

# Introduction

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This *Handbook of Gesture Studies* constitutes a selective snapshot of research in this field as viewed in the years 2019–2023. The chapters in it reflect the ongoing development of this domain of research. In some ways, it differs from a handbook for a well-established field of inquiry, in which the chapters might address predictable themes or categories that are considered standard in the field. In the case of gesture studies, the range of topics to be covered in such a handbook is not necessarily fixed *a priori*. Indeed, different current approaches to the subject sometimes arise from rather different assumptions. Consider such questions as: Is gesture use driven more by psychological processes in the gesturer or by interactional processes and social factors? Is gesture part of language or is it a semiotic system of its own? This state of debate is a reflection of the contemporary stage of development of the field of gesture studies.

The chapters are grouped into five sections. Part I covers different ways of looking at gestures as types, in terms of their forms and functions. For example, degrees of conventionalization of specific forms with particular functions in certain cultures determine categories such as emblems (more conventionalized signs) (Payrató)<sup>1</sup> and recurrent gestures (Ladewig), as opposed to more context-dependent representations (Mittelberg and Hinnell) or to reference that is more dependent on indexicality and deixis (Fricke). The main focus in the *Handbook* is on manual gestures, given the great variety of forms and functions that the hands can take on, and the mobility of the arms in determining hand placement and movements, but also due to the predominance of attention to the hands in the field of gesture studies. However, Part I also includes consideration of facial gestures (Chovil), bringing together research on these forms of expression from a number of different fields.

<sup>1</sup> Each name referenced indicates the author of the chapter in the *Handbook* on this topic.

Part II considers different methods by which gestures have been viewed, annotated, and analyzed for their forms and functions (Bressem). The focus here is on different theoretical and methodological approaches. Particular attention is given to different forms of semiotic analysis, largely attributed to individual researchers' frameworks (e.g. those of Kendon, Müller, Calbris, and Grishina). The section includes discussion of observational and corpus linguistic methods as well as motion-tracking methods (Trujillo) and an introduction to a kinesiological approach (Boutet). Whereas the former primarily involve categories of analysis based on description of gestures as viewed, the latter methods take the perspective of how the body produces gestures. As the chapters in Part II show, these outside and inside points of view on gesture complement each other in terms of what they can reveal and the kinds of research questions they can answer.

A primary focus in gesture research has been on how the use of gestures is related to language use – and most prominently, the use of spoken language. Part III turns to this point from the perspectives of debates about the role of gesture in the origins of language (Żywicznyński and Zlatev), the role of gesture in first language acquisition (Morgenstern) and second language learning (Gullberg), and the relation of gesture to grammatical and pragmatic factors (Harrison). Part III also moves beyond spoken language to consider gesture use in relation to signed languages (Wilcox).

The last two parts of the *Handbook* provide additional perspectives on viewing gesture from the inside versus the outside, to put it roughly (though, as the chapters show, the division is anything but a binary one between cognition and interaction). Part IV considers issues of gesture use in relation to cognition, starting with McNeill's growth point theory of how idea units unfold into speech and gesture. This part of the *Handbook* proceeds to elaborate on what is known about the neural underpinnings of gesture production (Lausberg), how gesture links cognition to action (Alibali and Hostetter), and how some gestures can be instrumental in teaching and learning (Novack and Goldin-Meadow).

Part V is devoted to the interactional role of gesture, how it serves communication with others (Bavelas), and, in doing so, reflects and fosters intersubjectivity (Cuffari). The use of gesture in interaction inherently involves variation, and some of the bases of this are considered here (Brookes). Finally, gesture use is discussed beyond communication between humans to the context of human–computer interaction, the interfaces that make this possible (Stec and Larsen), and the role of gesture in human interaction with robots (Jokinen).

