

Dancing In (Outer) Space A Freefall Through the Aesthetics of Dance

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The late Russian-American choreographer, George Balanchine, once said, "Waltzing is very difficult. The problem is using two legs in 3/4 time. It would be easier if we had three legs."¹ In speculative fiction the problem can be easily resolved. While the three-legged creatures of L. Neil Smith's *Their Majesty's Bucketees* don't waltz, their three-sidedness invites a reassessment of our human perspective and capacities.² Although it is not likely that we shall either become or encounter such creatures, speculation of this kind may have certain benefits.

In this paper I use speculation about what forms and meaning dance might have in non-earthly venues in order to examine and challenge some of the categories and criteria presently employed in dance aesthetics here on earth. I make no claims concerning the accuracy of my speculations. My intention is merely to shake us loose from some of our preconceptions about what does count as a dance and what might count as a dance in the future. There are two theoretical subtexts in this paper, which provide the philosophical starting points for my speculations. They are, first, Merleau-Ponty's views concerning the unity and interconnectedness of our senses in perception, and second, my own work in kinesthetic understanding. As they are the "suppose thats" from which my exploration proceeds, I will begin by saying something about each. I will then make some general comments on new art in outer space before embarking on the discussion of dance.

In *Phenomenology of Perception* Merleau-Ponty argues for the unity and interconnectedness of our senses in perception. The unity and interconnectedness are grounded in our spatiality and motility. Merleau-Ponty differs from the philosophical empiricist who believes that each sense provides an isolable set of impressions or "sense data," which are then united in what Merleau calls "an inspection of the mind." He also says that *all* our senses are spatial. This runs counter to the prominence that the empiricist gives to the sense of sight as the organizer of our spatiality.

For Merleau, to sense is to sense *something*. What it is that we sense stands out from the rest only if it is "put into perspective and coordinated by space.³ In turn, our understanding of space is constituted by our moving through it. Without experience through movement; tactile, auditory and visual "nears and fars" lack context. The *unity* of our sensory experience comes from our experiencing our motility in space, rather than from adding the data together in a secondary operation. Merleau says that to assume the loss of one sense, for example sight, would merely eliminate the visual data without resulting in a reorganization of the *structure* of our sensory experience, ignores the interconnectedness of the senses as constituted by spatial motility.

For Merleau, movement is understood as a "certain way of giving form or structure to our environment."⁴ *Our* movement is not understood in the same way we understand the movement of objects outside ourselves. It is "a project towards movement or 'potential movement' (that) forms the basis for the unity of the senses."⁵ Our experiencing of the world does not involve adding up discrete and separable data from our various senses. Instead, it involves a "tending towards the world" through our bodies. Merleau says, "The unity of the senses...cannot be understood in terms of their subsumption under a primary consciousness, but of their never-ending integration into one knowing organism."⁶ In a passage that, I think, makes Merleau-Ponty's role in this paper clearer, he says :

I do not translate the 'data of touch' into the language of seeing or *vice versa*—I do not bring together one by one the parts of my body; this translation and this unification are performed once and for all within me; they are my body myself...our own body acquaints us with a species of unity which is not a matter of subsumption under a law... the body is to be compared, not to a physical object but to a *work of art*.⁷

The connection with this paper is twofold: First, since our senses are interconnected, and since the radically different environment of space will affect at least some of our senses, it is certain to affect all of them, and hence

to affect both the making and experiencing of art. Second : since the art of dance has as its medium, movement, that which Merleau argues organizes our world, an exploration of *dance* in outer space is liable to have impact beyond an analysis of that artform. And this is only to say that dance is, given Merleau's position, a good place to begin our speculation.

The second philosophical starting point is the observation that in a dance performance, the audience and the dancer are engaging each other on a kinesthetic basis. As Merleau would say, to be present in a context of spatiality and motility with another person, would be to constitute, at least partially, each other's motility and spatiality, and in this way to be connected kinesthetically through our motility. By this I don't mean a simple "gut-level" kinesthetic response, but rather what I call kinesthetic understanding. I mean to say, as Merleau does, that since movement organizes our activities, it also organizes the *meaningfulness* of these activities. I do not think that movement is a language, of that it is continuous with, or necessarily overlaps linguistic meaning, although in the case of conventional mime it can. What I am interested in is the role movement plays in *all* our activities, linguistic or otherwise. The form that this kinesthetic organization takes is not important here. That it does take place and can be shared is important.

