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Maxine Sheets-Johnstone
msj@darkwing.uoregon.edu

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'Man Has Always Danced': Forays into the Origins of an Art Largely Forgotten by Philosophers

Maxine Sheets-Johnstone

Abstract

Philosophers have had comparatively little to say of the art of dance, a surprising fact given the range of people both inside and outside of dance who have claimed that 'man has always danced.' This essay attempts to substantiate this claim by an inquiry into the origins of dance, its focal attention being on the word *always* and any linkage to males deriving from that focal point of attention. It begins with evolutionary considerations in the form of courtship displays, behaviors finely and extensively described by Darwin, and goes on to consider displays by chimpanzees in particular. These considerations point toward pan-cultural as well as evolutionary origins. The essay proceeds to show how bipedality, a qualitative kinetics, rhythm, and play enter into and affirm evolutionary continuities and the pan-culturality of dance.

Key Words

courtship displays, kinetic semantics, qualitative structure of movement, movement possibilities, bipedality, rhythm, play, kinetic markers, evolutionary semantics

"[T]he first true art . . . is Dance."

Susanne Langer

"Men, everywhere, dance. There are no human societies in which they do not."

Charles Olson

1. Introduction

If the statement 'man has always danced' is true, philosophers ought to have found a good deal more to say about dance than the little they have said. Indeed, dance is commonly a forgotten art in aesthetics,^[1] or, if recognized, is minimally treated in relation to other arts,^[2] or is read off other arts, such as sculpture, and explained in terms of them.^[3] Music, painting, poetry, and literature, in general, are the arts consistently at the forefront of philosophic attention.

Were substantive reasons sought for philosophers' virtual absence of concern or regard for dance, appeal might be made to individual proclivities or to current modes of scientific explanation. But it is of no avail to cite variation among males, for example, as a reason, i.e., some males dance, some do not; some are aesthetically attracted to dance, some are not; and so on, as if natural selection were operative, putatively explaining why some males, and in fact a particular breed of male -- namely he who is drawn to aesthetic philosophy -- prefer not to recognize the art of dance, much less consider that 'man has always danced.'

It would be equally futile to claim that genetic determinism is at play, i.e., that with the exception of sports (in the biological sense of the abnormal), males are for some albeit as yet

undetermined adaptational reason innately doomed to ignore or neglect dance. One might, on the contrary, invoke adaptation in a positive sense: male philosophers who concern themselves with dance are better adapted to being a body and in turn have potentially deeper evolutionary understandings of themselves that reach all the way from what it is to be animate and, in particular, an animate form that dances and makes dances, to the nature of the evanescent art that is dance, the art that, as Merce Cunningham perspicuously observes, "gives you nothing back, no manuscripts to store away, no paintings to show on walls and maybe hang in museums, no poems to be printed and sold, nothing but that single fleeting moment when you feel alive," an art that in consequence "is not for unsteady souls."[\[4\]](#)

Philosophers hardly seem "unsteady souls." All the same, bodies not uncommonly seem either to frighten away philosophers or fail to offer themselves up as the stuff of aesthetic reflection, a moving body being enigmatic at best or formulaic at worst. Consider, for example, Merleau-Ponty's judgment that "dancing is a motor habit" and that one forms the habit of dancing by discovering analytically "the formula of the movement in question."[\[5\]](#)

Especially in light of his aesthetic judgment of painting -- in agreement with Valéry, who first observed the conjunction -- that "the painter 'takes his body with him,'" and his assertion that in painting the painter "show[s] how the things become things, how the world becomes world,"[\[6\]](#) Merleau-Ponty's aesthetic judgment of dance is surprisingly ill-informed and appears utterly lacking an experiential base. Although the painter "takes his body with him," Merleau-Ponty does not reduce the painter's painting to a "motor habit." On the contrary, he affirms that his painting is capable of enlightening us about the way "the things" and "the world" come to be what they are.

A dancer obviously takes his body with him. If his dance is simply a motor habit, however, then, unlike the painter, taking his body with him counts for nought aesthetically or epistemologically. In turn, the question of what he correlatively shows in his dance can never arise, for a motor habit is precisely formulaic, a kinetic performance that runs off in rote manner. In such a performance, the dancer is not present in any lived, dynamic sense, and, if the dancer is not present in any lived, dynamic sense, then the dance can hardly be. Moreover, Merleau-Ponty's motor habit conception of dance misses a crucial elemental aesthetic distinction, the distinction between a dancer's moving through a form and the form moving through him.

The aesthetic criticality of the form moving through the dancer is highlighted in the rhetorical question Yeats asks in his poem "Among School Children:" "How can we know the dancer from the dance?" When the form does not move through the dancer, it does not come to life, but remains something apart from the dancer, something the dancer precisely *moves through* or *does*, a certain set of moves he performs, whether self-consciously or in a rote manner. In effect, whatever the particular motor habit might be, it is powerless to show anything of comparable aesthetic or epistemological import --

how bodies become expressively resonant bodies, for example, how the animation of moving bodies is always dynamically structured, or how, in dance, dynamic structuring and meaning are of a piece.

Because both painter and dancer take their bodies with them, the correlative question of what the dancer shows remains potentially an intriguing question. If painting truly enlightens us about how things become things and world becomes world, then dance should enlighten us in correlative ways about movement and the animate world, and the idea that man has always danced should lead us to insightful observations about those ways. Indeed, if man has not always painted but always danced, it should be of particular concern to philosophers of art to question the meaning of that enduring practice and its genealogy, that is, to know something of dance and its origins.^[7]

2. Testimonials to the Antiquity of Dance

In the mid-1920s, when modern dance was beginning to flourish and to get an accredited foot in the academic door as a full-fledged discipline, the statement "man has always danced" was invoked in one form or another and continued to be invoked for many years. "Man has composed dances throughout the ages, from the earliest prehistoric era to the present time," declared Doris Humphrey, one of the foremost of American dance pioneers.^[8] "Primitive life is exultant," wrote Margaret H'Doubler, the foremost academic pioneer of dance. "Early man communicated his belief in the gods and the experiences of his own daily life by stamping, clapping, swaying, shouting, grunting, and crying, with noise as well as with motion . . . He had no other escape for his pent-up feelings than the movements of his own body. So he danced."^[9]

"Dancing has existed at all times," German dance pioneer Mary Wigman declared, "and among all people and races."^[10] Dance historian Selma Jeanne Cohen opened her book on dance as a theater art with the statement, "We cannot know precisely when man began to dance, but we may surmise that it was sometime in the dawn of prehistory."^[11] In the context of her research on "Ritual in the Celtic World: The Dance of the Ancient Druids," dance historian Anne L. Herman commented more generally, "It appears that dancing is as old as man himself."^[12]