Across the different parts of the *Handbook*, one issue worth noting is the diversity found in the use of terminology. In this regard, the *Handbook* provides insights into the range of positions found in the field of gesture studies in terms of theories and methods. Most fundamentally, this even concerns different researchers' characterizations of what gestures are. For example, gesture can be seen as a modality (as in verbal and gestural modalities; Bressem)

or as a communicative semiotic system (Żywiczyński and Zlatev). Gestures can be seen as practices (as in recurrent gestures; Ladewig) or as actions (Alibali and Hostetter; Kendon). Considering research on the neuroscience of gesture production (Lausberg), many of the studies cited concern object manipulation rather than free-handed gestures, but this is the nature of what is studied in this field of research. In work on gestural interfaces for human–computer interaction, the term *gesture* “refers to any direct action made by the user to control the product” (Stec and Larsen). In this field, to refer to manual gestures of the kind most often studied by gesture researchers (hands moving freely in space), specific terms such as *touchless gestures*, *3D gestures*, *air gestures*, or *freehand gestures* would be used. Ultimately, this variety in the use of the word *gesture* appears to manifest differences that can even be found in various interpretations of the Latin verb *gerere*, in which the English word *gesture* has its roots. The verb can be translated in different contexts as meaning “carry,” “drive,” “carry out (actions or activities),” or “show (attitudes),” where what is metaphorically being carried is an idea or a feeling (Payrató) – or, from an alternate perspective, one’s own body, in one’s “carriage” or assumption of a posture.

The issue of how gesture relates to language is also considered in different ways in different chapters. One question is whether language itself is multimodal (Gullberg) or whether language is part of multimodal communication. In his chapter, McNeill argues that gesture is an integral part of language in the context of the growth point of an idea unit (which subsequently is unpacked into speech and gesture). The fact that spoken language and gesture are “two unlike semiotic modes,” as McNeill notes, is what creates the dialectic between them during their coproduction on the micro timescale. Calbris distinguishes verbal from nonverbal signs, and three channels for the production of communication: the verbal (conveying uttered text), the audio-vocal (conveying rhythm and intonation), and the visuo-kinesic (conveying gestures of various parts of the body) (Calbris and Copple). Zlatev, in turn, endorses the term *polysemiotic* as a more useful characterization of human communication (Żywiczyński and Zlatev). In sum, considering gesture makes one rethink the scope of what constitutes language (Cuffari).

Across the chapters, we can see that different languages and cultures have formed the starting points for different researchers’ work that is surveyed in the *Handbook*. These include English, French, German, Italian, and Russian, as well as signed languages. Still, the predominant focus on European languages and cultures is apparent and reflects the history of the development of theoretical and methodological work in modern gesture studies. Yet, besides the problem of the lack of research on gesture use by speakers from the vast array of language families in the world, there is a need to move beyond linguistic and cultural boundaries in our characterizations of gesture use to consider it in relation to other relevant social categories (gender, class, education, etc.) and various norms of interaction (Brookes).

The *Handbook* includes some of the last writing of two renowned scholars of gesture studies, namely Janet Bavelas and Adam Kendon. These chapters were edited and finalized by them, and thus they wholly represent their voices in this field. It is an honor to have been able to present their contributions in this volume. In addition, the *Handbook* includes overviews of the approaches of two scholars whose work was cut short when they were in the middle of their careers, namely the French scholar Dominique Boutet and the Russian scholar Elena Grishina. It is the hope that these overviews will not only provide reference points for those familiar with their unique kinds of research, but also open the door to others, and particularly to a readership in English, to work that was still in development, and was largely heretofore published only in French and Russian (respectively).

The different styles in which the chapters in this volume were written reflect aspects of the styles of research in the respective fields that are covered. For example, an overview of experimental studies in cognitive psychology involves a different logic and form in its style than a more contextually embedded description of research concerning children's communicative development. For consistency in referencing, APA Style has been used throughout, namely APA 6, that being the system in which work on the *Handbook* was started.

Many thanks to all of the authors for agreeing to contribute their time and energy to write chapters for this *Handbook*, and for their patience through the various delays faced in its production (including those caused by the pandemic). I wish to thank Cambridge University Press for proposing the creation of such a handbook in the series on Language and Linguistics that would recognize gesture studies as its own field of research. I am grateful to Andrew Winnard for having initiated the project and I am humbled to have been invited to compile and edit this work. I also greatly appreciated the friendly advice and support of Isabel Collins, Rebecca Taylor, Geethanjali Rangaraj, and Alan McIntosh in the production of the volume.

