelligible around the world, Mallery repeatedly argued that sign languages were *found* universally. While sign languages are deeply conventional, their unique qualities in their various expressions, such as their malleability and their tendency to make misunderstandings less obvious, allowed very different sign language codes to cross communicative barriers more easily than spoken words. What Mallery was really seeking was not an already formed universal sign language, but the principles for the possible elaboration of one, a quest not unlike that of early moderns. Pre-Enlightenment Europe was indeed to some extent remarkably less logocentric than many of its future commentators.[48]

Europeans in the sixteenth and seventeenth centuries had powerful religious and secular motives for embarking upon a search for a universal gesture speech. The opening of the Atlantic oceanic space after 1492 and the encounter with diverse unintelligible peoples around the world who held the key to profitable resources and crucial geographical knowledge revitalized ongoing concerns and debates about finding a superior medium of international communication. Sign language featured prominently in these conversations. Colonial chroniclers repeatedly emphasized the problems caused by the unusually high linguistic diversity of the Americas, and pointed to the limits of remedial strategies such as kidnapping native individuals to train them as interpreters.[49] "The effects of the confusion of Babel have reached these peoples," remarked French attorney and travel writer Marc Lescarbot in 1609, "[f]or I observe that the Patagonians speak differently from [the Indians] of Brazil,

[46] Mallery, *Introduction to the Study of Sign Language among the North American Indians*, 12, 13, emphasis in the original.

[47] On Mallery's life and career, see Davis, *Hand Talk*, chap. 3. Davis stresses how progressive Mallery's views were, even though they were often formulated in the racialized vocabulary of his time.

[48] Carla Mazzio, *The Inarticulate Renaissance: Language Trouble in an Age of Eloquence* (Philadelphia, 2009); Michael J. Braddick, ed., *The Politics of Gesture: Historical Perspectives* (Oxford, 2009).

[49] Frances Karttunen, "Interpreters Snatched from the Shore: The Successful and the Others," in Gray and Fiering, *The Language Encounter in the Americas*, 215–229. On American indigenous linguistic diversity, see Goddard, *Languages*.

and those speak differently from the Peruvians, and the Peruvians are distinguished from the Mexicans. The islands similarly have their own tongue; in Florida, one does not speak as in Virginia; our *Souriquois* and *Etechemins* [Micmac Malecite] do not understand the *Armouchiquois* [perhaps Abenaki], nor do the latter understand the Iroquois. In short, each people are divided by language, and even within the same province there are different tongues."[50] In the New World, failure to communicate with Indians could mean missed economic opportunities that would benefit European competitors, failed efforts at proselytization, and even starvation, violence, or death. Non-communication was therefore never an option in colonial America. In 1718, after more than two centuries of sustained contact, Jesuit father Joseph-François Lafitau reflected on the unique cross-linguistic situations encountered in the New World, where "one reasons with peoples whose language one does not understand and who do not understand you. One understands a part of the things that are said through gesture and signs, and believes one can understand the rest, and from there emerges a common confusion that is entertaining to those who can perceive it. I thus often had the pleasure myself of watching Frenchmen jargon with our savages, and even fell victim to the case myself before I properly learned the language."[51]

The notion that there once existed a truly universal language—one that could be found all over the world and was plainly understandable by all the world's peoples—was commonplace in the Christian culture of premodern and early modern Europe. According to the second chapter of Genesis, Adam was given the opportunity by God to name all the things and creatures on earth, and so produced the original language, the *lingua humana*, within which things and words were one and the same. To know the words of this language was therefore to know the things they expressed, to bring oneself closer to the divine design of nature. Language diversity, on the other hand, was a curse, inflicted upon men by God as punishment for their pride in building the Tower of Babel. According to the biblical account, not only did God take away men's ability to freely communicate with each other, but he also dispersed them around the world (Gen. 11:1–9). The new multiplicity of tongues thus led to the loss of religious harmony, and made nature and its essence more remote from human cognition because of the new arbitrariness of the words employed. Along with the advances brought about by the scientific revolution, a new fascination with semiotics and cryptography and an interest in Egyptian hieroglyphs, Chinese characters, and ancient shorthand and notational systems swept over the learned elite circles of Europe in the 1600s, at the same time that classical and vernacular European languages were coming under attack for having what were perceived as incurable shortcomings.[52]

Attempts, both scientifically minded and more mystical, to recover the Adamic language in the sixteenth and especially the seventeenth century included a number

[50] Marc Lescarbot, *Histoire de la Nouvelle France* (Paris, 1609), 697–698.

[51] Joseph-François Lafitau, *Mémoire présenté à son altesse royale Monseigneur le Duc d'Orléans, regent du royaume de France* (Paris, 1718), 37.

