Depicting by gesture

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This paper deals with ways in which gestural "pictures" are made, i.e., manual depictions of phenomena in the world. The view that "iconic" gestures uniformly function by way of some resemblance between signifier and signified is rejected, giving way to an understanding of depiction by gesture as the achievement of a heterogeneous set of practices, some of which rely on relations of contiguity or indexicality to evoke commonly known objects or scenes. Others seem to be derivative of other representation methods (e.g., drawing on surfaces). The paper reviews some existing work on gestural depiction methods, offers a working heuristics, and illustrates some of its categories. It is suggested that some of the basic ways in which actions of the hands evoke the world in gesture correspond to fundamental modes of existence and activity of human hands *in* the world: hands depict by enacting their familiar, "real-world" capacities as users, transporters, experiencers, assemblers, molders, and shapers of things.

Keywords: depiction, description, iconicity, indexicality, gesture

This paper[1] deals with ways in which gestural "pictures" are made. Traditionally, these gestures are called "iconic", and the fact that we can often *see* what a gesture refers to is explained by its *similarity* with what it depicts. Similarity (resemblance) is the core notion by which iconicity is defined. Thus, Ekman and Friesen in an influential paper (1969) suggested that an iconic gesture "looks in some way like what it means, its significant" (p. 60). In this they followed Morris, who wrote that "an iconic sign … is similar in some respect to what it denotes" (1946, p. 191), that "the iconic sign … *is like* what it signifies" (p. 201; emphasis J.S.)

But it is not evident how two hands can "be like" or "look like" such diverse phenomena as swimming-pools, polka-dots, or an acrobat's routine, to name some random phenomena that gesturing hands can depict for us. Maybe in some language of theory, "similarity" can be given a definition that is so abstract that it is possible to accommodate even these visually dissimilar signifieds rendered visible by two hands. In this paper, however, a different approach is taken. It is assumed

that the gesture that depicts an object or process of any kind offers a *construal* or *analysis* of the signified, an "active" organization. It does not mirror, but analyzes the object. The gesture *is* not like its referent, but rather shows *what the referent is like*. Thus, what the philosopher Nelson Goodman has said about pictures in *Languages of Art* (1968) is also true about pictures that are gestures:

> The making of a picture commonly participates in making what is to be pictured. The object and its aspects depend upon organization. … A representation or description … analyze[s] objects and organize[s] the world (p. 32).

Thus, when we represent something by a gesture, "we achieve an interpretation" (p. 9).

But how are these construals made? What are the methods underlying them? We must study the manual *practices* by which illusions of similarity — and gestures' successes as pictures — are brought about. "Iconicity", as a programmatic term, thus gives way to depictive or evocative *practices*: instead of assuming a single ("iconic") mode of representation, multiple and heterogeneous practices are found, not all of which rely on visual relations between gestures and referent.

Depiction

To depict a phenomenon means to analyze and represent it in the terms that the given medium, communicative modality, or symbol system provides: as lines, or swaths of color, or postures and actions of the hands. These postures and actions may be instances of familiar schemata, and if this is the case, the inherent significance of the schema becomes part of the construal: representation is always, in Goodman's words, *representation-as* (1968, p. 27). Gesture by hand, the craft or *praxis*, comes with its own, rich terms of construal. Included in these is a repertoire of habitualized postures and actions that a pair of human hands, socialized in a specific place and into a specific set of forms of life, has learned to perform. The hands can draw on these routines when they gesture and thus bring their inherent significances to bear upon what they gesture about. The routines are multimodal schemata, integrating visual, haptic, and kinesthetic components.

However, to see hand-movements as representations, it is more often than not necessary to disattend the fact that they are actions of the hand. The hand's actions recede from our consciousness, which is focused on what the gesture refers to. Depictive gestures, in other words, work when they are *transparent*. What they have in common with pictures of other kinds is that, as we see *them*, we see something *in them*. Wollheim has called this the "twofoldness" of seeing pictures (Wollheim, 1987). Twofoldness is involved when we see a bit of the world in the actions of

someone's hand. When it comes to gestures, humans seem to accept a wide range of truncated acts as sufficient evocations of structured and complex realities. Given the right context, a minimal dynamic form can suffice to evoke structured objects such as, say, locomotives or trees.

