

The Hand's Share on Hand/Mind Relations in Anthropology

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In 1938, when the poet and essayist Paul Valéry gave the keynote speech at a surgeons' convention in Paris, he told of his amazement to learn that a general treatise had yet to be written on what is commonly agreed to be the surgeon's most valuable instrument, the hand. It was a project he dreamed of for decades, but left undone. Nevertheless, the notes, drawings, and thoughts he collected in his *Notebooks* give us some idea of the avenues he hoped to explore. Hence, as early as 1922, Valéry, who sought to describe the "life of the mind" in the greatest possible detail, wrote, "the in-depth study of the human hand (articulated system, powers, contacts, etc.) is one thousand times more commendable than the study of the brain" (Valéry, 1973: 1127).

Valéry intended to identify and analyze all of the situations where hand and head operate independently, emphasizing the differences in each mode. He would demonstrate the symmetry of interrelationships formed by mental and manual techniques, and then between these two thinking processes originating in distinct parts of the body or, to be exact, in different events of the "CEM," his personal nickname for the "système Corps-Esprit-Monde" (the "Body-Mind-World System") he had conceptualized.

Although Valéry's approach was different, his central theme is reflected by current research in the anthropology of knowledge and the study of knowledge-acquisition processes (to cite only a few of the works in a now copious bibliography: Downey, 2005; Downey, Lende, 2013; Harris, 2007; Ingold, 2000; Jacob, 2010; Marchand, 2010; Sennett, 2010). Today's scholars see hand and body as two different figures, two agents, practically: cooperating, "pondering" and "grasping" together – "pondering" and "grasping" being words that apply to activities of both the mind and the hand. Moreover, in Valéry's native French language, *peser*, meaning "to weigh," and *penser*, meaning "to think," come from the same Latin root, *pensare*. Hand and mind weigh the world, the environment, and social relations.

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Valéry's ideas would have been extremely disruptive to the anthropology of his times, which centered on culture as a subject of study, firmly situating it in the minds of individuals, who then manifested it through their deeds, customs, and beliefs. According to any conception whatsoever of the discipline in that era, the mind reigned supreme over gestures, dictating its law, which the anthropologist strove to decode indirectly, able to "observe" only the outer, most docile manifestations of the mind, and commenting most extensively on "gesture and speech." It took the boldness of a Marcel Mauss to approach, via ethnography, the perspectives that Paul Valéry set down in his *Notebooks*. From the program he outlined for a plan to research prayer, left unfinished (Mauss, 1968 [1909]) to the famous essay on the techniques of the body (Mauss, 1999 [1936]), Mauss displays the same determination to return the mind to its proper place in the order of things – as part of the "engrenages" or "the mesh of gears," to adopt an image that was dear to him.²

This mesh forms the foundation of a practice which seriously challenged reigning concepts of causality and exposed the effects of recursivity (to apply anachronistic current vocabulary). He made it imperative from then on for research to insist on the role of the body in contacts with the immaterial and the forging of a certain mystique. In sum, it would be necessary for later anthropologists to identify and study the mechanisms that facilitate "biological means of entering into communication with the God" (Mauss, 1999 [1936]: 386). In this particular essay, Mauss was thinking explicitly of the various respiratory techniques of the yogis and the means by which vital rhythms could be altered.

But he was also well aware of the more humble body language used to "enter into communication with the God": not only the clasped hands of supplication, but also the fascinating finger gymnastics of Balinese Buddhist priests whose *mudras*—ritual hand positions—are essential to their contact with the divine. Mauss gave eloquent accounts of these practices in books that were richly illustrated by P. de Kat Angelino (1923) and Tyra de Kleen (1924).³ As we shall see below, Bali became a landmark area of study, where highly contrasting anthropological theories and approaches seemed to be competing to account for human thought and act. However, Mauss was not only in the right place; he was there at the right time: a singular moment after the Great War when a "crisis in reason" had been diagnosed. The collapse of the old order exposed its flaws (Castelli Gattinara, 1998: 21-51), and elicited new forms of attention focusing on *other* centers of thought and intelligence.

² He insisted on this point in the conclusion to his famous essay on techniques of the body: "Here, I see psychological facts meshing with the body, and [...] I do not see them as causes." (Mauss, 1999 [1936]: 385).

³ His survey of earlier inventories castigated the authors' written analyses but rejoiced in the illustrations, for *L'Année sociologique* (Mauss, 1923-1924).

The hands were not the least of these. All of this thinking was part of a reversal, or at least a vigorous complexification, of the relationships between the body (and specifically the hands) and mind, and the way they grasp and are grasped by the surrounding world. Valéry summed up the new attitude with a statement that would be acceptable to many contemporary scholars in the field of cognitive anthropology: “The mind is a moment in the body’s response to the world.” (1973: 1125).

The aim of the following essay is to show the diversity of reflections and intellectual objects which have been produced by the efforts undertaken to find a way out of the impasses and ungrounded conclusions reached by absolute oppositions between body and mind, on the one hand, and on the other, by the controversies over which one, mind or hand, rules the other. The problem had been reduced to a single alternative: does man think because he has a hand, or does he have a hand because he thinks? In addition to the criticism of this Cartesian-type of dualism, already noted at length in the field, the point here is to demonstrate proof, on the basis of various scenes, that these two registers are inseparable. They are actually in a relationship of mutual possession, or “ontological complicity,” as described by Pierre Bourdieu (1992: 103), explicitly inspired by the phenomenology of Maurice Merleau-Ponty, to which we will have to return. More precisely, the idea is to provide a map of the field, and additional perspectives on how attempts to go beyond the Cartesian dualism have taken shape in anthropology. The hand is at last receiving its fair share in the history of thought in general, and in anthropological practice in particular.⁴

Hence, our intention is merely to point out certain key articulations and to account for the general outlines and momentum of a movement that deserves to be examined as it unfolds. As is often the case when you begin to treat a theme which, you believe, could use further definition or an update because it is still in the process of emerging, you realize that the same theme has already elicited interest among other scholars, quite independently and concomitantly. The fact that such initiatives are popping up around you is always a reassuring sign that the question is relevant to a certain need, or to a current problem. From a gloomier perspective, however, it could also be a clue that you are the victim of a scholarly fashion. Since 2013, publications,⁵ workshops,⁶ performance pieces, and shows⁷ featuring the mind, body, movement, gesture, action, etc.⁸ have proliferated.