[52] David Cram and Jaap Matt, *George Dalgarno on Universal Language* (Oxford, 1975), 4–5; Robert Markley, *Fallen Languages: Crises of Representation in Newtonian England, 1660–1740* (Ithaca, N.Y., 1993); James Knowlson, *Universal Language Schemes in England and in France, 1600–1800* (Toronto, 1975).

of schemes involving manual signs. Gestures and hand signals, seen as iconic and less obviously arbitrary than words, were regarded as more "natural" (closer to the essence of nature) and thus possessing more "universal" qualities. One of the most respected authors of a complex philosophical language, George Dalgarno (1626–1687), was also the author of an influential treatise that linked universal language and signed communication, titled *Didascalocophus; or, The Deaf and Dumb Man's Tutor* (1680). The English grammarian Cave Beck (ca. 1623–1706), in designing his *Universal Character*, a (flawed) mathematical language that he claimed would surpass all other tongues as a universal mode of communication, also stressed in his work that sign language had already provided a spontaneous and efficient avenue for communication between people "of all Nations."[53] The frontispiece of his treatise shows an American Indian "newcomer" gesturing toward representatives of all the other continents. (See Figure 3.) In a 1965 article, scholar James R. Knowlson provided an excellent overview of universal language schemes involving gestures, which had until then been overlooked by specialists on the question. Knowlson rightly pointed to the ancient roots of the idea that signs were superior to verbal speech in the Western world, notably arguing that "[t]he notion that gesture could provide an admirable universal language for mankind was inspired first, it would seem, by the remarkable variety and clarity of the gestures taught and used in Renaissance rhetoric."[54] All across Europe in the seventeenth century, theoreticians such as John Bulwer, Giovanni Bonifacio, and Charles de La Fin celebrated the superiority of gestural signs over spoken words, praising their expressiveness, ease of learning and use, and "natural" qualities, often using the complex conventional gestures of rhetoricians and the art of pantomime actors as illustrations. Deafness and muteness figured rarely, if at all, in these discussions. Knowlson neglected to consider, however, the more global, experiential, and pragmatic context of these important intellectual developments in the fields of gesture speech and philosophical languages, which also had direct roots in the emerging needs and challenges of human interactions in the Atlantic world. As trade grew exponentially with distant places in Africa, Asia, and America, the need for an international means of communication became all the more pressing. By the time French and English philologists and grammarians published their treatises on universal communication, colonists, merchants, and American Indians were already well-versed in using cross-cultural signals honed during two centuries of interactions.

[53] Cave Beck, *The Universal Character, by Which All the Nations in the World May Understand One Another's Conceptions, Reading out of One Common Writing Their Own Mother Tongues* (London, 1657); published in French as *Le charactère universel, par lequel toutes nations peuvent comprendre les conceptions l'une de l'autre en lisant par une escriture commune à toutes leur propre langage maternelle* (London, 1657). The movement for universal languages was essentially centered in France and England. Other arithmetical schemes include Johann Joachim Becher's *Character, pro notitia linguarum universali* (Frankfurt, 1661) and Athanasius Kircher's *Polygraphia nova et universalis* (Rome, 1663). Among the most significant universal language schemes using new artificial script are Jean Douet, *Proposition présentée au roy, d'une escriture universelle, admirable pour ses effects tres-utile et nécessaire à tous les hommes de la terre* (Paris, 1627); George Dalgarno, *Ars Signorum, vulgo character universalis et lingua philosophica* (London, 1661); John Wilkins, *An Essay towards a Real Character, and a Philosophical Language* (London, 1668); Marin Mersenne, *Harmonie universelle, contenant la théorie et la pratique de la musique*, 2 vols. (Paris, 1636); Philippe Labbe, *Grammaire de la langue universelle des missions et du commerce,* 2nd ed. (Paris, 1663).

[54] James R. Knowlson, "The Idea of Gesture as a Universal Language in the XVIIth and XVIIIth Centuries," *Journal of the History of Ideas* 26, no. 4 (1965): 495–508, here 496.

FIGURE 3: Frontispiece from Cave Beck, *The Universal Character, by Which All the Nations in the World May Understand One Another's Conceptions, Reading out of One Common Writing Their Own Mother Tongues* (London, 1657). Rare Books, 600145, The Huntington Library, San Marino, Calif.

In his 1644 treatise on sign language, *Chirologia; or, The Natural Language of the Hand, Composed of the Speaking Motions, and Discoursing Gestures Thereof*, John Bulwer expressed his confidence in the efficacy of signs in providing an efficient means of communication to the people of the Atlantic world: "the *Hand*" (i.e., hand gestures), he argued, "as an *universall character of Reason*, is generally understood and knowne by all Nations, among the formall differences of their Tongue. And being the onely speech that is natural to Man, it may well be called the *Tongue and generall language of Humane Nature*; which, without teaching, men in all regions of the habitable world doe at the first sight most easily understand."[55] Bulwer grounded his assertion in concrete examples that must have been familiar to most Europeans: "This is evident by that trade and commerce with those salvage Nations who have long injoy'd the late discovered principalities of the West, with whom (although their Language be strange and unknowne) our Merchants barter and exchange their wares, driving a rich and silent Trade, by signes, whereby many a dumb bargaine without the crafty Brocage of the Tongue, is advantageously made."[56] Elsewhere in his *Chirologia*, Bulwer provided an even more specific reference to the interaction of English colonists and Powhatan Indians in Virginia, who were engaged in a brutal decade-long war the year his book was printed in London: "In this garbe long ago we spake with th' Indian *Apochankano* [Opechancanough]."[57] Manual signs and their communicative potential were thus not framed within discussions of classical literature, ancient rhetoric, or new scientific advances in Europe alone, but also, importantly, belonged to discourses involving the peoples of the Atlantic world. (See Figure 4.)

