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BOOK REVIEW

Jürgen Streeck (2009). *Gesturecraft: The manu-facture of meaning*. Amsterdam & Philadelphia: John Benjamins Publishing Company, 235 pp.

Reviewed by John B. Haviland

Streeck's central theme is the semiotic transformation of handling into display. Near the end of his book he writes:

> Because gestures are visual phenomena for interlocutors and are often looked at and seen by the people making them, it is often falsely assumed that gesture is a medium which transforms visual experience into visual representations. Rather, as a medium of understanding, gesture incorporates *haptic epistemology*: it is driven by the body's practical acquaintance with a tangible environment that it has forever explored, lived in, and modified. The beholder, the recipient of conversational gesture, also draws upon an undisclosed background of haptic understandings, couplings of motor-schemata and things in the world; otherwise, they would be unable to recognize the action patterns that the gestures instantiate (p. 208).

Having used *Gesturecraft* for some years in an introductory gesture course in anthropology, I have worked with the parts of Streeck's argument I find most useful for teaching. What I offer here is less a review than a critical appreciation both of the book's intellectual virtues, and also of its capacities for inspiring new ideas and directions in the youngest generations of future gesture researchers. I am grateful to the editor of *Gesture* Adam Kendon for his patience, since he had to wait much too long for this review, and to Jürgen Streeck himself, who in the vain hope of speeding things up provided me not only with machine readable copies of his text but also disks of the accompanying video clips, not always accessible from the John Benjamins website (on which more below).

Gesture became a fashionable topic of research long after Streeck (hereafter S) began to study it. The book traces the development of his approach by concentrating on empirical examples, differently situated and determinedly cross-cultural and cross-linguistic, that have shaped his work continuously from his student days in Germany throughout his distinguished career since. S's approach is *sui generis*. While acknowledging the standard sources on gesture, S follows an intellectual trajectory which is interestingly different from those of other recent monographs on the subject. As a multidisciplinary scholar, S is himself a perfect example of the importance writ large of individual biographies of practice, which in the book he emphasizes as central specifically to the "craft" of any given individual's hands. There are thus unique aspects to the book, notably the tracing of S's particular intellectual origins in the introductory chapters, and his outline of what one might call the psycho-bio-mechanics of the hands, in Chapter 3 — an instant classic addition to any serious syllabus on gesture. He also proposes a typology of gesture based on interestingly different principles from those familiar from other works on gesture.

Chapter 1 "Manufactured understanding" begins with the same etymological pun which figures in the book's subtitle, "the manu-facture of meaning". S retells Cook's encounter on Tanna, where an aped bite on the arm in a native's performance for the European crew was taken to convey the warning that the people of the island were cannibals. In a typical aphorism S remarks, "we are capable of seeing worlds in moving hands", and he further observes that "[1]ike Captain Cook, we ... trust our bodies' sense-making abilities" (p. 3) to suggest that such miniature first-contact pantomimes are characteristically, if problematically, interpretable by virtue of a semiotic reading that derives from the shared functional anatomy of human bodies. He writes that on occasions like that in Tanna "the skilled, mindful bodily practice of gesture unfolds its full potential as a universally available resource from which people can manufacture understandings" (p. 2).

Of course, as S acknowledges, Cook was famously wrong about a whole series of such encounters, so that the "universally available resource" of gesture can as easily betray as undergird mutual understanding. It is also worth remembering that parties on both sides of Cook's encounter in Tanna had spoken language they just didn't share it. They had, that is, not only the model but vast experience of linguistic communication, as well as at least occasional interactions with people whose languages were unknown. Thus, S's further observation that there may be links between gesture in first encounters like Cook's in Tanna and "viable gesturebased manual languages" (p. 2) that spontaneously emerge, for example, among the deaf — where no full-fledged accompanying language model may necessarily be available at all — fails to problematize the nature of the relation between manual, or other mode-specific, communicative resources in building a "language" — that is, to problematize the nature of language itself, something this book never attempts.

S argues that "observing gestures, we can witness how communicative action creatively fashions its own tools" because co-speech gestures are not ("in the first place") regimented into "codes" but are largely spontaneous, possibly often unconscious, and thus "a form of *human practice* — or a *family of practices*" (p. 4) — improvised, hybrid devices for rendering aspects of the world visible and intelligible. S is particularly concerned with gestures of the hands: "no part of our body (except the eyes) is as important as the hand in providing us with knowledge of the world, and no organ (except the brain) has played a greater part in creating the world that humans inhabit" (p. 4), so that lumping the evolutionary special force of the hands together with other possible less accomplished gestural articulators would, in S's view, obscure something important about the hands. (If you doubt the special communicative salience of hands, just watch those of infants which can be eloquent long before their owners can do much of anything with their mouths except eat and cry.)

S gathers together in his introductory chapters a range of theoretical inspirations — from linguistic anthropology, practice theory, phenomenology, sociology, education, brain studies, and cognitive science — until recently rarely found under one roof, let alone in a few pages of a short book. He quarrels with a view that would locate canonical interaction in talk "about an absent world", preferring instead to find it in mutual and shared orientation to a co-present world of practical action, in which people are "together involved with the world around them, touching it, modifying it, and together trying to make sense of what is going on and what is to be done" (p. 6). He also allies himself with the strong methodological austerity and reliance on sequence characteristic of conversation analysis, even as he finds this austerity confining when it comes to "practical, bodily acts" (p. 7).

S's own typological contribution consists of a catalogue of six "gesture ecologies" — different "patterns of alignments between human actors, their gestures, and the world" (p.7). (S is an enthusiastic, if perhaps optimistic, neologist). His six ecologies draw on a contrast, which he introduces early in the book, between "depicting" the world and "making sense" of it — similar modalities or vehicles may be involved, but the 'usage modes' are for S quite distinct. The contrast relates to S's later characterization of the hands as "foveation organs" or — in his paraphrase — "data-gathering devices" (p. 69) which can at once presuppose the nature of an object they manipulate (for example, by being pre-tuned by past experience to adjust themselves to its size and weight) but also creatively discover its properties by experimental manipulations, which may resemble ordinary "handling" actions but in this sense have a quite different character. (Later S adds a third "usage mode" to this duality, namely the use of the hands to contribute to the structure of speech itself, taken as a specialized kind of practical action in its own right.)