While its production lasted longer than originally anticipated, the longer gestation period allowed for the inclusion of certain chapters which would not have been part of it had work begun later or finished earlier. Unfortunately, some authors who were invited were not able to contribute chapters to the *Handbook* on topics on which they are the leading authorities. Nevertheless, it is hoped that, though necessarily incomplete, this *Handbook* will provide useful insights into some of the most important areas of, trends in, and approaches to gesture studies from the past several decades and will offer a basis for further development of the field.

# Part I

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# Gestural Types: Forms and Functions

# 1

## Emblems

Lluís Payrató

### 1 Introduction

Emblematic gestures (or emblems) have been given a range of denominations in the literature (e.g. *autonomous*, *quotable*, *semiotic*, *folkloric*, or *symbolic* gestures). Emblems are culture-bound gestures; they differ interculturally and intraculturally, that is, both among different cultural and linguistic areas and among individuals and social groups within the same culture. These gestures are easily translated into verbal language, and they are quotable; they are equivalent to utterances, and in many cases, they have names. Typical emblems are gestures used – alongside or without words – for greetings (welcome or farewell), for (often obscene) insults or mockery, to indicate places or people (deictics), to refer to the state or characteristics of a person (to be drunk, to be asleep, etc.), to give interpersonal orders (*shut up!*, *come!*, *move away!*, *listen!*), or to represent actions (to eat, to drink, to copulate, to commit suicide, etc.). Many emblems show a clear perlocutionary component (to offer, to threaten and to praise, to promise, or to swear, etc.) in the sense of Austin (1962).

The mainstream tradition in the study of emblems has always emphasized their autonomy from speech, but this does not mean that they cannot appear simultaneously with verbal (or vocal paralinguistic) elements. Rather, it means that the gesture has reached very high levels of conventionality and systematicity so that emblems are interpretable (like words, to a degree) with a high level of context independence. It has also been emphasized that emblems can be precursors of certain units of sign languages and that they often play

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a role in the latter's origin. On the other hand, the emblematic capacity can be regarded as associated with illocutionary force, which is one of the most characteristic features of these units.

All of these precedent features explain why we often find emblematic gestures described in dictionaries, with their own entries or in more or less conventional colloquial expressions: for example, *give sb [somebody] the finger* (US, "to show someone in an offensive way that you are angry with that person by turning the back of your hand towards them and putting your middle finger up," Cambridge Dictionary, 2021, Definition 1); or *two fingers* (UK, "in Britain, a sign that is considered rude, made by holding your hand up with your palm facing towards you and your first and second fingers held in a V shape: *She drove past and stuck two fingers up at him,*" Cambridge Dictionary, 2021, Definition 2). The comparison of these two emblems already gives many clues as to why a semiotic and sociocultural analysis of these units is needed. This is even more evident if we contrast the first item with a similar emblem made with the index finger (which can have different meanings by culture: "first," "request"/"question," etc.), or if we contrast the second item with the emblem that is made with the same morphological configuration of the hand but with the palm facing out (the well-known gesture of "victory," internationally widespread).

As regards the lines of research on this topic, the most traditional one has focused on the collection and analysis of emblems from the viewpoints of history and cultural anthropology, dialectology, and linguistic geography. More recently, from a pragmatic/semiotic and ethnographic view, emblems have been conceived of as multimodal tools on the frontier between verbal and nonverbal modes which form part of the communicative repertoire of individuals and sociocultural groups. On a cognitive dimension, they show clear cases of embodiment of meaning and are susceptible to many processes of metaphorization, metonymy creation, and interference between modalities. Emblems can be conceived of as prototype categories, and their salience and relevance are evident in the communicative processes of production and comprehension. The applications of their analysis are numerous: lexicography, second language learning, and natural language processing, inter alia.