Sign language, like other universal communication projects, was also presented during this period as an efficient alternative to time-consuming language learning and translation, and especially as a replacement for the much-distrusted interpreters upon whom most visitors to the New World were cripplingly dependent.[58] Bulwer included in his book a popular story taken from the works of Lucian of Samosata, a rhetorician of the second century A.D. Emperor Nero, the story went, once let one of his distinguished visitors, the Prince of Pontus, select a gift of his choice from among all of the emperor's possessions. The prince had been so impressed by the talents of the court *chirologer*, or mime artist, that he requested that the man's services be granted to him. When Nero expressed surprise at his odd choice, the explanation he received was that the pantomime artist was so skilled in the art of gesture speech that the prince would be able to single-handedly replace the score of interpreters he employed in his embassies with foreign dignitaries.[59] Silent signs surpassed imperfect speech. Distrust and hostility toward interpreters were an omnipresent trope of early modern travel literature and official correspondence between the Old and the New World, and a powerful incentive to pursue universal languages. It was also an astoundingly long-lived opinion:

[55] John Bulwer, *Chirologia; or, The Natural Language of the Hand: Composed of the Speaking Motions, and Discoursing Gestures Thereof, Whereunto Is Added Chironomia; or, The Art of Manuall Rhetoricke* (London, 1644), 3. On Bulwer's perception of gesture as a natural expression, or symptom, of the "state of the soul," see Jeffrey Wollock, "John Bulwer (1606–1656) and the Significance of Gesture in 17th-Century Theories of Language and Cognition," *Gesture* 2 (2002): 233–264.

[56] Bulwer, *Chirologia*, 3–4.

[57] Ibid., sig. A4^{v}.

[58] Beck, *The Universal Character*, sig. B1^{r}.

[59] *The Works of Lucian of Samosata*, trans. H. W. and F. G. Fowler, 4 vols. (Oxford, 1905), 2: 256; Bulwer, *Chirologia*, 13.

FIGURE 4: Examples of seventeenth-century conventional signs for the purpose of manual rhetoric and enhancement of speech. From John Bulwer, *Chirologia or the Naturall Language of the Hand* (London, 1644), 155. Rare Books, 432943, The Huntington Library, San Marino, Calif.

when Garrick Mallery was promoting possible diplomatic and military applications of PISL in the late nineteenth century, he still referred to interpreters as "a class dangerously deceitful and tricky."[60] In early America, it was also not uncommon for Catholic missionaries to use sign language in an effort to undermine or emulate the influence of interpreters, or to observe an indigenous speaker's body language in an effort to assess the quality of the translation provided to them by a third party. The animated style of Indian oratory, typically accompanied by evocative gestures, made this "reading" of indigenous bodies all the more frequent. It was also a convenient cultural bridge for missionaries, especially the Jesuits, who were highly trained in classical rhetoric.[61] Being well-versed in the writings of Quintilian, for instance, who urged his students never to "divorce delivery from oratory" and who established very strict codes for the use of "manual eloquence," it was not surprising that, often without understanding much if anything in the speeches pronounced by Indian orators, Catholic chroniclers nevertheless often compared the latter to classical rhetoricians such as Titus Livius because of their dignified use of gestures.[62] "I do not know what a Roman Senator could have answered that would have been more appropriate to the subject under discussion," the French governor of New France once commented on the prowess, in both verbal and manual eloquence, of an Algonquian orator.[63] Early modern observers thus tended to think of signs and speech in a close conceptual bond.

It was in this multicultural and Atlantic context that the first instances of formally coded sign languages for the deaf emerged and should be resituated. For many years, the history of deaf sign languages has been written with the rather belated beginning of deaf education in late-eighteenth-century France as a starting point.[64] Charles Michel de L'Épée, the author of the first fully methodological sign language for the deaf in Europe, published in 1776 under the title *Institution des sourds et muets, par la voie des signes méthodiques*, is the uncontestable figurehead in that history.[65] More recently, however, deaf studies scholars, students of gesture, and linguists have also emphasized the multiple precedents that informed the emergence of the first conventional systems: scattered references to the "gestures of the dumb" in classical works (Plato, Saint Augustine), monastic sign language in medieval Europe, instances of popular pantomime acting in the early modern world, and finger calculus methods with their origins in the Middle East that had been in use since antiquity.[66] The

[60] Mallery, *Sign Language among North American Indians*, 346.

[61] This will be the subject of an expanded chapter in my monograph in preparation, provisionally titled "Beyond Words: Nonverbal Communication and the Making of the French-Indian Atlantic, c.1500–c.1700." Some material appears in my dissertation: Céline Carayon, "Beyond Words: Nonverbal Communication, Performance, and Acculturation in the Early French-Indian Atlantic, 1500–1701" (The College of William and Mary, 2010).

[62] Reuben Gold Thwaites, ed., *The Jesuit Relations and Allied Documents: Travels and Explorations of the Jesuit missionaries in New France, 1610–1791*, 73 vols. (Cleveland, 1896–1901), 10: 244.

[63] Ibid., 9: 232.

[64] Jonathan Rée, *I See a Voice: Deafness, Language, and the Sense—A Philosophical History* (New York, 1999); Fisher and Lane, *Looking Back*.