⁴ For further perspectives on gesture as an object in anthropology, a broader subject than the question of the hand, the reader can refer to the excellent summary provided by Joël Candau, Charles Gaucher, and Arnaud Halloy (2012) for a special issue of the journal *Anthropologie et Sociétés* (vol. 36, n°3).

⁵ *Parcours Anthropologiques* recently devoted a special issue to “Présences du corps et kinésie” (n°9, 2014).

⁶ A brief selection from the many events: the “Main, mouvement et émotion” festival organized as part of the Arts and Technologies lab of the artistic-cultural project Stereolux in Nantes, November 6-7, 2014; and the three-day “Anthropology of Hands Conference” held at the University of Kent, June 24-26, 2014.

These events fan the flames of an interest in the social sciences kindled in the early 2000s by the energetic promotion of interdisciplinary studies (that is, between the “hard” sciences and the “soft” social and human ones, or between the sciences and the arts) applied to the study of these “boundary objects,” to give greater scope to the term coined by Susan Leigh Star and James Griesemer (1989). Undoubtedly, this singular but not unheard-of excitement around the hand was a factor in my decision to try to retrace the general trend to which it belongs. Along the way, we may suggest a certain interpretation of the history of the discipline, grasped from the angle of the hand. The purpose of this new reading is to bring out clusters of shared intellectual heritage which may not yet have become sufficiently apparent, and to demonstrate “invisible genealogies” (Darnell, 2001).

How the hand takes the man, or “Descartes’ other error”

This is not the place to review all references to the hand from all time. If it were, a general history of thinking about the hand might start with the controversy initiated by Aristotle and Anaxagoras (according to whom “man thinks because he has a hand,” whereas Aristotle maintains that man has a hand because he thinks). Or we could explore the relationships between the hands, the identity, and the self, as expressed in Greek grammar and law, a study by Nicole Loraux (1986) based on language statistics in *Antigone*: in this case, the recurrence of the prefix *auto-*. Likewise, Daniel Heller-Roazen could be said to have pursued and deployed similar findings within the archeology of “the inner touch” (feeling alive being the perception of perception shared by any sentient being) in Western thought (2011).

⁷ In the past fifteen years, there have been a number of exhibitions featuring the hand as the specific theme: “Speaking with Hands: Photographs from the Buhl Collection” at the Guggenheim-Bilbao (June 4-September 8, 2004); “The Future Was at Her Fingertips” at the Tanya Leighton Gallery in Berlin (April 27-June 20, 2013), an installation by the artist Aleksandra Domanovic based on reflections about the Belgrade Hand, one of the first artificial limbs with a sense of touch (1961); “L’usage des formes. Artisans d’art et artistes” at Paris’s Palais de Tokyo (March 20-May 17, 2015); “L’esprit et la main” at the Galerie des Gobelins (March 27, 2015 – January 17, 2016). The same density can be noted in the art of the state. I’d like to point out the ALIS Company project “Main tenant le passé, un tour demain,” directed by Pierre Fourny at the Théâtre-Sénart. Finally, interest in musical performances, notably jazz piano improvisation, is subject to the same trends, as attested by the reissue of the remarkable book by pianist and ethnographer David Sudnow (2001 [1978]) about the prominence of the hands in jazz creation. I thank Éloi Ficquet for drawing my attention to this work.

⁸ The literature on this subject is more than abundant. The field of cognitive sciences alone would deserve specific development. A list limited to a few of the most important articles dealing directly or in great part with the specific problems raised by the role of the human hand would have to include the fundamental research done by Alain Berthoz on movement and the body’s sense of a model (Berthoz, 1997; Berthoz, Debru, 2015 for an extension towards the question of the time “to grasp”); with supplemental studies in the fine collection edited by Peter W. Kirby (2009); essays by Michael Corballis (2003) on the origin of language; and lastly, the extraordinary anthology edited by Zdravko Radman (2013), which to my knowledge is the most stimulating summary of “what the manual says about the mental.”

Instead, we intend to describe the 150-year period in Europe, from the mid-18th century to the early 20th century, when an interest in the hand emerged, partly as a reaction to the doubt expressed by René Descartes about the degree to which we can trust our senses and what they tell us about the world. Scholars went to work on the subject within the context of the recomposition of the knowledge about man.⁹ The body, and especially the hand, sprang to life as if in response to the very intensification of concern from the mind.

Due to the influence of Western oculocentrism (“seeing is knowing”),¹⁰ the aim of such attention was to make visible that which had hitherto been unseen. The practice of autopsy developed; microscopes and telescopes improved. Likewise, efforts were made to find evidence of the invisible “forces” acting on the world. Experiments involving magnetism were widespread, and electricity was staged as a spectacle. These forces were also understood to involve economics and the market: take Adam Smith’s famous “invisible hand,” for example. Unseen influences were also perceived as being at work within each individual: the study of the languages, visual arts, music, and especially the religion of others¹¹ was considered to be one of the processes whereby one might “see” the other’s mind.¹²

On the basis of these elements, a “general anthropology” began to take on meaning. This broadening of the gaze caused anthropology to emerge in the 1740s, not only as a discourse on the human mind and body (already present in 17th-century writings), but as a scientific explanation of the laws of the union of body and mind and their effects on each other.¹³ This science was budding in the treatises by “honest German physicians” (in the contemporary sense of “honest man” studied by Carsten Zelle (2001).