Dance educators, dancers, and dance historians are not the only ones to write that "man has always danced." Poets did -- and do -- as the above epigraph by Charles Olson shows and as Paul Valéry's explorative and perspicuous writings on dance show. In his essay "Philosophy of the Dance," Valéry perceptively remarks, for example, that "[Dance] is a fundamental art, as is suggested if not demonstrated by its universality, its immemorial antiquity . . . the ideas and reflections it has engendered at all times. For the dance is an art derived from life itself, since it is nothing more nor less than the action of the whole human body; but an action transposed into a world, into a kind of *space-time*, which is no longer quite the same as that of everyday life."^[13]

Among philosophers, the comparatively lone voice of Susanne

Langer is notable, the epigraph above encapsulating her valuation of dance as an historically privileged art. Elaborating on that valuation, and citing Curt Sachs, a noted historian of dance, as an authority, she states, "At the dawn of civilization, dance had already reached a degree of perfection that no other art or science could match."[\[14\]](#)

Given such testimonials to the antiquity of dance from a variety of sources, it becomes more and more puzzling that dance languishes as a phenomenon worthy of philosophical study.[\[15\]](#) Moreover, as some of the quotations show, recognizing dance's "immemorial antiquity" gives it an edge that places it socio-historically -- and thus culturally -- not only in the life of man but among most if not all other arts. Sachs's claim, "The dance is the mother of the arts . . . The creator and the thing created, the artist and the work are still one and the same thing,"[\[16\]](#) testifies to this placement. So also does psychologist Havelock Ellis's penetrating article on dance written precisely at the time dance was beginning to be recognized and incorporated within public school physical education classes in the United States and developed as an academic discipline of its own.[\[17\]](#)

At the beginning of his article, Ellis claims that "Dancing and building are the two primary and essential arts. The art of dancing stands at the source of all the arts that express themselves first in the human person. . . . There is no primary art outside these two arts, for their origin is far earlier than man himself; and dancing came first."[\[18\]](#) In a later section of the article, we subsequently learn the reason Ellis claims their origin is "far earlier than man himself:" their origin has evolutionary roots. Ellis, in fact, already intimates as much when, in a footnote appended to the statement "dancing came first," he suggests that the two arts may have a common "impulse," citing in support of his suggestion an article by Edmund Selous that appeared in a 1901 issue of *Zoologist*, in which Selous suggests "that the nest may first have arisen as an accidental result of the ecstatic sexual dance of birds."[\[19\]](#)

Ellis's perspective is provocative as an entrée into deepened understandings of the claim "man has always danced," particularly since it is based on a perspicuous knowledge of Darwin's theory of evolution, which rests not only on the realities of natural selection but of sexual selection. Our initial foray into the idea that "man has always danced" will accordingly take Ellis's evolutionarily-grounded understandings of dance as a point of departure. In so doing, it will give fitting place to evolutionary continuities, that is, to foundational concerns to which studies of cultural differences might turn for proper historical perspective and anchorage.

From the vantage point of evolutionary continuities, it will furthermore be possible to identify aspects of a common humanity that ground the immemorial antiquity of dance and thus offer support to the claim that "man has always danced." In what follows, then, it is not the word "man" that is central but the word "always." However interesting it might be to concentrate attention on the former term and critically assay its use as a sexually- or gender-biased term, more elemental or foundational matters concern us. In short, the immemorial historical phenomenon itself is the focal point of interest. Any

linkage of "man" in particular to dance will derive from that focal point.

3. Evolutionary Considerations

In the latter section of his essay Ellis writes, "Dancing is not only intimately associated with religion [a topic he had addressed in the previous section], it has an equally intimate association with love. Here, indeed, the relationship is even more primitive, for it is far older than man. . . .Among insects and among birds it may be said that dancing is often an essential part of love. In courtship the male dances, sometimes in rivalry with other males, in order to charm the female."[\[20\]](#)

It is undoubtedly on the basis of Darwin's observation that birds "present in their secondary sexual characters the closest analogy with insects," among which characters are male pugnacity, special weapons for fighting, special eye ornamentation, and specialized organs for "producing vocal and instrumental music,"[\[21\]](#) that Ellis proposes an evolutionary correspondence of primitive human dance to the love-dances of insects as well as of birds.[\[22\]](#) In a summary way, his statement aptly pinpoints the general nature of sexual selection: males battle among themselves to court and win females.

His further account as to why "Among the mammals most nearly related to man, . . . dancing is but little developed" is of interest. He observes, "[B]ut it must be remembered that the anthropoid apes are offshoots only from the stock that produced Man, his cousins and not his ancestors."[\[23\]](#) To these words he adds the judgment of "a close observer of the apes . . . [who] has pointed out that the 'spasmodic jerking of the chimpanzee's feeble legs,' pounding the partition of his cage, is the crude motion out of which 'the heavenly alchemy of evolution has created the divine movements of Pavlova,'"[\[24\]](#) and goes on to remark, "It is the more primitive love-dance of insects and birds that seems to reappear among savages in various parts of the world. . . and in a conventionalised and symbolised form it is still danced in civilization to-day."[\[25\]](#)

In this context and following closely upon Darwin's descriptive accounts, he speaks of how the male, "By his beauty, his energy, his skill . . . must win the female, so impressing the image of himself on her imagination that finally her desire is aroused to overcome her reticence. That is the task of the male throughout nature, and in innumerable species besides Man it has been found that the school in which the task may best be learnt is the dancing-school."[\[26\]](#)

From an 80-year-later vantage point and with due respect to "a close observer of the apes," we can of course readily consult myriad primatological texts which first of all inform us about the movement differences between caged and wild-living animals, texts we may in turn pursue to learn about the actual kinetic dispositions and capacities of nonhuman primates such as chimpanzees. The relevance of these consultations aside for the moment, it is obvious that Ellis is thoroughly familiar with Darwin's two-volume, 828-page treatise on sexual selection,[\[27\]](#) a treatise based on observations across the

animal kingdom, from molluscs, annelids, and crustaceans, to insects, fish, amphibians, reptiles, and mammals, including man. Indeed, in the section of his essay showing how dance is "far older than man," Ellis elaborates specifically on what Darwin describes as "Love-Antics and Dances" of male birds,[\[28\]](#) and later more generally describes as male "love-dances."[\[29\]](#)

In the course of his elaborations, Ellis points out that with humans it is not only males who dance to compete for the love of females, but females who compete for the love of males, "each striving in a storm of rivalry to arouse and attract the desire of the other."[\[30\]](#) He goes on to marvel at how "every part of the wonderful human body has been brought into the play of the dance" and how "men and women of races spread all over the world have shown a marvellous skill and patience in imparting rhythm and measure to the most unlikely, the most rebellious regions of the body."

He points out in his conclusion how, at the end of the 1700s, "The grave traveller Peyron, . . . growing eloquent over the languorous and flexible movements of the dance, the bewitching attitude, the voluptuous curves of the arms, declares that, when one sees a beautiful Spanish woman dance, one is inclined to fling all philosophy to the winds."[\[31\]](#) But he notes too in this context how some church people have viewed dance as lascivious, commenting: "There we have the rock against which the primitive dance of sexual selection suffers shipwreck as civilization advances."[\[32\]](#)

A remarkable feature of Ellis's brief but theoretically sound evolutionary account of dance is its implicit recognition of movement. In particular, and again following along the lines of Darwin's finely detailed descriptions of animal movement,[\[33\]](#) Ellis's reading does not reduce sexual selection to human or nonhuman animal *behavior*, not only a common tendency in present-day evolutionary biology and psychology but an all-embracing present-day academic predilection. A "behavioral stance,"[\[34\]](#) as we might term it, occludes movement.

