

INTERDISCIPLINARY TRAVEL: FROM DANCE  
TO PHILOSOPHICAL ANTHROPOLOGY

Let me first say how pleased I am to be here with you this afternoon. I look forward to sharing with you some aspects of my recent work and feel quite honored that you have favored me with an invitation to do so.

What I am going to share with you are my understandings of, and research in, the area of philosophical anthropology. I am going to cast that understanding and research in very broad strokes but at the same time anchor them in particular concepts, so that we can ground our subsequent discussion in a commonly understood -- though not necessarily shared -- framework.

Beginnings are difficult to come by. Somewhere between ten and twelve years ago, several years after reading Sartre's Being and Nothingness and other works of his, I began to feel a disquietude about his existential analysis of human freedom. Let me hasten to add that my ultimate critique of his analysis is not intended as a crucifixion. Sartre was a most remarkable person/writer/philosopher and his many insights into the human condition, from a literary as well as philosophical perspective, cannot be dismissed or denied. What made me uncomfortable with his analysis of human freedom was that it seemed to arrive deus ex machina into the world. It not only had no connection here and now with anything in the world, it had no origin: presumably, when humans arrived, human freedom arrived. The problem of course is that humans did not arrive; they evolved. And not only did they evolve, they did not begin at some point in space-time; they originated. That is, whoever the first beings were who might be dubbed "human", they had ancestors, progenitors in previous life-forms. What is literally incredible about Sartre's analysis is thus the idea that humans exist outside an evolutionary world. There are consequences of his view, e.g., quasi-creationism, consciousness being unique to humans, and so on, but the one most relevant consequence which I want to bring out here is the affirmation of a human-nonhuman discontinuity. The issue which eventually formulated itself for me in terms of this consequence concerned the relationship between freedom and evolution; specifically, I wanted to explore the possible conjunction between existentially-defined human freedom and human evolution.

That desire was alive and well for several years but living in the backwoods until September 1977 when I made a big leap. I started a second doctoral program in zoology at the University of Wisconsin where an eminently known evolutionary biologist agreed to take me on as his graduate student. That first year was one I describe by saying that I immersed myself fully in the biological sciences and nearly drowned. Actually I hung on quite well and felt besides, that I had done an admirable service for my brain cells which, in approaching middle age, needed a new lease on life, and in tiring somewhat of the academic surrounds of dance, needed as well a new joie de vivre. I am

going to mention some papers which resulted from my studies not to attempt to impress you but to give you some threads in understanding the journey from dance to philosophical anthropology and in understanding that the distance between the two is not that far.

I wrote a paper on Lamarck in relation to conceptual schemes of the world. I wanted to see and analyse what Lamarck's conceptual scheme of the world allowed and disallowed in terms of the possibility of entertaining certain ideas. The paper was called, "Why Lamarck '...can be caught in the act of not discovering the principle of natural selection'". That rather silly charge was made against a near contemporary of Lamarck (Buffon)<sup>1</sup> but was applied to Lamarck as well. The paper was accepted for publication in 1979 and is finally making its appearance in the 1982 fall issue of the Journal of the History of Biology. I felt launched when the paper was accepted, and very auspiciously so, since the Journal is published at Harvard University. In fact, I was inspired to begin many years of moonlighting. I followed up by developing another paper started at Wisconsin: "Evolutionary Residues and Uniqueness in Human Movement". This is a rather lengthy paper which attempts to make evolutionists -- whether biologists, psychologists, zoologists, anthropologists, or whatever -- sit up and take as much notice of movement qua movement as they do of tibias, courtship patterns or any other structural or functional configurations and continuities. This paper is in submission to the journal, Evolutionary Theory, after having suffered virtual extinction in the U.S. mails for seven months unbeknownst to me. On the heels of the Evolutionary Residues paper I became tremendously interested in the question of the origin of language, a topic of considerable interest to people in linguistics, psychology and philosophy as well as to biologists and anthropologists. I think I am by now as addicted to the subject and to doing research and writing in the area as any one of them. That addiction was considerably spurred by an invitation from the Department of Psychology at the University of Dallas last fall to give a third of a special studies graduate course on Language and Reality. My theme throughout was the primordial reality of touch.

