We have chosen to dedicate this volume to gestural expression used primarily by hearing speakers. The book illustrates how research—conducted with a range of different methods, on people of different ages, who use one or multiple languages, in a variety of situations, and within different theoretical frameworks—adds richness to the field of gesture studies. Within the limits of what can be done in a single volume, we have covered as many aspects of the dynamic relation between gesture and language across the lifespan as we could. But we did not cover them all. For example, we did not focus on sign languages or on the rich (dis)continuities between gesture and sign. Whether the relation between gesture and sign is presented as a “cataclysmic break” (Singleton et al., 1995; see also Brentari & Goldin-Meadow, 2017) or as naturally continuous (Müller, 2018) depends, in part, on the time span under consideration. Grammatical elements of sign languages can be traced to gestural origins over historical time (Blondel, 2020; Janzen, 1998, 2017; Wilcox, 2007, among others). But over ontogenetic time, sign and gesture have been found to be distinct vehicles (e.g., gesture–sign mismatches in signers learning math problems predict success on the problems, just as gesture–speech mismatches do; Goldin-Meadow et al., 2012).

As Cook explains in Chapter 10 of this volume, gesture and speech are generally placed in different categories because they are produced in different modalities. Gesture and sign are produced in the same modality, which often makes it difficult to separate the two. But gesture and speech also differ in the representational formats they use to convey information (McNeill, 1992), and so do gesture and sign (Goldin-Meadow & Brentari, 2017), which for certain categories of gesture could be considered as imagistic and continuous forms versus conventional and categorical forms in sign, other categories of gestures (e.g., emblems), and speech. There is consequently good reason to separate the two vehicles but also good reason to pay attention to how gesture and speech or sign work together; for example, to understand the role of the visual and kinesic modalities in language or to capture the conventionalization processes from idiosyncratic to socially transmitted grammaticalized forms.

The chapters in this book have taken different perspectives and used different methods and, as a result, have highlighted multiple issues. The relation between gesture and language depends on the definition of language a researcher uses (Morgenstern & Goldin-Meadow, Chapter 1). Whether gesture is considered part of language or partner to language also depends on the timespans, groups, and types of gestures studied. But all of the chapters consider gesture to be a crucial communicative and cognitive resource that serves multiple functions.
Some authors consider gesture to be a part of language. They integrate gesture into language or *linguaging* (see Morgenstern, Chapter 3; Morgenstern, 2014), or promote a bimodal view of language (Gullberg, Chapter 13). Other authors consider gesture to be a partner to language, either a sign language (Goldin-Meadow et al., 2012) or a spoken language (Clark & Kelly, Chapter 6; Cooperrider & Mesh, Chapter 2; Rowe et al., Chapter 4). But this distinction may rest on semantics (and perhaps timespan)—if we define language as a system made entirely of discrete categories, mimetic and gradient, gesture can be viewed as not falling within this definition. But if we define language as including any device that has attained a degree of shared communicative value, gesture fits squarely within the definition. All researchers agree that gesture plays a role in communication. The argument may be over how seriously we take format—gesture can be considered as imagistic and continuous, language (as linguists typically define it) can be considered categorical and discrete. Along these lines, some authors highlight the imagistic power of gesture (Hall et al., Chapter 8) and how it can make words more learnable. Some underline the praxic roots of gesture and the affordances it provides to embody experience (Boutet & Morgenstern, 2020; Capirci et al., Chapter 5; Morgenstern, Chapter 3).

Although these distinctions may be a matter of definition and terminology, they underscore important differences in scientific domain (linguistics vs. psychology) and method (naturalistic interactive data vs. experimental data; qualitative vs. quantitative analyses). The type of gesture an author focuses on also affects whether gesture is treated as *part of* or *partner to* language. For example, spontaneous gestures are typically considered *partner to* language, whereas recurrent gestures or emblems are considered *part of* language (Müller, 2018). Gestures used without speech—for example “silent gestures” that speakers are asked to create on the spot (Goldin-Meadow et al., 1996), or homesign gestures that deaf children who are not exposed to sign language create over time (Goldin-Meadow, 2003)—are functioning as language (i.e., they are neither *partner to* nor *part of* language), and are evaluated in terms of the aspects of language that they display (Goldin-Meadow, 2006; Goldin-Meadow & Brentari, 2017).

