

"Remembering Kinesthesia: An Inquiry into Embodied Cultural Knowledge"
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This essay begins at ground level, with a non-figurative treatment of gesture as rooted in embodiment, and particularly, in human bodily movement. Bringing out the somatic, or felt, dimensions of movement opens the way for an examination of kinetic vitality as an overlooked aspect of embodied knowledge. Establishing human movement as the organismic foundation for a concept of gesture also offers a determining yet indeterminate source and medium for examining the processes of cultural manipulation. Thus, the essay addresses the migration of qualities, especially qualities of vitality, across sensory modalities and their configuration as cultural aesthetic schema across media. Basing my discussion on the potential for movement knowledge inherent in embodiment, I find that cultural patterns of kinetic vitality emerge as the "ghost," to borrow Lesley Stern's term, in all gesture.

As the first assignment in an undergraduate Philosophy of Dance course, I ask students to write about a remembered experience, a childhood event that effected them deeply and led them toward dance. On the first day of class, after the logistics, the review of requirements, course readers, criteria for grading and the rest, we break the mould of classroom protocol and meditate. The meditation is a preparation for the writing. "Let the mind travel with the breath," I instruct, "following its passage as it touches nostrils, throat, chest, belly, through its change of direction from in-breath to out-breath and back. If the mind wanders, gently bring it back to the breath." We go slowly, shifting attention away from the demanding chatter of word-thoughts to the subtleties of somatic sensation. Once I see the students' breath slowing and facial muscles easing, I suggest they allow a memory to arise and fully occupy the landscape of awareness. To thicken the memory, I call attention to the different sensory modes, asking students to: "re-view" (seeing the event from different angles and distances, noting particulars of shape, spatial relationships, colors); "re-call" (sharpening hearing to bring up the memory's sounds, including music, voices, words); and "re-member" (letting the memory's kinetic sensations claim the body and awareness). When the students "return," they make notes, inscriptions toward the essay assignment.

Then we review the meditation. What was your dominant mode of remembering? Which sensory modality emerged to trigger memory? Sound, like music or words heard in your minds' ears? A visual image of a setting or of yourself moving? A kinesthetic sensation of movement or of a particular dynamic of movement? And which sense was easiest to fill out once you tried to retrieve the event in detail? Richard Bandler and John Grinder, students of anthropologist Gregory Bateson and originators of the popular therapy, "Neurolinguistic Programming," have shown that different people access memory via different sensory modalities. Further, the sensory mode by which an individual *accesses* a memory is often different from the one in which he or she *represents* the memory (Bandler and Grinder 1979:14).¹ All thinking occurs in one or another sensory modality, but the ratios are different for different individuals, and perhaps for the same individual in different circumstances. I first asked students to drop awareness into their bodies through attending to breath, in effect inviting awareness of somatic sensation. If I had asked them instead to simply remember a dance, perhaps they would have called on visual memory and seen it in their mind's eye since, in their training, they are usually taught dances as a succession of body shapes, steps, and spatial patterns. Indeed, several of the students weep reading their kinesthetic autobiographies, realizing that their childhood ecstasies have been "tamed" by technique classes, and that a sense of their bodies as source of kinesthetic pleasure has been transformed into a sense of their bodies as objects for specular display.

"Any culture is an order of sensory preferences," Marshall McLuhan wrote (quoted in Howes 1991:172). Following McLuhan, anthropologists David Howes and Classen Classen (1991) suggest that we attend to differences in "sensory profiles," the relative emphasis placed on different sensory modalities in different cultural communities.² "What if," Howes writes, "there exist different forms of reasoning, memory, and attention for each of the modalities of consciousness (seeing, smelling, speaking, hearing, etc.) instead of reasoning, memory, and attention being general mental powers?" This is promising, its premise borne out by the work of Bandler and Grinder cited above. However, Howes and Classen omit kinesthesia, the proprioceptive

¹ Bandler and Grinder assert that the "representational system," the words people use to describe experience or information, is conscious while the "accessing system," the strategies or sequences, people use to retrieve it is not. Within accessing systems, the "lead system" is the one used to "go after" the piece of information, the "reference system" the one used to check out the information retrieved. (1979: 14-15).

² Howes and Classen (1991) suggest that sensory orders may be gleaned by asking, for example, which senses are emphasized in talk, in performance, in artifacts and body decoration, in childraising, in media of communication, in the natural and built environment, and in mythology and its representations.

sense of movement within our own bodies.³ While kinesthesia might be subsumed under touch, as the changing contours of touch within our own bodies, the result of omitting kinesthesia from the sensorium is that we are left with no sensory locus for building an epistemology of movement, and no locus for addressing the cultural or symbolic dimensions of kinetic sensation.

Is kinesthesia excluded from the sensorium because it refers to no external object and can only be apprehended proprio-ceptively, that is, within one's own body? Aristotle divided the "intellectual" or distanced senses (sight and hearing) from the affective and proximate ones (smell, taste, touch) (Howes 1991: 177). For the Greek philosophers, while all the senses are shared with animals and are therefore more base than the mind, which is unique to humans, touch and taste are especially animal (Synnott 1991:63). There has since been a grudging acceptance of sight as the most refined and least bodily sense.⁴ It is hard to think of touch or kinesthesia without associations to body parts, but who associates to eyeballs when they think of sight? Rather, we imagine the *objects* of sight rather than its organic means. Seeing implies an object, something to see. And in order to see an object, one must be separate from it, at enough distance to bring it into focus. This necessity for receptive distance does not apply for any of the other senses. The close association between seeing and objectivite distance (as well as object-ification) is not accidental. The objectification implicit in seeing is associated with the objectivity of mind, while the somatic sensation implicit in touch is associated with nearness and the subjectivity of proprioception. Kinesthesia, even more proprio-ceptive than touch, has been entirely omitted from the western sensorium.