The typology includes:

- 1. "making sense of the world at hand", where 'at hand' is meant quite literally to encompass those parts of the world that interactants can handle, not just to do "instrumental" things with them but to demonstrate their properties and nature for the benefit of interlocutors;
- 2. "disclosing the world within sight" (but beyond the reach of the hands), partly by structuring the wider visible field with manual actions such as pointing;

- 3. "depiction" gesture employed as a representational device on which local interactional attention is focused, a topic to which S has devoted much attention both before and after publishing *Gesturecraft*;
- 4. "thinking by hand: gesture as conceptual action" which S also dubs 'cepting' in which the hands produce "schemata in terms of which utterance content or narrated experience is construed" (p.9). For me, this is one of the harder "ecologies" to grasp, because it seems to rely less on formal symptoms (the one such criterion S mentions is that in cepting the hands are disattended by the speaker), but is instead "functional" or perhaps "notional." (S problematically remarks that "[o]ften we notice a congruence between the form of the gesture and the semantic profile of the word or phrase then chosen" [p.9].) In terms of the gesture/world dichotomy that is meant to underpin these different ecologies, this one seems uniquely reliant on the accompanying speech to distinguish gestures produced in this 'usage mode', although S as a rule has rather little to say about spoken language and its relation to gesture in this book.
- 5. "displaying communicative action" the ecology associated with the familiar (but unfortunately named) category of "pragmatic" gestures with a variety of functions in respect to accompanying talk, from minimal rhythmic coordination (McNeill's "beats") to marking illocutionary force, clarifying pronominal reference, contributing to stance displays, and so forth. Such displays are, as S puts it, a specialized subtype of "cepting" gestures "by which aspects of the interaction are displayed" (p. 10).
- 6. "ordering and mediating transactions" is achieved by other-regulating movements of the hands — "their non conversational prototype are the gestures of conductors" (p. 10) — a category of gesture that S does not actually take up in *Gesturecraft*.

Individual chapters are organized around these types, which S confesses are mere heuristics, rarely instantiated in an uncontaminated way in any individual gestural act. Although S explicitly characterizes the contribution of his book as largely classificatory — clearly selling himself short — he also mentions that one useful feature of all typological proposals is to temper one's enthusiasm for a theory based on "a narrow data set".

To anticipate a later point, I note that S's first two "ecologies" — "making sense of the world at hand" and "disclosing the world within sight" — rest on a distinction between kinds of perceptual or physical access that one has to referents: in the first case, referents within reach; and in the second case, beyond reach, but within view. So S's first two classes of practices are defined on the basis of the perceptual "spaces" within which gestures are performed as compared to where their "referents" lie — what he later calls "zones of proximity to the actor" (p. 59). But the later

ecologies seem instead to depend on a typology of semiotic types characterizing what is being profiled through gestures, that is types of relationship between sign vehicle and signified. Or they imply functional differences among what different classes of gesture *do*. The typology is thus a bit confusing (for me) and hard to keep in mind; as a result. I find it difficult to use as more than an labeling device for S's empirical chapters.

In his second chapter, "On Methodology", S traces his personal collection of intellectual antecedents, reflecting his eclectic training and career both in Europe and North America. Some of those he relies on as ancestors in gesture studies are familiar in other treatments of the subject (Darwin, Wundt, and Mead; Goffman; and Conversation Analysis) and others less so (Vygotsky, Bateson, Lave, French praxeologists, and visual anthropologists). S clearly borrows a notion of "ecology", which he takes as part of his original contribution in *Gesturecraft*, partly from Bateson, and he also writes with approval about Bateson's notion of "meta-communication", and his "natural history approach" which set many of the agendas for later gestural research as well as for many other aspects of studies of interaction. He also comments on Bateson's fascination with the Balinese use of the hands (something S has pursued directly himself in a short film).

Most of S's summary of other traditions in gestural research and interaction is abbreviated, so that students are better served by reading the sources directly. This is particularly true, in my opinion, of S's sketches of Goffman's contributions; the evolution of Adam Kendon's work on gesture (S mentions Kendon's foundational work on the parsing of gesture, different functional contributions of gesture to the process of utterance, and his ongoing classification of movement or gesture "families", whose members are argued to share both handshape morphology and aspects of meaning); and the whole Conversation Analytic tradition, in its various incarnations, especially the multifaceted work of Charles Goodwin, for whom, unlike many orthodox CA practitioners, gesture was never "a hand-maiden to speech" (p. 26).

S also gives brief mention to the role of "(micro)ethnography" in gesture studies. One of my own worries about this book is that S's own studies, though ethnographically located and comparative, are nonetheless ethnographically shallow, rarely related to systematically presented studies of communicative resources or preoccupations in particular sociocultural settings. S explicitly claims that his "book is a study of gesture understood as cultural praxis" (p. 38), although he promises to "refrain from attributing them to any one culture." Whether or not this posture matters to the central "functional/typological" aims of S's book, it is worth pointing out that the promise of a lamented ethnography of gesture is not fulfilled here. (Contrast the roughly contemporary monograph of Enfield, 2009.)

S ends his methods chapter with a small conceptual exercise, distinguishing 'gesture' as an English mass-noun (as in "Italians use gesture to express their feelings") from a variety of different meanings of 'gesture' as a count-noun (for example in "She made two gestures as she spoke"). He thus exposes a couple of alleged Whorfian "covert categories" (Whorf, 1956) which allow us to distinguish (or show how English formally distinguishes) distinct phenomena between which the apparent single word 'gesture' might obscure differences. Of course, this initial observation ignores what is, in English, the far more important formally overt distinction between 'gesture' as a verb (something that, typically, someone does) and 'gesture' as a noun (or, as S might have it, as a family of formally different nouns) denoting 'things' or, perhaps, the results of individual acts. This is a somewhat clearer version of the distinction S draws between the mass-noun 'gesture' which "denotes a praxis, a human activity" as opposed to 'gesture' as count-noun "which denotes gesture-events, single instances of the praxis" (p. 36). S goes on to distinguish between those (countable) 'gestures' which come as tokens of types ("He used two obscene gestures in quick succession") as opposed to those which are, as it were, construed as nonce performances ("He made a nervous gesture"), to emphasize a systematic ambiguity in English usage about what gestures are or can be. The exercise is rhetorically useful, especially for students beginning to deconstruct the often unexamined categories behind the words they routinely use - a familiar Austinian first-step towards getting "clean tools" (Austin, 1961, p. 181).

S's third chapter, "Hands", is one I always ask students to read, not because it is exhaustive (as it doesn't even try to be) but because it points in directions seldom explored in standard treatments of gesture, which often take the hands completely for granted as gestural articulators. But of course they are much more than this: they are intimately intertwined with the very nature of human beings as organisms. S touches on the evolution and anatomy of the hand, especially the coevolution of the hands with aspects of growing social cooperation in hominids (often thought to be more directly related to the evolution of the brain, or to changes in locomotion and perceptual abilities in human ancestors). He moves on to the neuro-physics and the ballistics of grasping. He ends the chapter with a wonderful consideration of the hands as organs of cognition involved in propioception, learning, and prototypical "embodied" knowledge: "[t]he actions and play of our hands are a form of thinking" (p. 58).

