# Brain Body Movement

Lecture Series 2009

# Sam Gill

Sam Gill delivered a series of fourteen lectures in a graduate course "Brain Body Movement" at the University of Colorado Boulder during spring term 2009. The lectures discuss implications of human embodiment from a variety of perspectives including philosophy, psychology, neuroscience, cognitive science, critical theory, and medicine. He discusses the implications in terms of the academic study of religion, the academy in general, and the way we understand dancing.

Podcasts of these lectures are available for free download and the e-book print version of these lectures is available as a download for a nominal charge. <a href="www.Sam-Gill.com">www.Sam-Gill.com</a>

The following are brief representative phrases and passages taken from these lectures.

#### Lecture 1: Introduction

- Graduation ... a sea of floating heads
- the body is more than a meaty vehicle for the mind
- ritual studies ... an absurdly undeveloped area of study

# Lecture 2: The Meaning of the Body

- The idea that only words have meanings ignores vast stretches on the landscape of human meaning-making
- there is no academic endeavor more word-bound, headier, than the academic study of religion
- our subjects are not the people, nor their experiences, nor their relationships with their gods, nor their rituals, nor their dances and musics and actions and joys and feelings
- the object of study we call religions scarcely corresponds at all with the religious lives of almost all religious peoples
- We literally discover ourselves in movement
- the idea of body-meaning seems threatening to us

### Lecture 3: Tradition and Change: Memory and Neuroplasty

- teenage brains undergo periods when the cerebellum keeps getting bigger and better throughout the teen years
- what the brain wants is play
- The ways of a culture and a religion insinuate themselves onto human beings through the high repetition of patterned movements and practices and value/meaning/feeling associations

# Lecture 4: Imagination, Theory, Story

- Our brains come equipped to make up stories
- our left brains are habitual prevaricators
- Human beings are story-makers and storytellers
- the word story ... is commonly used to refer to myth, folktale, anecdote, history, as well as an out-and-out lie
- people can endure anything if it is rendered into a story
- Seems as humans we want to understand the world and are happier with a good story than with being completely
  objective, disinterested, and technically correct
- Surprise and the accompanying feeling kind of knowing ground our creativity, our stories, our art, our ritual, our myths, our sciences—all these lies that feel like truths
- the human brain/body is then built to create stories which may take the form of fictions, hypotheses, beliefs, guesses, burches
- we are designed so that our best guesses are more readily confirmed rather than challenged; that we actually feel, that is, have emotions, related to those things that threaten or challenge or confirm our theories and beliefs

### Lecture 5: Color and Reality

- The idea that color does not exist independent of our perception of it, is astounding
- We create color in the world as we interact with it

- We must explore the world with our moving experiential touch-based bodies to see the world
- The sensorimotor patternings that have created the schemas that we unconsciously draw on when we think of religion in any way are those experienced by thousands of dead white Christian men
- Discovering the deeply determining nature of sensorimotor patternings and their interconnection with cognition, we may finally recognize the potentially determining impact of sedentary immobile bodies, the icon of our educational system, and get up and start moving about

# Lecture 6: Phantom and Reality

- A piece of your brain the size of a grain of sand would contain one hundred thousand neurons, two million axons and one billion synapses
- The body surface is surely nothing but meat without the interconnection to the brain and the brain area is useless without connection to the body. The skin is the outer surface of the brain. The body is the extension of the brain
- Certainly the academy is a colonial enterprise and we surely must know that we have changed the world as we have studied it
- Our study of something invariably transforms it, in itself, to correspond with our expectations projected on it
- Perception is fundamentally an interpretive and representative enterprise, not one that objectively records the external reality
- Your own body is a phantom, one that your brain has temporarily constructed purely for convenience
- Our perceptual processes fill in gaps, shift lines, construct images based on unconscious best guesses

# Lecture 7: Making, Agency, Action, Artifice

- all making is ... motivated by ... some projection of the body into the world beyond the body
- In a religious tradition seemingly so opposed to the body, it shocks us to find that important exchanges between god and humans, as depicted by the biblical literature, were about bodies
- The only, and irresistible, power of femininity is the inverse power of seduction
- Seduction is stronger than power because it is reversible and mortal
- Seduction is stronger than production. Seduction is feminine; production masculine
- Humans are as much or more products of what the world has produced as they are producers of things in the world
- Academic writing conventions and practices produced by the mind are a hinge that helps create the mind. The desired distinctions are: clarity, objectivity, finality, orderliness, sensibility, authority, power, concreteness, innovation, and enduring in plain black and white
- Academic work may then be seen as the masculine attempt to produce a mind quite different from what we actually possess, a process motivated perhaps as much as anything by the unmet desire to have such a mind. A desire that we have endeavored for centuries to produce, all the while dismissing the body as of any but vehicular value
- Dancing [as seduction] would be reversible and circular and mortal and powerless and without meaning
- Dancing [as seduction] would be foundational in important ways to production. Dancing would be understood as perhaps the last surviving experience of the idea of reality in a world of hyperreality
- There are two, yet in their connection, they experience a oneness; they experience a reversibility; they play with one another, without meaning or goal or product