Though we cannot separate from our bodies in order to see ourselves in bodily wholeness, the hegemony of object-ification nonetheless enables us to visually imagine ourselves as objects. In America, as perhaps in western Europe, "body consciousness" has come to refer not to somatic awareness, but to creating ourselves as images, often enhanced by cosmetics, fashions, and body-shaping classes (Fronsdal 2001:50).⁵ Even in dance scholarship, both aesthetic and historical studies tend to display a visualist bias, even though the primary media of dancing is movement.. Ballet, the most

³ While I use the term "somatic sensation" to include all proprioceptive awareness, including, for example, touch, movement, balance, pressure, tension, and temperature, I use the word "kinesthesia" to refer specifically to proprioception of the joint and muscle action involved in movement. and the word "kinetic" to refer to *any* movement, including but not limited to joint and muscle action.

⁴ For a consideration of the Western emphasis on the visual sense, see, among others, Synnott 1991, Grosz 1994, Bull 1997.

⁵ Gil Fronsdal, a Buddhism scholar and meditation teacher, compares this kind of body consciousness with Vipassana practice which fosters proprioception. So, too, do many of the Asian "in-body disciplines" (Zarrilli 1990).

memorialized dance genre of the West, emphatically privileges visual display and a set of detailed formal and aesthetic conventions concerning spectacles of shape. Other cultural epistemologies, however, offer other "sensory profiles." Perceptual testing has shown, for example, that in general, African cultures emphasize auditory and proprioceptive values rather than visual ones (Wober 1991).

The differentiation between visual and somatic, specifically kinesthetic, modalities raises a problem basic to theorizing human movement, that is, whether to treat it as visual or kinesthetic phenomena. In the first case, human movement is taken primarily to be a visual object, its shapes, steps, and choreographic patterns received by observers through the eyes. In the second, movement is a do-ing, involving not only the shaping of body positions and locomotion through space, but also the organization of kinetic dynamics, received by performers through their own bodies, as proprioception. Dance is, of course, both kinesthetic and visual, and, whereas felt processes may be dominant for the do-er and seen products for the viewer, these are always mutually informing.⁶ However, while the dynamics of movement are visible to the eye, they are not easily objectifiable in inscriptions. Labanotation can quantify shape, spatial pattern and duration, but not dynamics such as the changing relation between rhythm and muscular tension. These dynamic contours are critical to memories of movement, to communication via movement, and to the cultural knowledge and values negotiated through movement.

Mirroring the distinction between movement's seen and felt aspects, philosopher Edward Casey (1987) distinguishes "body memory" from "memory of the body," the first working primarily through feelings-in-the-body, the second through representations of the body as an object of awareness. For Casey, the first would be properly called remembering, the second recollecting.⁷ He suggests that whereas remembering manifests in terms of "its own depth," as a vertical dimensionality, re-collection is "projected" at a "quasi-pictorial distance from myself as a voyeur of the remembered" (167). In recollection (as well as in verbal reminiscing), Henri Bergson wrote, we "peer" back toward a past that seems to have independent being distant from the present; in body memory, the past is enacted in the present (cited in Casey 1987: 168). Therefore, regarding body memory, Casey suggests, "we should speak of *immanence* rather than 'intersection'... immanence of the past in the present and the

⁶ Drew Leder (1990) points out that for most people, most of the time, the sensations of movement are beneath conscious awareness. Lowell Lewis (1995), recognizes, however, that it is not uncommon for movement practitioners, including artists, athletes, and others whose main instrument is the body itself, to be in "mediated states of multiple or diffuse awareness" (231). I have suggested elsewhere that the reception of dance for the dancer occurs as an ongoing translation between visual and kinesthetic modalities in a process of "kinesthetic empathy" (See Sklar 1991 and 1994). A more detailed discussion of translation between sensory modalities is offered below.

⁷ For discussions of embodied memory see also Connerton 1989, Leder 1990, Scarry 1985.

present in the past" (168; emphasis in original). The present and the past cannot be fully identical, Casey concludes, since we would then no longer be dealing with memory. How then is immanence different from a merger of past and present? As my students meditate and re-member, that is, access the somatic sensations of the past, what, then, are they experiencing in the present?

Suzanne Langer's (1953) formulation of "virtual gesture" as the "primary illusion" of dance is suggestive. "Gesture is vital movement," Langer writes (174), known by kinetic experience and secondarily by sight. Gesticulation, as part of everyday behavior, is likewise vital movement, but it is not art. Only when it is imagined apart from the momentary situation is it art. Then it becomes "free symbolic form," or "virtual gesture" (175). Dancers, Langer writes, "for whom the created world is more immediately real and important than the factual world," (181) cannot easily keep virtual and "actual" separate; they experience the feelings engendered through dancing as spontaneous. However, for Langer, the sorrow that emerges as a young woman dances Giselle is different from the sorrow she would feel if someone backstage whispered to her that her boyfriend had just left her. Thus, Langer distinguishes two senses of movement expressivity: spontaneous, or "symptomatic" self-expressions arising unpremeditated out of life circumstances, and "logically expressive" "signs" that may *seem* to spring from feeling but are actually the result of symbolic form. In spite of various problems with Langer's formulation, the idea of "virtual gesture" is useful in clarifying the experience Casey describes for bodily memory. Just as the sensations that arise for dancers during performance are virtual, in the sense of being both spontaneous -- as immediate affects -- and also resulting from a temporal displacement, so too is bodily memory virtual, occurring, intentionally or not, as both immediate sensation and, in the terms of this volume, as a migration of somatic memory over time.