I hope these few examples are sufficient background for understanding that my concern is, as it always has been, with bodily being -- only now it is with what I have come to call sensory-kinetic worlds, and with movement -- only now it is with what I have come to refer to in part as kinetic domains. I am slowly working my way toward an understanding of the possible conjunction of human freedom and human evolution through the body and I see that ultimate understanding as an essay on human creativity. In this respect I have glimpses of the work at times as being an effort toward the same understandings as Langer in her three-volume work, Mind: An Essay on Human Feeling, but as starting from a diametrically opposite position and in fact, from what I can tell thus far, as engendering in some cases diametrically opposed views. I am beginning with the human body, viewing it as a locus of meanings and continuities. I see myself as interrogating the human body to find those meanings and continuities.

Having given this personal perspective on philosophical anthropology let me now say a few words about the side of my work which is more typical of people in the field of philosophical anthropology.

There are actually three almost interchangeable names for this field: philosophical anthropology, phenomenological psychology and philosophical biology. Research in phenomenological psychology is done for the most part by psychologists. You may be familiar with R. D. Laing's work, for example, or with Erwin Straus's. Research in philosophical biology is done for the most part by biologists -- German biologists. Two quite prominent ones are Adolph Portmann and Hellmuth Plessner. Research in philosophical anthropology is for the most part undertaken not by anthropologists but by philosophers. Until recently I had never before realized this seeming inconsistency in nomenclature. Though it may thereby seem a misnomer, however, it is not an inappropriate designation. To see why this is so we need to look at the study of human beings from the other end of the spectrum than that described earlier in terms of Sartre; that is, in terms of a discounting of evolution by philosophers. The study of human beings not only has to take into account their evolutionary heritage, it has also to take into account the fact that human beings are subjects -- they are living, pulsating beings; centers of energy, thought, mobility and sentience. This means that in studying them one cannot refine them into an objective powder and still do full justice to them as human beings. From this perspective, then, a philosophical anthropology -- or a phenomenological psychology or a philosophical biology -- reinterprets the findings of science. All these approaches reinstall a subject into the body of evidence -- whether, I might add, that body of evidence is human or nonhuman. All three approaches affirm the livingness of Being and in whatever form of Being that livingness might present itself.

This task of reinterpretation may thus involve a direct critique of science; it may involve an illumination of inconsistencies and inadequacies in scientific explanations of, for example, aphasia, phantom limb phenomena or early hominid life. At the same time, however, the task of reinterpretation is a hermeneutical one: a reading of the body as lived is a reading of the body as animated text. I might note that that reading is not queer; science itself is hermeneutical in the sense that it interprets what is observed. Kuhn made this point very strongly and persuasively in his account of scientific paradigms and communities.<sup>2</sup> In any event the reinterpretation of science by philosophical anthropology is not a sudden intrusion of hermeneutics onto the scene. It is simply the arrival of a different kind of hermeneutics, one that approaches its subject from the viewpoint of existential realities. Thus it is not a criticism of science tout court which constitutes the raison d'être of a philosophical anthropology; the aim is toward a humanized account of the human phenomenon in question -- or, by the same token, a frogized account of the frogan phenomenon in question and a finchized account of the finchian phenomenon in question. To restore the subject is to restore a world. In lieu of a certain behavior taking place in a certain environment we have a certain creature making its way in the world and making its way in a certain manner or style of being, as Merleau-Ponty would undoubtedly have phrased it.

Perhaps no philosopher, in fact, has done more for a philosophical anthropology in this respect than Merleau-Ponty. In his seminal but by no means ultimate work, Phenomenology of Perception, the critique of science and the emergence of a human subject-human world go clearly hand in hand. The resource for much if not all of the thinking in this volume and in later works as well is Edmund Husserl, the founder of phenomenology. Existential concerns are necessarily rooted in phenomenology -- the epistemological mother tongue, so to speak, of any ontological investigation. From this perspective, then, a philosophical anthropology is a humanizing of the science of humankind, a grounding of the meanings discovered in science in the meanings already experienced but for the most part lying mute in the lifeworld. A philosophical anthropology is not then an empty captiousness, a philosophical flourish or tour de force for its own sake. A philosophical anthropology is a genuine positive reconstruction of a subject and a world. It is a reinterpretation of "the observable facts"; a grasping of the primordial strata of meaning in the body of human knowledge about the human body.

Putting together my personal orientation and interests and this more general description of philosophical anthropology I would say that a philosophical anthropology is concerned with evolutionary continuities and existential realities. The possible conjunction of human evolution and human freedom is thus clearly a question to be posed and answered within the framework of a philosophical anthropology.