The chapter is only a short summary of research relating to these themes. Even so, S's observations are characteristically rich and suggestive in each domain, so that careful reading can lead students in directions that S only hints at. For example, on the evolution of the hand S observes that "[w]ithin anatomical limits, cultural training can increase the flexibility of the hands and expand the range of possible motions and postures somewhat, but the number of possible configurations is nevertheless limited" (p. 39). "Number" is probably the wrong way to put this, just as the "number" of distinct vowels the human vocal apparatus can produce is not (exactly) finite; instead there are structural, perceptual, and probably developmental constraints on the number of *distinguishable* vowels. One would suppose the same to be true of the analogue properties of hand configurations; to characterize the repertoire of "possible configurations" of the hand one would thus need a theory of distinguishability or distinctiveness. The careful reader is thus set up to hope for such a theory — although not necessarily within the pages of *Gesturecraft* — as both a descriptive possibility and a theoretical desideratum for studies of the semiotics of human manual communication writ large, which would include both gesture and sign-languages.

To take another example, students might be able to draw a connection between S's treatment of the physiology of grasping and Adam Kendon's characterization of the "gesture phrase". Referring to a time lapse photograph of a grasping hand, S writes:

> we note that during the ballistic transport phase of grasping, the hand is also being opened ... When it reaches its maximum aperture, its movement towards the object begins to slow down. At the same time, the hand's *prehensile posture* is configured which is the result of a ballpark estimate of the object's *intrinsic properties:* its size, shape, density, and weight, computed in relation to the mechanical properties of the intended task (p.48).

This whole description recalls, for me at least, the departure from rest and excursion of the preparation phase, and then the seemingly heightened and purposive formation of hand and arm characteristic of what Kendon (2004, p. 112) calls the 'stroke'. Of course, unlike grasping events gestures occur instead in a kind of virtual world of depicted objects and events. Thus, S's account and its strictly formal links with Kendon's parsing of the gesture phrase suggest that the basic physiology of grasping and manipulating is essentially borrowed in almost whole cloth, although re-semioticized for gestural use. (There may additionally be a languagelike structure introduced in gesture that draws on but is fundamentally different from the trajectories of grasping that S takes up in the next chapter: that is, there may be a hierarchical, recursive, if simple basic syntax for gestural phrasing based on movement patterns which emerges as the hands are recruited to gesture, pantomime, or sign [Haviland, 2011].)

Finally, S's version of proposals about the hands as cognitive organs sets the stage for a series of reflections implied in the rest of the book about how and why the hands also become articulators for systematic communication. Consider the sort of embodied knowledge that relies on the "structural tripling" between "hand-shape, object-characteristics, and task" (p.51) — part of what the hand must "know" every time it grips an object. If the body "has" this knowledge about how hands relate to objects they handle, then it requires only familiar semiotic

processes to move from actual handling to (re)presentations of handling in gesture. Similarly, if as S claims, "haptic perception is" — at least some of the time — "superior to vision" (p. 53), then one can see how gesture or sign can recruit or invoke at least echoes of the knowledge one gains via touch and handling into even schematic visual representations of what the hands routinely do.

The fourth chapter, "Gathering meaning", is the part of the book that captures best what I have understood to be S's signature contribution to gesture research in this book, and his argument flows directly from his interest in practical action. S generalizes the idea that gesture is an integral outflowing of everyday activity to all communication, recommending "an account that situates the communicating person within his or her lived-in world, not apart from it" (p. 84). (In an analogous way, following DuBois, 2003, one might admonish linguists to consider that grammar, arising in conversational interaction and discourse, is as much about what brings people together and allows them, or motivates them, to interact as it is about syntax and logical form.)

In his felicitous use of the phrase "the world at hand" S emphasizes that the "basic positioning of the gesturing hand is within the physical and phenomenal world within which people, as they communicate, operate" (p. 59). S's examples are drawn from quotidian "operations" on the world — in an automobile repair shop where people talk while working about the very objects they are working on, or on a Philippine rice-farm, where the entities of interest are also objects of work, but at a further physical remove. S emphasizes the "endless variety of indexical practices of the hands" or "methods by which people make discriminations, and highlight, emphasize, elaborate, and interpret the present world and orient each other to it" (p. 59). To such practices S applies a Heideggerian term, clearing. "'Clearing' means that an objective, merely existing, uncomprehended setting is transformed into a field that is jointly known and understood by the parties" (p. 59). The word emphasizes not only the indexical quality of the activities involved but their embeddedness in what Herb Clark (1996) calls "joint action"; it is less explicit, though, about how different kinds of indicating can work - from 'pointing' to what Clark characterizes as 'placing' (where rather than moving an interlocutor's field of attention to a referent, one moves a referent into the interlocutor's field of attention). Thus, the auto mechanics or rice farmers point right from where they are to places or things in the scenario; they also disassemble or manipulate things to expose to view entities of importance.

Peirce (1868), too, uses the metaphor of "contiguity" to help introduce the notion of indexicality, but when S says that the practices of interest here "are predicated on the contiguity of reality and representation" (p. 60) he may encourage a certain confusion (which he partly counters later in the chapter when he comments by noting the co-occurrence between hand gestures and other sign systems,

such as writing or sketching). S suggests as alternative labels for the sorts of activities he has in mind both "augmenting reality" and "gathering meaning", where "gathering" suggests bringing to attention "meanings" that already exist — or in S's more expansive formulation "are already inscribed in the world, residues of prior human action" (p. 61). It is a familiar insight that indexical practices, by invoking indexical surrounds, have equal potential for presupposing and creating them (Silverstein, 1976). It is surely an empirical question, in different contexts, what the balance is between aspects of the world at hand that can be taken for granted or "gathered" and aspects waiting to be discovered, imagined, or created. Indeed, S's treatment of such techniques as "tracing" reintroduces exactly this contrast, just as it raises questions about what sort of "proximity" or "contiguity" is relevant between signs and their referents.

Moreover, one should always ask, as a matter of responsible ethnography, how much of the world actually is "at hand". The "shared knowledge of the cognitive landscape that enables the parties to communicate via a minimal set of gestures of orientation" (p. 63) to which S refers, for example, in the automobile repair shop, seems to include an awful lot that is not in fact "at hand" in any usual sense: the work and personal relationships between individual workers in the shop, the divisions of labor between them, the shared knowledge of what is wrong with a car and its eventual redistribution, differential skills — with the car, the equipment, with spoken language — and so forth. So one can ask more precisely what informational load is carried by the different parts of the the scene, from words to referential indexes, from bodily positions in the scene to manual operations. It is both a virtue and a potential trap that S's basic metaphor, "handling", suggests a certain range of ontological possibilities for what S somewhat confusingly calls "referential objects" as "at hand": primary, immediate, or somehow available by default.

This chapter is useful in teaching about gesture and the relationship between "instrumental" and "communicative" action both for what it shows explicitly and what it suggests only partially or indirectly. Here are three open-ended issues which arise in Chapter 4 and recur throughout the book.