⁹ For a picture of the beginnings of this recomposition, consult the last volumes of Georges Gusdorf’s gigantic panorama on “social sciences and Western thought” (especially Gusdorf, 1976;1978;1982;1984).

¹⁰ These were the grounds for Michel Foucault’s conviction that sight is the locus of the “rupture” in the Western *épistémè* in the 17th and 18th centuries (1966: 68-69). The quest for similarities; that is, an intellectual operation of *rapprochement*, yielded the way to a search for discontinuous proximities and an intellectual operation characterized by *discerning/analyzing*. For an overview of how knowing and seeing are interlocked in Western culture, we refer to the reader to N. Adell, 2011: 110-126.

¹¹ The full scope of a plan to “grasp the mind” by examining “religious ceremonies and customs” was manifested by the publication between 1723 and 1737, of *Cérémonies et coutumes religieuses de tous les peuples du monde*, by J.-F. Bernard and B. Picart. It “changed Europe.” (Hunt, Jacob, Mijnhardt, 2010).

¹² The idea that language could be the basis for the determination of thought and culture (an idea derived from readings of Leibniz and Samuel Johnson), was pioneered on North American land. We all know how it fared over the centuries. For one of the first studies to break ground in this area, cf. P.-F.-X. de Charlevoix (1744).

¹³ The definition suggested by anthropologist Ephraïm Chambers in the fifth edition of his *Cyclopaedia* (1741-1743: I, 107). It must include “the consideration both of the human body and soul, with the laws of their union and the effects thereof, as sensation, motion, etc.”

Although the Cartesian dualism of body and mind persisted in the *homo duplex* (to quote the ideologue Cabanis) then coming into focus, it inevitably became more complex as soon as scholars began to seek a description of the mind. The result was paradoxical in appearance. An extreme intensification of scholarly interest in the mind had led to identifying the traces of its manifestations and peculiarities as systematically as possible. From 1750 and throughout the 1800s, this epistemic attitude hardened most rigidly around the increasing attention devoted to the figure of the genius and the virtuoso.

They were seen as singular “minds,” and their primary property was supposed to be their excess: the overflow that drove them to make more marks, or more remarkable marks, than those of ordinary minds. These extraordinary spirits, oozing with intelligence, raised scholarly hopes that by studying them, a more general path to detecting the effects and signs of mental activity would emerge. The hand was the focus of the majority of these observations. We must say that we interpret this direction as something other than a simple reaction to Descartes, the conclusion to which it is liable to be reduced by a cursory overview of the scholarly literature. However, the collection of phenomena and discourses is much more heterogeneous.¹⁴ Philosophy went so far as to attribute a new, ambiguous role to the hand, as the seat of two functions: that of quintessential key to the nature of the mind and self, and at the same time, the status of independent agent, an “outer brain,” as Kant said.

Let us take up a few of these disparate ideas with a view to sorting them out differently, by associating them with a genealogy other than their supposed anti-Cartesianism. In this ferment, I see something that is more like the expansion of an ancient metaphor: that of the hand of the demiurge. The hand became a new realm for expressing the power to arrange, to regulate, to ponder. This is precisely the meaning of Adam Smith’s “invisible hand.”¹⁵ These are hands that have power. They *have* or *are* a mind, to refer again to the idea attributed to Kant. The newly awakened interest in the hand was going in this direction.

These hands were so fascinating that they revived and spread the classical artistic tradition of doing “studies of the hand.” With Delacroix, this practice attained gigantic dimensions. However, the decisive extension, the one that effected the true breakaway, was thanks in particular to progress in embalming techniques: the development of casts (starting in the 1840s) and then photographs (beginning in the 1860s) of the hands of artists and writers, for the purposes of documenting the figure of the genius and the traces of his mind (unless, and the ambiguity is explicit, the hand was actually the true seat of this mind).

¹⁴ Consequently, we do not share the recent analyses published by R. Sennett (2010), who applies the anti-Cartesian label to a variety of elements driven by very different motives. The oversimplification flattens both the Cartesians and the anti-Cartesians.

¹⁵ In our opinion, the most definitive demonstration of this point is the one elaborated in P. Oslington, 2012.

Ingres, Chopin, Sand, Balzac, and Hugo all submitted their hands; Massenet and Cocteau joined the series in the 20th century. Another register was that of the evil genius, exemplified by the attachment to the mummified hand of the poet and murderer Lacenaire, guillotined in 1836, the powers of which were evoked in sinister terms by Théophile Gautier in his poem *Études de mains* (Gautier, 1872 [1852]: 18-20). We see this as the continuation of the taste for detecting the trace, the material evidence, and authenticity of genius in the interest aroused by writers' rough drafts. In the late 18th and early 19th century, writers themselves, such as Rousseau, Bernardin de Saint-Pierre, and Leconte de Lisle, had begun to show an interest in their own manuscripts (Chartier, 2015: 51; Wendling, Chartier, Fabre, 2015).

Another sign of the fascination for the hand is in the successfulness of palmistry in the 19th century. Certain chiromancers attained great fame. For example, William John Warner (1866-1936), known as Cheiro, told fortunes for the celebrities of his time, and ended his career in 1930s Hollywood. According to his own legend, the source of his powers (and his nickname) was the mummified hand of an Ancient Egyptian queen he had found in his travels.¹⁶ Actually, throughout 19th-century literature, the theme of the cut-off hand recurs constantly. In France, Nerval, Verlaine, and Maupassant were intrigued by the theme; in English literature, the idea inspired Keats, Le Fanu, and Jacobs.¹⁷

Sometimes, the hand comes back to life with a mind of its own, and torments its former proprietor (the enchanted hand in Nerval's story rebels, betraying him). At other times, the hand acts out the person's most deeply repressed, and often morbid, desires and urges. The context in which these stories were received was imprinted by similar "hand" themes, with roots in folksongs and tales, and also by the resonant impact of scientific experimentation in general. Physicians of the time were fascinated by the autonomy of amputated limbs (experimenting on animals and observing human amputees), and interpreted it as a form of non-mental memory of their relationship to the body. The opposite connection, of the body to a missing part, is expressed by the "phantom limb" phenomenon.