## 2 Emblems and Other Gestures or Nonverbal Acts

The analysis of emblems is associated with the study of the categorization of gestures and all subsequent attempts to establish different classes and subclasses of gestures. It is also related to the implicit or explicit definition of gestures, which is much less straightforward than it may at first appear. McNeill (1992, p. 37) was right in saying that "[m]any authors refer to all forms of nonverbal behavior as 'gesture', failing to distinguish among different categories, with the result that behaviors that differ fundamentally are confused or conflated."

Common dictionaries define gesture, essentially, as an expressive movement, which is also the core of the definitions in traditional studies. In fact, the etymology of gestures takes us to the Latin noun *gestus*, “attitude or movement of the body,” which derives from the verb *gerere*, “carry,” “drive,” “carry out (actions or activities),” “show (attitudes).” The same Latin etymological family also includes *manager/management*, *gestation/ingest*, and *register/suggest*, which are all related to the idea (and the metaphor) of carrying something, where the *something* in question is (generally) some meaning or some feeling/emotion.

In ordinary dictionaries we often find the distinction between nonsignificant gesture (e.g. a *bad* gesture or an *involuntary* gesture) and a significant or expressive gesture (a *farewell* gesture or a gesture of *threat/fear*). In classical rhetoric we already find a particular interest in gestures that can function as words, while, in the nineteenth century, Gratiolet (1865) begins to speak of *symbolic* gestures (in a very particular way), and Wundt (1900/1973) subsequently makes much clearer references to this class of gestures.<sup>1</sup> Efron (1941/1972) incorporates the term *emblem* from the Renaissance (cf. Teßendorf, 2013, p. 83), but only for symbolic, conventional, and arbitrary gestures. Later, Ekman and Friesen (1969, p. 63) extend the use of the term to “those non-verbal acts which have a direct verbal translation, or dictionary definition, usually consisting of a word or two, or perhaps a phrase” (cf. also Ekman & Friesen, 1972).

Since then, the denomination of emblems or emblematic gestures has alternated with other names, which have nonetheless failed to have the same good fortune. For example, *folkloric* gestures (Hayes, 1951), *semiotic* gestures (Barakat, 1973), and, in the French tradition, the term *quasi-linguistic* (Dahan & Cosnier, 1977). Kendon has proposed the terms *autonomous* and *quotable*,<sup>2</sup> which have become more commonly used than the previous ones (especially the latter term), but not more common than the term *emblem*. Each of these alternative denominations emphasizes an obvious trait or aspect of the gesture, but at the same time hides others, and perhaps for this reason – because of their partialness – they have not met with success. By contrast, the term *emblem* hides under a technical “surface” the possibility of a variety of definitions and ultimately becomes less compromised. Surely this (relative) vagueness – and a (broad) consensus on some of its features – has ended up becoming a practical advantage for research, far removed from any terminological *dissensus*.

## 2.1 Emblem as Category: Emblematicity Criteria

McNeill (1992) called the arrangement that Adam Kendon had made of gestural categories in previous studies “Kendon’s continuum”: Gesticulation → Language-like Gestures → Pantomimes → Emblems → Sign Language.

<sup>1</sup> Later, Sparhawk (1978), Morris, Collet, Marsh, and O’Shaughnessy (1979), Calbris (1990), and Poggi (2002, 2014) would also use the term *symbolic gestures*.

<sup>2</sup> In Kendon’s words: “I proposed the term ‘quotable gesture’ (1992) to refer to any gesture that makes its way into an explicit list or vocabulary” (2004, p. 335).



Gullberg (1998, p. 97) proposes an expansion of the preceding continuum (which Kendon [2004] does not consider useful), whereas McNeill (2000) later breaks down the previous categories into four continua (see Table 1.1), again demonstrating that the question of the categorization of emblems is always a part of the joint categorization of nonverbal acts.

The clarity of McNeill's proposal, which is summarized in Table 1.1, is based on the explicit formulation of four criteria, the impossibility of simple or dichotomous distinctions, and an assumption of the graded nature of the concept of *gesture*.