Both Casey and Langer consider bodily memory in terms of feeling, but "feelings" may imply complex emotions, as in Langer's Giselle example, or somatic sensations, including kinetic ones. The distinction is critical. Using the same term for both, the English language blurs the difference, giving rise to confusion in discussions of feeling in dance.⁸ While kinetic sensations often carry emotional overtones, and emotional states invariably have kinetic sensation components, the two are not the same. Emotions are the complex states Darwin identified as, for example, happiness, anger, and sadness, while kinetic sensations are the somatic effects of movement dynamics as, for example, the "feeling" of a swift punch, a light, smoothing touch, or a twitching wink. These depend on a combination of kinetic elements such as speed, rhythm, force, and amount of muscular tension or relaxation, as well as on the spatial parameters and shapes of movement.

⁸ See, for example, philosopher David Best's (1975) work on the aesthetics of dance.

Though she does not distinguish emotional from kinetic feelings, I believe Langer refers, ultimately, to the kinetic sense when she writes that "gesture is *vital movement*" (174; emphasis added). She continues: All life has "vitality"; we have a "consciousness of life," and this "sense of vital power... is our most immediate self-consciousness" (176). Gesture works directly with this vitality, these "felt energies" that seem to be physical but are not. Combining the concepts of vital and virtual, Langer concludes that, "The primary illusion of dance is a virtual realm of Power -- not actual, physically exerted power, but appearances of influence and agency created by virtual gesture" (175).⁹ Elsewhere, she identifies dance, in its recognition of personal power through the body, as "the first presentation of the world as a realm of mystical forces" and as "the very process of religious thinking -- to beget powers as it symbolizes them" (190). We needn't follow Langer into the "magic circle" she then names and enters. I do want to point out, however, that in pairing the vital and the virtual as the primary tropes of dance, Langer in effect formulates a bridge between phenomenological and semiotic approaches to movement and gesture. In spite of her insufficient treatment of vitality, Langer understood that in virtual gesture, the vital dimensions are as germane as the symbolic ones.

Kinetic sensations, much less their meaning, are rarely the focus of everyday awareness. As Marcel Mauss (1979), and, after him Pierre Bourdieu (1977), have pointed out, the bodily patterns we master are then enacted outside of conscious awareness. We remember how to drive a car without focusing on the motor skills needed to turn the key in the ignition, depress the clutch, shift into gear, and rev the accelerator. Dancers step up to the barre and begin a daily routine that includes so many brushes, so many pliés, so many relevés, without needing to re-learn each day how to do each move. Bourdieu recognized that the very roteness of the "habitus" disguises cultural and historical predispositions, social schemes of perception and thought sedimented from one generation to the next in patterns of movement. People are not in possession of the habitus; rather, they are possessed by it (18). In sum, Bourdieu asserts that the unconscious braiding of movement practices and ideologies constrains people to perpetuate social structures at the level of the body.

But the hold of the habitus is not absolute, and we do sometimes transcend its automatic and efficient grip. Pressing the brakes for the tenth time in the middle of a traffic jam, we may question the reason we own cars, calculating the cost and effort of maintaining them, envisioning the natural resources mined to make and run them,

⁹ Langer's discussion of the "vital" in relation to the "virtual" deserves a more extended and nuanced treatment than I can give here. Farnell (1995b) addresses the intentionality and agency implicit in Langer's formulation, developing the concept of "powers" in social and semiotic terms. In particular, she links agency with "an immaterialist model of substance as a structure of powers and capacities in which the natural powers grounded in the human organism make possible the realization of personal powers that are grounded in, and thus afforded by, social life" (12).

seeing the socioeconomic system that requires getting places quickly, and bringing to mind the millions of people in non-industrial circumstances who don't require them. Performing a plié in the studio, perhaps dancers, too, have lucid moments of seeing themselves, as if from a distance, lined up among the others, holding onto a wooden pole in order to "gracefully" drop and rise over and over again, all agreeing to the perceptual, ideological, and aesthetic conventions of a sociocultural system that values "ballet."¹⁰ Perhaps the lucid moments occur in the opposite direction, consciousness diving inward and immersing in the minute sensations of toes gripping, quads clenching, spine extending, wrist softening, breath suspending. In the first kind of lucidity, one calls on visual imagination to project across distances to "see" the larger system, one's own body bobbing up and down at the barre to keep the system going; in the second, one calls on proprioception, turning awareness inward to "feel" one's body as a continuum of kinetic sensations. In either case, the hold of the habitus is broken, inviting opening beyond routine.

These two imagined possibilities of transcendence correspond to the two major trajectories that I have elsewhere suggested dominate ethnographic studies of dance at the turn of the twenty-first century (Sklar 2000). Encapsulated in the polarity of "sensibility and intelligibility," the two trajectories loosely represent approaches that emphasize the nature and details of, on the one hand, somatic organizations of knowledge and, on the other, the socially sedimented meanings embodied in movement systems, especially in their political dimensions. The most succinct elaboration of their complimentarity is given by psychological anthropologist Thomas Csordas (1990 and 1993) who weaves together Maurice Merleau-Ponty's phenomenological analysis of perceptual processes and Pierre Bourdieu's sociopolitical analysis of collective practice.¹¹ Csordas recognizes that the phenomenologists' "lived experience" is never merely individual and subjective, but develops as relational and cultural constructions in social space. On the other hand, he understands that the sociologists' "practice" is not only a collective sedimentation passed on through generations, but an opportunity for individuality, agency, and somatic awareness.