The approach to symbolization and representation that the philosopher Nelson Goodman has laid out in several books (1968, 1978, 1988) is useful to us because it encompasses such diverse organizations of human experience as architecture, language, painting, and ballet, and because Goodman shows that each of these systems provides us with resources to organize and represent experience and to signify: some works signify by exemplification, others by denotation, yet others by metaphor. Goodman offers a framework to distinguish the different semiotic modes in which such systems function. Each symbolism has its own affordances and methods for making meaning.[2] A cursory review of any random sample of depictive gestures will show that these are formed according to multiple, heterogeneous pictorial methods and that these correspond to various semiotic modes.

How pictorial representation can be analyzed in a way that is consistent with Goodman's constructivist framework can be gleaned from his repeated references to the art-historian Gombrich's work, notably *Art and Illusion* (1961), the well-known analysis of the conventions of realism in occidental painting and drawing. Gombrich emphasized the conventional and pragmatic nature of our perception of a picture as a realistic depiction of a corner of the world. Whether someone can recognize a cluster of paint particles (or, one might add, a sequence of motions of a limb) as a likeness of an object or a scene depends upon whether or not the methods by which these are made are part of the beholder's culture-bound repertoire. We usually deal with these methods as if they were nature-given rather than human-made, and as if we could indeed see *through* the pictures that are made by them. Writing about the convention of the line (in the art of drawing), Gombrich notes that

> we have become so obedient to the artist's suggestions that we respond with perfect ease to the notation in which black lines indicate both the distinction between ground and figure and the gradations of shading (1961, p. 42).

Something similar seems to take place in the case of "realistic" gestures, that is, gestures that depict: we do not see them, but we see the world through them. We are accustomed to how they work, and this allows us to turn our cognitive attention to their referents, the position that the speaker takes towards these, or how they figure in an event.

How variable these pictorial methods are, whether different groups prefer different methods, and how these have developed over time are empirical questions, some of which may be difficult to answer. We can consider the technology of the gestural image as an assembled product of invention and experimentation: a set

of methods to evoke bits of the world, usually during conversation. Of course we should handle this analogy cautiously: for the arts, we have a decent record of their history over thousands of years. Actual practices of *pictorial* gesticulation in everyday life are only being captured systematically since we have film and video technology, some spectacularly vivid written descriptions in earlier literature notwithstanding (Forster, 1968). It is not evident whether we must imagine the emergence of gestural *methods* as an accumulation of inventions, comparable to the evolution of techniques in the arts, or as a "descent" from effortful, specific representations to ever-more hastily made, "eroded" forms, as we find in the evolution of languages. Yet, comparison with the methods of visual artists can be instructive, as a brief look at work by the sculptor Brancusi can show.[3] For his sculpture *Newborn*, Brancusi took a prototype — an egg — and marked it by two cuts. What we see, unmistakably, is a newborn child, crying:[4] we recognize the distinct shape of the head, the open mouth and tongue, the fontanella. The experiment works. Gestures depict in analogous ways (Arnheim, 1969), characterizing objects by one or two minimal strokes of the hand. The nature of these acts, however, while sometimes approximating Brancusi's (an entity can very well be "cut out" of thin air by one or two gesture strokes), is usually quite different than those that sculptors make. For example, gestures can evoke objects by schematically suggesting their use; for this there is no equivalent in sculpture; sculpture, on the other hand, is open to sustained and repeated inspection, which gesture is not. Brancusi produced the *Newborn* in multiple versions, each made in a different medium, with exquisite attention to the treatment of surfaces. Gestures are not art, and they are not meant to please in the way that Brancusi's *Newborns* are.

For the practical task of identifying the methods used in empirical cases of gestural depiction, the issue whether they involve an element of similarity or not may be of little consequence. But Goodman, for one, insisted that similarity has no place in accounts of pictorial representation, for logical reasons. Similarity, he pointed out, is a symmetrical relation: if A resembles B, then B resembles A. Similarity is also reflexive: any object resembles itself. But representation is not reflexive: while "an object resembles itself to the maximum degree, [it] … rarely represents itself" (Goodman, 1968, p. 4). Nor is representation a symmetrical relation:

> While a painting may represent the Duke of Wellington, the Duke doesn't represent the painting. Furthermore, in many cases neither one of a pair of very like objects represents the other: … a man is not normally a representation of another man, even his twin brother (pp. 4–5).