Although it had been reported by the 16th century, it was not described, studied, and analyzed until after 1850.¹⁸ According to these studies, there would be a sort of symmetrical memory: the person recalls the hand, and the hand recalls itself to the person.

¹⁶ Warner gave this account of his past in an article in the *New York Times*, September 22, 1912.

¹⁷ In our opinion, this theme is a reactivation of the "Hand of Glory" motif in folklore. Cf. the work by K. Rowe (1999).

¹⁸ American neurologist Silas W. Mitchell coined the expression "phantom limb" in 1871. For a detailed examination of the phenomenon and the way it is situated at the crossing of highly varied regimes of knowledge (modern experimentation, ancient medical traditions, folk beliefs, etc.) cf. the study by D. Price (1976).

Gradually, the vision of the hand as an autonomous decision-making entity (in relation to reason) and at the same time, as a tool for revealing the true self, took precedence in every register. The *identifying hand* was added to and overlapped with the *fascinating hand*. Almost concomitantly, this theme operated on two levels, that of the species and that of the individual, a process I see as part of the continuity of the “genius hands” that were photographed or cast. It encapsulates the demonstration of the dual function of the hand as identifying the species (as superior) and the individual (as singular).

In *The Descent of Man* (1871), Darwin strove to establish proof of the first function. Although he himself attributed the paternity of the idea to Haeckel, the suggestion had been formulated by Aristotle, whom Darwin had always acknowledged as an incomparable master. The book forcefully insists on establishing the idea that the hand, with its opposable thumb, is the physical fact at the foundation of humanity: it is the fulcrum which has leveraged all of the distinctive qualities of the species. These were held to be walking on two legs (the kernel of Darwin’s argument), work (cited extensively in an unfinished work by Engels [1961], to demonstrate the identification of the human species with the hand), and language (later, in the writings of Leroi-Gourhan [1964]).

The second function is most fully illustrated by the development and perfection of fingerprint identification techniques. Increasingly acute concerns about the identification of criminals had given rise to the Bertillon anthropometric system, to which fingerprints were soon added. The general fascination with the hand probably contributed to the development of this type of idea in the 1870s. However, the first systematic fingerprint archive, the principles of which had been perfected by Darwin’s cousin Francis Galton, was not set up until the 1890s in Argentina. From there, it quickly spread to North America and Europe. The certainty that “the hands never lie” (as Rodin wrote to Camille Claudel) was deeply instilled in the mentalities of the 1890s. The hands contained a truth about an individual that he could “neither counterfeit, disguise, nor hide.” Fingerprints were each individual’s own “physiological autograph,” as Mark Twain—as ever, an astute observer of the spirit of his time—noted, not without irony, in *Pudd’nhead Wilson* (1900: 286-287).

In this context, it is easier to understand the horror aroused by images of babies without hands, part of the Allies’ anti-German propaganda at the beginning of the Great War. A rumor that German soldiers had been cutting off the hands of the infants they captured had quickly been circulated in the ranks of the French (Horne, 1994). I detect that the hand lent special clout to this operation, the goal of which was to depict the enemy as a heinous monster.

Because the hands were carrying an extra weight of humanity, intelligence, and power at this time, to be deprived of one's hands was, in a way, to be deprived of access to these qualities at their fullest. It was an idea that resonated with the artistic and intellectual circles of the time. In the interwar period, this echo reached a climax. Surrealists Man Ray and Paul Eluard worked together on Man Ray's drawings of "the dreams of his hand" (2009 [1937]). Surrealist/expressionist hands rivet the viewer's gaze in Max Ernst's painting *Rendez-vous des amis* (1922).

The series of photographs August Sander took in the 1920s, hoping to achieve the goal of documentary objectivity (Clarke, 1992: 71-72), catches the expressiveness of his subjects' hands. Sander saw the hands as the part of the person that articulated all of his or her social "properties." He firmly believed that any attempt to document human life had to focus on the hand,¹⁹ which mingles the expression of the subject's outer life: rank, duties, status with that of his or her inner one: desires, emotions, character. The scholarly world also lent new attention and respect to this *other* thinker and creator, the hand. The distinguished art historian Henri Focillon wrote a famed *Éloge de la main*, seeking to describe the relations between mind and hand, refusing to reduce them to those of "a chief and his docile, obedient servant." (Focillon, 1981 [1934]: 128) Maurice Halbwachs who, according to Marcel Mauss (1974 [1939]: 162), invented the expression "man is an animal who thinks with his fingers," echoed the same ideas. So the trail was blazed towards phenomenological horizons.

Their general archeology is easier to understand: the hand plays a crucial role in making the world intelligible. Heidegger's lexicon (1985), shaped in the 1920s when he was Husserl's assistant, makes this aspect of the hand most explicit. The hand is far from merely metaphorical in the two attitudes he describes for encountering the world: "presence at hand" (*Vorhandenheit*) and "readiness at hand" (*Zuhandenheit*) for objects which can be used immediately.²⁰ So, in 1938, Paul Valéry's questions were ideally integrated into an intellectual climate that made the audible. The surgeons responded, especially in Switzerland. After the Second World War, Dr. Claude Verdan (then one of Lausanne's most prominent specialists in hand surgery), patiently composed a private collection of observations and theories about the hand. In 1997, it was opened to the public as a unique Museum of the Hand, administered by the university hospital in Lausanne.

¹⁹ Alain Cavalier's series of *24 Portraits* of women also focuses extensively on their hands. I thank Sophie Chevalier for bringing the work of August Sander to my attention.