Let me now turn to the presentation of two concepts which will, I hope, anchor the preceding remarks as well as our discussion to follow. The two concepts I would like to discuss are what I call existential significations and existential structures. I will discuss two examples of the former and two of the latter. By existential significations I mean roughly those aspects of being which become evident through a critique of science -- through a reinstallation of a subject in a traditional body of evidence. By existential structures I mean roughly those styles or modes of being which become evident through a new, i.e., humanized, interpretation of the significations uncovered in the critique. The structures are, in other words, discovered analytically through phenomenological reflection; the significations are discovered by looking again, that is, looking anew at the phenomenon -- going back to the thing itself and seeing it in the light of its lived reality. In very general terms, then, the categorial concepts, existential significations and existential structures, match the two modes of phenomenological analysis, what Husserl called "phenomenological reduction" and "eidetic reduction", the first being an illumination of what is there in experience and the second being an illumination of the invariant principles engendered in the experience.

Let me begin with the existential significations of tool-making and tool-using in early hominid life. These behaviors are typically presented in paleoanthropological texts as food-securing behaviors. They are behaviors which were originally affirmed to be unique to humans and in fact were taken until quite recently as a distinctive indication of human uniqueness in the biological world. As I am sure you are aware,

the stick-using techniques of chimpanzees to procure termites, for example, and the stone-throwing-at-egg behavior of certain birds have tempered the original judgement. There is, in fact, a considerable amount of scientific literature on what is to be taken as constituting tool-making and tool-using in the animate world and what is not to be taken as such. Thus it is that the bird who throws the egg at the stone is in a different class from the bird who throws the stone at the egg. What is to be designated as technological advance hangs in the balance. Controversies and definitions aside, if we start afresh by returning to the human phenomenon itself, we can interrogate it in terms of its existential significations. From this vantage point it is clear that tool-making and tool-using presuppose tactility, that is, a subject who knows the significance of touch, who knows the meaning of impact, as one thing colliding with another, scratching another, and so on. At the same time it presupposes a subject who knows what it is to be pointed and what it is to be blunt, for example, or to be rough and smooth, as well as the potential power of pointedness and bluntness or roughness and smoothness in face of the world. Tool-making and tool-using thus presuppose tactuality as well as tactility: they presuppose a subject who knows the world by touch and how particular things in the world come to have the particular tactile power they do. This knowledge is articulated by the living subject in the process of making and using a tool. Such knowledge comes from a tactual/tactile lived body, a body which has moved over certain kinds of surfaces and has itself been touched by certain kinds of surfaces. It is a knowledge which is embedded in a body whose lived experiences of touching and being touched are laden with meanings. Thus, to speak of early hominids as tool-makers is to presuppose fingers capable of feeling and differentiating a surface -- a tactual lived body is taken for granted. Correlatively, it is to presuppose fingers which know the potential significance of a surface as they feel and differentiate it from other things in the world in the process of making it; it assumes a tactile lived body, or perhaps more precisely, a body capable of projecting its own felt experiences of tactility onto the world of other beings and things.

Now tactual/tactile significations arise in the world not because the subject has a word for certain surfaces or implements: there may or may not have been words which differentiated surfaces and tools from one another in paleolithic and earlier times. The difference between a stone and a tool like the difference between tools themselves is first of all a felt difference. It is known foundationally not by words but by touch. Accordingly, pointedness and bluntness, roughness and smoothness are manual concepts, tactile/tactual meanings which have their origin in a hand to hand contact with the world. The term "manual concepts", by the way, originated in the very late 1800's in an anthropologist's studies of the Zuni Indians;<sup>3</sup> specifically, in their manner of counting in relation to their language, spatial orientations, artifacts, and so on. To my knowledge the notion of manual concepts has never been elaborated beyond Frank Hamilton Cushing's original formulation. (It has however been mentioned by Ernst Cassirer