While a sign can represent an object, an object usually does not represent the sign (although such play is certainly possible in contexts of irony and metalogue). Goodman writes:

> A picture, to represent an object, must be a symbol for it, stand for it, refer to it; and … no degree of resemblance is sufficient to establish the requisite relationship of reference. Nor is resemblance *necessary* for reference; almost anything may stand for almost anything else. A picture that represents — like a passage that describes — an object refers to, and more particularly, *denotes* it. … The relation between a picture and what it represents is thus assimilated to the relation between a predicate and what it applies to (p. 5).

In sum, "resemblance in any degree is no sufficient condition for representation" (4).

This point was previously made by Gombrich in his "Meditations on a hobby-horse" (Gombrich, 1963), an inquiry into how it is possible that a broom-stick represents a horse (as it does when it becomes a hobby-horse.) Not by virtue of visual resemblance (long back = long stick), but because of the feature of ride-ability that the two share, a functional analogy, not a visual one at all. The test for pictorial representation is not homology or verisimilitude, but "efficacy within a context of action" (1961, p.110).

Construal and depiction

There is another reason to redefine the study of iconic gestures as a study of practices. For the term "iconic gesture", given how it is usually used, encompasses at least two different uses people make of gesture. Depiction, as explored in this paper, is one. Depiction is the more specific and circumscribed activity: acts of showing the addressee by movements and postures of the hands what something *looks like* or *is like*. "Iconic" gesticulation is common (in both "literal" and "metaphorical" versions) whenever manual form is given to content by means of a manual (haptic) schema. But by no means is this activity always used in contexts of depiction or description. "Conceptual" gesturing (which I have dubbed "ceiving"; Streeck, 2005) occurs in many communicative contexts, often without the gesturer being aware of it: it often is a backgrounded, unattended process. Ceiving is the manual equivalent of *conceiving*: the formation of a *cept*, a *prehensile posture* or sensorimotor schema, and the apprehension of a cognitive object in terms of it. Gestural *depiction*, however, is a focal process: the gesturer attends to the gestures, glances at the hands every so often during a depiction episode, and so does the recipient (Streeck, 1993; Gullberg & Holmqvist, 2003). Even though the same schemata can be used in both processes (just like the same words can be used to describe or simply to refer), summarily referring to them as "iconic gesture" obscures the differences between them.

Previous work on depiction methods

The extent of what is known about depiction methods (or "iconic devices"; Mandel, 1977) in signed languages is much greater than what we know about their equivalents in gestures that accompany speech. Detailed and penetrating analyses of iconicity and conceptualization in ASL and other native and alternate (ritual) signed languages have been published (Kendon, 1980, 1988; Mandel, 1977), but much of what has been written about iconicity in speech-accompanying gesture is focused on what these gestures reveal about thinking. Other work has taken the form of typologies. These typologies occasionally fail to distinguish between signifier-side and referent-side features: questions concerning *how* a representation works give way to questions about what kinds of objects they represent; but they have also yielded interesting analytic categories, for example Wundt's category of the *plastic gesture* (Wundt, 1911): in the plastic mode, "the shape of the object is imitated by the hands in a lasting fashion" (p. 170). The ability of the hand to arrest its motion and transform into a posture and thus to become thing-like itself is an important affordance of gesture. Wundt, assuming a single dichotomy of modes where there exists in fact a larger, heterogeneous set, contrasted the plastic with the *drawing* mode, in which "outlines of the imagined object are drawn in the air by the moving index finger" (ibid.). McNeill (1992), following Stephens and Tuite (1983), takes the participation of the hands in everyday practical action — i.e., object manipulation — as the starting point and distinguishes modes of iconic gestural representation according to the degree to which the hands are "alienated" from this primary function. In one variety "the hands recreate and manipulate a virtual object" and thus correspond to the protagonist's hands in the depicted world. In the other, "the hands function more abstractly to depict an entity. … The gesture … does not depict hands" (p. 78).