Handshapes: S raises the question of contrastive handshapes, a large and pressing area for future comparative research. For example, he summarizes the car shop owner's "pointing" gestures, as follows: "Gestures orienting to a field are often made with a flat hand, gestures referring to a collective with a cupped hand, and individuating gestures with an extended finger (generally the index finger, sometimes the thumb" (p. 66). S thus implicitly promises an extended catalogue of such usage/handshape coincidences in the rest of the book. Of course, without demonstrating their systematicity — across contexts, speakers, situations, or sociocultural milieux — it is hard to justify any particular analysis or interpretation of how distinct handshapes work. How do we imagine that these "gesture

families" (if that is what they are) come into existence, change, or get learned, either by gesturers or their interlocutors? Are we talking just about just Mr. Hussein here (and if so, where did he get these conventions?) or about his interlocutors as well? Do demonstrable misunderstandings ever occur about what the different handshapes mean? How far do generalizations about links between handshape and meaning extend? When S switches to the Philippines, for example, he appears to assume that some cross-cultural principles are at work. "As we have seen, this hand-shape, which contrasts with an extended index-finger, marks a region rather than a specific location" (p. 78). But where we "saw" this before was in the Lebanese-American auto shop in Texas, not in a Luzon rice paddy. Further comparative observation would be helpful: how are Mr. Hussein's pointing conventions like or unlike, for example, those described for Naples (Kendon & Versante, 2003) or Arrente (Wilkins, 2003)? Pushing the dilemma, when S asserts that a particular gesture represents a "classifier" which "corresponds to a category like 'distributive'" (p.67) one wonders why the scare quotes are added, and whether S is taking, for example, the classifiers of sign-languages, or perhaps of spoken languages, as the prototypes, in terms of either meaning or function. The book's silence on these points thus actually suggests a range of more detailed studies to undertake, an implicit virtue for student readers.

Communication and poetics: S attributes special virtues to hands as communication vehicles because of their cross-modal potential, at once tactile and visual, and capable of inducing a transformation across modalities: "tactile features of the world, presently available only to a single party, are visually broadcast to everyone present" (p.70). For example, he cites the gestural use of "performance characteristics of exploratory actions: a rough surface implies different movementcharacteristics of the hand than a smooth or slippery one. The audience can infer invisible features of the object from visible properties of the act" (p.71). S adds a nice additional Jakobsonian point about performance and poetics, in which gestural uses of the hands "differ from practical actions by their motion patterns, typically showing features such as repetition and rhythmicity or prolonged tactile contact" (p. 71) For Jakobson (1960), of course, a hallmark of language is its poetic capacity, characteristically the play of parallelism and repetition of formal elements, including abstract grammatical categories, across sequences; and poetic structure is itself a formal characteristic which produces communicative potential by its very markedness. Thus, S implies, gestures acquire communicative virtues in part as a direct result of their poetic form. Citing Huxley (1966) on "ritualization," S gives the following further example about the car mechanic tapping on a distributor cap he is interested in when it cannot yet be seen: "Tapping is visibly [and, one might presume, also audibly — JBH] different from the trajectory of actions within which it is embedded in that it involves strategies such as repetition,

rhythmicity, and exaggeration in size, which are otherwise not characteristic of the practical action underway, but rather features that are also characteristic of ritualized behavior ... In this example, repetition marks the communicative segment of the action off from the merely practical phases" (p. 76).

Actor's attention and observer's uptake: S contrasts two moments in a scene where a car mechanic holds up a piece of a clutch mechanism for a colleague and touches it with his hand: "in the case of exploration, the actor is more likely to look at the object explored, while in the communicative version of the act the actor is looking at the interlocutor. Thus, this is a practical act performed for communicative purposes" (p.73). Observer uptake is implicitly presented here as a fundamental feature of "communicative" as opposed to practical action, since presumably the actor's gaze in part "checks" the interlocutor's attention. Of course, interlocutor's uptake is always problematic, as is the unambiguous assignment of actor's gaze, and despite the fact that the same diagnostic is used again in S's book as a formal criterion of different gestural ecologies, it seems unlikely to be able to bear the functional load placed on it, since many factors seem to intervene in when and why actor's gaze focuses on the hands or elsewhere. Potential ambiguity here reveals a more fundamental problem with S's dichotomy between 'exploration' and 'communication', since there can be a great range of intermediate shades of action types. Thus, for example, teaching an action (e.g., how to use a tool, or play a musical instrument, etc.) may involve really doing it, miming it, faking it, doing it partially etc. (Haviland, 2007). S's example is partial, but its very partiality is suggestive and productive for further thinking.

This consideration, in fact, leads directly to Chapter 5, "The turn to the hands". S shifts consideration from the hands as they operate on the world to the hands as themselves objects of attention, as they to turn to a quite different sort of task albeit one they do extremely well, namely depict aspects of the world which, as S points out, often "cannot presently (or ever) be seen" (p. 85). Depiction is a topic S has published about extensively, including in the pages of this journal, and whereas the empirical materials in the previous chapter located interlocutors (and their hands) firmly in an "outer" world which can be handled or pointed to, here S moves to a characteristic sort of human-to-human interaction where the hands are used and contemplated as "substitutes" for the outer world. Clearly this movement between an apparent "outer" domain and an "inner" realm is a central dilemma in human interaction. Consider the special dynamic of asymmetry that, for Hanks (1990) for example, energizes much social life, as interactants have differential access to elements in their social and physical surrounds. For S the asymmetry characterizes the bodily articulators of gesture in particular — "an asymmetry in the access that self and other have to the displays on a person's body: one's body is visually available in its entirety only to other, not self" (p.86). Chapter 5 considers how

this turn of attention to the hands works, and in the following chapter he takes up different modes of depiction by the hands.

One consequence of this "inward" turn from the operation of the hands on the world to the role of the hands as representing the world is that S's empirical material in Chapter 5 includes spoken exchanges much more like those typically used in gesture studies. Here interlocutors are engaged principally in conversational performances, with at least partial presumed awareness of the fact that they are being filmed. The first example is, indeed, drawn from a televised talk show. Others range from a couple of Japanese women reminiscing about past automobile accidents to various other German, French, and Ilokano conversational encounters, to what S terms an "attentional struggle" between multiple interlocutors at the opening of an art exhibit. The point of the chapter is that to accomplish manual depiction "methodical", multimodal practice is required; this practice extends well beyond what the hands themselves do in representing aspects of the world; it includes to how interactants with both word and body achieve the required mutual orientation.

I find interesting resonances in several of S's observations about mutual attention. One is an extension of the now classic observations of Chuck Goodwin (1981) about layering, lamination, and conjoint effect of different modalities: just as gaze (or gaze requests), verbal dysfluencies, and other sorts of interactional repair, can alter the course of an unfolding utterance — sometimes causing speakers to change syntactic horses, as it were, in midstream — "the visual profile that a gesture provides and which may be fully available to the gesture-maker only as a result of a readjustment of gaze, can in some measure provide 'new information' even for the speaker which, in turn, may lead the speaker to an adjustment of ongoing talk" (p.91).

Another useful point concerns the interaction between gestural and spoken devices in regimenting deictic interaction. S devotes a long section to how utterance design can "direct attention to gestures" and what sort of linguistic devices can achieve this. The discussion is a useful counterpoint to the linguistic literature on what Lucy (1993) calls "metapragmatic presentationals", or on elaborate spoken deictics (e.g., in Yucatec, [Hanks, 1990]). The issue brings us nicely back to the paradigmatic offerings of language — read, "grammar" — as a well structured guide to interaction (precisely, one assumes, by being a product of it).