The distinction between behavior and movement is indeed significant to any investigations and understandings of dance, as observationally crucial as it is conceptually crucial. If one does not perceive movement, after all, one can hardly perceive dance. Precisely in this context, some might question whether nonhuman animals are "really dancing," or alternatively, whether Darwin and Ellis are simply making metaphorical assertions about what they, respectively, observe and read. The question requires returning to the phenomenon in question and observing it, if not first-hand, then at least in descriptive flesh.

Consider, to begin with, Jane Goodall's description of a movement sequence that is part of a male chimpanzee's kinetic repertoire, a sequence that he performs in conjunction with his "sexual signalling behavior" or "courtship display," as present-day biologists commonly term "love-antics and dances": "THE BIPEDAL SWAGGER is typically a male posture and occurs only rarely in females. The chimpanzee stands upright and sways rhythmically from foot to foot, his shoulders slightly hunched and his arms held out and away from the body, usually to the side. He may swagger in one spot or he

may move forward in this manner. This posture occurs most commonly as a courtship display, but it also occurs when one male threatens another of similar social status."[\[35\]](#)

Primatologist C. R. Rogers amplifies the description when he writes, "Soliciting by the normal male [chimpanzee] is highly stylized and involves squatting with knees spread wide to display an erect penis; most wildborn males accompany this by slapping the ground with open palms. If a female does not present to him, he may after several seconds rise to an erect posture and execute a short dance in some respect similar to a threat display. He will then frequently alternate from one pattern to the other if not interrupted by a sexually-presenting female."[\[36\]](#)

What Rogers identifies as a "short dance," particularly in its similarity to threat display, appears to be what Goodall identifies as *bipedal swagger*, a movement sequence that Goodall too specifies as an aggressive as well as courtship display. Though commonly categorized and understood in behavioral terms, i.e., duly packaged and labeled, what is actually being described is *movement*. Just such description allows a *kinetic semantics* to come into view. In particular, whether the rhythmic swaying and other movements are executed in the context of threat or courtship, the "short dance" is meaningful.

Only a chimpanzee could, of course, answer the question of whether the short dance is meaningful by convention or inherently meaningful, but a human observer or reader can readily point out, for example, that with respect to courtship, the positional stance of the male, i.e., with arms akimbo as he is swaying from side to side and as he swaggers forward, continuously presents an unobstructed view of his erect penis; slapping the ground with open palms resounds and calls the attention of others to the sound-maker; an upright posture and a bipedal gait are extraordinary in the sense of being outside a chimpanzee's more common posture and form of locomotion and hence draw attention, particularly in terms of an increase in size, and this over and above the fact that movement naturally calls attention to itself in the animate world. The movement sequence in effect appears inherently meaningful as a courtship display; its dynamic form, as Susanne Langer would say, is logically congruent with its import.[\[37\]](#)

Most significantly too, the kinetic dynamics are semantically self-sufficient: no verbal forms assist in these meanings, though movement-produced sound certainly may. For both chimpanzee and human observer, a particular kinetic dynamics unfolds that is in and of itself meaningful.[\[38\]](#) However intuitive, Rogers's categorization of the patterned dynamics as "a short dance" is thus apt and fitting.

On the same intuitively-grasped kinetic-semantic grounds, Darwin may have termed the sexually-inviting movement patterns of birds "love dances": the love-dance of the white-throat (*Sylvia cinerea*) male, for example, who "flutters with a fitful and fantastic motion, singing all the while, and then drops to its perch"; the love-dance of the male Indian bustard (*Otiss bengalensis*), who "rises perpendicularly into the air with a hurried flapping of his wings, raising his crest and puffing

out the feathers of his neck and breast, and then drops to the ground, . . . [repeating] this manoeuvre several times successively."[\[39\]](#) In each instance, a dynamically-patterned movement sequence -- a "love-dance" -- is semantically laden and self-sufficient, its dynamic character being meaningful to both performing male and observing females.[\[40\]](#)

Given a recognition and understanding of sexual selection and the above examples of sexual signalling behaviors, one might readily justify the claim that "man has always danced." Yet curiously enough, in biology, "sexual signalling behavior" begins with sticklebacks and other fish and ends with chimpanzees and other pongids: the question is never raised as to how newly bipedal hominids "signalled" their sexual longings. In turn, the idea never surfaces that bipedal male hominids possibly continued the kinetic semantics of their male primate cousins, particularly since the possibility of bipedal female hominids continuing the kinetic semantics of *their* female primate cousins, i.e., turning and presenting their hind quarters or "sexual skin" to the male,[\[41\]](#) disappeared with hominid bipedality and an anteriorly situated vulva.[\[42\]](#)

This visual/morphological relationship and state of affairs substantiate evolutionary continuities and add weight to Ellis's claim. Dance may well have its roots in the love-dances of males, as he indicates, but in the slightly revised sense warranted by present-day enhanced knowledge of primates: dance germinated less from the "love-dances" of male avians than from the "love-dances" of our closest evolutionary male relative.

Yet we may still ask, what propelled man to move beyond love-dances (and, as per Ellis and others, beyond religious uses of dance)[\[43\]](#) toward dance proper? It is not, after all, just evolutionary continuities that point toward a foundational origin of dance; the pan-culturality of dance does also. Moreover, the pan-culturality not only similarly supports the claim that "man has always danced" but indicates that there is something in the nature of man himself that disposes him toward dance irrespective of any particular village or culture in which he dwells or into which he is born. What are the conditions of this pan-culturality? What is it about humans and the experience of humans that generates dance across cultures?

4. Deepening Evolutionary Considerations

To ask such questions is to center attention on the evolutionary phenomenon of "man himself" insofar as "man himself" is the origin of a new evolutionary genus (*Homo*). It is notable that the most prominent feature of the genus, as evidenced in all evolving species of hominids, is the move toward consistent bipedality. The feature is of special moment here because the epithet 'dance' appears to be invoked primarily with respect to bipedally moving creatures -- precisely as in the courtship movement patterns of birds and of male chimpanzees.

Bipedality, in fact, appears to be an intuitive *sine qua non* of the appellation 'dance.' Not that bees do not dance or that waves do not dance, but that these and other such exceptions notwithstanding for the present -- the *Tanzsprache* and

dancing waves will surface pointedly if briefly in what follows -- a prime condition of dancing, in the vernacular human sense, gravitates toward the having of two and only two feet. Indeed, one might say that empirically it centers on two and only two feet, exactly as in the bipedal swagger: "The chimpanzee stands upright and sways rhythmically from foot to foot."