in his Philosophy of Symbolic Forms and by Lucien Lévy-Bruhl in his How Natives Think.) In the same way that bluntness and pointedness are manual, not verbal concepts, the differences between tools and other objects in the world are also known manually rather than verbally: the differences between tools and other objects in the world are, in other words, known by having touched one object with another object -- for example, having rubbed a stone against an animal skin and having rubbed a tooled surface against the same or similar skin. Rubbing an implement against an animal skin in order to clean it is not a verbal concept for which there happens to be no singular word: it too is foundationally a manual concept, a tactile-tactual knowledge in the form of a pattern of activity embedded in and articulated by the hands and fingertips. Tool-making and tool-using are thus grounded in a subject for whom touching and being touched is a way of knowing the world and making one's way within it. In turn, tactile/tactual significations may be further understood in terms of existential structures; that is, human tactuality/tactility engenders a certain style or mode of being in the world. For example, to make tools is both to forge and to utilize a particular kind of tactile/tactual knowledge of the world, just as to wield tools is to wield one's tactile/tactual knowledge in the world. Existential structures aside, existential significations of tool-making/tool-using clearly reveal a tactual/tactile subject. In consequence, early hominid survival is not to be spelled out simply in terms of a series of actions which result in a certain instrument being made by which one can secure food; it is not simply chipping away at a piece of stone and using the resultant piece against another object. Early hominid survival is also to be elaborated in terms of a particular bodily logos, that is, a lived body which brings into existence a certain technological world through its particular capacities and powers to touch and to be touched.

Tactility and tactuality are similarly at the core of an existential elucidation of social behaviors attributed to early hominid creatures. Pair-bonding, mother-child relationships, peer play, and extended family groupings are at the forefront of these kinship patterns. As treated by most paleoanthropologists however, these patterns are imagined in the light of a rigorous political, economic and/or social formalization of roles. Thus, for example, a noted anthropologist writes of pair-bonding that, "Possibly, it is relatively easy for humans to form close affectional relationships with one other adult of the opposite sex, these ties being sometimes intense and frequently of relatively long duration. But in hunting society other factors are involved, and it can be argued that economic and political factors are what maintain the relationship by enforcing such biological determinants as there are."<sup>4</sup> By "biological determinants," of course, is meant that which is genetically programmed, or, as another paleoanthropologist puts it, "encephalized."<sup>5</sup> Now if one juxtaposes this kind of view with studies in primate psychology having to do with a deprivation of touch -- whether via surrogate mothers, glass-partitioned cages, or whatever -- one notices a peculiar and disturbing discrepancy. On the one hand, affectional ties as mediated by touch are seen to play a major role not only in the immediate but in the long-range course of a primate's normal development. For example, infant macaque monkeys deprived of the touch of a maternal body suffer not only immediate trauma

but, depending upon the kind and extent of deprivation, fail to develop affectional, reassuring, or other kinds of positive other-avowing social behaviors.<sup>6</sup> They are also incapable of normal sexual activity and thus of mating. There is, in effect, no survival in a biological sense, i.e., no passing on of one's genes, if tactile/tactual/mother-child relationships are to some extent deficient or abnormal. It might also be noted that in experiments with the same monkeys it was found that peer relationships are also of the greatest importance in the development of normal social and sexual behavior and that in this context it is bodily contact play which is most crucial. As Harlow, the leading primate psychologist in this area has affirmed, "No other single form of play is more important to basic socialization in the monkey than physical free play."<sup>7</sup> Thus, while on the one hand, tactile/tactual relationships are affirmed as pivotal to the normal well-being of primates, the quoted material on human pair-bonding suggests quite otherwise. Affectional ties are to be discounted within a scientific account of early hominid life, presumably because they are considered too flimsy to bear the burden of survival. Political and economic factors weigh in much more heavily. It may also be that affectional ties are too suggestive of "emotional behavior" of which, to judge from the literature on experimental animal research, only certain kinds are allowable, i.e., fear and belligerence, and these only as defined within strict experimental limits.

The inconsistency between the two views is exacerbated the more detailed the evolutionary picture presented. For example, if year-round sexual activity is regarded as "a major bonding factor within the [early hominid] family",<sup>8</sup> as virtually all paleoanthropologists affirm, that is, if the change in female sexual receptivity was a principle factor in the evolution of pair-bonding -- which among primates is an almost uniquely human kinship pattern -- then either exclusively economic and political enforcers of pair-bonding would seem to fall by the explanatory wayside or they must be part of a larger constellation of factors which contributed to pair-bonding but which have yet to be fully plumbed. Short of these two alternatives, early hominid sexual activity must itself have been a purely political-economic event. Yet it is hard to imagine how it could be experienced as such: in what concrete political-economic terms could or would one describe early hominid sexual experience? At the least one must admit that political and economic events are colored by feelings and at the most that, particularly insofar as with upright posture both partners are face to face to each other, sexual activity involves intimate touching.