Kendon, who has examined centuries of gesture classification, observes about classifications of representational techniques that

> they all provide for a division between modeling, enactment (or pantomime) and depiction. In modeling a body part is used as if it is a model for some object. … In enactment the body parts engage in a pattern of action that has features in common with some actual pattern of action that is being referred to. In depiction the gesturing body parts … engage in a movement that is recognized as 'creating' an object in the air… The gesturer sculpts or sketches (or sometimes does both at the same time) the shape of something (2004, p. 160).

In one the few studies that have taken a closer interest in the *methods* by which gestural imagery is produced, Müller (1998) compares the fabrication of representational gestures with the work of visual artists. She argues that some of the

methods of pictorial representation in gesture are modeled after (or at least analogous to) drawing and sculpting.

> Just like pictures and sculptures in fine art, … [gestures] are shaped by the properties of the pictorial devices (1998, p. 121).

Müller distinguishes four[5] modes of gestural representation according to the role that the hands play in them: in the "acting mode" the hand represents itself in the course of action; "it pretends to perform an action, and frequently, objects that are involved in the action are imagined as well" (p. 137). In the "moulding mode" (or sculpting mode), the hands are used in a similar fashion as they are by sculptors: people "create ephemeral sculptures" by pretending that the hands "touch, feel, and grasp an imagined entity" (p. 140). In the "representing mode" (corresponding to Kendon's "modeling") the hands serve as tokens for depicted objects: they

> enter the object and depict the events happening to it from its view-point. Formal properties of the hands, specific hand-shapes, and motions contribute to the constitution of meaning. Here, there is no acting-as-if. The hands do in fact become sculptures (p. 144).

Apart from differences in terminology, Kendon and Müller both focus on the fact that in many cases of depiction, the shape of an object appears transparently from certain motions of the hands. Gesturing thus can be a form of virtual fabrication, or better: a fabrication of virtual objects, abstracted from motions of the hands, which are themselves representations of something. In this sense the gesturer is an idealized sculptor. But the motions of these two sculptors of representational artifacts are rather different, due to the differences in the media in which they work. There is no way to polish the surface of a gesture; nor can the sculptor show something by merely, say, holding the stone, as the gesturer is prone to do.

The most developed analysis of gesture as depiction is Sowa's (2006). Using motion-tracking technology but also sophisticated descriptive language, Sowa inquires into the methods by which people depict certain structured artifacts with their hands. In his experiment, the artifacts were (images of) rods and connectors from a construction-tool kit. Sowa identified 84 kinds of gesture, each defined by a schematic form-meaning pairing, but only a few of these are routinely used: spatial *extent* is communicated by delimitative postures or actions; *surface property* gestures include the depiction of the planar side of an object by a flat hand (p. 87); *placeholder gestures* correspond to Kendon's "modeling" and Müller's "representing" mode and feature the hand as object-token; and *spatial-relational* gestures depict the relative location of objects in terms of spatial relations between the two hands (p. 88). Describing them in terms of a matrix of basic motion types (translational, rotational, hand-internal, and two-handed motions) and the de-

grees of freedom that the hands offer for their enactment, Sowa identifies a small set of pictorial strategies that emerge from these possibilities:

> extent features are expressed by movement extent, distance between the hands, or by the aperture of the hand in connective forms. Profile features are expressed by movement trajectory or via the shape of a part of the hand. To convey surface properties, arc motion and curved hand profiles are used (p. 119).

People depict structured objects sequentially, decomposing them into "parts with a simple geometry … described in succession" (p. 97). Often a "frame hold" is involved, a posture of the non-dominant hand that is sustained for the duration of depictive actions performed by the other. In this fashion "intra-object cohesion" is achieved (see also Enfield, 2004). Sowa studied a limited domain — delimited by the kinds of object involved and the task given to the subjects. This enabled him, however, to identify the preferences[6] that people reveal in choosing among pictorial possibilities.