²⁰ On the problems associated with translating these terms and the "Hand" category in Heidegger's thought into French, cf. J-F. Courtine, 1990: 283-303.

Perhaps even a cursory overview like the foregoing, a brief history of this enervating resonance around the hand, accounts even more accurately for the environment surrounding the hand's rise as an intellectual object. The broader perspective brings relief to a landscape ignored by the one-sided genealogy of the major "scientific texts." The latter are often blindered by their habit to trudge the long, flat, featureless trail back to the Cartesian stable. In the early 20th century, the conviction that "the hand holds the (hu)man" was a strong current, irrigating many different fields of society: the forensic sciences, the divinatory arts; in a hybrid garden of arts and sciences, when painting, literature, painting-and-poetry, biology, anthropology, psychology, and sociology were all thriving. Thinking, on its quest, had reached a fork in the road where every clue led back to the hand, as the source of "human genius," or at the physical roots of the biological origins of creation.

Anthropologists and the hand

If the hand is the center of the human, its study should be one of the central objects of physical anthropology and every other category as well.²¹ However, the anthropology of the hand has never been developed as a focus of the discipline; no institution has structured a hand-studies program. Lastly, only the small number of anthropologists cited previously has written specifically about the hand, and most of these studies emphasized the way the mind directs the hand's expression. Linguists concurred with anthropologists, including Marcel Mauss,²² applying a symbolist lens to their investigations. The theory of gesture as the first language stretches all the way back to Robert Hertz's famous study (1909) on the pre-eminence of the right hand and the mystery was still being discussed only twenty-five years ago, with the thesis of the "articulatory hand" (Bouvet 1993).

Hand (action) and thought are a redundancy. Only recently, within the context of the renewal of an anthropology of gesture (Candau, Gaucher, Halloy, 2012), or that of a pragmatic, "situated cognition" approach (cf. James Gibson, William Clancey, Andy Clark, Alain Berthoz), did another share of the hand make itself known to anthropologists (if the field is defined as broadly as possible). In the ten or twenty years since these common concerns have arisen, they have filtered through the history of the field.

²¹ These ideas were initially developed within the framework of the seminar "L'anthropologie au miroir de ses controverses" (January 12, 2015) organized by Mary Picone, Thierry Wendling, and Francis Zimmermann at the EHESS in Paris. I would like to thank the participants, and especially the organizers, for their remarks, which enabled me to filter a few of the imperfections out of this hypothesis.

²² Cf. n°4 of *Les Cahiers de la Société des Études euro-asiatiques* devoted to "The Hand" (1993), edited by Fanny de Sivers. Kindest thanks to Bernard Dupaigne for bringing it to my attention.

The following review of hand-focused writings may contribute some insight by restating the terms of the search. To do so, we must analyze an ideal situation meeting several criteria: where relationships between hand and mind are made explicit and stand out, due to a disagreement (regarding interpretation, viewpoint, etc.), amid historical waters deep enough to be sounded, a situation to which the scholars of the past have applied a variety of approaches. I am here to tell you that Southeast Asian animal fights, saturated with anthropological analyses for almost a century, are such an epistemological jewel. Just recently, an article published in the review *Terrain* discussed some of the aspects of this theme, from the standpoint of a Thai field study and the organization of beetle fights. (Renneson, Grimaud, Césard, 2012) I shall use this text as an opening point, because I see signs that it contains a dividing line running through our whole discipline. A focus on the hand will bring this line into sharp relief.

One's first impression of this specific terrain is that it is the type of situation which demands the greatest inequality of agency between the species (the human players and their beetles), the greatest difference in impact, in relation to the outcome of the battle (because the owner of the beetle is the person who guides it, harnesses it, provokes it, excites it, interrupts it, etc.). However, the authors try to show that a sort of symmetry reigns: responsibility for the action is shared, and there is cooperation. The beetle leads the man's "vibratory hand" as much as the man leads the beetle, for the man is supposed to enter into the beetle's world of reference. This interspecies communication is full of significant uncertainties, due to the lack of any shared mental representations or any world common to the two.

The chain of causes and effects, of signals and their reception, is allegedly stabilized. It therefore places equal emphasis on the minimalism of this type of system, made up of the gambler's mind, his hand, the stick on which the beetles fight, and the insect itself, and on the singularity of the two worlds present, that of the gamblers and that of the beetles. It is understandable that any attempt to bring about a harmony, ever so fleeting, between these *Umwelten* will have to imply continual readjustment of a gesture, in which the hand, especially, receives and transmits the "vibratory flow," the single channel for the production and communication of the "thought," or at the very least, of the imminence of an action which can barely be called the product of an intention. Cause and effect being so unclear, intention is far too strong a term.

This is not the place to examine the details of the witnesses' demonstrations. But the intellectual space in which it is taking place, the area that is the source of the reference the authors mobilize, is the very "world-of-the-article" itself. To my way of thinking, this space is significant. It is where a division line is accreting, just beginning to rise above the surface, wedging itself between two great anthropological attitudes.

As we shall see, this division is a great departure from the usual network of schools and movements in the field of anthropology. In the short bibliography, containing only seven references, I note the two “classics” that were chosen, the two great anthropologists under whose guardianship the essay was written: Jakob von Uexküll and Gregory Bateson. The first is the inventor of the concept of the *Umwelt* as the reference environment (Uexküll, 2010 [1934]).

He is currently being rediscovered by a certain number of anthropologists whose goal is to develop a form of phenomenological anthropology, divested of anthropocentrism (Despret, 2002; Houdart, Thiéry, 2011; Ingold, 2000; Piette, 2009).²³ The second is Gregory Bateson, the person whose presence here seems to me to be simultaneously the most important and the most ambivalent, based on the evidence in his collection of essays, *Towards an Ecology of the Mind* (Bateson, 1977-1980). He is a landmark figure in the polarity I aim to point out, as we map the territory occupied by the hands in the realms of the mind. It is doubtless for that very reason that the authors cite him in an epigraph. And yet his presence is also ambivalent, for it is actually more of an aura, or guiding presence. A broader, more empirical use might have been made of the author Bateson – a “denser” use, as Clifford Geertz would say.