¹⁰ Along with Michel Foucault's work on the social disciplining of bodies, especially, "Docile Bodies" (Foucault 1977), Bourdieu's ideas have influenced a generation of cultural theorists in dance, who analyze movement forms and events in terms of the way they perpetuate or challenge social ideals and values. Susan Reed (1998) provides an overview of works addressing the politics of dance.

¹¹ For a discussion of "practice" theory in anthropology, see Ortner 1984. Ortner understands the central problem of a practice orientation to be the relationship between social institutions and structures, on one hand, and people and their actions, on the other. She traces the roots of the concept of practice to the symbolic anthropology of Victor Turner and Clifford Geertz; the cultural ecology of Marshall Sahlins; the structuralism of Claude Levi-Strauss; and the re-introduction of sociology via Peter Berger and Thomas Luckman into anthropology in the 1970s.

Distinguishing between "the body" as biological and material and "embodiment" as an "indeterminate methodological field defined by perceptual experience and the mode of presence and engagement in the world," Csordas addresses embodiment as "the starting point for analyzing human participation in a cultural world" (1993:135). He coins the term "somatic modes of attention" to refer to "culturally elaborated ways of attending to and with one's body in surroundings that include the embodied presence of others" (138). I have elsewhere recast Csordas' phrase to apply "a somatic mode of attention," to a *method* of attending to one's own and others' movement with proprioceptive awareness (Sklar 2000). Here, I want to review and think about the phenomenological pole of embodiment, which, as Csordas recognizes, has been overshadowed by semiotics and therefore not fully developed (1994:4). In deeply engaging the phenomenological pole, my intention is not so much to point out its limitations as to amplify its possibilities, following Csordas.¹² I offer theoretical justification for attending to the dynamics of embodied knowledge and, in consequence, suggest the methodological importance of qualitative movement analysis in the study of "somatic modes of attention."

Following Merleau-Ponty, Csordas takes the primary problem of phenomenology to be the relation between perception and its objects, including especially how we come to perceive ourselves as objects. Traditional philosophers and psychologists progressed from objects, as objectively real, to perceptions, as subjectively responsive to those real objects. The result was the duality of a subjective mental world and an objective physical one, including people's bodies. Merleau-Ponty suggested instead that human perception creates its objects; not that objects are not "real," but rather, their apprehension *as objects* requires subjects. We are first subjects to ourselves in a pre-objective world that experiences embodiment but not "the body."

The work of child psychologist Daniel Stern (1985) provides clarification of the problematic term, "pre-objective," and supports Merleau-Ponty's ontological order; Stern shows that infants perceive and organize sensory experience before they are able to differentiate objects, including themselves as objects.¹³ While it was previously thought that infants developed the senses separately, it is now clear this is not the case. The capacity to "transfer perceptual experience from one sensory modality to another"

¹² Farnell criticizes Merleau-Ponty for simply relocating agency away from the mind and "appear[ing] to locate an equally ambiguous notion of agency *in the body*" (1995b: 12; emphasis in original). Farnell argues persuasively that only a concept of "the person" can resolve the problem of agency, or causality. Her work has informed my discussion here.

¹³ Stern, like Csordas, is concerned with the processes by which we become objects to ourselves, or, in his terms, how infants begin to have an emergent sense of self. Experiments show that a sense of self first develops, under two months old, in relation to one's body -- "its coherence, its actions, its inner feeling states, and the memory of all these," (1985:46) through the process of organizing sensory experience. This is the framework for his discussion of pre-objective organizations of sensory experience.

is innate; infants develop the senses in tandem (Stern 47). For example, presented with different shaped nipples, first felt in the mouth, infants are then able to recognize the shapes visually. Haptic schema (what something feels like) and visual schema (what something looks like) are not developed separately and then united; they are inherently and innately cross-referenced. Before being able to distinguish a nipple as a discrete object, infants can abstract the global shape of nippleness. The same cross-referencing occurs in translating sound intensities (loudness) to visual intensities (brightness), and with recognizing temporal patterns (beat, rhythm, duration) between visual and auditory modes. As a result of this capacity for “amodal perception” (51), before infants recognize that an impression “belongs” to a particular sense or a quality to a particular object, they make global abstractions of shape, temporal pattern, and intensity across the senses. In other words, at the organic level, perceptual experience migrates across sensory modalities.

Philosopher Mark Johnson (1987) offers an elegant model for thinking about the pre-objective processes Stern describes. Like Merleau-Ponty, Johnson's context is the Western philosophical tradition, and in particular the separation between a formal, conceptual and intellectual territory and a material, perceptual and sensible territory. Johnson challenges objectivism, the notion that meaning occurs as objective structures transcendent of human embodiment and independent of human engagement, recognizing meaning to be an *event* of human understanding. For Johnson, the structures of rationality, including logical thinking, depend on processes of ordering bodily experience via imagination. While Kant hypothesized that imagination mediates between perception and reflection, he “couldn't draw the reasonable conclusion that imagination is both bodily and rational” (xxvii-xxviii). What, then, is imagination?

For Johnson, it is the prelinguistic, as well as pre-objective but nonetheless cognitive, capacity to structure experience by organizing perceptions into patterns. Johnson dubs the figurative patterns that emerge from and give structure to perceptions “image schemata” or “embodied schemata.”¹⁴ I understand Johnson's embodied schemata to be the results of the cross-modal extrapolations Stern describes, and imagination to name the extrapolating, abstracting, and synthesizing process by which we build embodied schemata. For example, the spatial embodied schema of “up and down” or the dynamic embodied schema of “rushing” are built cross-modally from movement sensations, seeing, and hearing. Embodied schemata are neither perceptions nor representations, but cross-modal recognitions of pattern, whether of form or of quality, as Stern describes. Imagination, then, is not merely a mental operation that works reproductively to duplicate or reflect experience, it is a perceptual/cognitive process that works productively and creatively to configure experience.