This author's categories of depictive gesture practices, as listed below, have emerged more haphazardly during years of micro-analytic inquiry into meaning-making by hands in various cultural settings and communicative contexts (Streeck, to appear a). The corpus for these studies comprises approximately 60 hours of videotaped interaction recorded in Germany, the Philippines, and the U.S.A. (see Streeck, to appear a, for details) and including conversations about plays, accidents, cars, buildings and their sites, and many other depiction-relevant topics.

A heuristics of depiction practices

Interaction participants were found to deploy the following depiction methods:

1. *Modeling*: a body part is used as a token for an object. As Kendon writes, "when the hands are used in this way, they sometimes may be shaped so that the form of the hand bears some relationship to the shape of the object" (Kendon, 2004, p. 160). In the modeling mode, the hands can be held still, forming a plastic gesture, a thing-like embodiment of a thing. Or they can move, simulating the motions of the object that the hands represent.
2. *Bounding*: practices involving relative positioning of fingers (index and thumb) or hands, such that the distance between them is the figurative component. These gestures usually depict extent (Sowa, 2006), e.g., length, width, or height, either literally or figuratively. Sometimes the hands are configured as if they were in contact with the object's boundaries (sides or edges), in which case bounding converges with another depiction method, *holding*, a transporta-

tion schema. It is also possible that hand-shapes indicate something about the quality of the measurement itself: whether it is precise or an approximation can be shown by modulations of the motions of the hands.

3. *Drawing*: the drawing of lines, for example by an extended index-finger. When these virtual lines form an enclosure, the motion can be seen as an outline, when it is straight or curved, as a representation of a trajectory, path, or line, among other possibilities.
4. *Handling*: objects are indirectly represented by a schematic act that "goes with" them, in the way in which turning goes with keys and wielding with sticks: a motor schema or prehensile posture is coupled with an *affordance* (Gibson, 1986) of the referent. Through modulation or elaboration of the motor act (for example, a hold transforming into a squeeze), internal object features (e.g., density, elasticity) can be insinuated. Minimally, a handling can consist in a simple prehensile posture, in which case the aperture of the hand corresponds to the width of the object in use. Handlings are usually brief, not very complex depictions — unless the process of handling itself is shown (which I treat as a different usage variety, see 11 below.)

   A readily observable subvariety of handlings are movement schemata and prehensile postures that are familiar to human hands from their day-to-day *transportation* experiences. Thus, we see hands picking up, holding, handing over, and putting down generic things. To hold things in place or get them from one place to another are among the most frequent jobs that our hands do on a typical day, and it appears that the pictorial language of gesture makes abundant use of the generalized experiences and routines that they acquire in them. These schemata are readily at hand and so generic that they can be enacted to evoke a broad range of referents. They appear as near-grammaticized object-depictors.
5. *Making*: gestures that simulate the making and shaping — the *fabrication* — of things. Making can take the form of bringing into existence *individuated* entities, either through "molding" some assumed matter (so that an object is given volume and form); through prehensile postures that show their *shapes*; or through the putting together or *assembling* of parts into a structured whole. In the latter case, the hands are shaped as if they were holding parts, and their movements dynamically relate these parts to one another, creating the illusion that a *polylith* (an object composed of parts) is put together.
6. *Scaping*: not all "make-ables" are individuated objects; there are also undivided domains and terrains that can be given shape by gesture. We can call these shaped or structured domains *scapes* and the gestures that suggest them *scaping*. Architects sometimes gesture as if they were children in a sand-box of air, scaping terrain, a site with their hands.