What is it about dance that makes two and only two feet intuitively and even empirically requisite if not imperative? If we reflect upon the nature of bipedally moving bodies, we readily see that such bodies have greater movement possibilities than quadrupedal, sextupedal, or octopedal ones.

To begin with, they have freely moving or potentially freely moving parts: wings and arms are not weight-encumbered, for example, and can move independently of the base of support, as in fluttering and stretching; upright torsos are not positionally constrained and can similarly move independently of the base of support, as in tilting forward or leaning to the side. While specific morphologies certainly constrain movement in distinctive ways for all moving bodies, bipedal or not, bipedality clearly engenders a greater range of movement possibilities. Non-weight-supporting parts have in fact sizable movement possibilities: torsos can twist and bend, heads can swivel and fall in any direction, arms can swing and throw, and so on.

Moreover, a single base of support suffices at times, not simply as it might in shifting weight from one foot to the other, but in wheeling about on one leg, for example, or in stamping and kicking. Certainly quadrupedal animals have a variety of gaits including those with air-borne moments -- galloping, running, cantering, and so on -- but any and all gaits are constrained anatomically by the need to support a horizontally-elongated torso, i.e., a spinal column that is not freely moving but directly tethered to its quadrupedal supporting structure. The horizontally-elongated torso of mammals that is set directly over its base of support rather than supported through muscle power over a sprawling base as in reptiles is in fact in the service of speed and length of stride.[\[44\]](#)

Bipedality clearly maximizes movement possibilities and is in this sense integral to the art of dance. Moreover, in maximizing possibilities, it simultaneously opens a palette of qualitative possibilities, a freedom of movement aptly labeled by the noted Russian physiologist Nikolas Bernstein "degrees of freedom."[\[45\]](#)

From an aesthetic point of view, degrees of freedom are a springboard to the creative dynamics that constitute the art of dance; that is, they emanate not just from anatomy but from the qualitative structure of movement. In other words, they have to do not only with the *what* of movement, i.e., what is moving and from what specific bodily source it is initiated -- for example, whether in a leg lift, the movement is initiated from the knee, the ankle, or the hip joint -- but with the *how* of movement, i.e., the qualitative nature of the lift. A summary phenomenological analysis of movement[\[46\]](#) will exemplify the basic qualitative structure of movement and thereby illustrate the intricacy and breadth of the *how* of any movement, in essence penetrating to aesthetically relevant

degrees of freedom in human movement.

To begin with, any movement creates its own space, time, and force. It thereby creates a unique dynamic, whether a matter of a dancer's movement or the movement of a spluttering balloon. But as Valéry indicated without elaborating the point, the space-time that the dancer creates is different. In dance, Valéry observed, action of the whole human body is "transposed" into a kind of *space-time*, which is no longer quite the same as everyday life."

Indeed, everyday space-time is a matter of heres and theres, nows and thens, locations and punctualities that are objectively tethered in the sense of objects in space and objectives in time. In other words, movement in everyday life is precisely perceived as being *in* space and *in* time. Being perceived *in* space and *in* time, it is caught up in everyday space-time realities that commonly occlude its own qualitative realities, and this because it commonly has ends other than a realization of the pure dynamics of movement itself.

In contrast, the creation of any dance is the creation of a spatio-temporal-energetic dynamic that not only is anchored in movement itself but is thoroughly unique, and that flows forth with its own particular surges and fadings, expansions and contractions, intensities, attenuations, and so on. Hence, though as noted, all movement creates its own space-time-force whether a matter of animate or inanimate movement; the dynamics that movement creates in dance constitute from beginning to end movement's full significance.

If we inquire more closely into the unique spatio-temporal-energetic dynamics, we see that they are the result of the qualitative structure of movement; that is, any movement has a certain tensional, linear, areal, and projectional quality. In effect, its dynamics can be analyzed in terms of qualia endemic to it. A leg lift, for example, might be forceful (tensional quality), straight-legged and forwardly directed (linear design of the body and linear pattern of the movement), barely elevated above the floor (areal design of the body and areal pattern of the movement), and abrupt (projectional quality). Alternatively -- and antithetically put to indicate the continuum between extremes and/or the range of possible variations -- the lift might be weak, bent-legged and diagonally directed, elevated high off the floor, and sustained. Furthermore, the lift might be weak, bent-legged and diagonally directed, elevated high off the floor, and abrupt -- or be performed in a manifold number of other qualitative combinations.

Further still, of course, the specific qualitative structure of the lift might be ineffable. Language, after all, is not experience and can at times fail to provide us a ready means of transliteration.^[47] Indeed, in a fully literal sense, we may find that -- to borrow an observation of Husserl (on the nature of the temporally constitutive flux of consciousness) -- "For all this, names are lacking,"^[48] in effect be at a loss for words.^[49]

However ineffable the qualities might be,^[50] we nonetheless experience them. Tensional, linear, areal, and projectional qualities are the qualitative stuff of movement and inhere in

the whole of any movement itself, each quality, whatever its specific character, contributing to the overall quality of the movement: the how of its surgings, fadings, expansions, contractions, intensities, attenuations, and so on.

Now if man has always danced, he was necessarily, from the beginning, attuned to the qualitative dynamics of movement. How else would he come to the experience of movement itself that is the bedrock of dance? An evolving kinetic dynamics arose with the advent of consistent bipedality, a dynamics whose intricacies and richness co-evolved with man himself.

An important feature of this richness and intricacy warrants mention and concerns the projectional character of movement, specifically, the possibility of ballistic movement.^[51] Humans, like chimpanzees, can move in a sustained manner, swaying from one foot to the other, for example. Similarly, they can both slap the ground abruptly. But humans have a far broader range of ballistic movement. They can swing their torsos and legs, throw overhand, kick forcefully from a standing position, and so on. In fact, a multitude of ballistic movement possibilities exists, possibilities that are contingent precisely on upright bipedally-supported hominid bodies.

Such possibilities are easily recognizable but challenging to describe, for they are often, and especially in dance, intricate dynamic forms that commonly have no name, though skipping and jumping, kicking and throwing are basic and familiar forms. In ballistic movement, an initial thrust of energy sends the movement on its way, the amount of force and the velocity of the movement first increasing then decreasing as the initial energy and its gathering momentum are spent. Direction and distance as well as velocity are engendered in the initial thrust.^[52]

The qualitative complexity of the patterns derives in part from the fact that ballistic movement is possible to the *whole* moving body -- as in a broad jump, for example, or in a sideward torso throw that propels a diagonally or horizontally tilted upper body in a circular arc, weight being transferred from one leg to the other in the process. In short, ballistic movement dramatically augments possibilities within the qualitative spectrum of animate movement, in addition to sizably increasing the kinetic repertoire that bipedality specifically facilitates.