¹⁴ For Johnson, “image” refers not only to visual representations, but to the full range of sensory modalities through which we apprehend and represent the world; however, “image” carries visual connotations, and I therefore prefer the term “embodied schemata.”

Consider the embodied schema of "balance."¹⁵ The word "balance" is a symbol referring to an embodied schema abstracted from multiple bodily experiences of balancing. The bodily experience of balancing exists preverbally as a somatic awareness, but the various instances of balancing are ordered by imagination into balance-as-a-kind-of-experience, the embodied schema of balance. The word-symbol, "balance," draws metaphorically on the embodied schema and also contributes to structuring it by naming it.¹⁶ The schema incorporates all the sensory modes so that, eventually, we see balance in works of art, hear it in the construction of an argument, feel it as an emotional as well as kinetic state, and perform it as a mathematical operation.¹⁷ In other words, built upon the hardwired migration of sensory experience across sensory modalities, we construct embodied schema that migrate across media. Thus, Johnson argues, all propositional statements and abstract reasoning depend on the cross-modal metaphoric process of embodied schemata building. So, too, do all abstract structurings in words, images, sounds, and movements.¹⁸

While, as anthropologist Brenda Farnell notes, a phenomenological approach carries the danger of positing a "universal bodily experience" that separates "the body from language and culture" (1995b: 300), the combination of Stern's concept of amodal perception and Johnson's of embodied schema offers a framework for understanding how innate perceptual/conceptual capacities are differentially developed right from the start. Specifically, while the capacity to abstract patterns from sensory experience, via amodal perception, is innate, the metaphoric process of schema-building is creative,

¹⁵ I expand here on Johnson's example (1987:74-5)

¹⁶ Elsewhere, I have written: "Words not only symbolize experiences, they participate in the embodied schemata to which they refer. When infants learn to speak, the cross-modal orderings they have already mastered incorporate a verbal dimension, a name, like "ball" or "rushing." The name is associated to the schema so that it both evokes and works upon the somatic pattern" (Sklar 2001). In effect, the word, or other symbol, objectifies the schema.

¹⁷ This kind of polysemic meaningfulness in the English language can be compared to Victor Turner's work on the orectic and normative poles of association that come together in Ndembu ritual symbols. See, among other works, Turner 1979.

¹⁸ Johnson's wording, that "the 'bodily' works its way up into the 'conceptual' and the 'rational' by means of imagination" (1987:xxi), is unfortunate. As Farnell writes, this hierarchical ordering fails to recognize that complex bodily systems, like dance traditions, are both rational and conceptual (1995:10). A better way to cast the argument would be to say that abstract concepts (in any modality) depend on perceptual/conceptual capacities inherent in human embodiment and further, that the resultant conceptual structures, whether in logic, psychology, or art, can be analyzed as metaphoric acts of imagination that connect multiple media of experience.

indeterminate, open-ended, and continuously active.¹⁹ Sensations in the womb are influenced by a social milieu, even though they are not organized objectively, in terms of "my" sensations in "your" womb. In Csordas' words, our bodies, from the beginning, are "in the world," part of "an intersubjective milieu" that includes others' bodies; thus, it is not subjectivity but intersubjectivity "that gives rise to sensation" (138). Pre-objective and prelinguistic do not imply pre-cultural. In different sociocultural and historical circumstances, people learn to emphasize and value different sensory details of form and quality, different perceptual and expressive media, and different ways of processing somatosensory information.²⁰

Most relevant to my attempt to understand the somatic dynamics of movement knowledge, Stern reports that infants can and do extrapolate not only quantifiable elements like shape and temporal pattern; they also cross-modally "yoke together" qualities of feeling. Stern is emphatic that these feelings are not "categorical affects" like happiness, anger, surprise, etc. Rather, they are "vitality affects," the complex qualities of kinetic energy inherent in all embodied activity. In other words, in terms of Johnson's embodied schemata, we create schemata of vitality affects just as we do of shape and temporal pattern, and we are innately capable of doing so. An infant can recognize, for example, the similarly lightly caressing quality of vitality in the way her mother might brush her hair, sing a lullaby, and smile at her, before she can distinguish her mother or herself as objects, and before she can recognize singing, hair-brushing or smiling as discrete actions.

Unlike the terminology of emotion specific to categorical affects, Stern writes, vitality affects are "better captured by dynamic, *kinetic* terms, such as 'surging,' 'fading away,' ' fleeting,' 'explosive,' or 'crescendo,' 'decrescendo,' 'bursting,' 'drawn out,' and so on" (54; my emphasis). Vitality affects are most revealed, Stern writes, in events like music and dance that have no "content" (56). Indeed, he acknowledges, they are equivalent to what Suzanne Langer calls the "forms of feeling" embodied in dance (54). As stated above, for Langer these are based on the "sense of vital power" as "our most

¹⁹ Unlike Bourdieu, who sees the habitus as comprised entirely of sedimented structures, Johnson recognizes that what we regard as fixed meanings are *simply* the sediments (1987:175) of embodied schemata which are inherently open-ended and therefore variable, depending upon cultural circumstances.