The final example in the chapter, about the "struggle for attention" that unfolds when an artist is asked to comment about her work by some public figures more interested in political posturing than in art expands interestingly on the basic theme of the chapter, that "design for being attended to visually" is a central feature of depictive gestures and the interactional matrix in which they are promulgated. S cites work by Gullberg and her colleagues to suggest that this visual "attention" is as much social display as it is cognitive facilitator, a point which emphasizes the sociality of gaze (and other visible indicators of "attention") characteristic of most "face to face" interaction that is rarely considered in the study of spoken language.

It is in Chapter 5 that I first found compelling the short illustrative video clips that S convinced John Benjamins to include, at least via their website, with Gesturecraft. If ever an object of study were to be apt for online multimedia publishing it would have to be gesture. Poring over the (admittedly tiny) video clips that virtually accompany S's book, I repeatedly found myself both agreeing with and contesting S's own analyses — a singular virtue for any monograph, but especially useful for a pedagogical text. Ironically, it is often the disagreements that are most provocative and potentially productive. Consider, for example, S's argument that that "the speaker's gaze at the gesturing hands proposes to the recipient that a currently produced gesture is significantly related to the moment's talk" (p. 94). As in the previous chapter, one is tempted always to ask of S's generalizations how widely they are meant to apply, both situationally and across gestural traditions; or why they sometimes "work" and sometimes not. The video clips in this section (notably those associated with examples 5.6-5.7) are especially interesting, to see where S seems to be right (or wrong) about what interlocutor gaze is doing, or where the elaborate deictic "pointing" S mentions does or does not seem uniformly to elicit it. For example, in example 5.6, I see the timing of attention very differently from how S portrays it in his text. Or in 5.4 (where a speaker pronounces first the word 'clarinet', incongruously given her body position, then corrects herself to 'cello'), something I could only observe on the video struck me as notable: that the interlocutor remains fixedly gazing at the speaker throughout, a somewhat puzzling behavior that made me wonder about the conditions and instructions to participants in the original filming. I will revisit the online video clips repeatedly in the rest of this review.

In Chapter 6, "Depiction", S takes up an issue which remains surprisingly under-described — let alone under-theorized — in studies of gesture, namely almost everything that falls under the rubric of "iconicity". He takes as his aim in the chapter an account of "the logic of ... pictorial representations, of the methods by which they are made". For empirical support he adds to two interactions already introduced — the Japanese women in a conversation about their past car crashes, and two German women talking about the performance of a play — a particularly evocative virtual monologue by an architect about a building project he hopes to land.

After reviewing several typologies of iconic depiction, most drawn from the more developed theorizing on the subject from the study of sign languages rather than co-speech gesture, S proposes what I take to be a variant of the familiar dictum for beginning students of language that I usually formulate as "form first!"

One starts, that is, with the forms (or for S, in this case, the "methods") that some set of systematic practices presents to us, not with some presumed underlying set of "meanings" or "messages". As S puts it, "representation by gesture must be approached from the signifier's side — as *constructions* or *fabrications* —, not as abstractions from given perceptual realities" (p. 148). As we might anticipate from what has gone before, S proposes a typology of manual practices of depiction that depend on or grow out of what hands typically do in the world: they touch things and they grasp things, leading to indexical methods and handling techniques for representation. These in turn represent the main varieties of manual engagement with the world: tactile and haptic.

The detailed typology contains some extremely useful notions, partly captured by S's tireless neologisms. For example, S begins his extremely heterogeneous catalog of depictive methods by talking about how gestures "articulate space", partly by taking advantage of the physical attributes of the hand. The hand is good at representing planar surfaces by being held flat, for example; or, in the method S dubs "scaping", the hand can evoke a surface or by "virtual tactile action" (p. 125) to make visible the contours of a whole landscape. S also introduces what he calls "projective indexing" for the serendipitous incorporation of environmental object as proxies for depicted things: "the gesture selects parts of the present environment, marks them up, and the resulting figure is articulated with phenomena in the story space" (p. 142). Finally, I have found extremely useful, for thinking not only about gesture but also the genesis of signs in young sign languages, S's discussion of what he calls "handling" gestures; which are "schematic versions of practical actions in the world, that are not used to depict action ... but rather the object that is acted upon (or the tool that is used in the action)" (p. 138), which S contrasts with "'acting' or 'mimesis', which are gesture acts that are made to show other physical acts" (ibid.). A further elaboration of this distinction that has proved useful for quite recent typologies of sign languages, especially emerging ones, is the contrast between conventionalized signs for objects that are built around such "handling" depictions, on the one hand, and others that profile the tool or "instrument" itself. Imagine a depiction of 'hammer' that profiles a hammering action — where the hand seems to *hold* a virtual hammer and pound with it — as opposed to one in which the hand acts as the pounding instrument itself. (See Haviland, 2011, which draws on original observations by Carol Padden about this contrast between strategies for depicting instruments and tools in ASL versus ABSL.)

Despite such virtuosic classificatory insights, I frequently found myself worrying in this chapter that S sometimes allowed himself to depart from the austere principles of "form first!" (Of course, as one also must emphasize to students, "form first!" certainly does *not* mean "form last!") For example in his discussion of "fictive motion" in example 6.7 he ruminates about whether a moving hand may show not "motion" but "path" or "manner", possibly incorporating the figure itself, possibly not. He concludes that "the gesture itself may be the vehicle that enables the abstraction in the first place" (p. 133), and that the appropriate interpretation depends on "local context" (ibid.) Presumably empirical evidence would be required to decide how, if at all, an interlocutor chooses between different "abstractions" of the sort speculated upon. Looking at "form" or "methods" first, however, seems to call for a final ontological decision here only if there is interactional evidence about some sort or misunderstanding or other "trouble". Similarly, in example 6.13, S makes specific claims about the interpretive process that accompanies a series of depictions of a spinning tire — all of which involve what S usefully dubs "schematic handling". The speaker's depiction involves a kind of gripping hand which rotates back and forth at the wrist.

In other words, she takes hold of the tire (or wheel) and turns it back and forth. An object and its behavior are evoked by schematic acts of the hand. In understanding the gesture, we abstract away from these features, however, seeing the wheel "turning by itself". The object is also "resized" so that it 'fits' the hand: no human hand could take hold of the wheel of a car in the fashion which the gesture insinuates. The gestural action of turning, in other words, evokes the features "roundness" and "ability to rotate", but not "size" (p. 141–142).