In addition to McNeill's contribution, other proposals have emphasized similar or complementary aspects. This diversity also shows clearly that the emblem is not a "natural" category that combines perceptions of the world, but a projection of scientific theory onto reality; it is therefore not a reactive and descriptive exercise but a proactive one. Hanna (1996) had already constructed a semiotic notion of emblem in which the graded character mentioned above is fundamental: "[I]ndividual emblems have a developmental trajectory, and so emblematic status may be seen as a point on a scale, rather than as in total opposition to other sign types" (p. 289). Hanna sought a non-verbocentric definition of the emblem and concretely gave this one:

I propose that the emblem be considered as a sign of which the interpreters in a given cultural group fulfill at least the following tasks:

- (a) Set up a piece of human gestural activity as a sign.
- (b) Set up a sign in such a way that it is usually interpreted as having been deliberately produced, and communicative intention is generally [?] attributed to the immediate producer of the sign.

**Table 1.1** *Position of emblems in four continua, according to McNeill (2000, pp. 2–5)*

<i>Continuum 1: relationship to speech</i>						
Gesticulation obligatory	--->	Emblems optional	--->	Pantomime obligatory	--->	Sign Language ditto
presence of speech		presence of speech		absence of speech		
<i>Continuum 2: relation to linguistic properties</i>						
Gesticulation linguistic	--->	Pantomime ditto	--->	Emblems some linguistic properties present	--->	Sign Language linguistic properties present
properties absent						
<i>Continuum 3: relationship to conventions</i>						
Gesticulation not conventionalized	--->	Pantomime ditto	--->	Emblems partly conventionalized	--->	Sign Language fully conventionalized
<i>Continuum 4: character of the semiosis</i>						
Gesticulation global and synthetic	--->	Pantomime global and analytic	--->	Emblems segmented and synthetic	--->	Sign Language segmented and analytic

- (c) Set up the sign as the replica of a type already known, that type being fairly precise as regards the physical shaping and the interpretation of significance. Strong conventions govern emblems so that the tokens of the one type closely resemble each other (Hanna, 1996, pp. 289–290).

Payrató (2003) and Payrató and Clemente (2020, Sections 2.1.1–2.1.2) partly followed this approach and based their construction on a prototypical categorization of both the notions of gesture and of emblem. Instead of handling closed categories, their prototypical categories are open (in the sense of Croft & Cruse, 2004). The different “specimens” are more or less close to an ideal pattern, existing or not, which is the one that satisfies more features (or satisfies the features to a greater degree). The theory is applicable to many typologies, for example, to grammatical categories in the linguistic field and to the concepts of gesture and emblem. In the former case (gesture), the fundamental morphological feature is “Bodily action or movement,” and the pragmatic feature is “Meaningful and relevant action (‘ostensive’) accompanied by verbal language or in the absence of verbal language.” In the latter case (emblem), the features of the prototypical conception are presented in Table 1.2.

In addition to a basic physical or morphological trait (a.1, as bodily action) and a basic pragmatic trait (b.1, as a relevant, ostensive action), the

**Table 1.2** *Basic and additional optional features to characterize emblematic gestures as a prototypical (physical/morphological) and a pragmatic category (Reproduced, with permission of the publisher, from Payrató and Clemente [2020, p. 50, Table 2.3])*

“EMBLEM” AS A PROTOTYPE	
(A)	BASIC PHYSICAL/MORPHOLOGICAL FEATURES
a.1	Bodily action or movement
.....	
(B)	BASIC PRAGMATIC FEATURES
b.1	Meaningful and relevant action (“ostensive,” intended as a message), even in absence of verbal language, addressed to a copresent recipient in an interactional setting
b.2	Illocutionary force
b.3	Sociocultural conventional action
b.4	Semantic core of non-natural meaning (symbolic)
b.5	Deliberate (non-accidental) action
b.6	Conscious action
.....	
(C)	ADDITIONAL OPTIONAL PHYSICAL/MORPHOLOGICAL FEATURES
c.1	Action or movement involving only hands and arms
c.2	Action involving head movement
c.3	Action involving facial movement
c.4	Action involving eye movement
c.5	Action involving other body parts
.....	
(D)	ADDITIONAL OPTIONAL PRAGMATIC FEATURES
d.1	Attachable to verbal language
d.2	Quotable
d.3	Translatable easily to verbal language
d.4	Equivalent to a verbal speech act