In fact, if Gregory Bateson is the notable presence, Clifford Geertz is conspicuous by his absence. No mention is made of his work, although it marked the field of the “animal fights” object of study in Southeast Asia, and despite the fact that his famous text, “Deep Play: Notes on the Balinese Cockfight” (Geertz, 1980 [1973]), mentions that games with other species are also staged in the region.

To my way of thinking, this omission contains a perfect “objective chance,” as André Breton used to say. The person who can give us the key to this absence is G. Bateson himself. In the “Notes,” Geertz mentions the ethno-photographic investigation of the Balinese personality carried out between 1936 and 1939 by Gregory Bateson and Margaret Mead (1942). The title of the study, *Balinese Character*, combines both senses of the word “character,” designating the nature of something as well as a person embodying a figure determined by a script. In this case, the script is the one Balinese society offers to the individuals who constitute it. Bateson and Mead described cockfights – they were the first to do so in ethnographic terms, according to Geertz --, but also all the other *handling* of animals (baby birds, grasshoppers, beetles) they were able to observe.

²³ Because each of the authors cited develops a different approach, the bonds between them vary in density. Sophie Houdart’s perspectives have a fairly strong link to Vinciane Despret’s, whereas those of the Aberdeen School led by Tim Ingold are fairly distant from those of Albert Piette. For an acerbic review of a large part of the research in this heterogeneous whole, cf. J.-P. Digard, 2012.

The emphasis on *handling* is important: for the activity of the hand is what attracts the attention of G. Bateson and M. Mead, whereas C. Geertz focuses on a different aspect of the games. The study of gesture is of explicit interest to Bateson and Mead (as a corollary of a suggestion made to Mead by F. Boas; Mead, 1977: 212). They see it as a demonstration that the Balinese conceive of the hand as possessing the ability to think, a skill allowing the hand to play a fundamental role in the “sense of movement” in Balinese life (Bateson, Mead, 1942: 84-88).

This perspective is fascinating, because it bears such a strong contrast to C. Geertz's analysis. The essence of Geertz's account associates the cockfight with “deep play”; in other words, Geertz describes the situation as social theater dramatizing and symbolizing social life. As a result, an *emic* gloss on this very social life is possible: the cockfight as the gear setting a self-anthropology in motion. In a way, it produces a sort of copy of life, or double. It is significant that the problem of the *double* is at the core of Geertz's analysis. According to Geertz, the Balinese consider the roosters to be identical doubles of men. They are imbued with positive male characteristics like virility and strength, but also with negative ones, like rage, madness, aggressiveness, conflict, and bestiality – the last of which naturally horrifies a society which has elevated self-control, harmony, and etiquette to the rank of essential values. Hence, the rooster is a gateway to the cognitive and affective landscape of the Balinese. It is a *representation of representations*.

G. Bateson and M. Mead see the rooster in totally different terms. According to them, the Balinese rooster is an “*extension* of the man's body” (emphasis mine), not a representation of it. As such, to a Balinese, it possesses some autonomy, a life of its own, similar to that of certain other parts of the body, like the penis or hands. (Bateson, Mead, 1942: 18). Hence Bateson's fascination with hands, which are practically entitled to a special section in their photographic documentation (1942: 91-104). In certain situations their autonomy is manifest: dance, painting, trance, or the cockfight. On this last point, a comparison of the accounts of Geertz and Bateson/Mead clearly shows that although they undoubtedly watched exactly the same scene, they did not see the same thing. Observing the fights, the players, and the spectators, all of them noted the way certain Balinese make an effort to “mimic” the fight while it is happening.

Because Geertz (1980: 96-97) was bound to his *representation-rooster*, he suggested this practice was an effect of “kinesthetic sympathy” welling up from a more formless enthusiasm: the fact that men are “cheering their champions on with wordless hand motions.” G. Bateson, watching with the lens of the *extension-rooster*, drew less incidental conclusions from this phenomenon.

According to him, for the Balinese, the cock, like the hand, being at the extremity of the body, is an extension thereof. If there is any twinning of representations, any *double identity*, to be more exact, it is not between the Balinese man and his bird, but between the bird and the hands. As a result, G. Bateson and M. Mead describe the scene of mimicry in much greater detail, reflecting the attention they devote to other situations where they observe similar behavior. For example, they note that when two roosters are fighting, but also when two children are playing together, the hands of the people watching the pair seem to copy the actions of the fighting roosters or playing children, almost independently of the will of the spectators. The most striking manifestation of this autonomy of “the mind of the hand” occurs when the owner of one of the fighting cocks begins to mimic the battle, and it is not really possible to see whose side the hands are on.

Extension of the area of the struggle

This parting of the ethnographic ways between C. Geertz and G. Bateson (and I deliberately exclude M. Mead) reveals a more general contrast in anthropology regarding the role of the hand in relation to that of the head. This contrast in itself is the essence of the debates raging in the arena of theories of the mind, theories of action, and theories of communication. At this point, we must map out the general topography of the slopes these Southeast Asian field studies have indicated to us, for they show the way to a reinterpretation of the history of the discipline of anthropology. We shall see that the discipline obeys the strategy of schools and currents only partially, responding more readily to the rigidity of scholarly history than to the demands of a historical epistemology of knowledge.