[65] Charles-Michel de L'Épée, *Institution des sourds et muets, par la voie des signes méthodiques: Ouvrage qui contient le Projet d'une langue universelle, par l'entremise des signes naturels assujettis à une méthode* (Paris, 1776). De L'Épée was once celebrated as the "Savior of Deaf-Mutes" [*sic*] for his significant efforts to teach the deaf how to read, write, manually sign, and speak (vocalize) at a time when deaf communities were victims of much ostracism and stigma.

[66] Bragg, "Visual-Kinetic Communication in Europe before 1600"; Susan Plann, *A Silent Minority: Deaf Education in Spain, 1550–1835* (Berkeley, Calif., 1997). In the field of gesture studies, see Kendon,

earliest-known manual alphabet explicitly designed for the "speech therapy" of the deaf was published by a Spanish priest named Juan Pablo Bonet in 1620 in Madrid. *Reducción de las letras y arte para enseñar a ablar los mudos* was an example of dactylology, in which the letters of the alphabet were manually signed, offering opportunities for communication not only between deaf people, but also with the hearing.[67]

A century and a half later, de L'Épée virulently criticized dactylology because it rested on verbal and nationally bounded languages rather than on the visual representation of universal concepts through conventional/abstract signs. For instance, in his own "method," he explained, the manual sign for "to think" would be the same in English, French, Spanish, or Dutch, which would have direct benefits for world commerce and could potentially offer a solution to Babel. Attacking the narrow-minded people who resisted the idea that "one hears through the eyes as well as through the ears," de L'Épée was also indebted to the firsthand experiences of French colonists in distant lands. Placing his opponents in a hypothetical scenario, he wrote: "May it please God that these routine-grounded people, who know only one door, one path, and one staircase to reach other people's minds, never end up shipwrecked among the Iroquois or some other barbarous people! Having instantly become deaf and dumb, since they would neither understand what is said to them, nor make themselves understood, in the midst of a people similarly deaf and dumb toward them . . . how would they manage, not knowing any other channel of communication for our ideas than the tongue and ears?" Concluding that "necessity makes one eloquent," de L'Épée stressed the spontaneous and efficacious recourse to "natural signs" and gestural communication to touch the minds and hearts of American Indians.[68]

While the strict conceptual association of sign language with muteness began in the wake of de L'Épée's system, the older search for a universal mode of communication and the development of manually coded languages for the deaf had been occurring since the sixteenth century, not in isolation, but rather in dialogue with other signed encounters across the Atlantic. Sign language and its indigenous manifestations were thus vividly present in the reality and thoughts of most early modern Europeans, linked in many ways to the hearing world rather than to speech incapacity. Some studies have even suggested that American "home signs" that were later incorporated into de L'Épée's principles in elaborating ASL may have been directly indebted to native influence on and around Martha's Vineyard, Massachusetts.[69] Deconstructing the

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Gesture; Jan Bremmer and Herman Roodenburg, eds., *A Cultural History of Gestures: From Antiquity to the Present Day* (Ithaca, N.Y., 1991); Clifford Davidson, ed., *Gesture in Medieval Drama and Art* (Kalamazoo, Mich., 2001); Marvin Carlson, *Theatre Semiotics: Signs of Life* (Bloomington, Ind., 1990). A particularly rich corpus of studies deals with gestures and medieval/Renaissance drama: Schmitt, *La raison des gestes dans l'Occident médieval*; Véronique Dominguez, "Le corps dans les mystères de la Passion français du XVeme siècle: Discours théologiques et esthétique théâatrale" (Ph.D. diss., Université de Paris–Sorbonne, 1999); Mary E. Hazard, *Elizabethan Silent Language* (Lincoln, Nebr., 2000); Marco Mostert, ed., *New Approaches to Medieval Communication* (Turnhout, 1999); J. A. Burrow, *Gestures and Looks in Medieval Narrative* (Cambridge, 2002); Geoffrey Koziol, *Begging Pardon and Favor: Ritual and Political Order in Early Medieval France* (1992; repr., Ithaca, N.Y., 2002).

[67] Juan Pablo Bonet, *Reduccíon de las letras y arte para enseñar a ablar los mudos* (Madrid, 1620).

[68] De L'Épée, *Institution des sourds et muets, par la voie des signes méthodique*, 66–67.

[69] It is possible that a local Wampanoag Indian sign language influenced the formation of the well-known sign language on Martha's Vineyard (a site with a high concentration of congenital deafness), which has been credited as one of the pillars of early ASL in the nineteenth century. Davis, *Hand Talk*, 25; Evan T. Pritchard, *Native New Yorkers: The Legacy of the Algonquin People of New York* (San

prominent paradigm (signs = muteness) in the study of Indian sign language systems thus has potentially important repercussions not only for a better appreciation of native communicative technologies and visual literacies, but also for a growing literature that emphasizes transatlantic networks of knowledge in the early modern period.