### Lecture 8: Self and Other: Proprioception and Exteroception

- the implications of proprioception are immense for understanding our sense of self, our sense of ownership of our bodies, our relationship with objects and others
- Body schema is dependent upon proprioception
- proprioception is how we know our body position and posture
- We can know or sense our body image because of proprioceptive information
- movement as structurality is the verb or action or processes engaged and involved, rather than structure, principles, places, meanings
- Viscerality is a rupture in the stimulus response path; it is the perception of suspense; it is the space of passion
- Proprioception, movement-vision, change, flesh, seduction, reversibility, play, structurality are all importantly interrelated and enjoy a loose synonymy
- Proprioception ... comes to be connected with our sense of self, with fundamental relationality, with subjectiveobjective interplay, with consciousness, with body ownership
- Proprioception is body and movement, but it is movement in process, movement-as-such, flesh in its reversibility, perception in its play, self in its otherness. Proprioception is seduction, play, structurality as incorporeal materialism
- Dancing ... is not about anything; it does not mean anything; it is a display in corporeal moving terms, of that which cannot be captured as a point in space or a trajectory through space. Dancing is an exercise in and celebration of selfothering or other-selfing that enacts without production or application our proprioceptive awareness, our becoming in being, our interplay with the world through movement

#### Lecture 9: Consciousness and Emotion

- that old objective of attempting to eliminate one and champion the other is being consistently replaced by dynamic and interactive and interdependent systems
- Body and mind are mobiatic; two-sided and one-sided at the same time, that is, at once separable and inseparable
- Life-style impacts what and how we perceive, feel, think, imagine, experience, know, understand. And, of course, the inverse is also the case
- in the academic literature I don't know of a single paragraph or even a sentence that would suggest that a scholar's personal life-style impacts what she or he thinks, or sees, or understands, or knows
- The challenge is really for young scholars to incite a revolution and it will need to be on a scale larger than was feminism, because female scholars themselves have largely given themselves to production
- reversibility is not consistent or bidirectionally equal
- If our self-actuated movement is an influential factor in our perceptions, our emotions, our cognitive processes, then what must be the impact of a severely sedentary male life-style that excludes most experiences beyond reading and writing and talking all directed towards producing knowledge, publications, student clones?
- much of the world of religious action and behavior and life is virtually invisible to religion scholars
- Traditionally emotions, feeling, pain, and passion have not only received short shrift by academics, they have been maligned
- In academia, these invisibles [emotions] are carefully avoided, hidden behind more acceptable invisibles such as thought, ideas, concepts; all of which are traditionally more associated with the head, with the male head at that, and they are believed to be controlled by means of reason and objective distance
- emotions are at the heart of our convictions, our passions, our guesses, our stories, our beliefs, our images—all of which underlie meaning, value, hypothetic inference, and authority
- the posture of academic practices, closely resembles the posture associated with depression

# Lecture 10: Touch, Flesh, and Vision

- We are now projected into complicated dynamic systems, structuralities, play, "body without organs," "body without images," flesh and mucous, chiasm—images that project us beyond the simple substances and patterns into a contemplation of dimensions that transcend the easily graspable yet fuel and motor the concretions of our existence
- We have to reject the age-old assumptions that put the body in the world and the seer in the body, or, conversely, the world and the body in the seer as in a box
- Tactility then is the primordial sense in which the body's interiority is constituted
- Our subjects are valuable only to the degree that we may render them in terms they would not recognize
- we will need to reinvent ourselves, rather our image of ourselves, to include body, movement, interaction. We will have to acknowledge that there is no objective other, perhaps not even an object of our study at all distinguishable from ourselves, our acts of perception
- We will need to come to a totally different understanding of ourselves as human beings and as scholars
- perhaps color should be the model for our reinvention of ourselves

# Lecture 11: Emotion, Depth, and Flesh—Part I: Dancing as Pure Depth

- Perception is the fabric of our connection, the hedge against isolation
- Depth is the significance of surfaces in relation to the body
- "pure depth," then is a dimension that is primordial, allowing the perception of distance and the value of the distant
- "Pure depth" is depth without distance from here
- Pure depth is depth without foreground or background, without surfaces and without any distances separating it from me
- The moving body is then a "percipient-perceptible," that is, an entity possessing the power to perceive while also being capable of being perceived
- The body exists then in an ambience, a primordial given, of depth, the hidden dimension behind everything
- Reversibility is a way to express the interconnection among distinctions
- Movement is essential for reversibility to be realized, for occlusion to be recognizable, for perception to take place
- Incomplete reversibility is not some flaw to be overcome in perception, it is rather the very motor that drives the movement of reversibility that allows for simultaneous interdependence and distance
- Chiasm, pure depth, this incompleteness is the source or condition of percipience and at the same time unifies flesh
- reversibility in dancing takes place in the body of the dancer, in the action of dancing, since in dancing self and other have identical bodies, the dancing body
- Proprioception can be described ... as primordial depth that constitutes a medium of thickness with a tangible diffuse materiality that is not held at a distance