On Geertz’s side, the one we could emblemize with the central concept of *Representation*, one will find all of the following: the French school of sociology and Marcel Mauss, the structural anthropology of Claude Lévi-Strauss, so-called “classical” cognitive anthropology as developed by Dan Sperber or Jerry Fodor, for example, and much of American cultural anthropology (the Ruth Benedict “patterns of culture” school). In other words, one finds a large anthropological continent, spread out at the feet of one tutelary figure, Descartes.

The side Bateson pioneered, that of *Extension*, is much more sparsely populated. It is more arid, and parts of it are still largely unexplored. But new settlers are flocking there, not without quarrels and misunderstandings about how the new territory will be divided up between them. Some shuttle back and forth, from this new world back to the old one.

But it seems that increasingly large cohorts of anthropologists are coming to test T. Ingold's soil-fertilization methods, to try to solve the *puzzle cases* of A. Clark and D. Chalmers (1998), to taste J. Gibson's environmental psychology (2014) or the situated cognition of William Clancey (1997) and his many followers,²⁴ the ethology of J. von Uexküll, the neurophysiology of A. Berthoz. A large party of new researchers in the field of the anthropology of learning (J. Lave, T. Marchand, etc.) enjoy the climate. The totem, in my opinion, should be the Paul Valéry of the "Body-Mind-World" (cf. *supra*).

In my opinion, it is impossible to reconcile these two views of the relationship between mind and hand. Representationalists believe that the hand is a part of the body like any other, condemned to be nothing more than either the instrument of the mind housed in the skull or the puppet of outer forces which control it with "sympathy." The movement itself of the cockfight exerts an influence on the body of the individual who is watching it. Soon his hands are moving, because the force of the cockfight is as irresistible as music that makes you want to dance, and his gestures are not haphazard. They follow a script which does not interest an anthropologist like Geertz, but makes it so the individual "knows how" to mimic a battle or beat time to a melody. Although Geertz does not grant an independent mind to the hand, the way the Balinese might, according to Bateson, he does tacitly concede that it has a sort of memory.

That is exactly how Descartes might have conceived this type of situation. In the opposition he makes between body and mind, between self and the world, we know he has great faith in the mind and significant skepticism towards the world. Hence it is easy to understand why, for the representationalists, the fundamental problem consists in deciding where the mind ends and the rest of the world begins. The question has largely been answered by lodging the mind in the individual's head, and then in his brain (the "internalist" attitude, to borrow the terminology used by Vincent Descombes [1995] when he explained the issues and implications).

The response Descartes himself provides is well-known. It is positioned in a sort of hyper-internalism: everything, in the world and in the perception our senses give us of the world, must be suspected, subjected to the exercise of reason. But it is less well known that, like anthropologists in later times, he became aware that this hyper-internalism might fail to explain certain phenomena. For instance, in a letter he wrote to Father Mersenne on April 1, 1640, Descartes mentions the question of the lute-player and his thought.

²⁴ In France, this approach is especially well implemented by Jérôme Dokic, using the tools of the philosophy of mind.

(Descartes, 1899: 46-51) The action is too quick; it is impossible to imagine that the musician could be thinking of each movement of his fingers. The musician's head could not be the sole cause of the music. Descartes was then forced to admit that the lute-player had "part of his memory in his hands." Then he reasoned further, and corrected or completed his statement as follows: "It is our outside memory," he specifies, as if he had understood that with the statement that the lute player has his memory in his hands, he had challenged his own theory of the mind.

However, the correction, "it is our outside memory" also opens the frontier to another world, less densely populated, where the principle of Extension rules. Proponents of Extended Mind thesis, particularly Andy Clark and David Chalmers, advocate the idea of an "external memory" (by opposition to the classical cognitive anthropology from the standpoint of which Jerry Fodor has argued against them [Fodor, 2009]). It is equivalent in every way to the "internal memory"; its contents and the way they are consulted and implemented are the same. Contrary to what its label might lead us to believe, the Extended Mind Thesis suggests that we shift the question "Where is our mind?" towards "When is our mind?" It holds the issues of localization, limits, and boundaries (between the self and the world) to be irrelevant. Instead of examining the problems of distance, transmission, "noise," transformation, etc. presented by the representation list side, externalists prompt us to query the synergies, emergences, mental events, and synchronicities which occur within the context of integrated "body-mind-world" systems. It is conceivable that, on this side of anthropology, a single thesis encompassing the mind, communication, and action is the rule.

The best tool for drawing the boundaries between the territories of externalism and representationalism, the one that is most explicit about the choice of names clustered on either side of the ridge (in addition to the immensity of those who are missing)²⁵ is the importance of the role attributed to language, both as a metaphor for mental activity and as a means for accessing it. The representationalists adopt the linguistic model (Lévi-Strauss, Sperber) or the textual one (Geertz) as the keystone of access to culture or the mind. Interest in the hand is subjugated to this perspective: how does the hand contribute to the birth or development of the word? How does it replace it? In what way does it signify?

²⁵ Although I find this division heuristic as a means of accounting for certain debates within the discipline, I cannot conceive of a world of anthropology split strictly between representationalists and externalists, along the lines of Samuel Taylor Coleridge's statement that a person is either a born Platonist or a born Aristotelian.

Curiosity about sign languages in the late 19th and early 20th centuries, which also captivated M. Mauss, from prayer techniques to the *mudras* of Buddhist priests, belongs to this approach. It was the focus of most of the research involving gesture in social and cultural anthropology, up until the 1980s.²⁶

But is language our best ally (that is, our most reliable resource, instrument, metaphor, or model) for grasping the content and form of thought? With respect to “content,” the question seems to have been settled since the 1960s, when Brent Berlin, Dennis Breedlove, and Peter Raven (1968) developed the principle of the “latent category,” revealing that ideas could be thought in the absence of linguistic expression. However, this approach was still limited by a linguistic curtain, a boundary that defined thought as invariably having a linguistic form. Pursued by Chomsky, in particular, this avenue brought linguistics closer to cognitive psychology.