But do we "see it" this way, or do we simply add to the composite image we are constructing selected visually portrayed aspects of the scene (in this case the tire *as* rotating object)? How do we decide which is the correct way to put it? The fact is that there is an additive process here, but also one of filtering. So size *is* evoked by the hand gesture, but it is canceled (perhaps by its incongruity with the accompanying word 'tire') — a process familiar also from word to word interactions. It seems unlikely that we would be able to recover, after the amalgamation of inputs has taken place, which part of our fabricated final model of the scene came from which modality, or even from individual "acts" of speech or gesture. (Let's leave this question to the psychology lab, anyway.) But is S's language here consistent with the overall view he seems to promote — and with which I am in agreement — that we must concentrate on depictive methods rather than some presumption of the character of what is to be depicted?

Even with S's distinction, already quoted above, between "mimesis" and "handling" as different depictive methods, it is far from clear that gestural form is what unambiguously determines the appropriate semiotic interpretation, and this general point leads to a further issue that S does not sufficiently address. Example 6.17 shows one of the Japanese women describing an accident in which she drove off the road. In the utterance that S glosses into English as "I turned the steering wheel too much" evidently her speech actually corresponds to something a bit more like "somehow — like this — turned too much" where, as she says 'like this', she actually says nothing corresponding to 'steering wheel' at all but instead raises and lowers her hands as if she were holding and turning something the size and shape of a steering wheel. S comments:

Apparently, 'turning a wheel' is a 'good gestalt' by which to read the figuration of the two hands, and for this figure, there is a ready and unique real-world reference: driving a car. There is only one wheel that, in most people's lived experience, is handled in this fashion (p. 146).

It is hardly clear that the "form" itself of the depiction will ever be enough to distinguish between the many things that such a 'gestalt' could represent; partly, here, it is largely a matter of the accompanying speech and its contribution to an overall representation, so that only a more precise characterization of the linear unfolding of the entire performance, visible and otherwise, would allow one to decide what aspects of gestural form contribute in what ways to the semiotic process. (It is worth mentioning that in Zinacantec Family Homesign, which I abbreviate simply as "Z", the first generation emerging sign language from highland Chiapas, Mexico, on which I work, something quite similar to the "steering" motion exemplified here is the conventional sign for 'automobile' itself, a perhaps surprisingly strong conventionalization of a "handling" gesture.)

The point of such an example is twofold. First, despite the shared "gesturecraft" that may derive from our species-specific use of the hands in the world, one may expect potentially surprising differences between different gestural traditions or "cultures", and these must be rendered empirically problematic and available to scrutiny. Nor need the gestural practices come in families as large as communities or "cultures". S's examples of the architect imagining the house he would like to build emphasizes the synergetic relation between his gestural representations and his architectural creativity. We are told that his

gestural practices are part of the very fabric of the architect's creative process: they are among the vehicles of his spatial reasoning and imagination (p. 131).

This is almost certainly true. Does it mean, however, that architects' gestures are in some special way constrained (or enabled) by their creative vision and training? Or should we expect something similar from every gesturer? Or only in truncated, less expansive ways? (Compare, for example, Murphy, 2011.) This is in itself an interesting empirical question, which cannot be resolved without considerably more comparative work on the relationship that S posits between mind and manuality.

Again in Chapter 6, I found the videos that accompany *Gesturecraft* extremely useful. Indeed, the presence of the clips allows one to enhance and expand S's own transcripts and analyses. Since S concentrates on different families of methods or

different "ecologies" of gesture in different chapters, the tools he supplies in one place can sometimes most usefully be brought to bear on his own examples when one can reintegrate the whole theoretical apparatus in viewing the full video clip rather than just the selective transcript provided to illustrate the accompanying textual argument. For instance, examples 6.5 and 6.11 present different analyses of the same fragment of dialogue, where the speaker mentions a tree stump that lay in the path of her car. In one presentation of the example, S is interested in the population of a spatial scene, and he describes the gesture (reporduced here in Figure 1) as follows: "Satomi shows the tree-stump by an act of virtual placing. Her right hand, in a grasping posture, is lowered as if she is setting down an object that can be held in the hand" (p. 126). It appears from both S's transcript and the video itself that the hand gesture is synchronized to Satomi's uttering the words *choudo ki no* "just tree+POSS", and just when the gesture is retracted she says *kirikabu* 'stump'.



Figure 1

S is interested in the population of a spatial scene, and he makes the point that in the narrative there is no "placing" or "handling" of the tree stump.

The hand-movement can be understood, not in terms of its inherent visual features, but its results: now there is an object out there, which remains after the hand is retracted (p. 126).

The second time S presents the same scene, at his example 6.11, the illustration adds an up and down arrow to Satomi's hand. S is now talking explicitly about depiction through "handling," but he wants again to distance his analysis from the details of gestural form.

Satomi configures her hand as if she were holding a round object of a certain size and then lowers it as if placing it on the ground ... Here, the form of the gesture has no pictorial purpose; what matters is that something gets placed, put into existence, made salient relative to the narrated scene (p. 139).

The primacy of representational "method" as form seems here to be sacrificed to the organization of S's analysis. How, though, can we be sure that there is not, in fact, a residue of the handshape (perhaps the roundness it suggests) that can be extracted from the speaker's handshape, even though no real "handling" is involved in the narrated scene? (The round handshape would then be a bit like a gendered object clitic preceding a Romance verb, that is a kind of anaphoric anticipation of the coming word 'stump'.) Or why not suppose (and this would require a re-examination of the entire performance) that the exact placement of the stump in the scene, from Satomi's perspective as virtual driver, is in fact significant in her gesture? (She does not, for example, place the stump to her side or behind her.) In both cases, the video itself allows one to raise, if not resolve, questions that seem relevant to S's project, even if what they suggest — at least to this reader — only half agrees with his own conclusions.

In Chapter 7, "Thinking by hand", once again moves cognitively inward to contrast *depiction* — just discussed — with "*ceiving* (or *ception*)" or "thinking in the medium of gesture" (p. 151). S clarifies as follows:

Usually no distinction is made between gestural depiction and gesture as conceptual action ... The distinction I make between the two modes ... is grounded in the observation of a fundamental difference in the behavioral and attentional orientation that speakers show during the two modes. During depiction... gesturers orient to their own hands. *Ceiving*, in contrast, is usually a background activity, taking place without the speaker or interlocutor attending to it (p. 151).

This is (or at least starts), again, as an empirically observable distinction of form, but it seems to want to lead, theoretically, to a semiotic or cognitive feature of some importance, one that immediately recalls a central criterion for McNeill-style "gesticulation" in the first place: that it is subconscious, or exists on a different, more imagistic psychological plane from anything expressed verbally (McNeill, 1992). It would be a major contribution to our understanding, indeed, should S's "outward criterion" of form be able properly and successfully to identify a subclass of gestures with special "inner" links to thinking and conceptualization.