THE HISTORICIZATION OF DISCOURSES regarding signs and sign languages on both continents suggests that the cultural divide during the colonial encounter should not be exaggerated. While it is true that many signs were used in the early colonial period to remedy the absence of verbal communication, gesture was, from the start, also associated with speech rather than with its absence, and this continued to be true as linguistic fluency developed.[70] Over time, tongues became more mutually understandable, but gesture remained an essential part of delivery and discourse for Indian, European, and mixed-ancestry speakers. From the beginning of their relations and for the next several centuries, Europeans and Indians thus used a complex typology of gesture in association with and as a complement to and a substitute for speech. Most importantly, Europeans and many (especially northeastern) American Indian groups could not have conceived of rhetoric without manual rhetoric as a fundamental element of and condition for the power of formal argumentative speech.[71]

To some extent, the question of how ancient and widespread fully coded manual languages were among Native American groups at the time of contact is less important than the realization that all groups likely possessed a complex range of more or less formal communicative gestures that they could deploy in cross-linguistic, diplomatic, and ritual circumstances. Because of internal developments in the field of linguistics that favored other types of inquiries, however, the state of research regarding PISL has more or less remained the same since the later decades of the nineteenth century.[72] Few efforts have been made since the 1950s to recover other examples of indigenous signing technologies in the U.S., Canada, or elsewhere in the Americas, leading to the hasty dismissal of any potential equivalents outside the historical context of the late-nineteenth-century Plains. Writings from the colonial period strongly suggest that Native American groups knew and used elaborate kinetic communication systems well before Europeans crossed the ocean, and thus well before they devised conventional manual languages for deaf communities. Given the scantiness of

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Francisco, 2002); Nora Ellen Groce, *Everyone Here Spoke Sign Language: Hereditary Deafness on Martha's Vineyard* (Cambridge, Mass., 1985).

[70] Even when explorers reported that Indians had told them something "by signs," this did not imply an absence of verbal utterances, but only their incapacity to grasp the content of the speeches uttered in close conjunction with gesture.

[71] Modern linguists have also emphasized the co-occurrence of gesture and speech in which gestures participate on an equal or even superior footing with words in the communication act. McNeill, *Hand and Mind*; David McNeill, ed., *Language and Gesture* (New York, 2000); Susan Goldin-Meadow, *Hearing Gesture: How Our Hands Help Us Think* (Cambridge, Mass., 2003). In ancient, medieval, and early modern Europe, it was strongly held that "without gesture, oral communication was at best incomplete, and at worst impossible." Jody Enders, "Of Miming and Signing: The Dramatic Rhetoric of Gesture," in Davidson, *Gesture in Medieval Drama and Art*, 1–25, here 6.

[72] Davis, *Hand Talk.* See also Melanie Raylene McKay-Cody, "Plains Indians Sign Language: A Comparative Study of Alternate and Primary Signers" (M.A. thesis, University of Arizona, 1996); an older, comparative work is Umiker-Sebeok and Sebeok, *Aboriginal Sign Languages of the Americas and Australia*.

research on the subject, it is more than probable that a number of American indigenous sign languages became extinct or were replaced by other forms of *lingua franca* (like jargons) before there was a chance for them to be documented by ethnologists and anthropologists.[73] Early travel accounts by the English, French, Dutch, Portuguese, and Spanish, albeit without any systematic attempts at taxonomy, contain many specific examples of communicative signs such as hand, arm, and finger gestures associated with specific meanings and used to express ideas in the larger context of a formal sign language vocabulary, as well as many examples of ritual signs and gestural behaviors predominantly used by Indians in ceremonial and rhetorical contexts. My own extensive research in colonial sources suggests that little truly unambiguous evidence of coded sign languages that would have resembled PISL or similar alternative sign systems as described by linguists can be found in the northeastern regions of what is now the United States and Canada. This could be due, however, to Europeans' failure to identify these systems, or to their being excluded from certain privileged settings and information, rather than constituting evidence of a complete absence of sign systems. The use of rhetorical gestures and refined oratory-related pantomime by Iroquoian and Algonquian peoples in the northeastern region is widely attested, for instance, and warrants further study to see whether it was part of a larger kinetic communication system extending into the realms of trade and intertribal diplomacy.

The most compelling traces of a sign language possessing the typical linguistic features of conventional systems come from regions inhabited at the time of initial colonial contact by native speakers of the Guarani-Arawak language family. The area in which a formal sign language would have been in use among various groups speaking mutually unintelligible dialects thus could have extended through the circum-Caribbean region to the islands of the Lesser Antilles, Guiana/Suriname, Venezuela, and northern Brazil, as well as parts of Florida and the American Southeast. Notably, there are particularly evocative descriptions of manual signs used by Indians in conjunction with speech to express quantities in the seventeenth-century Caribbean and Guiana.[74] In late-sixteenth-century Florida, a small party of French colonists once encountered a man whose skeletal appearance caused them to insistently inquire (with signs) about his advanced age. In response, in the absence of interpreters or a shared numerical system, the elder "called up a band of Indians: then, striking his thigh twice and putting his hand on two of them, he gave him to understand through signs that these two men were his children. Then, striking their thighs, he made known to him other less old men, produced by the first two, which he continued in this manner up to the fifth generation."[75] Multiple textual occurrences of gestures used to express numbers and other elaborate concepts (here kinship) across the American indigenous world are more than coincidental and invite further investigation.

[73] Nineteenth-century scholars felt an urgency to record PISL because they were simultaneously witnessing its rapid disappearance under the effect of the predominant Anglo-American influence and, in particular, of the development of trade jargons and other pidgin languages. PISL belongs today on the list of endangered languages.

[74] Bertrand, "Verbal et non verbal dans les relations entre Européens et Caraïbes." Bertrand believes that the many instances of nonverbal communication played little actual role in cross-cultural exchanges and mutual understanding. Instead, she argues that they served a literary purpose, in order to establish authenticity and reveal the many frustrations of colonial communication.