A broader evolutionary picture likewise exacerbates the basic inconsistency. Upright posture is consistently spoken of in terms of "freeing the hands," a freedom which is immediately linked to tool-making and tool-using and to the ability to carry objects about. It is never elaborated in terms of touch. Yet touching and being touched would seem to be what free hands are all about, whether a matter of making, using, carrying, reaching, throwing, or any other manual action. Whatever their functional practicality might be at any moment, it does not rule out existential realities; on the contrary, it necessarily assumes them. Thus, to speak of a freeing of hands is to take for granted a tactile/tactual body, an incarnated subject. But this is not all. Upright posture does not eventuate in freeing only the hands; it frees the body

as well. Touching and being touched are not therefore restricted to hands. In light of this fuller bodily power and exposure to touch, studies in primate psychology and field studies of primate behavior are again particularly significant. They have shown that mother-child relationships, peer play and grooming are critical developmental social behaviors as much because of touching and being touched as because of what they accomplish in the way of practical benefits, i.e., feeding of young, sensori-motor learning, and cleaning of fur and skin respectively.<sup>9</sup> In fact, the experience of touch itself in all these situations is at times seen as more significant than what touching accomplishes. Thus, for example, van Lawick-Goodall writes of a young chimpanzee who had no close contact with another older chimpanzee after his mother's death, "And so it seems possible that Merlin's troubles are principally psychological, that his terrible physical condition resulted more from a sense of social insecurity than from any nutritional deficiency caused by the absence of his mother's milk."<sup>10</sup>

Given the social primacy of touch affirmed by psychological studies and field observations, it would seem that an inquiry into the existential significations of upright posture *viz.*, not only the freeing of hands but also the fuller bodily power and exposure to touch would shed substantial light on the phenomenon of pair-bonding and on the seemingly related phenomenon of year-round sexual activity. It might be pointed out that while a considerable number of obstacles might be in the way of such an inquiry for the traditional paleoanthropologist, the number might well be reduced to the fact that touching is not considered biologically respectable unless it involves hunting and/or fighting, and emotions are not considered biologically respectable unless they involve fear and/or aggression. One need only imagine the difference between a film of baboons fighting one another and a film of baboons grooming one another to appreciate the distinctions being drawn. There are behavioral fireworks in the former film -- perhaps crouching and lunging, a baring of teeth and a snapping of jaws -- all of which can be interpreted, analyzed and discussed in certain clearcut ways. Whatever might be going on in the second film, it appears to the human observer to be empty and even tedious by comparison, an ongoing repetition of the same basic little movements and static postures: ostensibly there are no contrasts, there is no drama, no action. The resulting tacit judgement of a behaviorist of course is that nothing is going on. (One might wonder parenthetically whether the typical human observer is more interested in certain events than in others because that typical human observer is typically male. In this sense, paleoanthropological interests, practices, interpretations and beliefs are all a function to some degree of sexual preferences.)

These two examples of existential significations have shown how a particular, scientifically-identified phenomenon, looked at existentially, yields a different kind of understanding, one which in fact grounds the traditional scientific understandings themselves. The second example, moreover, has shown how an uncovering of existential significations may involve a pointed critique of science in the sense of bringing out inconsistencies or inadequacies in the given scientific explanations.



What I would like to do now is to turn to two examples of existential structures. To discover existential structures at all it is necessary first to uncover and reveal existential significations, at least to the extent that the phenomenon in question is seen in the light of an existential rather than a structural and/or behavioral interpretation. I will not draw out structures engendered in the existential significations of tool-making/tool-using or human pair-bonding as such, but will consider related phenomena which will allow a focus on movement and language.

The first example has to do with an already mentioned evolutionary character, upright posture. Upright posture is typically and consistently spoken of not only in terms of freeing the hands for tool-making/tool-using and for carrying objects about, but also in terms of locomotion and of seeing to greater distances. It is not spoken of in terms of movement except in a wholly practical sense and then, only tangentially. What I want to do is look at upright posture in terms of movement; I want to interrogate it by asking, what does this stock evolutionary character say about human movement?

It is perhaps so obvious that it goes unrecognized that upright posture is the generative core of preeminently human movement. As such it would seem capable of telling us something about the extraordinary diversity of movement possible to humans. From a strictly empirical viewpoint it is apparent that while other animals have a relatively closed compendium of kinetic possibilities, humans have no repertoire at all or one so vast as to be unimaginable. Such possibilities might at first be seen merely to corroborate the concept of humans being unspecialized creatures. To say that humans have more movement possibilities because they are "free", however, does not explain the diversity of movement; it is simply a different way of avowing the diversity, and of course a good many other things as well. What I would like to do is cut through the analysis and take up a single existential structure of upright posture interpreted existentially as signifying a diversity of movement. That is, if we take upright human posture as the phenomenon in question and roughly pinpoint one of its existential significations as being a diversity of movement, one of the existential structures which is revealed is what I have called a "terrestrial dialectic". In short, diversity of human movement is grounded in part in a foundational interchangeability peculiar to ground-living forms of life: it is grounded in a certain style or manner of being in the world.