- Dancing, however, is a making of an other and a concrete other, which is not yet set apart from the proprioceptively aware body
- Dancing is the primordial depth that allows one to experience other and otherness proprioceptively and emotionally as one's own body
- Dancing is distinguished in the realm of movement in its identity with depth, with the mysterious thickness that allows the distance of self and other while holding them together in one body
- In dancing there is always that hidden emptiness or space or chiasm that only movement may maintain
- Merleau-Ponty understands the body as percipient-perceptible, it appears that this connection of the body to the
  world through flesh depends on the body being, more fundamentally, propriocepient-proprioceptable, for this is the
  primal and pure depth that is the embodied chiasm across which reversibility plays
- Dancing is the exercise and showing of "pure depth," if it is not the actual action in which our existence is constituted
- Dancing precedes and grounds ontology
- The "other" presented as the dance is no real other, but an ideal other, yet, in its dancing it is realized in real bodies in real movement in real presence
- The embodiment of the "other" in dancing is an act of human transcendence or theological immanence

# Lecture 12: Metaphor, Gesture, Language

- concepts are based extensively in embodied experience and that there is a major fluidity in the grasping and expression of concepts
- metaphor is to understand something in terms of something else which it is not
- What we know in our bodily feelings are the hidden certainties that drive everything that we do
- If we accept then that metaphor structuality is comprised of the visible and the invisible or, in bodily terms, the
  external and the internal, we must then recognize that metaphor structurality is necessarily grounded on depth
- Metaphor then is reversible in turning one outside in
- Metaphor, as perception, is trafficked in the depth between the inside and outside, the invisible and the visible, concept and form, idea and action
- metaphor is thoroughly embodied
- if gesture is understood as being initiated in the core of the body and, in sequence, extended into the arms and finally the hands, a different understanding should arise. The arm and hand movements are then the articulation of the body's core which is strongly associated with feelings, emotions, depth rather than cognition, articulate communication, speech, or thought
- Were we to re-couple hands to arms to bodies and feelings and emotions to cognition and language, gesture would be complementary to language in communicating the emotional counterpart to the simple conduit understanding of language expression and the embodied metaphorical understanding of conception and cognition
- The meaningful is full of meaning, suggesting there is much to comprehend, that there is much to think about, that thinking actually creates more and more meaning
- it is unfortunate that our culture and era confuses meaning with information and with rapid comprehension speed
- to explore the operative metaphors of other peoples is a powerful method providing a way to hopefully surpass our studies being simply projections of our expectations onto others
- As emotion is inseparable from body and body is inseparable from thought and communication, we must embrace it in our studies

# Lecture 13: Thought and Cognition

- Simply because we are human bodies we come equipped with at least two kinds of structures to preconceptual experiences
- metaphor structurality is better characterized as an incomplete reversibility
- metaphor structurality is incomplete reversible and that both terms of the metaphor are necessarily inseparable from body
- Metaphor is not a device to get from one place to another, one level to another, from body to mind; it is rather a
  resident type of structure readily available to digest interpret and expand knowledge and experience
- Metaphor is then a type of perception
- bodied experience creates constantly shifting patternings, such as metaphor and sensori-motor programs, that are
  the means by which we live in the world
- when we give up objectivism and transcendent reason, as I think we have no choice but to do, and embrace an
  experiential reality, meaning and knowledge correlate with fit and coherence
- the meaningful is the capacity of something to tease with the promise of coherence and fit, yet perpetually to confound by revealing previously hidden elements that resist fit and coherence

- The way we think is characterized by a structurality that blends impossibilities and improbabilities to create new relationalities, new meanings, new knowledge, new patterns, all the while recognizing, however unconsciously and in hidden ways, that this process is, in some senses, based on sleight of hand and smoke and mirrors
- Creativity, as hypothetic inference, is motivated by the experience of surprise, an emotional state that seeks stability
  and dissipation of unrest
- we must be bludgeoned and whackered into our creative moments

#### Lecture 14: The Backside of God

- Neutrinos ... remind me of pure depth, of flesh, of seduction and the many other homologous primitives that we know and can experience, yet are not actually graspable by our efforts
- We are moving creatures and our sense of self and other, of perception and depth, and feeling and form all arise through the bumbling explorations of our self-actuated moving bodies
- I beseech you ... to reinvent the academy in terms of movement
- Dancing in most cultures is nearly synonymous with religion and culture
- The moving body is fundamental to flesh, because through movement flesh begins to understand itself or become aware of itself
- Play occurs in the gaps between structural elements
- Chiasm is a crossing place, that hidden dark space where reversibility occurs, a space free of structures, a space without objects, a gap
- It is in the gap, the chiasm, that reversibility becomes vitality
- Metaphor is ... a resident oscillating structurality, much like perception, that functions to give us a program to embrace and comprehend our thoroughly bodied experience
- God is to be found when we go up into the gaps, the gaps of synapse, of play, of hidden "nots" and "nos," of chiasm, of seduction, of metaphor, of blending, and flesh, and dancing