[75] Laudonnière, *L'histoire notable de la Floride*, sig. 40^{v}. Also in Nicolas Le Challeux, *Brief discours et histoire d'un voyage de quelques François en la Floride* (Geneva, 1579), 47.

While it may be tempting to dismiss Garrick Mallery's pioneering but racially tainted conclusions and language, some of his findings remain highly relevant to our knowledge and understanding not only of PISL but of human nonverbal communication more generally.[76] Mallery was indeed remarkable in his struggle to reconcile a nuanced perception of Indian sign systems with the predominant prejudices of his era. For instance, his genuine appreciation, even admiration, for and conceptualization of pictographs—which he saw not as decorative and poorly executed art forms, as scholars still held into the 1960s, but rather as a communication device that belonged to the same larger system as manual signs and other gestural traditions—was quite daring for his time and actually reminiscent of the latest research on the topic.[77] His nuanced definition of a "gesture speech of mankind" is, despite the problematic terminology of the time, actually akin to what historians and anthropologists today call "alternate literacies," and not far removed from the most current studies of nonverbal communication.[78] While Mallery and his peers were mistaken in several ways and were at least partly responsible for encouraging conflations between deaf and Indian signs, they still have much to teach us, especially when it comes to rediscovering earlier historical instances of Indian sign language that Mallery himself was unfamiliar with.

Important diachronic lessons may thus be drawn from the study of Indian signs. Without denying the role of wishful thinking and the misconstrual of signs as "universal," there may be a good reason why early modern observers and nineteenth- and twentieth-century officials and scientists all expressed such confidence in their ability to decipher Indian signs. That reason lies in the specific properties of coded kinetic communication. One of the main characteristics of sign language is its fluidity and adaptability, what Mallery aptly termed its "tentative and elastic" properties.[79] In its various expressions around the world, sign language (here used to the exclusion of other gestures not belonging to a full language-like system) is almost intrinsically a *lingua franca*, and skilled sign talkers have been said to be able to rapidly adjust their signs to facilitate comprehension depending on their audience.[80] A twentieth-century

[76] Mallery had studied the works of Edward Tylor (one of the founding fathers of sociocultural anthropology at Oxford University) at a time when the concept of "culture" itself and the field of anthropology were being defined. He was writing at the same time that Darwin was changing the face of natural science.

[77] Both his writings and the testimony of his contemporaries confirm that Mallery conceived of pictographs and manual signs as closely connected. "At the time of his death, Mallery was preparing a treatise on the sign-language of the American Indians, intended to be a companion volume to the 'picture writing' last published." Robert Fletcher, *Brief Memoirs of Colonel Garrick Mallery, U.S.A., Who Died October 24, 1894* (Washington, D.C., 1895), 13. Mallery published extensive works on Indian pictographs, which are also exceptional for their trans-hemispheric content. His first publication on the subject was "Pictographs of the North American Indians: A Preliminary Paper," in J. W. Powell, ed., *Fourth Annual Report of the Bureau of Ethnology to the Secretary of the Smithsonian Institution, 1882–'83* (Washington, D.C., 1886), 13–256. An expanded version was later published: Garrick Mallery, *Picture-Writing of the American Indians*, 2 vols. (1893; repr., New York, 1972).

[78] While pointing to the importance of interdisciplinarity and the enduring debates surrounding the field of nonverbal studies, linguist Fernando Poyatos highlights "the triple reality of discourse: verbal language—paralanguage (its acoustic modifiers and independent quasiwords)—kinesics (gestures, manners and postures)"; *Culture, Sensory Interaction, Speech, Conversation*, xxv. Mallery's realization that nonverbal elements possessed the characteristics of speech, and his hunch that each culture around the world possessed a unique version of this nonverbal "dialect," were particularly farsighted.

[79] Mallery, *Introduction to the Study of Sign Language among the North American Indians*, 42.

[80] "[I]f any one of the more approximately conventional signs is not quickly comprehended [by his interlocutor], an Indian skilled in the principle of signs resorts to another expression of his flexible art,