As an abbreviated introduction to that dialectic let me point out without fully elaborating that if one were to imagine a moving human body, or to observe a moving human body one would see that it engendered both a linear and a topological character: movement is a continual transformation (or deformation) of shape just as it is a continual revelation of direction. The moment a creature is moving it is changing shape and the moment it is changing shape it is moving: in the moment of happening itself, body and movement are clearly and essentially indistinguishable. Hence so far as a moving body is concerned, there is not  $shape_1$ --movement-- $shape_2$  as is common in descriptions of objects in motion, but a continually changing bodily shape, a topologically manifest energy. It follows then that to describe the shape of a moving inch worm,

for example, as bunched or elongated is actually to describe a motionless worm. The same holds true in terms of linearity. Changing shape and direction are part of what movement is all about. What I have termed the terrestrial dialectic is to be understood in the context of these dual characters of movement.

Now clearly the moving human body -- as imagined or observed -- has multiple directional and topological possibilities, some of which may be more obvious than others. That it has a 360 degree vantage point in spinning, for example, may be obvious, but not so obvious perhaps is the fact that it need not turn at all in order to move backward, sideward, or on any diagonal: a single planar orientation neither limits nor exhausts its possibilities. Moreover it is not either bound to a single cranial-caudal orientation: tumbling, cartwheeling, and hand-walking, for instance, are all possible. In fact, on the basis of the briefest considerations of the directional possibilities of movement alone we see clearly a body which commands space, not simply in virtue of being able to turn 360 degrees around a single vertical axis and veer off on any tangent line, but in virtue of an immediate all-encompassing directional readiness.

Now to move on the spur of the moment in any direction is to have freely moving parts or potentially freely moving parts. Moreover in such a body, parts are not only free or potentially free to move in the instant, they are free to move independently of one another. A mosaic of simultaneous directional possibilities is apparent.

Similar significances attach to the topological character of a moving human body. Simple observation of a moving body shows clearly that a manifold of shapes is possible and that those shapes emerge on the basis of freely moving or potentially freely moving parts which again, in addition to moving freely, can move independently of one another. As with linearity, the richly complex and variable topology may be brought into particularly sharp focus by coupling the concept of independence of movement with that of simultaneity, e.g., simultaneous head-turning, elbow-bending, arm-reaching, leg-stretching, ankle-extending, and torso-bending, a kinetic collage exemplified by a situation in which one is caught off-guard from behind in the act of reaching by an adversary or authority figure suddenly presenting itself, a situation which one might, by the way, envision not only in contemporary terms but in terms of early hominid life as well.

In brief, the diversity of movement possible to humans is clearly anchored in the topological as well as linear characters of movement out of which possibilities evolve and dissolve on the basis of freely moving and independently moving parts. That the presence of freely moving parts, or their possible presence, is related to multiple possible bases of support is palpably evident. In virtue of multiple bases of support and of the possibility of continuously changing them -- as in jumping--falling--sliding--wriggling--creeping, for instance -- a firm and solid kinetic documentation of nonspecialization might not only be had, but analyzed and elaborated to advantage. To speak of freely moving parts, however, is not simply to speak inferentially of parts which are not

weight-bearing; it is rather to affirm the energy-manifesting possibilities of the whole body. That is, no part of the moving human body is unalterably committed to weight-bearing to the exclusion of other possibilities. (I might add parenthetically that an endless number of postural deformities bear living testimonial to this fact.) At the same time, to speak of multiple possible bases of support is not simply to speak inferentially of parts which are not freely moving; no freely moving part cannot categorically not bear weight, e.g., rolling, shoulder-standing, tumbling, kneeling, slithering, crawling, and so on. To borrow a term from the well-known neurophysiologist-brain surgeon, Wilder Penfield, one might say that the moving human body is in part and as a whole directionally and topologically uncommitted<sup>11</sup> -- though certainly some "commitments" are more likely than others.