In the past thirty years, now that the epistemological obstacle posed by linguistics has been removed, a significant amount of research has been applied to the question. Many of these scholars now form the core of the externalist critique. In my opinion, Maurice Bloch is the one who most thoroughly elaborated these ideas²⁷ (Bloch, 1998) He posits that, in order to be highly skilled, thought *must not* assume the form of language. It is impossible to drive an automobile flawlessly, to clear a part of the forest properly, or to play upon the lute perfectly if one is continually engaged in the sort of “inner language” thinking involves for many people. If thought is to be smooth, efficient, and articulate, it must adhere to the essential or “relevant.” (Sperber, 1989) It must also abandon the linguistic referent.

This is the fault line between the two sides, the great geologic rift. The vast territory of the representationalists is mapped out according to a computational model of thinking. Mental operations are compared to those of the computer (a recurring metaphor), as a complex structure made up of a multitude of simple processes (such as encoding-decoding), occurring inside each individual's head. The externalist shores are ruled by a cybernetic model composed of simple structures (which are actions), animated by a complex process, that of continual re-creation, of guided re-discovery, of *emergences*, where the responsibility of thought is simultaneously nowhere and everywhere.²⁸

²⁶ From this perspective, the writings of Marcel Jousse (1969) constitute one of the summits of “Mauss's way,” but Jousse leans towards the other side when he gazes at the horizon. For an evaluation of his work from this standpoint, cf. D. Cercllet, 2014.

²⁷ This critique is formulated in the first chapter (“Language, Anthropology, and Cognitive Science”; Bloch, 1998: 3-21), in particular.

²⁸ This bilateral opposition between complex structure / simple processes and simple structures / complex process is suggested by Tim Ingold (2001).

To render the complexity of the process, we must abandon the bipolarity we use to structure our ways of thinking about thought, about action, about causality, etc. We have to abandon the matter/shape dichotomy and the idea that every creation or every apparition (be it of an object, an action, an idea, etc.) is the *shaping of a matter*, in which the matter is inert and the shape is the active mental model which brings an object into being (using the instrument-hand, if we are talking about a material thing). The conceptual bases for this theoretical attitude, adopted in particular by Tim Ingold, can be found first in Nietzsche and then in G. Deleuze (although he is not always mentioned). Deleuze's thinking irrigates a large part of the externalist territory.

Deleuze drew heavily on G. Bateson's research among the Iatmul and the Balinese, praising his "genius" (Deleuze, 1981) in inventing intellectual tools such as schismogenesis, the plateau or steady state, the self-regulating system, etc. Batesonian essays constructed around questions like "Why do things have outlines?" thrilled Deleuze (Bateson, 1977-1980: I, 55-60). Yet, in my view, Bateson sheds a unifying light to those of the externalist side. For whereas representationalists model thought as a process which produces objects (stretching the metaphor of craftsmanship and industry to cover the construction of ideas and intellectual objects), externalists search for images in shaping processes (growing and channeling flows, forces, and active elements).

Conclusion

Thus, whereas one side is engaged in elaborating an *anthropology of meaning*, the other offers to construct an *anthropology of life*; the first are concerned with the roots, metaphors, and models of language, and the second, with the roots, metaphors, and models of biology.²⁹ The boundary between the two is permeable. The same critique of the subject is to be found, even though it is formulated in very different ways. On the one hand, the "I think" of the tutelary figure becomes "it thinks within me" (the structuralist critique of the subject). On the other hand, we are witnesses to the disappearance of the "that" and the "me": as a result, the grammar of our language is inadequate to writing a single sentence expressing this loosening of subject/object clamp around thinking/action. Hence the sense of Tim Ingold's criticism of contemporary attempts to regain the balance of agency consisting in spreading this property far and wide to a slew of non-human beings, from animals to nanoparticles (Ingold, 2001).

²⁹ The expression "anthropology of life," although recent, is already a source of misunderstandings, in that it refers simultaneously to an ethnography of disastrous, marginal situations where "living" is filtered through the grid of dignity, recognition, etc. (for example, V. Das, 2006), and to an ethnography of the representations of the living world and vital processes (for example, P. Pitrou, 2015). The anthropology of life mentioned here is situated more in line with the second perspective, although the living world is its model, not its object.

What the externalists are demanding is not more agency, but more action. All of G. Bateson's research sought to abolish the contours of agents, places, and patients to arrive at a description of events – systems from which actions emerge as the result of a simultaneous agreement, a sort of responsibility-free cooperation between the various intervening elements.

Nevertheless, there is a bridge between these worlds, or at the very least a reference upon which both sides draw. The writings of Maurice Merleau-Ponty seize the problem presented by the “share of the hand” in the pondering of the world. Merleau-Ponty combines the two perspectives, describing the equivalencies between inner and outer in a very Batesonian way, dissolving the outlines, and asserting that there is no such thing as “the inner man” (Merleau-Ponty, 1945: V), or even an “inner thought,” because it is simultaneously constituted in linguistic expression. What remains inside us is the memory of this expression which is, Merleau-Ponty asserts, in an anachronistic concession to representationalism, an “inner language.” (1945: 213) M. Merleau-Ponty, to whom Lévi-Strauss dedicated *The Savage Mind* (Lévi-Strauss, 1962), whose research largely inspired the theories of *embodied mind, extended mind*, and Tim Ingold's anthropology,³⁰ succeeds in the amazing feat of spanning the vast territory of two anthropological continents with a single sentence, in *The Phenomenology of Perception*: “The world is inseparable from the subject, but from a subject which is nothing but a project of the world, and the subject is inseparable from the world, but from a world which the subject itself projects.” (Merleau-Ponty, 1945: 491; English translation by Colin Smith, 1962)

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³⁰ A.-C. Ramirez Barreto (2010) wrote an analysis relating these two thinkers. However, their kinship could be extended well beyond the idea of interagentivity on which the author concentrates.

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