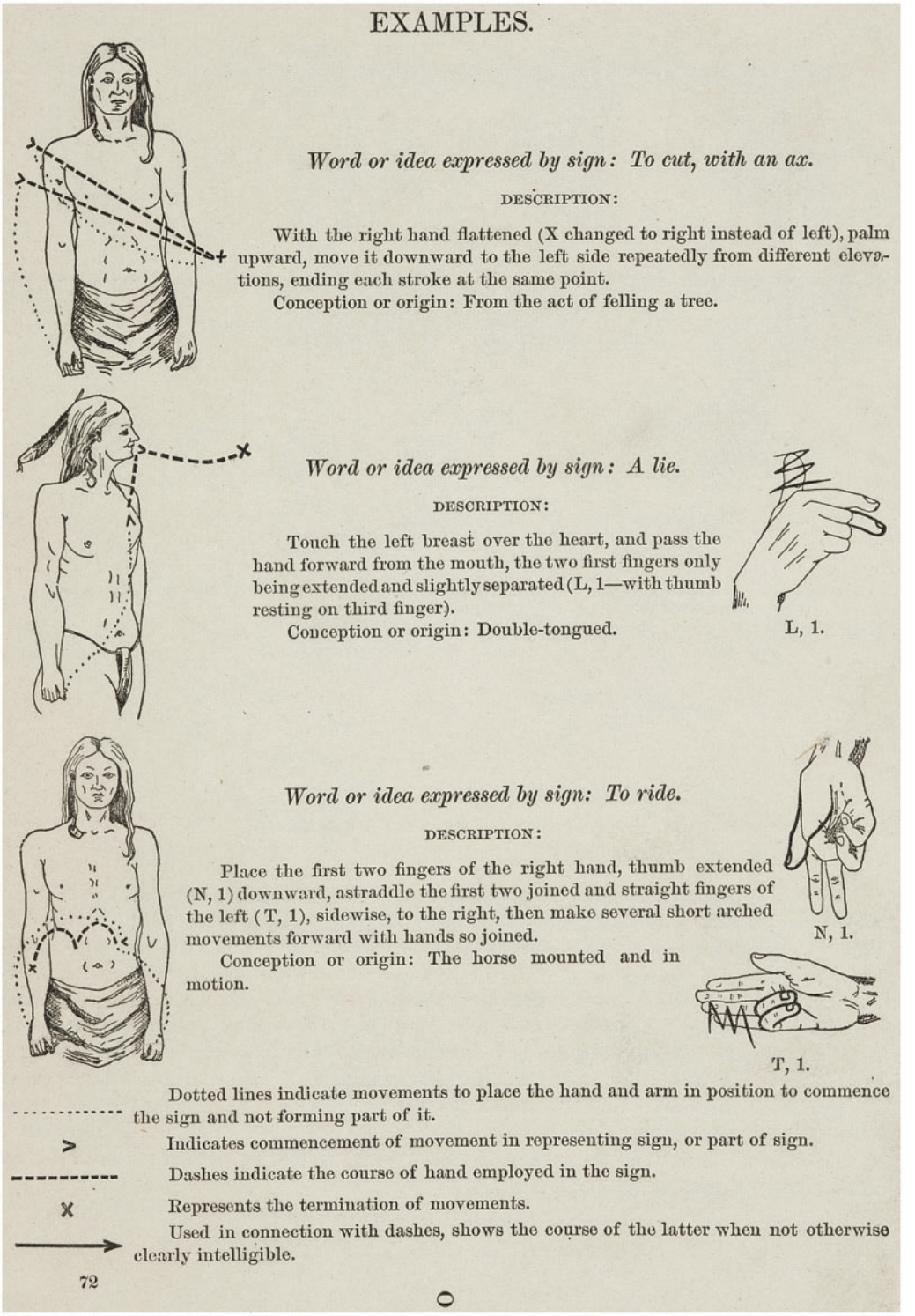

FIGURE 5: "Outlines for Arm Positions in Gesture Languages: Examples." From Garrick Mallery, *Introduction to the Study of Sign Language among North American Indians as Illustrating the Gesture Speech of Mankind* (Washington, D.C., 1880). 72. E98 S5 M3, Huntington Library, San Marino, Calif.

anthropologist explained that "the 'gesture language of mankind' turns out to be not a language at all, but a combination of generally shared techniques for selecting, improving, redundantly supplementing or abandoning and substituting new pantomimes for the bodies of conventionalized signs available in the respective sign languages of the conversationalists . . . This adequately explains the reported ability of intelligent and experienced sign language adepts to communicate with each other across language boundaries and the usual inability of poor sign talkers or individual with no sign language experience to do so."[81] In the first decade of the seventeenth century, Marc Lescarbot made a similar observation when he experienced difficulties in interpreting the gestures of an unintelligible Indian he had encountered. The French turned for help to Chkoudun, the Indian guide who had accompanied them on their journey, only to realize that he spoke a different tongue, and thus he "could not understand him any more than our [men]." However, Lescarbot added, "[i]t is true that by signs he understood much better what he wanted to say."[82] Intermediaries like Chkoudun may have attained their positions because of their ability to use and decipher signs, as well as their multilingualism.

Human reliance on pantomime and gestural speech in cross-linguistic contexts is thus actually grounded in the unique attributes of this mode of communication, as confirmed by linguists. Studies have shown that because sign languages consist of a number of iconic or imitative elements, and because they are familiar to all humans (who first communicate through signs before acquiring speech), they provide a reasonably efficient platform for interpersonal communication, even across cultures, languages, and grammars. Because gesture can in fact be easier to understand than speech, even substantial misunderstandings can in turn be more easily overlooked. This makes communicating with gestures quite an effective, if not exactly "universal," medium. Linguist Susan Goldin-Meadow has little doubt that nonverbal communication possesses more consistency across languages and cultures than do verbal languages. For instance, in observing speakers of four languages with different word order patterns—English, Turkish, Spanish, and Chinese—who had been asked to perform "a communicative task (describing an event by using gesture without speech) and a noncommunicative task (reconstructing an event with pictures)," Goldin-Meadow and her colleagues reached a striking conclusion: "We found that the word orders speakers used in their everyday speech did not influence their nonverbal behavior. Surprisingly, speakers of all four languages used the same order and on both nonverbal tasks," suggesting that "the ordering we use when representing events in a nonverbal format is not highly susceptible to language's influence. Rather, there appears to be a natural order that humans (regardless of the language they speak) use when asked to represent events nonverbally."[83] These findings, as well as

perhaps reproducing the gesture unabbreviated and made more graphic, perhaps presenting either the same or another conception or quality of the same object or idea by an original portraiture." Ibid., 39.