The relationship between moving parts and weight-bearing parts is a dialectical one involving multiple possible bases of support and freely moving parts: as the moving body changes its base of support it is moving and as it is moving it is changing its base of support. The situation is thus similar to that pointed to earlier: a body cannot at the same time adhere to a single shape and move. Thus, in the same way that there is not shape<sub>1</sub>--movement--shape<sub>2</sub>, so there is not base<sub>1</sub>--movement--base<sub>2</sub>. Moreover as a present base of support changes, new possibilities of movement emerge in the very kinetic process itself: what was in the process of becoming freely moving and what was in the process of moving freely may be now in the process of becoming a base of support. The fact that no part of the moving human body is unalterably committed to weight-bearing and the fact that no part of the body cannot categorically not bear weight, together point to a kinetic dialectic which is the cornerstone of the moving human body's spatialization of energy. It is a dialectic out of which seemingly limitless possibilities of movement are thrown up in the very process of moving itself. It is perhaps just this dialectic which in part insured the survival of early hominids as they met what one would expect would be daily challenges to their lives. A directionally-topologically uncommitted body would have quite distinct selective advantages in terms of procuring food, avoiding imminent dangers, and so on. Being uncommitted can thus be seen as a survival technique: a body which has the capacity to move on a moment's notice in any direction or to change its shape in myriad ways at any time is certainly a body which has an enormous number of protective strategies available to it: it is an adaptive body par excellence.

The dialectic is of far broader and deeper significance when viewed from a lengthier evolutionary perspective. When seen in the light of its evolutionary ancestry, that is, in terms of the progression from water to land forms of life, the dialectic may be described as a shift to a terrestrial dialectic. Lobe-finned fish were the first vertebrates to initiate a relationship between freely moving and weight-bearing parts. The remarkably differentiated terrestrial forms of life which followed might in turn be seen and analyzed within the framework of this same dialectic which, from a mammalian and specifically human viewpoint

would seem to engender a quantitative to qualitative shift in movement possibilities; that is, the increase in the number of freely moving parts in mammals in relation to crawling and creeping animals (that is, amphibians and reptiles), results in a qualitative as well as quantitative difference in movement. This means that an increasing complexity of movement possibilities exists not only in virtue of an increase in the number of possibilities furnished by the dialectic itself but by the independence of these possibilities and their simultaneous coupling. In sum, if kinetic possibilities abound for humans in terms of upright posture, they do so in virtue of a foundational interchangeability at the heart of the moving human body's spatialization of energy, an interchangeability whose evolutionary roots may be traced back to the first vertebrate forms of terrestrial life.

Like movement, language too has evolutionary roots and continuities. The second example I would like to give of an existential structure is actually that of language itself. It comes out of an uncovering of the existential significations of certain behaviors mentioned earlier: namely, the feeding of young, play, and the cleaning of fur and skin. Since play is a more complicated behavior in a sensory-kinetic sense, it does not lend itself as an example to the same brief commentary. I will therefore omit it from the discussion though with the understanding that it by no means follows that the same existential structure to be discussed is not apparent in some forms of play.

The feeding of young and the cleaning of fur and skin were mentioned earlier in the context of social behaviors, specifically, kinship patterns. Looked at from the perspective of existential significations those behaviors are clearly grounded in touching and being touched. They are grounded in a tactual/tactile world. Now when touching/being touched in the feeding of young or in grooming behavior has a meaning beyond its practical one -- if it is a question of caring, of security, of social accord, and the like -- then that touching is clearly symbolic. Moreover touching can be symbolic tout court; that is, it need not take place in a practical framework in order to function symbolically. An arm reaching backward toward another and touching the other's shoulder or forearm restrains not by actual force but by a semblance of force. Signifier and signified are distinct. Moreover in the sense that contexts generate meanings, it is clear that in one instance such a gesture means, "Wait a moment; I have my attention elsewhere; I'll be with you in just a second." In another instance the gesture might mean, "My God! There's someone coming at us in this dark, narrow alley!" Whether a matter of attention or apprehension -- or whether in a still different context, a matter of affection -- touching and being touched are here, in a literal sense, significant -- which is to say, touching is literally symbolic. The same is true in terms of an outstretched hand which asks for something by way of reassurance. That hand might belong to a chimpanzee or to a human, both of whom have evolved distinctly as well as having shared a common ancestor. In effect, as a prototypical language touching is an existential structure -- what I would call a