As I have mentioned, one problem in speculating about art in outer space is the problem of doing so in a way that doesn't remain tied to earth categories and in turn remains open to new ways of doing aesthetics. The issue of media, for example, is one that arises in many discussions of aesthetics. But a discussion that lingers on, say, the difficulties of getting paint to stay on the palette, not to mention getting it on the canvas in weightlessness, seems less central than the effect of weightlessness for the dancer and audience. What I hope is that a discussion of dance in outer space will lead "out of this world" to what might be possible not only at the technical level, but to what the artist will make of technological advance and environmental changes ; that is, to a discussion of what these opportunities might mean for the nature of the artistic imagination itself

So far I have mentioned only one aspect of life in outer space, weightlessness. This particular condition of outer space will certainly affect how we are able to move in the making, performing and experiencing of dance in this new environment. If Merleau-Ponty is right about the unity of our senses as a "never-ending integration into one knowing organism," and what he claims this means for the operation of our senses, our senses will be challenged and realigned in relation to each other, and other beings, as we live and work in space. If our perceptions and perceptual fields interconnect

in new ways, I would expect the making, performing and experiencing of dances to do likewise.

Weightlessness itself is fascinating precisely because it challenges the traditional philosophical "shaggy dog" of the ocular image, of vision as the pre-eminent and organizing sense. Coping with weightlessness would seem to challenge and require a re-understanding of our kinesthetic engagement with our new environment. I can imagine that a kinesthetically clever human would be able to master weightlessness in order to ensure that the paint reaches the canvas, or so that a hug doesn't misfire into the next galaxy. By accommodating to the new conditions they could mimic previous patterns. But the *feel* of a touch will change in zero gravity, and, thus, how it *feels* to put paint on a canvas or to hug a person will not be the same. The externals can be reproduced, but the internal feel may be quite different. The changes in the sense of touch will alter the expressive powers of the artist whether it be felt through the artist's brush or the touch of a dancer's foot on...well, what *would* it be on? It is not clear that without gravitation orientation that the touch of a dancer's foot would necessarily be *on* anything. The dancer's normal recourse to internal, or what they call "proprioceptive" cues, when earth-standard perceptual cues are missing, would also be affected by weightlessness.

In the case of dance, the issues raised by technological advances in the medium are quite different than in music and the visual arts. Here the issue of medium, making and audience collapses in an interesting way. The medium of dance, movement, is that of a human being (although in space this may turn out to be definitional!) Leaving aside and potential "Ballet of the Spheres," dance proves to be a somewhat different matter than the other artforms. It is easy to see that the simple view of the medium and creator as an embodied human person will probably not be subject to gross structural variation, at least initially, in space. Thus talk of new materials and instruments at this level is not as important as for the other artforms. At a deeper level, for two reasons I will discuss, dance may be the most complex and unpredictable of the new space arts. The first reason has to do with the environmental possibilities for the dancer and audience in the making and experiencing of dances. The second reason, given the dancer as human being, delves more deeply into the effect of outer space on the human psyche and the new sensations and feelings, both physical and emotional, that may arise. The way that movement *feels* in different gravitational fields may involve new physical and emotional sensations from the experiencing of space that will engender new forms of artistic expression as well as of human interaction. Music and painting may

find new expressions. If, in the case of dance, the dancer embodies the new expression we might anticipate that the dances created in the process of trying to reorient oneself in the changed kinesthetic field would be symbolic of the larger disorientation and reorientation that would take place for a new life in a strange environment.

The obvious environmental factor in "new dance" in outer space is the absence of or variation in gravitational field. Dances created and performed here in the earth's gravitational field are stuck with it and must deal with the fact of it. Different kinds of dance have dealt with this in different ways. The American Modern Dance pioneer, Doris Humphrey, made a virtue of gravity. The central principle of her technique, still taught today, is "fall and recovery."

Traditional ballet is, though, the dance form that would be most severely affected by the new opportunities in space. The aim of ballet has always been flight. That this is the case can be seen in any ballet class, where everything is a preparation for the big jumps or "flight" that traditionally end the class. A ballet class begins with deep knee bends and exercises that work the feet in close contact to the floor. This is followed by aerial work for both the arms and the legs, which sets the coordination and prepares the muscles and the psyche for the big jumps. But the escape is short-lived. Class ends with a bow to the teacher, which, for the woman, dips again, close to the floor.