In dynamic systems terms, one might say that with the advent of human bipedality, movement became an enhanced attractor in that, while moving oneself was a natural propensity in a straightforwardly biological sense, i.e., for securing food, escaping predators, cementing or disrupting social relationships, mating, and so on, it was also a natural propensity in an aesthetic sense, i.e., enjoyed for its own sake, and hence recognized as meaningful in itself. In this latter sense, self-movement is close to play and to rhythmic patterning. Indeed, if bipedality is at the foundation of dance and is the primary condition of its possibility, then play and rhythmic patterning were already embedded within it as evolutionarily derived features; that is, they were already substantive kinetic facets of animate life.

Let us look briefly at each in turn, beginning with rhythm, and

again use Ellis's broad perspective as a point of departure. "From the vital function of dancing in love, and its sacred function in religion," Ellis observes, "to dancing as an art, a profession, an amusement, may seem, at first glance, a sudden leap."[\[53\]](#) Indeed it does. Ellis provides linkage, in essence, by proposing the aesthetics of dance as a spinoff from the primary joy of courtship, and the profession of dance a spin-off of religious ceremonies requiring trained performers. A paragraph later, however, he straightforwardly declares, "In our modern world professional dancing as an art has become altogether divorced from religion, and even, in any biological sense, from love; it is scarcely even possible, so far as Western civilization is concerned, to trace back the tradition to either source."[\[54\]](#)

With no historical tracings in view, he suggests there are Classical and Egyptian "tendencies" in the tradition of dance as it developed in Europe, and centers attention explicitly on rhythm, a phenomenon he has in fact invoked a number of times at the very beginning of his essay, as in "The joyous beat of the feet of children, the cosmic play of philosophers' thoughts rise and fall according to the same laws of rhythm"; "The significance of dancing . . . lies in the fact that it is simply an intimate concrete appeal of a general rhythm, that general rhythm which marks, not life only, but the universe, if one may still be allowed so to name the sum of the cosmic influences that reach us It need surprise us not at all that rhythm . . . should mark all the physical and spiritual manifestations of life."[\[55\]](#)

Ellis's advertences to rhythm justly illustrate the readiness with which rhythm is invoked in conjunction with attempts to explain the origin of the art of dance. Sachs, for example, specifies the foundational significance of rhythm to dance when he writes, "Rhythmical patterns of movement, the plastic sense of space, the vivid representation of a world seen and imagined -- these things man creates in his own body in the dance before he uses substance and stone and word to give expression to his inner experiences."[\[56\]](#)

Later, in the process of trying to define dance, he states, "[I]t is almost impossible to define the dance more narrowly than as 'rhythmic motion,'" even though such a definition "does not exclude other rhythmic movements, such as running, rowing, turning a handle, working a treadle." In recognition of these other rhythmic movements, he settles for what he calls a "negative [definitional] approach": dance is "all rhythmical motion not related to the work motif."[\[57\]](#)

Dancers and dance critics similarly accentuate the elemental rhythmic nature of dance. "I was born by the sea," declares Isadora Duncan, "my first idea of movement of the dance . . . certainly came from the rhythm of the waves."[\[58\]](#) "[D]ancing is a simple rhythmic swinging, or ebb and flow," writes Mary Wigman, "in which even the minutest gesture is part of this flow, and which is carried along the unending tide of movement."[\[59\]](#)

Dance critic Edwin Denby, echoing the fall-and-recovery movement thesis of Doris Humphrey, states, "In dancing one keeps taking a step and recovering one's balance. The risk is a part of the rhythm."[\[60\]](#) Critic and historian Lincoln Kirstein

writes, "Even before there was definite, separated accompaniment, primitive people could not help being conscious of the sound of their feet tapping the earth. Dancers, in themselves, created a percussive accompaniment, and it was but a short step from clapping palms together, or on their thighs or bellies, to the slapping on an animal's skin, stretched between squatting knees or over a frame."[\[61\]](#)

In short, rhythm is regularly invoked as an integral element of dance, if not its defining feature. Why would this be if not for the fact that rhythm is inherent in the movement of living bodies and inherent in their kinetic ways of going about making a living for themselves, including their ways of making sound, as in the stridulations of crickets and the articulatory gestures that give rise to the prosodic elements of human speech?[\[62\]](#)

Rhythm is a built-in of animate life. It is first and foremost the result of qualities inherent in movement, specifically its tensional and projectional qualities. (We might note that Sachs implicitly recognizes the distinctness of rhythmic qualities of movement from spatial qualities of movement when he affirms constituents in the primal art of dance, as in his initial statement quoted above. Rhythmic qualities of painting and sculpture in fact derive from a sense of movement.) Tensional and projectional qualities are combined in complex and manifold ways in such simple pan-human movements as skipping and pounding, in such expressive pan-human bodily movements as laughing and crying, and, of course, in the basic pan-human everyday phenomena of breathing and walking.

The rhythm of all such movements is qualitatively inflected by the intensity or degree of force of the movement -- its tensional quality -- and the manner in which force is released -- its projectional quality -- both of which qualities may shift and change in intricate ways in the course of any movement sequence, in each instance giving rise to a particular rhythmic pattern. A basic binary character, for example, defines both breathing and walking: first in, then out; first this side, then this side, the one ordinarily an involuntary kinetic phenomenon, the other a voluntary kinetic phenomenon.

Whether involuntary or voluntary, however, the basic rhythmic character is always qualitatively inflected, as in lifting and carrying something heavy, for example, or walking hesitantly in the dark. In each instance, by paying attention to its respective kinetic dynamics, one experiences the distinctive rhythmic nature of the basic binary movement pattern, with all its peculiar changes and variations. In dance, rhythm calls attention to itself naturally, because it is part of the directly experienced kinetic dynamics that constitutes dance. While it is a qualitative aspect of all animate movement, it comes prominently to the fore in elemental ways in dance because a dance is movement from beginning to end.

Play is similarly an evolutionary dimension of animate life, though a dimension not as broadly evident across the animal kingdom as rhythm. In particular, play is typical of young mammals, particularly social ones, and even some avians. It is above all a kinetic happening in which the sheer exuberance of movement dominates and in which a certain freedom of

movement obtains. Consider the following account of young antelopes by A. S. Einarsen, [\[63\]](#) a wildlife specialist:

"Coming cautiously one day over a rimrock at Spanish Lake, I saw a group of seven antelope kids with their mothers on the hard shore-edge of the receding lake. The mothers were contentedly resting in the warm June sun, apparently at ease and unaware of my approach. The kids were having a great time in a quite highly organized game. Rushing away across the flat rim of the lake shore, as though started by a lifting of a barrier on a race track, they ran neck and neck, swung in a wide arc and then thundered back, their tiny hooves beating in unison as they soared rather than ran, their bodies parallel to the earth. Upon nearing the starting point they drew up to a stiff-legged stop at their mothers' sides, gazed with dreamy eyes around the immediate vicinity, then wheeled away on another flight, with apparently enough power and enthusiasm to drive them to the summit of the Rocky Mountains 1,000 miles away."