[81] Here we can also sense some of the same enduring debates regarding the exact linguistic nature of signs. La Mont West, "The Sign Language: An Analysis" (Ph.D. diss., Indiana University, 1960), as quoted in Umiker-Sebeok and Sebeok, *North America*, xviii.

[82] Lescarbot, *Histoire de la Nouvelle France,* 605.

[83] Susan Goldin-Meadow, Wing Chee So, Aslı Özyürek and Carolyn Mylander, "The Natural Order of Events: How Speakers of Different Languages Represent Events Nonverbally," *Proceedings of the National Academy of Sciences of the United States of America* 105, no. 27 (2008): 9163–9168, here 9163, 9167.

the earlier methodical observations of PISL, all suggest the high potential of signs to serve as a successful medium of communication during the colonial encounter. Like Mallery a century and a half earlier, Goldin-Meadow commented on the creativity and adaptability at the heart of kinetic communication: "the manual modality makes sign languages unique . . . It is relatively easy to use [it] to invent representational forms that can be immediately understood by naïve observers (e.g., indexical pointing gestures or iconic miming gestures). As a result, communication systems can be invented on the spot in the manual modality, which means that sign systems have the potential to provide a window onto the process of language creation."[84] This in itself should warrant a critical reconsideration of our prominent distrust of historical accounts that stress the efficacy and formality of signed communication between Europeans and Indians.

Putting in dialogue descriptions of indigenous gestures and sign languages across broad swaths of space and time could lead to a better methodology for identifying, imagining, reconstructing, and understanding early, often imprecise colonial depictions of such kinetic strategies. Studying the structure, syntax, prosodic features, and common social functions of PISL may help us better distinguish occurrences of formal signs in earlier historical sources from more improvised communication events involving gestures. The sign for "sun," for instance, was described by nineteenth-century ethnologists as being expressed by Plains Indians by "form[ing], with index and thumb of right hand, an incomplete circle, space of one inch between tips; hold hand towards the east; then move it in a curve across the heavens towards the west."[85] In the performance of this sign, the orientation of the body also conveyed meaning.[86] Different versions of this sign were easily understood even by people unfamiliar with any type of conventional sign language. In many colonial accounts, Indians were said to express months through "moons" and days through "suns," to the point where colonial writers got into the habit of referring to those time units in such terms even when they were not paraphrasing Indian speech. If some native groups were skilled in using alternate sign languages in addition to speech, they would probably have expressed "moon" or "sun" in such conversations using signs similar in conception and enactment to those documented in the nineteenth century in the Great Plains. Could such a sign have been at the root of a misunderstanding of indigenous beliefs in sixteenth-century Florida? "And as I made a sygne unto there king, lifting up myne arme and streching owt one fynger, only to make them loke up to heavenward," recalled French colonist Jean Ribault, "he likewise lifting up his arme towardes heven, put fourthe two fynge[rs] wherby it semed that he would make us tunderstand that thay worshipped the sonne and mone for godes, as afterward we understode yt so."[87]

When signs are discussed at all in early American scholarship, they are typically

[84] Susan Goldin-Meadow, "Watching Language Grow," *Proceedings of the National Academy of Sciences of the United States of America* 102, no. 7 (2005): 2271–2272, here 2271.

[85] Tomkins, *Universal Indian Sign Language of the Plains Indians of North America*, 51.

[86] One of its variants, collected by another ethnologist among Indians of the Upper Missouri Valley, was to hold "the partly bent forefinger and thumb of the right hand . . . brought together at their tips so as to represent a circle; and with these digits next to the face, the hand is held up toward the sky from one to two feet from the eye and in such a manner that the glance may be directed through the opening." Mallery, *Introduction to the Study of Sign Language among the North American Indians*, 30.

[87] Jean Ribault, "The True Discoverie of Terra Florida" (1563), in David B. Quinn, ed., *New American World: A Documentary History of North America to 1612* (New York, 1979), 2: 285–294, here 288.

presented as an improvised, imperfect, and temporary remedy for the absence of mutual linguistic understanding. Early instances of European manually coded languages for the deaf, as well as other expressions of Western kinetic traditions in the realm of oratory and drama, in particular, are typically omitted from studies of cross-cultural communication in early America. Scholars of deaf education and sign languages seldom include consideration of Indian sign languages and gestures in their analyses. And yet a case can be made for multidimensional intersections in the histories of European and American Indian signed traditions. Recasting the terms of this entangled history should give us a better grasp of how kinetic-visual systems work, what they reveal about Native American oratorical and sociocultural patterns, and how they shaped the linguistic and cultural encounter with Europe. My own rediscovery of Mallery's work greatly enhanced my ability to find and interpret Indian signs in colonial sources, unveiled a complex set of historiographical entanglements and interdisciplinary boundaries, and prompted some preliminary conclusions that are possible only at the intersection of several disciplines, time periods, and regions of the world. While some topics greatly benefit from a "microhistory" approach, sign language in its indigenous and European manifestations is best understood in a comparative, cross-regional, multidisciplinary, and *longue durée* perspective. In this new light, much remains to be learned about historical expressions of sign language, what they reveal about the unique cultures and societies in which they are rooted, and the tremendous impact they may have had on communicative efficacy starting with the Age of Exploration.

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