S's exemplary material in this chapter is "anchored by several sequences from a psychotherapeutic conversation, in which a patient conceptualizes aspects of his emotional life in part by motions of the hands" (p. 151). Sadly, S includes no video clips of this psychotherapeutic conversation (although there are videos for a few other conversational clips and three from the auto shop described in the chapter). I can understand why human subject protection issues might have made these particular video segments unavailable for public dissemination, but given what has been suggested as the observable diagnostic criterion for 'cepting', it is disappointing not to be able to see the relevant clips. Also S has somewhat stacked his own deck by taking as the anchoring examples interactions where, by their very nature, the experiences to be conceptualized are not physical things. Why, for example, should we not expect to find 'cepting' to be part of an architect's conceptualization of an as yet unrealized work, which has been presented in the previous chapter as an integral part of the creative process? (One might ask, more suspiciously, whether S's architect has already had to *present* his project, and therefore depict it in a particular concrete way to pitch it to his client.)

I personally find Chapter 7 the least engaging part of the book, not because the issues are unimportant or the examples uninteresting — we get to see the owner of the auto shop performing almost exactly McNeill's prototypical "metaphoric" gesture of 'fairness' or 'justice' based on an apparent model of a scale or balance — but because the theme seems to represent a retreat to what much of the earlier program of the book has led us away from: an overheavy concentration on the mental life, detached from practical action and engagement.

S begins Chapter 8, "Speech handling", by noting that "[a] domain that is routinely structured and mediated by conceptual gestures is the process of speaking, communication, and interaction itself" (p. 179). The "(meta)pragmatic" gestures that concern him here are much like those Kendon (2004) has also called "pragmatic" and which he has in a preliminary way organized into so-called gesture "families", derived at least initially from the apparent systematic links between shared gestural hand-shapes and "semantic themes". S characterizes such gestures as "an unruly bunch" (p. 181), not least because they seem to be highly idiosyncratic at almost all levels of sociocultural resolution. I myself find inquiries into the systematics of such families (or even individual gesture types) uncompelling until we understand more about how (and in what sorts of sociocultural formation) they come into existence, acquire conventionalized functional loads, are used and transmitted, and so forth.

Consider, for example, the 'shrug'. After several pages describing uses for "open hands" in gestures that seem to be involved in regulating the turn-taking system in speech, this is what S says:

Open hands are also a central component of shrugs, which are complex and varied displays of great communicative importance (and perhaps a candidate gesture universal). A prototypical shrug involves several body-parts, the eye-brows (which are being raised), the hands (which are turned so that the palms face up), the forearms (which may be lifted), and the shoulders (which are also raised). In addition, the head may be tilted (p. 189).

But how would we know if the 'shrug' is a gesture universal? Is it universal in all the parts S describes? And if it were true (once we figured out what it meant to be a gesture universal), what would the explanation be? S's discussion continues with a sequence of examples of 'shrugs' in various contexts to conclude that "in shrugs, our bodies withdraw and retract from possible engagements" (p. 191). He goes on to cite Kendon's summary of his own classification of shrug-like gestures to the effect that they "indicate that the speaker is *not* going to take any action with regard to whatever may be the focus of the moment" (Kendon, 2004, p. 275). Without some truly cross-cultural evidence about the comparative use of such a complex composite of visual and bodily elements, or perhaps a convincing cross-linguistic gloss for the concept, however, the very notion of a "gesture universal" like 'shrug' seems suspect and somewhat idle. (I know that the "Z" signers, who use the first-generation sign language mentioned above, have something very like a shrug as a conventional 'I don't know' sign, although the expression on the face seems as important to this reading as the movement of the shoulders. Tzotzil speaking Zinacantecs, although they have an expression that Laughlin [1975] translates as 'shrug' — it means literally 'make one's neck fat' using a positional root that is typically used of a pig's neck — it is not as far as I know an expression used to characterize a common gestural emblem used in the community. Apparently, the ASL sign for 'shrug' is a shrug, and it means just 'shrug' — whatever 'shrug' "means".)

To take an apparently simpler example, S suggests that presented with a certain variant of an "open hand" palm up gesture, a "[l]istener may take the 'giving' gesture as a sign that the turn is now complete" (p. 185). The transcript of the video fragment in question, however, leaves some doubt about whether it is the hand gesture or the accompanying speech that signals turn completion. If it were the gesture itself, why didn't the overlap start sooner, when the gesture was retracted, rather than waiting for the turn-ending tag ("you know") that the speaker produces immediately afterward? (Here is a case where — despite what the symbolization in the printed version of the book says — the John Benjamins website omits a promised video clip, which would have been useful to consult to help resolve such a doubt.)

For me a problem that pervades this entire chapter is the sense that the examples may have been cherry picked — that is, non-systematically extracted from a somewhat haphazard corpus. If so, then by this point in the book S has abandoned the principled reliance on methods or forms he advocated to good advantage earlier and has instead reverted to a series of notional criteria which involve the particular manual metaphors he is interested in, and which in turn allow him to isolate gesture of the hands that confirm them.

At the end of the chapter S presents a fascinating table of German "speech act" verbs, and a brief observation about the etymology of some English translation equivalents. He concludes

that gestures are not so much concomitant expressions of the same underlying model that is also expressed in speech act verbs, but that conventional gestures may have served as the models for the verbs (p. 201).

I am unsure how to understand this discussion. Is S talking about universal mental processes applied to interaction (and particularly speech interaction), and thus frozen into *verba dicendi*? Or is this about the history of technologies of the word (since many of the English speech act verbs came into existence, apparently, around the time of the promulgation of writing)? Is it a local set of images, with a particular history? Or an unavoidable mapping of domains that we expect to find duplicated regardless of the sociohistorical circumstances or interactional traditions (see Enfield & Levinson, 2006) surrounding a given language? What mechanisms do we suppose to be involved in the shared imagery in the alleged gesture families? Does the hand do something first (as part of a "method"), after which the corresponding gestures are conventionalized by some mechanism? (And how does it happen that the palm-up/open hand Ilokano gesture that S describes in example 8.21 to "pre-figure an imminent telling" looks so surprisingly *un*like what we do, with such a handshape, or in similar interactional circumstances?)

In a final move to reconcile the material in this chapter with his overarching argument throughout the book on "the craft of gesture" grounded in (presumably largely universal) practical action, S speculates that the "speech handling" gestures he has considered are

practical metaphorizations (or construals): what is given to the speaker is a fluid repertoire of abstract, schematic actions of the hands — actions that are "uncoupled from real-world consequences" and thus available for symbolic use. These schematic actions are inherently meaningful to the extent that they are related to full-fledged actions or action components that are familiar to the interactants (p. 201).

The concluding Chapter 9 labels gesture "a sustainable art". S argues that

conceiving of gesture as a craft — or and [sic] *art* or *techné* — seems to be more empirically adequate than to construe it as a code or a part of language (p. 204).

Rejecting the 'code' part of this equation for gesture seems exactly right. The individual, constantly evolving, developing, and *ad hoc* nature of much gesture (though not all of it, perhaps, as even S's later chapters suggest) seems to legislate in exactly this direction. Denying that gesture is "part of language", however, seems to depend on a dramatically truncated or stunted view of language itself, given the common experience of finding filmed gesture totally opaque when the accompanying sound track is turned off. Moreover, observing the rise of language directly from gesture, as in the case of emerging young sign languages like "Z", makes it seem improbable that denying the intimate link here is empirically adequate.