The history of ballet also reflects this concern with flight. The ethereality of the Romantic ballerina in the mid-1800's was enhanced in a number of ways. The invention of the pointe shoe allowed the dancer to rise, albeit painfully, to the tips of her toes. This levitating invention was further extended by actual flying with wires; the effort involved concealed by the diaphanous, but conveniently voluminous romantic tutu, all in service of the romantic escape from embodiment. Although contemporary ballet choreographers draw on the more weight-conscious approach of modern dance, it would seem that traditional ballet, freed from gravitational restraints, would lose much of its point. *La Sylphide*, a romantic ballet first performed in 1832, exploited these romantic sensibilities. Would *La Sylphide* have needed to be created in zero gravity, that is, if weightlessness were our standard mode of being? Might we not have sought, as the modern dancer does, a connection with "our ground" whatever that might be? Would we have sought "ground" if we did not know it? Is "down" a human biological constant only on earth?

There are a number of dancers who, for conceptual or other reasons, have tried to "say something" about gravity through attempting to defy it. In zero

gravity these dancers would lose a whole range of expression. In the early seventies the avant-garde dancer and choreographer Trisha Brown created a number of what dance critics have called "equipment dances" One of them, *Walking on the Wall*, used ropes and pulleys attached to the ceiling so that Ms. Brown and others could walk parallel to the floor.⁸ In zero gravity this would be superfluous or unthought of. In 1969, Stephanie Evanitsky founded the "Aerodance Multigravitational Experiment Group." This company worked on rope webs suspended high above the floor, attempting to create the illusion of dancing in zero gravity.⁹ In a different gravitational field the web, as well as Ms. Brown's ropes and pulleys, might serve *some* artistic vision, but the risk and tension of working with these objects would dissipate in zero gravity. A greater loss, for my money, would be the charm and surprise of Fred Astaire dancing on the walls and the ceiling in the film, *Royal Wedding*.

My bias is showing, I know, but I think these considerations and their relation to the aspirations of humans indicate that the real issue is not the question of the medium, but of those beings who crave to express themselves through whatever means are available or conceivable. So a consideration of "new dance" in outer space backs us into the nature of the "new dancer" in space. The changes that will take place in us as we live and work in space are the important and largely unpredictable factor.

The new flexibility of contemporary dancers who are able to move from modern to classical dance without difficulty are either a source of pleasure or a source of concern. They are a pleasure if you like experiencing several dance traditions at one dance performance, and a concern if you believe, as I do, that these "generic" dancers have lost the fullness and intensity of the extreme ends of the movement spectrum, neither as "weighty" or "flighty", as their predecessors. Whether this is a regrettable case of "tempus fugit," or a recapturable loss is an issue only here on earth. In space all ways of presently moving could be practiced, as well as a range we haven't seen. In denser gravity carving through space would be a visible, if exhausting, reality. In zero gravity, the possibilities for ethereal floating would satisfy even the most Byronic of spectators.

A factor here, and one that must be taken more seriously than I have so far, is that our bodies are suited to the earth as they were given to us. Thus our culture and artforms have sprung out of this embodiment in this place. Given the speed with which we are moving towards outer space, it cannot be imaginable that in our time we would be able to more than partially adapt to the varieties of non-earthly gravitational fields. The artistic soar into space

will then still be a struggle. And new *La Sylphides* will be created to meet the new challenges. The science fiction story, *Stardance*, written by Spider and Jeanne Robinson, tells of such a new creation.¹⁰ The description of the dances Sbara Drummond creates in outer space reflect a dancer struggling to master the challenges of weightlessness and, in the process, creating new forms. The problem for Shara is not to replicate earth dance forms in zero gravity, but to unlearn the gravity-based forms of earth dance in order to let the new dance emerge. The issue is not just new movement skills but the change in meaning in dance from earth to zero g. For Shara Drummond the contrast between earth and zero g dance is between weight and mass. Her second "space dance," "Mass is a Verb," demonstrated, according to the narrator, that "mass and inertia are as able as gravity to supply the dynamic conflict essential to dance,"¹¹ He continues, describing the dance, "She contracted...it was a focusing inward. Her body seemed to fold in on itself, compacting her mass, so evenly that her position in space was not disturbed."¹²

What we call dances here and now rely on a series of conventions of agreements concerning what is done and what it means. As I mentioned earlier, I understand the connection between the audience and the dancer to have a strong kinesthetic base. Now both the conventions, as well as the range and the proprioceptive feel of movement may change in space, but the kinesthetic connection will remain. If both the dancer and the audience are in the same gravitational environment, their potential kinesthetic abilities are similar. The skill and repertoire of the dancer is both quantitatively and qualitatively different, but a dancer is still a human being moving. If we assume that the dancer and the audience are operating in the same conditions, that is, that neither we nor the dancers are isolated in a space "fish tank," the audience would be experiencing movement that reflects the kinesthetic "laws" of their own environment and would be experiencing the dancework in terms of that shared kinesthetic understanding.