Ethologist John Byers comments that Einarsen's description of pronghorn antelope play emphasizes "what all ungulate young do when they play. They run." [\[64\]](#) More broadly, ethologist Robert Fagen, whose volume on play is considered a landmark, notes that "The best-known locomotor-rotational movements [a form of play] are leaping, rolling, headshaking, body-twisting, neck flexion, rearing, and kicking." [\[65\]](#) He remarks that "Common usage gives these lay movements special status by employing unique terms: gambol, caper, romp, scamper, frolic, rollick, frisk, jink, cavort, ragrowster, *gambader* (French), and *balgen* and *tollen* (German)." [\[66\]](#)

Consider further the study of rough-and-tumble play in children. Taking the descriptive term 'rough and tumble play' from the Harlows, who used it in their study of social deprivation in monkeys, ethologist N. G. Blurton Jones found this kind of play not only typical of young children but distinguished by "seven movement patterns which tend to occur at the same time as each other and not to occur with other movements," such as those involved when a child paints, for example, or works with clay. [\[67\]](#)

The distinctive movements are: running, chasing and fleeing; wrestling; jumping up and down with both feet together; beating at each other with an open hand without actually hitting; beating at each other with an object but not hitting; and laughing. Falling, too, "seems to be a regular part of this behaviour," Blurton Jones remarks, and "if there is anything soft to land on children spend much time throwing themselves and each other on to it." [\[68\]](#)

The seven movements may justly be called *the kinetic markers* of rough-and-tumble play. [\[69\]](#) Sheer exuberance and freedom of movement aptly describe the character of the markers, their dynamic spontaneity. In fact, sheer exuberance and freedom of movement describe not only the character of dynamic spontaneity in rough-and-tumble play, but the character of dynamic spontaneity in early play in general. Where movement is an end in itself, dynamic spontaneity obtains, precisely as in the spectacular run of the young pronghorn antelopes. Moreover, sheer exuberance and freedom of movement describe the qualitative character of dancing waves. Their

dynamics are unpredictable. Indeed, the waves appear to move capriciously, as if bent on a momentary whim to do this or that, their movement exuding a spontaneity akin to dance.

Freedom of movement is, of course, morphologically constrained in animate life. Any animal -- including any human one -- is the body it is and is not another body: humans cannot fly; trout cannot crawl; worms cannot sit. Species-specific degrees of freedom condition an animal's actual play with movement and its creative movement possibilities. Kinetic possibilities of play and creativity are accordingly bodily bound.

From this morphological vantage point and with specific reference to humans, play is the discovery of one's kinetic possibilities and mastery of the challenges they present in terms of both learning one's body and learning to move oneself.[\[70\]](#) Dance is a continuation of play precisely in the sense of learning one's body and learning to move oneself. It is grounded in the mastery of these early challenges and in the creative mining of a progressively larger and larger range of kinetic possibilities in terms of their formal dynamics.

Put in evolutionary perspective, the creative enterprise that is dance has kinetic roots in early animal play that itself evolved with the evolving freedom of movement associated with primate bipedality and, in particular, with consistent hominid bipedality. The kinetic markers of rough-and-tumble play exemplify these roots both in individual terms, i.e., in movements such as running and jumping, and in relational terms, i.e., in those movement patterns in which individuals move in concert with others, such as chasing and fleeing, and beating but not hitting. Subtle timings, spacings, and controls are apparent in these latter patterns of movement, timings, spacings, and controls that obviously play a fundamental role in learning to dance.

On this account, dance is older than man, in his bones as it were, in the form of an evolving empowering morphology and qualitative kinetics. The realization of dance as an art form is an extraordinary dimension in the broad history of an evolutionary semantics, a kinetic semantics that exists across the kingdom Animalia.[\[71\]](#) Kinetic semantics are anchored in tactile-kinesthetic invariants, what primate anthropologist Stuart Altmann at a behavioral level labeled "comsigns," i.e., behaviors common to all members of the species or group.[\[72\]](#)

When properly analyzed in terms of movement, comsigns are clearly shown to rest on species-specific tactile-kinesthetic invariants: the "common signs" are precisely movement patterns that any member of the species or group can or could conceivably perform.[\[73\]](#) In effect, sender and receiver are interchangeable.[\[74\]](#) The *Tanzsprache* is a paradigmatic instance of interchangeability, a patterning of movement in the history of an evolutionary kinetic semantics, and grounded like all such patterns in tactile-kinesthetic invariants.[\[75\]](#)

From the perspective of an evolutionary semantics, the statement "man has always danced" is an empirically-supported affirmation of evolutionary continuities that anchor the pan-cultural reality of dance, and equally, an empirically-supported affirmation of the extraordinary range of movement

possibilities of the genus *Homo* and the realization of these possibilities in the pan-cultural phenomenon of dance. From the perspective of an evolutionary semantics, one might in fact answer the intriguing question posed earlier of "what the dancer shows." What the dancer shows is the extraordinary power of movement to capture and communicate ineffable qualia of life, memorializing ever anew that "single fleeting moment when you feel alive," and celebrating -- to paraphrase James Joyce -- the ineluctable modality of animate movement.^[76]

Endnotes

[1] See, for example, George Dickie and Richard J. Sclafani, eds., *Aesthetics: A Critical Anthology* (New York: St. Martin's Press, 1977); Monroe Beardsley, *The Aesthetic Point of View* (Ithaca: Cornell University Press, 1982); Peter Kivy, *Philosophies of Arts: An Essay in Differences* (Cambridge: Cambridge University Press, 1997); Oswald Hanfling, ed., *Philosophical Aesthetics: An Introduction* (Oxford: Basil Blackwell, 1992); but see also, in contrast, Arnold Berleant's provocative analysis of dance as performance in his book on the arts, *Art and Engagement* (Philadelphia: Temple University Press, 1991).

[2] See, for example, Susan L. Feagin, and Patrick Maynard, *Aesthetics* (Oxford: Oxford University Press, 1997); F. E. Sparshott, *The Structure of Aesthetics* (Toronto: University of Toronto Press, 1963); but see also F. E. Sparshott, *A Measured Pace: Toward a Philosophical Understanding of the Arts of Dance* (Toronto: University of Toronto Press, 1995).

[3] See, for example, Virgil C. Aldrich, *Philosophy of Art*, Foundations of Philosophy Series, Elizabeth and Monroe Beardsley, eds. (Englewood Cliffs, NJ: Prentice-Hall, 1963).

[4] Merce Cunningham, *Changes: Notes on Choreography*, ed. Frances Starr (New York: Something Else Press, 1968), unpaginated.

[5] Maurice Merleau-Ponty, *Phenomenology of Perception*, trans. Colin Smith (New York: Routledge & Kegan Paul, 1962), pp. 146, 142.

[6] Maurice Merleau-Ponty, "Eye and Mind," trans. Carleton Dallery, in *The Primacy of Perception* (Evanston IL: Northwestern University Press, 1964), pp. 159-190, ref. on pp. 162, 181, respectively. See also, p. 166: "The painter's gaze asks them [light, lighting, shadows, reflections, color, all the objects of his quest] what they do to suddenly cause something to be and to be *this* thing, what they do to compose this worldly talisman and to make us see the visible."