²⁰ Sally Ness asks whether I mean to suggest here that "migrating sensations (moving between / around pre-subjective 'milieux') precede sensing locations (individual bodies / subjectivities) in the development of conceptual / perceptual capacities." I would answer that in Merleau-Ponty's (1962) sense of an a priori "symbiosis" between perception and its other (the world and its objects) (317), the potential for migratory sensation (via both the world-coming-to-meet and the human capacity for reception and production) precedes specific sensing locations (the individual human body and individual subjectivity). At the same time, since we are born into specific cultural circumstances, it is impossible to experience either a pre-subjective world or a pre-subjective self; we can only experience the intersubjective migration of sensation through culturally-inflected perceptions.

immediate self-consciousness" (30). I understand the "play of powers" Langer took to be the "primary illusion" of dance to be a play with vitality affects. Likewise, if the phenomenologists' "lived experience" is understood to be the on-going dynamic changes in vitality affects over time, what Stern calls the "activation contours of experience" (57), then lived experience is not, as anthropologist Drid Williams protests, "some mystical bodily event of shared experience" (Williams 1991: 194), but the cross-modal apprehension of kinetic dynamics as they are differentially developed in different cultural communities.

Until we attend to kinetic dynamics, the way vitality affects are organized in specific movement systems and gestures, we lack a crucial dimension in understanding the cultural construction of embodiment.²¹ As Howes calls for "sensory profiles," I am calling for "vitality profiles." The dynamic factors of rhythm, speed, and duration; force; degree of muscular tension or relaxation; and degree of giving in to or resisting gravity (weightiness and lightness) encode cultural dispositions as much as the shapes and spatial patterns of movement do.²² Labananalysis, as Rudolf von Laban's schema of qualitative, or "effort" factors is now called, offers a systematic way of observing such dynamics. The system focuses on four core factors: Weight, Space, Time , and Flow.²³ While the system can be oversimplified, and though it awaits further development, especially in terms of social and cultural constructions of embodiment, it is the most potent tool we have for guiding observation beyond the shapes and spatial patterns of action toward kinetic qualities.²⁴

Dance anthropologist Cynthia Cohen Bull (1997) offers a sampling of how comparisons of sensory and vitality profiles might work, taking as examples ballet, contact improvisation, and Ghanaian dance. About the traditional European-based ballet, she writes:

²¹ I briefly consider qualitative movement analysis in relation to Clifford Geertz' classic discussion of gleaning the social codes lying behind a simple wink in Sklar 2001:3.

²² Regarding the importance of temporal factors, see Edward Hall's discussion of rhythm and "synching" in cross-cultural communication (Hall 1977).

²³ For information on Labananalysis and Effort Theory, see, for example, Groff 1990, Davies 2001, and Bartenieff and Lewis 1980. I am grateful to CMA Mary Hayne for these references.

²⁴ For example, the Choreometric system, developed by Lomax, Bartenieff, and Paulay (1974) based on Laban principles, attempted to correlate qualitative movement factors with subsistence patterns, worldwide. Dance anthropologists criticized the distortion of its oversimplified functionalist organization. See, among others, Kealiinohomoku 1979. However, Ness (1988 and 1992), Novack (1990), and Feld (1990) demonstrate the potential of qualitative movement analysis for ethnographic studies. See also Kaepller 1972, Snyder, 1978, Kealiinohomoku 1974 for early, non-Laban guidelines for analyzing dance in cultural context. Siegel (1991) offers suggestions on applying Labananalysis to dance criticism.

Ballet practice and performance hone visual sensibility, giving the dancer an acute awareness of the body's precise placement and shaping in space, and demonstrating to the spectator the remarkable possibilities of bodily design and the architecture of moving people in space and time, often viewed from a distance... (282)

About contact improvisation, developed in the United States as a counter-cultural response to ballet and modern dance and to mainstream social mores:

Contact improvisation offers an almost opposite set of experiences, yet, as an oppositional practice, it engages some of the same cultural concerns as does ballet. In order to shift focus from the visual, beginning dancers close their eyes. When they dance, the body, as in ballet, remains the focus, but rather than being objectified as viewed from the outside, the body ideally becomes the subject of experience from the inside. The practice of contact improvisation seeks to create a sensitivity to touch and to inner sensation..."(283)

Finally, about Ghanaian dance:

When the dancers are not improvising variations, they dance in rhythmic unison with each other, matching their movement impulses to those of a drumming pattern. However, while dancers may appear unified, they seldom produce an exact spatial unison because the emphasis of their movement lies in rhythmic, dynamic action rather than on achievement of a shape or line, as in ballet.... Thus, choreography becomes shaped by the rhythmic interaction of many people, rather than by the choreographer's vision (as in ballet) or by the mutual momentum with a partner's touch (as in contact improvisation) (280-281).

Studies are needed that carry forward what Bull only hints at, that is, the way sensory and vitality profiles are implicated in different epistemological systems. Indeed, I am suggesting that sensory and vitality profiles are central not only to cultural organizations of movement, but also to cultural organizations of thinking, itself.²⁵

²⁵ I was first introduced to the idea of thinking as a process of changing kinetic dynamics by the corporeal mime teacher and theorist, Etienne Decroux. Decroux developed a system of movement practice and analysis that combined spatial "geometry" with what he called *dynamo rythme*. During the two years I studied with him (1967-69) students applied these concepts in weekly improvisations on the subject of thinking. We also learned to discern, visually, the dynamic nuances in each other's work (see Sklar 1985).

An earlier comparative study of gesture, conducted in 1941 by anthropologist David Efron, a student of Franz Boas, suggests that the aesthetic dimensions of movement provide clues to differences in the way different cultural communities structure thinking. Efron's (1972) work preceded the kinesics work of Ray Birdwhistell, Albert Scheflen, and Edward Hall and also preceded McLuhan's understanding of cultures as orders of sensory preferences. I review his study here in some detail because it is little known.