7. *Marking*: the elaboration of virtual surfaces or volumes by dots (points), lines, incisions, drawn figures, shaped volumes, and acts. Gestural markings are made and seen by reference to virtual objects that have been established before, in which case they may be represented by a continuous "frame hold" (Sowa, 2006); or the object is assumed. The genre can be exemplified by a single gestural cut — comparable to the evocation of an open mouth by a single mark in Brancusi's *Newborn*. Markings do not so much evoke virtual objects but add features to ones that are already in existence and thus exemplify the often *sequential*, *incremental* nature of gestural depiction (an issue that I discuss elsewhere; Streeck, 2008).
8. *Self-marking*: performed on the surface of the gesturer's body, self-markings elaborate or annotate this body by tracings, dots, and actions and postures of various degrees of complexity and specificity. Self-markings can be similar to mimetic enactments, for example when someone shows dress by manipulating, fussing over, and adjusting "it". But they can also function like *mappae mundi* (annotated maps): a body region is inscribed with bits of meaning and this spatialized meaning-map is projected onto a semantic domain. A common target-domain, of course, are other human bodies.
9. *Model-world making*: the building of a model-world through a succession of gestural acts. This is the type of gestural depiction that occurs when people tell stories and begin by delineating the setting, then populate it with actors, locations, props, and locations, and finally depict events (actions, thwarted actions, inanimate processes) in the world by dynamic motions and enactments. This compound activity comprises many other modes, but it has sufficient characteristics of its own to list it as a separate genre or mode, notably the extensive sequential build-up. Depictive acts occurring in them are designed *as* gestures in series.

    When the speaker builds a small world that serves as a sustainable model of the topical universe of the conversation, ephemeral structures are erected in the interaction space to organize the interlocutor's imagination of the narrative scene. Space can be aggregated into sectors or layers, barriers to trajectories can be erected. Sometimes, physical features of the hands are exaggerated by motions, e.g. when the hand moves in the plane defined by the orientation of the palm and the plane defined by the palm is thus enlarged. Common in the context of model-world building are acts of depositing or placing something. Such acts literally *posit* entities, and we could call them "thetic" acts: they assert their existence within a domain and show us "what there is" (Quine, 1953).

The building up of model worlds by gestures of the hand comes fully into its own in signed-language narratives, as described by Taub in her book on iconicity and metaphor in ASL. She describes a case in which the speaker

> names each [piece of furniture, J.S.] — refrigerator, sink, cabinets, and so on — she places it within the sketched outline of the kitchen, punctuating each placement with a special head nod. Before long, a virtual map of the room floats in the space between you. Now the signer is describing a conversation she had with her six-year old son. She names her son and points to a spot on her right. … The woman goes on to describe how her son ran about the house to find the towel. Her index finger is extended upward from her fist, and she traces a complex path through the air with that hand shape. The twists and turns of her hand sketch out for you the path her son took around the house (Taub, 2001, pp. 1–2).

10. *Abstract motion*: sometimes the hands are moved to convey movement, even though it is not possible to link the hands themselves to the object that moves; the motion is abstracted from the hand and attributed to an entity previously introduced into the discourse.
11. *Acting*: the gestural action of the hand shows the practical action of a hand. Acting is not very different from *handling*, but also includes actions in which no object is involved. Gestural depiction in the acting mode aims to evoke actions, not things. Full-fledged and detailed (re-)enactments form a somewhat different genre, pantomime.
12. *Pantomime*: bodily acts made to imitate and depict the bodily acts of living beings. Mimetic depictions can be infinitely nuanced, evoking specific manners of doing things, and they can be placed and elaborated within dramaturgical frameworks, for example, when the gesturing body re-enacts the bodies of several actors in a scene.[7] Pantomime is often anchored in or "laminated" with (Goffman, 1981) strips of talk by specialized devices such as quotatives or discourse markers (Streeck, 2002).

Some methods exemplified

The following gestures, described here as if seen by an ethnographic observer, were made during a combined four minutes of dinner conversation among four women in one American middle-class family. They are presented here to show how rapidly depiction methods change and how rich, detailed and specific visual imagery is routinely created by the sequential concatenation of minimally structured strokes, and by rapidly changing selections from among a few heterogeneous methods.

At one point in the conversation, the mother of the family depicts a piggy-bank. She first holds her hands open, palms down, the curvature such that the

thumbs and index fingers, whose tips touch one another, form an approximate circle. Then she positions her hands palms-down one above the other, bounding the object's heigth. Superimposing the images over one another, we recognize a round object of a certain height. Then Mother marks this object up: like Brancusi, she performs an incision, insinuating negative space: a slot. Next she configures index and thumb of the right to a precision grip, holding the hand near her chest and then moving it forward by a few inches. We are invited to infer what is being held (the coin to go in the slot). In four broad strokes, the width and round shape, the height, a physical feature (slot) and, via an action, an affordance are evoked, in a synthesis of sequentially presented profiles: a round object with a slot to put coins in. Different methods of characterization are used for each step, but, when imagery is retained over time, a complex object can be recognized — provided the cumulative gesture can be linked to some known object in the world.