Here on earth, dance has already escaped the theater and has been observed from above, below, close, afar, not at all, and even not performed at all. What, then, could be new in space? Experimentations with theatrical "front" would take new forms. The audience could "swim" around the dancers, float inside the work, become part of the work. This conception of the new audience is present here on earth but would be more fully realizable in space. The kinesthetic connection between the audience and dancer could be enhanced also. It is possible that availability of kinesthetic variety due to environmental

change would make the average audience member much more sensitive to kinesthetic cues. If it's harder to walk, you think more about it.

For the foreseeable future, though, we are trapped in the present constitution of our embodiment and any realignment of sensory processes and experiences must be recognizable from this present. Of course, it is possible that space exploration will isolate each of us in a pressurized bubble, apart from others, with desires for reaching out, but very tenuous ways of sharing our experiences. But with both the audience and dancers in the same environment the conditions would be the same, and the possibility of sharing expands. In this case we can imagine changes that would affect both the audience and the dancer. It is possible to imagine environments where one sense would, for survival reasons have to predominate. It is possible that our senses may acclimatize in different ways and at differing rates. Our sense of touch, for example, might have to fill some of the gaps left by a deteriorated, by earth standards, sense of sight. What would a dancework be under these conditions? Or we can imagine a sense of sight so acute that we would never have to make a quick kinesthetic decision again. We would see the careening space-mobile in time to lazily roll aside. What would dance be then? As Merleau-Ponty says, no sense is independent of any other, nor is the organization of our sensory experience independent of our moving through whatever world we inhabit.

If we avoid the bubble-isolate existence, is it possible that generations in the future will survive and evolve to meet the new conditions? And if they do will they reach a point where we, standing where we do now, would not want to call them human? Would we recognize their dances? Would they have artforms? Does it matter if they do or not? At the end of *Stardance*, Shera Drummond performs her last dance in an attempt to communicate with an alien intelligence that threatens earth. She succeeds. Will we? Not unless we leave our aesthetic categories open enough to encompass the future. Whether we have the *ability* to do this is another question. It is possible, given the kinesthetic basis of our dance experiencing, that we who are earth-bound may not have kinesthetic access to even the beginnings of new dance exploration in outer space. The response to Shara's first dances was simply in terms of the novelty rather than the kinesthetically shared meaning.

A more practical issue is : when will we get the chance to make new dances in space? NASA has already rejected one proposed project, with the warning that one sudden movement would send the erstwhile space-dancer six miles off course, out of rescue range. Exploring our environment for aesthetic purposes may not be possible until we *think* we have mastered it. Trisha Brown may be ready, but NASA isn't.

Closer to home, if this innerspace exploration of dance in outer space has any moral it is, generally, to watch the claims you make for your categories. To limit our understanding of dance by remaining tied to an earth conception of the medium is to potentially miss what is happening in dance both now and in the future. What counts as a dance isn't as important as how that dance connects with our dreams, our desires, our failure and successes. Any account of dance that leaves this out, fails. And if it is *humans* who will be making the new dances in outer space, this is the point to begin the exploration.¹³

Notes and References

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2. L. Neil Smith, *Their Majesties' Bucketees*. (New York : Ballantine Books, 1981).
3. Maurice Merleau-Ponty, *Phenomenology of perception*. (London : Routledge and Kegan Paul, 1962), p. 217.
4. *Ibid.*, p. 115.
5. *Ibid.*, p. 234.
6. *Ibid.*, p. 233.
7. *Ibid.*, p. 150.
8. Sally Sommer, "Equipment Dances : Trisha Brown," *Drama Review*, vol. 16 no. 3 (T-55), pp. 7-18.
9. Noel Carrol, "Air Dancing," *Drama Review*, vol. 19 no. 1 (T-65), pp. 5-12.
10. Spider and Jeanne Robinson, "Stardance," *Analog* (March 1977).
11. *Ibid.*, p. 77.
12. *Ibid.*, p. 78
13. I want to thank John Ahrens and Donald Callen for their helpful comments on earlier drafts of this paper.

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