Undertaken to refute Nazi notions about the inheritance of so-called "racial gestures," Efron challenged, on both logical and empirical grounds, notions such as that Jewishness is detectable in movements that are common to all Jewish groups.²⁶ Any serious attempt to correlate race with any given form of behavior such as gesture, he argued, must first prove race as a real category and then empirically investigate the specific behaviors claimed to correspond with it. Denying the validity of any physical criteria of race, Efron attested that there is hardly a single human group that is not the result of racial intermixing, especially in Europe. As for physical traits, he pointed out that they must be the exclusive characteristic of all individuals belonging to the group; there is no morphological type that meets this requirement (39-43). Drawing on European and American histories of oratorical style, Efron demonstrated the tremendous variability over time of gestural "fashion," thereby exploding the idea of consistency within even one so-called racial tradition.

Efron's major refutation of the correlation between race and gesture, however, rested on his own empirical research in New York City. He studied and compared the conversational gestures of Jewish immigrants from the ghettos of Lithuania and Poland with those of Neapolitan and Sicilian peasant immigrants.²⁷ While he found marked differences between the groups in the immigrant generation, in the following generation, depending on the degree of assimilation, the original gestural patterns quickly disappeared. Both Jewish and Italian groups' gestures now more closely resembled those of other New Yorkers than those of their immigrant parents. Here, old world gestural systems did not migrate with the people; rather, the immigrants welcomed into their bodies a gestural migration from the new environment.²⁸ That significant differences in gestural patterns are determined not by inherent physiological,

²⁶ Efron documents one particularly absurd example: a Nazi apologist argued that each race has a characteristic body-soul and a matching, typical mode of expression so that "a 'Nordic soul' cannot express itself through a non-Nordic body; thus, the gestural style of a Mediterranean is racially linked to 'light [weight] hair,' for only such hair will swing around with the movements of a Mediterranean body" (Efron 1972:25).

²⁷ Efron's methods were fourfold and included: direct observation, artist's sketches, rough counting of gestural tendencies, and graphs, charts, and measurements drawn from film clips.

²⁸ I am grateful to Sally Ness for suggesting this link to the volume's theme of gestural migration.

psychological, or mental differences, but by the interaction between learned traditions and social conditions, was predictable even in 1940. But in the course of his study, Efron found something less predictable, that differences in gestural systems embody differences in the aesthetic structuring of thought. A summary of Efron's findings will clarify the significance of this statement.

Imagine, if you will, the Jewish immigrants gesturing close in front of their bodies, usually one hand at a time. If both hands are engaged, the gestures unfold sequentially, one hand after the other in an "ambulatory" pattern"(83). The tempo is sporadic, changeable. Imagine angular or sinuous "zigzags" with frequent changes of direction, resulting in an intricate gestural "embroidery"(73). Regardless of the amount of space available, the Jewish immigrants tend to converse at close range, often in compact groups, talking at the same time. Gestures embroider speaker and listener together in a "'hand to hand' rhetorical skirmish" (92). Touch is frequent, sometimes as interruption, sometimes to capture attention.

By contrast, imagine the shape of the Italian immigrants' gestures as broader, more rounded and less complex in design. Imagine a full sweep of the arm, pivoting from the shoulder as a single unit, or both arms sweeping out together, symmetrically. Unlike the rhythmically complex zigzags of Jewish "embroidery," these gestures are fluid, tending toward continuity in the same direction for their duration. They unfold at an even pace or else build and subside, suggesting to Efron a feeling of "wholeness," even "wholesomeness" (115). Rather than the tight knots of the Jewish conversationalists, Italian speakers and listeners place themselves apart in "a kind of spatial consideration for the body of the interlocutor" (121). Where the Jewish immigrants' gestures are relational, Efron writes, those of the Italians are presentational. Touch occurs here, too, but as an expression of confidence rather than as an interruption or call to attention.

Efron recognized that these two gestural systems represented two different cognitive styles and meaning making processes. The Italian immigrants employed gestures that embodied the *content* of their thought, like a sign language. Their gestures were largely connotational, referring to something objective, whether they worked as a kind of pointing, as a depiction of a form, a spatial relationship, or a bodily action, or whether they were symbolic, representing some object, visual or logical. Gesturing among the Jewish immigrants was not pictorial or symbolic, and did not refer to the objects of their thought. Where the Italian immigrants carried, so to speak, "a bundle of pictures" in their hands (123), the Jewish immigrants used gestures to "link one proposition to another, trace the itinerary of a logical journey, or to beat the tempo of mental locomotion" (98). Their embroideries and zigzags resembled "gestural charts of the 'heights' and 'lows,' 'detours' and crossroads' of the ideational route" (99). The first kind of gesturing emphasized the "what" of thinking, the second the "how."

Challenging the popular misconception that gestures are a kind of semiotic hieroglyphics or pantomimic language that occurs "naturally," Efron concluded that pictorial gesturing only occurs among some cultural groups and that non-pictorial kinds of gesturing are of equal epistemological significance (95-6). "We conceive of gestural behavior as an intrinsic part of the thinking process" (105 fn.48), he writes. The comment is significant, suggesting that "mind" is as much a matter of kinesthetic as of verbal or visual organization. This organization occurs, Efron's data show, not only as the symbolic products of thought, but as the aesthetic processes of thinking. These aesthetic processes can be analyzed in terms of sensory profiles and formal kinetic elements, the Italian immigrants emphasizing, for example, the visual shapes of thought content, the Jewish immigrants the auditory rhythms of thought process. They can also be analyzed in Johnson's and Stern's terms as the embodied schema of "thinking," involving not only different sensory profiles and structural elements, but also different activation contours. For example, the Italian immigrants' epistemological processes emphasized continuous flow and direct pathways, the Jewish immigrants', interrupted flow and indirect pathways. Had Efron been skilled in observing qualities of vitality, we might also have learned about the force of the two kinds of gestural thinking, their changing intensities, and their use of weightiness and lightness. What if, then, we conceptualize "thinking" in different cultural communities as different genres of "choreographic" improvisation whose structural rules migrate, organizing and re-organizing sensory modalities, formal elements, and vitality affects? Thus conceived, we would have a model for thinking about thinking as a matter of both symbolic and kin-aesthetic migrations and orderings.