power of being -- perhaps millions of years old. It is encrusted in the lifeworld of animate subjects living today and is as much still a possibility of their being-in-the-world as it was the possibility of those ancestral subjects for whom the possibilities of such a language originated in the first place. The potential existential power of touch is to speak to others no less than a human word-studded speech and like this latter speech, it too originated and evolved in passing generations of different lifeworlds. Language is thus not an exclusively human behavior, neither from the point of view of other extant primate species -- and perhaps other species as well (I am thinking of the dance bees perform, for example) -- nor from the point of view of the evolution of the species Homo sapiens itself. What I mean by this latter remark is that, like humans themselves, language did not begin at some long-past point in space-time. In the same way that evolutionary forms of life are continuous rather than disjunctive, so existential structures are also. They do not begin and end; they can only originate and die out. Speaking by touch thus arose as a certain way of living in the world with others. It was the possibility of certain creatures for whom a certain kind of sensory-kinetic world existed. It is important to underscore the kinetic character of that world. Speaking by touch is a bodily gesture because touch itself is the child of movement.

I think I would like to close with a postscript on the name, "philosophical anthropology". First let me underscore that it is not my designation though it is certainly fitting in the sense of my own interests and focus on paleoanthropology. The subject area as such has its roots in 18th century Europe, particularly in Germany. Its roots undoubtedly are anchored in anthropology taken simply as the study of man, not as a particular academic discipline. In this context, I can understand how people in anthropology today might feel disturbed, jumpy or even outraged by the designation, especially because it is an area of study practiced not by anthropologists but by philosophers. My only commiserative answer for this is to say that for years and years I cringed and writhed at what people in dance called "philosophy" and talked about under the rubric of a "philosophy of dance". I learned -- slowly, very slowly -- that there was nothing to do except maintain the integrity of my own work. (I've also come to the point where I don't give a damn what they call it any more: I'm tired of fussing, caring, trying, and so on.) Beyond this notion of maintaining the integrity of one's own work, all I can say is that you are in far better company than I ever was: people of the caliber of Merleau-Ponty -- whether you find them congenial to your way of thinking or not -- are bedfellows to be respectfully acknowledged rather than hastily disavowed.

Maxine Sheets-Johnstone

#### NOTES

1. J.S. Wilkie, "Buffon, Lamarck and Darwin: The Originality of Darwin's Theory of Evolution", in Darwin's Biological Work, ed. Peter Robert Bell (Cambridge: The University Press, 1959), p. 278.
2. Thomas Kuhn, The Structure of Scientific Revolutions, second edition (Chicago: The University of Chicago Press, 1970).

3. Frank Hamilton Cushing, "Manual Concepts: A Study of the Influence of Hand-Usage on Culture and Growth", American Anthropologist (Old Series), Vol. 5, #4 (October 1892), pp. 289-317.
4. David Pilbeam, The Ascent of Man (New York: Macmillan Publishing Co., 1972), p. 78.
5. Milford H. Wolpoff, Paleoanthropology (New York: Alfred A. Knopf, 1980), p. 153.
6. See Harry F. Harlow, "Love", The American Psychologist, Vol. 13 (1958), pp. 673-685 and Harry F. Harlow and Margaret K. Harlow, "The Effect of Rearing Conditions on Behavior", in Sex Research: New Developments, ed. by John Money (New York: Holt, Rinehart and Winston, 1965), pp. 161-175.
7. Harry F. Harlow, Learning to Love (New York: Jason Aronson, 1974), p. 61.
8. Wolpoff, in discussing kinship patterns, writes of J.B. Lancaster's theory that, "If the intense cyclic sexual activity associated with estrus were replaced by continuous sexual interest under behavioral control and amenable to structuralization, sexual activity could become a major bonding factor within the family". Paleoanthropology, p. 153.
9. See for example, Harry F. Harlow's and R.R. Zimmerman's classic study, "The Development of Affectional Responses in Infant Monkeys", Proceedings of the American Philosophical Society, Vol. 102 (1958), pp. 501-509. Harlow and Zimmerman suggest that "... the primary function of nursing as an affectional variable is that of insuring frequent and intimate body contact with the mother". See also Harlow's Love, p. 9. Finally, see Ashley Montagu, Touching: The Human Significance of the Skin (New York: Columbia University Press, 1971) for an extensive discussion of research findings.
10. Jane van Lawick-Goodall, In the Shadow of Man (New York: Dell Publishing Co., 1971), p. 231; see also pp. 242-248.
11. Wilder Penfield, "Speech, Perception and the Uncommitted Cortex", in Brain and Consciousness, ed. by John C. Eccles (New York: Springer-Verlag, 1966), pp. 217-237.