[7] One might add, "All the more so," since, in general, philosophers are and have been male from the very beginning of philosophy.

[8] Doris Humphrey, *The Art of Making Dances*, ed. Barbara Pollack (New York: Grove Press, 1959), ref. on p. 16. Arnold Berleant (in a personal comment) suggested my identifying Humphrey's quotation and many of the quotations that follow as rhetorical and speculative. While acknowledging his intent, I would not like to diminish the claims but rather to show in

this essay that, however rhetorical or given to hyperbole, they can be substantiated, and that in taking them seriously, one has the possibility of discovering what intuitively drives them in a foundational sense, i.e., in a sense that underlies of the grandeur of dance.

[9] Margaret H'Doubler, *Dance: A Creative Art Experience* (New York: Appleton-Century-Crofts, 1940), pp. 5-6.

[10] Mary Wigman, "The Philosophy of Modern Dance," in *Dance as a Theatre Art*, ed. Selma Jeanne Cohen (New York: Dodd, Mead & Co., 1974 [1933]), p. 149.

[11] Selma Jeanne Cohen, *Dance as a Theatre Art* (New York: Dodd, Mead & Co, 1974), ref. on p. 1.

[12] Anne L. Herman, "Ritual in the Celtic World: The Dance of the Ancient Druids," *Dance Research Annual X* (1979), p. 202.

[13] Paul Valéry, *Aesthetics*, trans. Ralph Manheim, Bollingen Series XLV.13 (New York: Pantheon Books, 1964), pp. 197-98.

[14] Susanne Langer, *Problems of Art* (New York: Charles Scribner's Sons, 1957), p. 11.

[15] The general statement "man has always danced" appears not to give 'man' respectability, though in the eyes of dancers, it surely gives dance respectability.

[16] Curt Sachs, *World History of the Dance*, trans. Bessie Schöenberg (New York: W. W. Norton & Co., 1963), p. 3.

[17] On the educational history of dance, see Sara Chapman, *Movement Education in the United States* (Philadelphia: Movement Education Publications, 1974).

[18] Havelock Ellis, "The Art of Dancing," *Salmagundi* 33-34 (1976), p. 5; reprint of "The Art of Dancing," in Havelock Ellis, *The Dance of Life* (Boston: Houghton Mifflin Company, 1929: The Riverside library series), p. 34.

[19] *Ibid.*

[20] *Ibid.*, (1976) p. 10, (1929) p. 43.

[21] Charles Darwin, *The Descent of Man and Selection in Relation to Sex* (Princeton: Princeton University Press, 1981 [1871]), vol. 1, p. 422.

[22] It is notable -- and of moment with respect to Section 4 of this essay -- that Darwin does not mention dance in his discussion of insects. In fact, he states that "the law of battle" -- male-male competition for females -- "does not prevail nearly so widely with insects as with the higher animals" (*ibid.*, p. 418).

[23] *Ibid.*

[24] *Ibid.*

[25] *Ibid.*, pp. 43-44.

[26] *Ibid.*, p. 11.

[27] Darwin, *The Descent of Man and Selection in Relation to*

Sex.

[28] *Ibid*, vol. 2, pp. 68-71.

[29] *Ibid*, p. 233.

[30] Ellis, "The Art of Dancing," (1976) pp. 11-12, (1929) p. 45.

[31] *Ibid.*, (1976) p. 13, (1929) p. 48.

[32] *Ibid.*

[33] For a study of the similarity in the descriptive foundations of evolutionary biology, literature, and phenomenology, see Maxine Sheets-Johnstone, "Descriptive Foundations," Keynote Address, Association for the Study of Literature and the Environment Conference, Flagstaff, AZ, March 2002; published in *Interdisciplinary Studies in Literature and the Environment*, 9, 1 (Winter 2002), 165-179, and in *Irish Pages*, 2, 1 (Spring/Summer 2003), 17-30.

[34] Cf. Daniel Dennett, *The Intentional Stance* (Cambridge, MA: Bradford Books/MIT Press, 1987).

[35] Jane van Lawick Goodall,, "The Behaviour of Free-Living Chimpanzees in the Gombe Stream Reserve," *Animal Behaviour Monographs*, vol. 1, part 3 (1968), p. 276.

[36] C. M. Rogers, "Implications of a Primate Early Rearing Experiment for the Concept of Culture," in *Precultural Primate Behavior*, ed. Emil W. Menzel (Basel: Karger, 1973), p. 188.

[37] Susanne Langer, *Feeling and Form* (New York: Charles Scribner's Sons, 1953).

[38] The same immediately meaningful kinetic semantics is strikingly apparent in primatologist C. R. Carpenter's description of the display behavior of female howler monkeys in estrus. See C. R. Carpenter, "Societies of Monkeys and Apes," in *Primate Social Behavior*, ed. Charles H. Southwick (New York: Van Nostrand Reinhold, 1963), pp. 49-50. For further examples and a discussion of immediately meaningful kinetic semantics, see Maxine Sheets-Johnstone, *The Roots of Thinking* (Philadelphia: Temple University Press, 1990), Chapter 5, "Corporeal Representation."

[39] Darwin, *The Descent of Man and Selection in Relation to Sex*, vol. 2, pp. 68-69.

[40] For analyses and discussions of newly minted meanings and an evolutionary semantics, see Maxine Sheets-Johnstone, "Biological Foundations of Meaning: Further Steps toward an Evolutionary Semantics," lecture, 2002, Niels Bohr Institute, Copenhagen, Denmark; and Maxine Sheets-Johnstone, "The Kinetic Basis of the Biological Disposition to Sense-Making: Further Steps toward an Evolutionary Semantics," lecture, 2003, Haskins Laboratories, Yale University.

[41] See Wickler's classic studies, e.g., Wolfgang Wickler, "Socio-sexual Signals and Their Intra-specific Imitation among Primates," in *Primate Ethology*, ed. D. Morris (Garden City, NY: Doubleday & Co., 1969), pp. 89-189.

[42] For a discussion of this shift in visual/morphological relationship, see Maxine Sheets-Johnstone, "Hominid Bipedality and Sexual Selection Theory," *Evolutionary Theory* 9 (1989), 57-70; and Sheets-Johnstone, *The Roots of Thinking*, Chapters 4 and 7.

[43] One might in fact theorize, and with good reasons, that religious dances were a cultural elaboration of love dances. If males danced to please females and win their favor, then they might equally dance to please the gods. If the gods looked upon them with favor, the gods might give man what he wanted or desired. Man, after all, has no control over nature in the form of rain, sunshine, flooding, germination of crops, and so on, nor of course, his own death. Hence, dancing to win favor among the gods might not only have offset any sense of oneself as a tiny speck in a vast cosmos, but appease the gods and protect one from harm.

[44] Alfred Sherwood Romer, and Thomas S. Parsons, *The Vertebrate Body* (Philadelphia: W. B. Saunders Co., 1977), p. 198.