From containers the conversation veers to events in which containers played a part, and Mother re-enacts the tricks and antics of the performance company *Blue Man Group*: with hands and head she performs throwing things and stuffing oneself (*pantomime* or mimesis) and evokes the container by repeating the bounding gesture. Then she depicts a complex machinery of movable pipes, the group's equipment, by *assembling* it: the hands are curved to apertures appropriate to the *holding* of objects of a certain size, and the moving of the hands towards one another insinuates *putting together*.

Later something triggers Mother's memory of a little outfit that Daughter used to wear on Halloween, a "Jackie O outfit with a pill-box hat". Mother begins the depiction with an enactment of tying a knot under her chin (this could be classified as *acting* or *handling* or *pantomime*); then she traces two parallel lines down her front (*self-marking*): given what we know about clothing, these traces evoke the collars of a jacket, coat, or cape. The vantage point of these depictive acts is that of the depicted character: tying the knot as the wearer of the cape would, tracing the collars of the virtual cape that she wears. The pill-box hat, finally, is evoked by both hands, configured with index and thumb about one inch apart and moved outwards: an evocation of a ribbon or rim by means of a delimitative gesture, combined with the drawing of a line. But it is the location of the gesture near the speaker's head which makes it a hat-depiction (*self-marking*).

The whole series of stories had first been set off when Niece recounted her father's dare-devil use of gasoline when he tried to make a fire for her and her girlfriends the other night. In the context of that story, Niece builds a model of her family's back-yard for the story. First she draws a large horizontal semi-circle with the index-finger pointing up. The gesture provides a surround inside which she and the recipients can then project themselves, thus experiencing the forthcoming event *from within*. Then she *deposits* something in the middle of the circle, the

swimming pool. She depicts the pool with a *bounding* gesture, holding her hands with index and thumb spread so that the finger-tips nearly touch. When she describes the "area where the seats are" she makes a *scaping* gesture: the open hand, palm facing down, is moved sideways and back, suggesting a plane. Then, moving up and down her other hand, which is half-cupped, she insinuates a vertical border, the fence around the backyard. The interaction participants thus recognize an articulated spatial field, a *place* with specific structural-visual features and populated by one entity.

Conclusion

Depictions by gesture usually are evocations by minimal means. Made within contextual slots that are highly constrained and "determined" by the content and organization of talk — recipients often know ahead of time what kind of an entity will likely be depicted. At the same time, minimal configurations and simple strokes suffice to evoke things and events of the kinds that everyone knows, that are part of the participants' *common ground*, either because of their membership in a culture or because of the shared understandings that the discourse so far has yielded, or both. Frequently, the gestural image is tied to what it represents by indexical links, for example when it is predicated upon a certain hand-shape or action and a certain class of objects *going together*. What Langacker wrote about language is also true about gesture:

> expressions are not meaningful in and of themselves, but only through the access they afford to different stores of knowledge that allow us to make sense of them (Langacker, 1986, p. 65).

The depiction methods that we have found make for a diverse ensemble, sharing little in common other than the feature of *manuality*. We can broadly distinguish between practices that seem to be unique to the domain *depiction* and bear no indexical relationship to "thing-practices", that is, actions carried out in the "real", non-representational world. Thus, the (apparently infrequently used) technique of outline-drawing is just this: drawing. Drawing is a symbolic practice. Whether gestural drawing is derived from other methods of drawing is another question. One indication that it might be is that drawing requires a surface, which in the case of gestural drawing is only assumed, i.e. imagined. It seems plausible that this imagination needs a real-world model, which it might have in drawing on surfaces such as dust or sand (Munn, 1966). Equally, the practice known as *modeling*, in which the hand becomes a token for the object that it denotes, does not seem to have a counterpart in the thing-world; it is inherently descriptive or symbolic.