Just as transcription systems may reveal an author’s theory (Ochs, 1979), the choice of which type of gesture to study can reveal an author’s views on what constitutes language. The distinctions are based on whether gestures are stable and conventionalized, rather than spontaneous; whether they are discrete, compositional, and linear, rather than global and synthetic; whether they are symbolic and have their own semiotic features, rather than being informed by co-occurrent speech or sign. One way of tackling these distinctions is to draw categories out of the heterogeneity of gestures and analyze their differences according to a continuum based on degree of communicative conventionality (Kendon, 1988; McNeill, 1992). Rather than give center stage to the entrenchment of form–function pairing, another approach is to create a multidimensional model based on a variety of parameters, including pragmatic transparency, social and cultural impact, recurrence, iconicity, indexicality,
metaphoricity, salience, as well as arbitrariness or conventionality (see Irishkhanova & Cienki, 2018, for a multidimensional system with 12 parameters). It is only by creating dialogic spaces to discuss this array of perspectives that we can gain enough interdisciplinary expertise to capture the complexities of human polysemiotic interactive resources. Our volume represents a step along this path.

In the Age of Enlightenment and all the way to the end of the 19th century in Europe, gesture was viewed as the root of human language (Condillac, 1746/2014) or as a universal language that facilitated communication across cultures (Darwin, 1839). This interest in gesture was brought to an end when the Société de Linguistique de Paris (Paris Linguistic Society) was created in 1866 and forbade all study of the origin of language in France, which influenced research across Europe. In parallel, despite the inspiring role of L’Abbée de l’Epée in promoting the use of sign to educate deaf children, in 1880 at the Milan Congress, sign languages were banished from deaf children’s education in favor of oral languages. Gesture and sign were thus “silenced” for a whole century.

In line with those historical circumstances, Clark and Kelly (Chapter 6) describe how gesture was not taken into account in early studies of child language development. Before the 1960s, linguists rarely integrated gesture or sign into their research. Models of language were overwhelmingly monolingual and monomodal (Gullberg, Chapter 13).

This collection of chapters clearly demonstrates that gesture is no longer invisible. All authors agree that gesture facilitates cognitive and linguistic development. Gesture plays a major role in language socialization (Morgenstern, Chapter 3). It has a variety of functions—communicative, restorative, cognitive—in perception and in production, across cultures and ages, particularly in aging adults as gesture often declines later than speech (Göksun et al., Chapter 11), in monolingual and multilingual populations (Nicolaïdis & Smithson, Chapter 12; Gullberg, Chapter 13), and in students and teachers (Stam & Tellier, Chapter 14). Gesture plays a role in constructing language skills and supporting the processing of linguistic signals (Cook, Chapter 10), transmitting language practices to children (Morgenstern, Chapter 3; Clark & Kelly, Chapter 6) and facilitating learning (Hall et al., Chapter 8).

The chapters in this volume also illustrate that gesture’s role does not diminish over the lifespan but may change qualitatively. In his extensive overview of 2 decades of research, Colletta (Chapter 9) shows how co-speech gesture, bodily posture, and facial expression develop and are enriched as the child acquires new discourse and social–cognitive abilities. By the age of 9 years, children have begun to master and use gesture to mark narrative complexity.

The semiotic features of gestures are varied and variable, flexible, subject to a range of parameters and individual differences. But there may be gestural kinesic primitives stemming from the affordances of our bodies and others’ bodies that unify gesture. The materiality of the body has the potential to shape our environment, our tools, our objects, the spaces we inhabit (Leroi-Gourhan, 1943/1993). Structuring
these artifacts is closely linked to praxic gestures and is continuous with symbolic gestures (Boutet & Morgenstern, 2020).

Gesture, speech, and sign can therefore be considered semiotic systems that are integrated into language at large, at varying degrees according to the “dynamic scope of relevant behaviors” (Cienki, 2012, p. 155). Situation, population, culture, age, the affordances of the environment, and type of communicative context can all affect what counts as gesture, as exemplified through both quantitative and qualitative analyses in Beaupoil-Hourdel’s study (Chapter 7), and in Capirci et al.’s comprehensive overview of 40 years of research (Chapter 5). All human communicative systems can dynamically and interactively evolve into symbolic units, as demonstrated by Edwards and Brentari (2021) in the illuminating case of tactile sign, in which the proprioceptive modality sustains language. When it is interactively deployed by participants who are both blind and deaf with each other using the four arms and hands of the conveyer and the receiver (rather than through the mediation of interpreters), it becomes a protactile language with its own phonology, privileging tactile space. It thus truly embodies Goodwin’s powerful concepts of cooperative interaction and intertwined semiosis (2017). The signers’ bodies are then what Boutet (2018) called the support (the instrument) and the substrate (the substance and structure) of language.

Across cultures, across situations, across populations, across human history, and across the lifespan, the construction of meaning is informed by the available and coordinated semiotic resources we use. Whether it is considered a part of or partner to language, gesture is shared with others during social interactions and thus is an important semiotic resource that can no longer be ignored.

References


Darwin, C. R. (1839). *Narrative of the surveying voyages of His Majesty’s Ships Adventure and Beagle between the years 1826 and 1836, describing their examination of the southern shores of South America, and the Beagle’s circumnavigation of the globe. Journal and remarks*. 1832–1836. Henry Colburn.