I have focused on the kinetic dynamics, in particular the vitality affects and activation contours, of human movement as an overlooked aspect of bodily knowledge and of thinking itself. I have argued that our inherent capacity to extrapolate the qualities of vitality as they migrate across sensory modalities works in the context of embodiment to link cultural patterns of movement sensation to cultural patterns of figurative citation and aesthetic structuring. What are the implications of these ideas for a theory of gesture? "Gesture" as a schema, in Mark Johnson's sense, relies on and is closely associated with human movement. If the dynamic qualities of vitality are the unmarked, even hidden, dimension of movement and cultural movement systems, then those cultural organizations of kinetic vitality occur as a "ghost" in all gesture. Whether the gesture is a verbal figurative statement (gestures of kindness) or a mechanical means (camera pans and tilts), whether the gesture is socially iterated and inscribed in bodies as an unconscious habitus (the shaping regime of ballet or military training) or transformed in meaning through individual bodies (Louis XIV's dancing body), gesture retains this vital and culturally meaningful dimension. Even still representations (a portrait of Louis XIV displaying his gesturing leg) reveal kinetic qualities (How much

muscular tension does the king exert in his pointed foot, and what does this reveal about his self re-presentation?)

While the capacity to extrapolate across sensory modalities is innate, the resultant structuring of schema, including the general structuring of the senses and of kinetic qualities in particular, is indeterminate, variable across cultures and over time. Particular sensory and qualitative patterns are reiterated and become relatively fixed in particular sociocultural contexts, enabling both communication and unconscious reproduction. Thus, all gesture is informed by the schematic ordering of movement-and-ideology implicit in the concept of embodiment as defined by Thomas Csordas. This pervasiveness of gestural regimes undermines Suzanne Langer's formulation of a distinction between spontaneous and symbolic gesture. Gesture migrates between quotidien and framed performances, as well as between media. Indeed, as anthropologist Lowell Lewis (1995) points out,

Clarifying the relations between specially marked social genres and unmarked or tacitly marked daily practices ... illuminates similarities and differences between both frameworks and potentially reveals deep iconic patterns or schemata that inform many social domains and therefore are central to the recognizable, distinctive, stylistic unities of given cultural systems (227).

In the interplay between everyday life and art, gestural schema migrate. Consider, for example, MTV's mechanical rhythms of cutting, panning, and framing in relation to American teenagers' quotidien bodily practices, including everyday computer, household, and street rhythms. Compare these to the mechanical qualities of early Hollywood dance films, Busby Berkeley's long views and temporally extended sequences, drawing on New York burlesque and European ballet, and resonant with street and home life in a mechanizing metropolis. Filmic conventions participate in the embodied schema of their time and are, in that sense, inherently meaningful.

These latter thoughts have been inspired by my colleagues' provocative discussions of gesture, and, regarding quotidien and framed performance, by Akira Lippitt's essay (this volume). His treatment of figurative gestures, as "acts or expressions that invoke gestures without returning to bodies" has led me to thinking of gesture in terms of kinetic layerings, or Stern's "ghosts," of culturally elaborated embodied schema. I would draw attention here, not to the production of gesture, but to its reception. The result of the camera's movements is that we are presented with kinetic information which we receive the way we receive any movement -- no matter the medium of its presentation -- in its multiple dimensions, as spatial change, rhythmic pattern, intensity, etc. I especially appreciate Lippitt's comment that the film-maker who re-makes earlier filmic sequences by, for example, repeating instants ad infinitum,

interrupts the viewer's expectations through a kind of mechanical kinetic subversion. However, whereas Liipitt suggests that it may be impossible to speak of meaningful gestures at all, if we take "meaning" to be, as Johnson suggests, imaginative play with schema, where schema include, as Stern makes clear, abstract rhythmic and spatial patterns, shapings, and intensities, then the filmic work Lippitt discusses emerges not as meaningless but as a meaningful subversion of the qualitative habits of a conventional gestural system.

From the perspective of movement and embodiment I have laid out here, a concept of gesture emerges that requires a connection with the organic, not in the sense of requiring the literal presence of human bodies, but of referring to the capacities inherent to embodiment. In other words, the organic foundation of gesture refers to, in Merleau-Ponty's words, the "I can" of embodiment, including especially the innate capacity for translating vitality across sensory modalities. The concept of embodiment, as Csordas points out, refuses the separation of a material body from either the "can do" of embodied human potential or the social habitus of being-in-the-world. By contrast, this concept of gesture does not require, indeed disparages, connection with "the natural," where natural refers to any specific quality or performative mode considered to inhere in human embodiment. Thus, the notion in much contemporary modern dance training that fluidity of motion and relaxed muscular effort are "natural," whereas the muscular tension and precise gestural positioning of ballet are not, is spurious. The only use I can find for this word would be to equate the natural with the possible, at which point it becomes, not natural, but organic. Critically, I am suggesting not only that a concept of gesture requires association with movement's kinetic qualities of vitality, but that it also requires an accounting of the way the sensations of kinetic vitality are socially structured, transformed, and mediated. In other words, far from positing a universal kinetic sense, this formulation calls out for contextual analysis and amplification.

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