On the other hand there are methods that appear to have been abstracted from the thing-world. That is, they appear to have non-symbolic counterparts, of which they are reduced and simplified versions, adapated for the minimalist task of evoking some cognitive object in the richly determined context of a conversation sequence. The non-symbolic version of the act is usually far more complex and structured, the hand and its motions being adapted to some specific and concrete constellation of objects. In the context of depiction, most of these specifications are dispensable, and some are impossible to provide in the absence of a real object. Thus, a single half-rotation of a hand whose thumb, index and middle finger are in opposition, can suffice to refer to a bottle or to bottle-opening; actual bottle-opening requires a specific configuration of forces and "jaws", and certainly a series of repetitive motions. Among these "derived" practices of gestural depiction we have founds practices of making (putting together and molding); holding, taking, and depositing (transportation-based methods); and schematic forms of object-use (handling). These work as depiction methods in empty "gesture space" because we understand their real-world counterparts and know how, in them, hands get entangled with matter. Indexical ties carry the representation. In many cases, *contiguity* between hands and things is assumed: we recognize an object because the action of the hand "goes with" it. While real-life versions of these acts always involve specific adaptations of the hands (which respond to factors like weight, surface texture, and goal when they take hold of objects), gestured versions are abbreviated, simplified, and generic.

Each of the methods in the second group corresponds to a fundamental mode of being of the human hand, some general capacity in which the hands engage with the world: in the service of *transportation*, for example, moving things from one place to another, without properly "using" them, hands have the jobs of hook and crane. As *users* of things, hands know each thing by its affordance. Hands also act in the capacities of explorer and disassembler and, supremely, as maker and molder of things. These capacities are engaged in abstracted form in the context of gestural depiction. There, we show each other things by holding, molding, making, or handling them *into being*. Gestures render them into the common imagination. And, as we make things appear, we put them in relation to other things. Gestural depiction is grounded, then, not in visual resemblance, but in the everyday interpenetrations of actions and things. Gestures, like any medium, *construe* the phenomena that they conceptualize and/or depict; the terms of construal make up what we can call the *pictorial language* of gesture. It is a language consisting of schematized acts of making, handling, drawing, and so on: whatever is depicted — things, inanimate processes, actions — is depicted and at the same time *analyzed* in terms of *manual acts*. Knowledge of these acts, I have argued, is not in the first place knowledge of gesture methods (or gestures' meanings), but of ways of acting

in the material world. This is the "manual" component of gesture. Independently of whether the task is depiction or simply construal ("ceiving"), hands tend to approach it "from their own point of view", that is, how they come in contact with and experience the phenomena in question.

Incidentally, the inverse situation obtains in the case of another kind of gesture pictures, namely pictures not made *by*, but *of* gestures. How to depict hand-gestures or, more generally, how to evoke body-motion in media that are inherently still, like painting and sculpture, is a question that has driven artists to carefully analyze how people make meaning by moving body parts. And in this case also the media organize phenomena on their own terms. In the case of painting, one of these terms is the existence of a frame that is interpreted as delimiting and bounding an event: what is inside the picture-frame is seen as a coherent scene or event. It is within these events, then, that gestures function: as decisive, symbolic, commonly known actions within an event which is being narrated by the picture.

I deal with these converse depiction problems in a forthcoming article (Streeck, to appear b).

Notes

1. This paper owes much to conversations with Cornelia Müller, especially one in which we discovered that we both like Brancusi, but for different reasons.

2. Goodman distinguishes, for example, several ways in which buildings can mean; these include expression, exemplification, denotation, and depiction. The Sidney opera house is a depiction (of sailboats.)

3. See Müller, 1998, pp.125–126 for a somewhat different interpretation.

4. See http://www.diacenter.org/kos/images/brannewb.html.

5. All translations by this author. Müller's classification is similar to, though developed independently of, Mandel's classification of iconic devices in ASL (Mandel, 1977).

6. This method is the same that Kendon presents in his summary of typologies, from where the term is adapted (2004, p. 160).

7. In *Frame Analysis* (1974), Goffman has offered a typology of mimetic modulations of action and their uses.

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