[45] See an assortment of Bernstein's writings in H. T. A. Whiting, ed., *Human Motor Actions: Bernstein Reassessed* (Amsterdam: Elsevier Science Publishers, 1984).

[46] For an extended analysis, see Maxine Sheets-Johnstone, *The Phenomenology of Dance* (Madison: University of Wisconsin Press, 1966); second editions: London: Dance Books Ltd. 1979; New York: Arno Press, 1980; and Maxine Sheets-Johnstone, *The Primacy of Movement* (Amsterdam/Philadelphia: John Benjamins Publishers, 1999).

[47] For a further discussion of the fact that language is not experience, see Sheets-Johnstone, *The Primacy of Movement* and Sheets-Johnstone, "Descriptive Foundations." See also Daniel Stern, *The Interpersonal World of the Infant* (New York: Basic Books, 1985), pp. 181-82, and Daniel Stern, *Diary of a Baby* (New York: Basic Books, 1990).

[48] Edmund Husserl, *Phenomenology of Internal Time Consciousness*, ed. M. Heidegger, trans. James S. Churchill (Bloomington: Indiana University Press, 1964), p. 100.

[49] Infant psychiatrist Daniel Stern makes a related observation in introducing the new descriptive term "vitality affects": "It is necessary," he says, "because many qualities of feeling that occur do not fit into our existing lexicon or taxonomy of affects." (Stern, *The Interpersonal World of the Infant*, p. 54).

[50] One could, of course, make up a word, but making up a word misses the point: qualitative aspects are not easily packaged, being not only fleeting and evanescent but having complex, subtle, and intricate shadings. One cannot make up a word for something one cannot package. The degrees of freedom problem in human movement attests to the linguistic impasse at the same time it attests to the qualitative realities of actual experience.

[51] For a discussion of ballistic movement from an evolutionary perspective, see Maxine Sheets-Johnstone, "Evolutionary Residues and Uniquenesses in Human

Movement," *Evolutionary Theory* 6 (1983), 205-209.

[52] Motor physiologists use the term "ballistic" to refer to the kinds of movement in which there is no feedback in the period between initiation of movement and completion. The idea is of a movement which, from the moment of initiation, is self-propelling, as in a ballistic missile.

[53] Ellis, "The Art of Dancing," (1976) p. 13, (1929), p. 48.

[54] *Ibid.*, (1976) p. 14, (1929), p. 48.

[55] *Ibid.*, (1976) pp. 5-6, (1929) p. 35.

[56] Sachs, *World History of the Dance*, p. 3.

[57] *Ibid.*, pp. 5-6.

[58] Isadora Duncan, "Excerpts from Her Writings," in *The Vision of Modern Dance*, ed. Jean Morrison Brown (Princeton: Princeton Book Co., 1979), p. 9.

[59] Wigman, "The Philosophy of Modern Dance," p. 150.

[60] Edwin Denby, "Forms in Motion and in Thought," *Salmagundi*, 33-34 (1976), p. 115. Though having nothing to do with risk, one could say that Martha Graham's "contraction and release" technique is similarly founded on rhythm.

[61] Lincoln Kirstein, *Dance: A Short History of Classic Theatrical Dancing* (New York: Dance Horizons, 1969 [1935]), p. 3.

[62] It is of interest in this regard to note Darwin's observation that "The perception, if not the enjoyment, of musical cadences and of rhythm is probably common to all animals, and no doubt depends on the common physiological nature of their nervous systems." (Darwin, *The Descent of Man and Selection in Relation to Sex*, vol. 2, p. 333). Citing von Helmholtz on the physiological aspects of music, he points out that "Even Crustaceans, which are not capable of producing any voluntary sound, possess certain auditory hairs, which have been seen to vibrate when the proper musical notes are struck" (*ibid.*).

[63] A. S. Einarsen, *The Pronghorn Antelope and Its Management* (Washington DC: The Wildlife Management Institute, 1948), p. 122.

[64] John Byers, "Play in Ungulates," in *Play in Animals and Humans*, ed. P. K. Smith (Oxford: Basil Blackwell, 1984), p. 43.

[65] Robert Fagen, *Animal Play Behavior* (New York: Oxford University Press, 1981), p. 48.

[66] *Ibid.*

[67] N. G. Blurton Jones, "An Ethological Study of Some Aspects of Social Behaviour of Children in Nursery School," in *Primate Ethology*, ed. D. Morris (Garden City, NY: Doubleday & Co., 1969), p. 450.

[68] *Ibid.*

[69] Just such movements would seem to have influenced both earlier adultist definitions of play as purposeless, irrational activity, and later functionalist explanations of play as motor training and practice for adult behavior. In other words, the significance of play is either nil or tethered to the future. See Maxine Sheets-Johnstone, "Child's Play," *Human Studies* 26 (2003), 409-430.

[70] See Sheets-Johnstone, *The Primacy of Movement*, Chapter 5, "On Learning to Move Oneself: A Constructive Phenomenology"; see also Sheets-Johnstone, "Child's Play."

[71] For more on an evolutionary semantics, see Sheets-Johnstone, *The Roots of Thinking*, Sheets-Johnstone, *The Primacy of Movement*, and Sheets-Johnstone "Sensory-Kinetic Understandings of Language: An Inquiry into Origins," *Evolution of Communication* 3, 2 (1999), 149-183.

[72] Stuart A. Altmann, "The Structure of Primate Social Communication," in *Social Communication among Primates*, ed. Stuart A. Altmann (Chicago: University of Chicago Press, 1967), pp. 325-362.

[73] A clarification is in order with respect to comsigns and a common body of experience. Along with their male counterparts, some female primates are capable of assuming an erect posture, but no females are capable of penile erection or display -- or of intromission as Altmann specifically points out. That they are incapable, however, does not mean that they do not have direct and highly discriminatory tactile-kinetic or visual experiences of these male behaviors, hence that the behaviors are not comsigns. For a discussion of the relevance of tactile-kinesthetic invariants to comsigns, see Sheets-Johnstone, *The Roots of Thinking*, particularly pp. 126-129, and Chapter 15, "The Case for Tactile-Kinesthetic Invariants."

[74] See Charles F. Hockett, "The Origin of Speech," *Scientific American* 203 (1960), 89-96.

[75] Interchangeability aside, we might note that the apian dancer is not moving for movement's sake but for communicative purposes that inform others of the whereabouts, the distance to, and the richness of a sugar source. The specific spatial pattern she creates is symbolically structured and that structure is anchored in tactile-kinesthetic invariants. For an analysis and discussion of the *Tanzsprache*, specifically with reference to primordial language, see Sheets-Johnstone 1990, Chapter 5, "Corporeal Representation."

[76] "Ineluctable modality of the visible: At least tha if no more, thought through my eyes." James Joyce. 1934. *Ulysses*. New York: Modern Library, p. 38.

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Maxine Sheets-Johnstone

P.O. Box 722

Yachats, Oregon 97498

msj@darkwing.uoregon.edu

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