S shows convincingly in the monograph that "schematic component actions" decoupled from ordinary activities could "abstract various features from the

environment for communicative purposes, for purposes of *together understanding the world*" (p. 205). This formula tells us little, however, about what sorts of "understanding" are involved, or what the turn to language (whether signed or spoken) enables that was/is impossible without it. (Emerging sign languages, as contrasted with homesign systems, also give us some intimations about this evolution.)

Part of what makes this a powerful book for teaching is S's final set of remarks about lacunae in what he has presented, a true call to future research. He laments not spending more time on how gestures help organize co-presence, including the role the hands themselves have in such organization (as when we handle other human beings). He notes that he has not paid particular attention to specific professions and their manual communicative techniques and different gestural "viewpoints" or perspectives. He mentions such understudied areas as the process of conventionalization in gesture, or its acquisition and use in young children. And he dwells in the final section on the role gesture can have in self-discovery, in spontaneous invention, and in improvisation.

Summary

As I mentioned at the outset, S's book is a worthwhile text for teaching about gesture, despite its relative brevity and its deliberately narrow focus. Its strongest arguments as a theory of gesture revolve around the haptic epistemology that S posits as the link between practical actions and visible display — a way of knowing that derives from our exploration of the world with our hands, and which our hands can thus make visible and broadcast. In S's typology of depiction the book takes us well beyond a monolithic and ultimately unhelpful notion of iconicity, and it emphasizes the strong affinities between gesture and "performance" (in the full range of meanings accorded to the term, ranging — in linguistics alone, not to mention other disciplines — from Jakobson to Chomsky to Bauman). It situates the study of gesture in the wider study of human social interaction, maintaining some of the methodological austerity of Conversation Analysis but transcending it through a wider, comparative insistence on situated actions, sometimes in specialized communities of practice as opposed to emphasizing a general (allegedly universal) or "unmarked" interactional substrate. As a text it also has the strength of open-endedness, raising but not closing questions, hinting at both empirical and conceptual investigations that it does not attempt to undertake.

The book is also unusually well endowed empirically, even if often ethnographically thin. Through the combination of careful transcripts and drawings, supplemented by a selection of online videos, the reader can be guided by S's own eyes and intellectual concerns to watch interaction unfold through gesture. The study maintains a comparative focus throughout, especially in S's selection of empirical materials, although there is little direct consideration of how "culture", "variation" and "(candidate) universals" might be disentangled. As an ethnographer, I often missed more systematic cultural grounding, or more systematic evidence — however that might be assembled — that interpretations and analyses at least in some way reflect native interlocutors' understandings; but that would have required a different sort of study.

The book also has weaknesses. Some chapters and arguments are considerable less convincing to me than others. (This is of course why it takes twenty odd years to produce a book as rich as this one, co-eval with S's own son: some things don't get fully worked out, and there are sections of S's own typology that he simply had to omit.) There are flip-flops over the course of the book between what I have characterized, perhaps incorrectly, as a "form first" approach based on gestural "methods" on the one hand, and on the other a sometimes uncritical reliance on notional (or perhaps functional) categories derived not from gestural practices themselves but from other preexisting analytical frames.

There is also inconsistency in the course of the book about how to handle cospeech data in interpreting and analyzing gestures. S seems to be clear about how speech and gesture are "coupled" even if he does rather little with the audio track except to transcribe it with reasonable care. He writes that gestural

practices only work ... by virtue of their coupling with verbal behavior; in fact their very raison d'etre is to facilitate the *languaging* of the world: to enable others to see a scene so that it corresponds to a concurrent linguistic description (p. 82).

Or again,

To fully explicate how gestures represent reality, we would need to explicate how it does so in conjunction with speech. My analysis is thus partial and limited in that it seeks to highlight the contributions that the hands *as hands* make, which may sometimes create the unintended impression as if there were no contributions to the understanding of the gesture made by speech (p. 122).

However, the relationship between gestural methods and co-occurring speech may itself be an object of analytical interest. Consider, for example, Ahm, the Chinese car repairman — who appears in fragment 4.1 — who has little command of English. Should his "co-speech" gestures be taken as comparable to those of, say, the hyperfluent architect who appears elsewhere in the book's examples? Concentrating just on the hands, and leaving out spoken language, requires a theoretical decision about what it is that can be "left out".

Perhaps such a subtractive method is sometimes a necessary expository evil; but the problem is more general. As formal semantics shows repeatedly, simply trying to characterize the meaningful contributions of different parts of just the spoken signal is far from straightforward. How to calculate the composite effects of elements from different synchronized modalities is something one can simply not do by fiat. Of course, S is perfectly aware of such complications. Describing the two women's description of the stage play, he notes that

meaning — in gesture as much as in language-use — involves … the imposing of a *profile* onto a *base*; without the existence and activation of a base-predication … — a base that is often understood rather than expressed — a figure … could not be recognized; the gesture would not achieve a figuration. In other words, meaning is not *inherent* in a form, but results from the articulation of ground and figure; both constitute one another (p. 128).

However, the 'base' and the 'figure' can themselves be differentially distributed over different parts (or modalities) of utterance. Indeed, the same cumulative and interactive, mutually sustaining relationships exist even within the semantic combinatorics of a single modality (e.g., both speech and visible bodily communication), so that the separation of word from gesture is always problematic.

There are a number of production glitches in the book, the results apparently of poor copy editing (missing and incomplete bibliographic entries, mislabeled and missing illustrations, a number of typographical errors, and so on). Ironically, given the importance already mentioned of accompanying videos for a monograph on gesture, the worst production flaw in the book — one which sadly vitiates its usefulness as a text — is the fact that the videos offered online in a number of important cases are either missing or do not correspond to the examples in the text. (This makes one wonder how many of the book's readers, in the several years since it appeared, have actually consulted the online videos, especially since Benjamins' website has undergone at least one update since the book first appeared, without fixing the problems.)

I myself spent much of my most recent re-reading of *Gesturecraft* thinking about emerging sign language and experimental work (for example by Goldin-Meadow et al., 2008) linking behavior in enforced pantomime to the "resilience of language". The trope of "handling" which is central to S's theory of gesture seems also to be insistent and unavoidable when isolated deaf people, like the "Z" signers in Chiapas, work at forging a language, at least starting from the visible raw materials of the speaking community around them. Close study of elaborated bodily performances — like the two Japanese friends re-performing their car crashes might yield fertile insights into how gestural enactments can produce the property of "re-experiencing" that S describes (see example 6.18), and how this may be "grammaticized" via the conventionalization that presumably accompanies the transition from gesture to sign. *Gesturecraft* is a rich and thought-provoking book, always elegantly and eruditely written, whose main argument — that the body and especially the hands are central, shared parts in human technologies of knowledge; and that as a result of their semiotic virtues and visibility, they can become primary and, indeed, insistent visible articulators of that knowledge — I have found equally useful for understanding the role of the hands in wider human processes of utterance, and their special power in the realization of human communicative potential.

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