

Intelligence Past, Present, and Possible

The Theory of Multiple Intelligences in Dance Education

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Summary

The contributions of Howard Gardner's Theory of Multiple Intelligences (MI theory) to dance education are reviewed by placing MI theory in the context of historical perspectives on intelligence and examining the assumptions behind traditional models of intelligence as well as some of the more recent pluralistic approaches. The principal tenets of MI theory are reviewed and examined in relationship to the goals of education. Through this examination it is suggested that MI theory validates dance as a domain of knowledge – as the embodiment of “intelligence possible” – and an argument is advanced for the reconsideration of the goals and purposes of dance education.

Walk into almost any classroom and ask the students there who the smartest kid in the class is and within seconds you are likely to get virtually universal agreement. So ingrained is our mind-set about what constitutes “smart” that it makes little difference whether you enter a math, English, or dance class. Teachers and students alike can identify a particular member as having more *brainpower* than everyone else, as

knowing more, faster and better in those areas our society values most (language, math, and science). Now ask the class who the most *unique* student is and you are likely to get a vastly different response: she can dance, he can resolve any conflict. Such responses reflect implicitly held beliefs about the role and nature of human intelligence. These beliefs stem from a tradition of thought we call Western (i.e., European and European-derived) that promulgates a dominant version of brainpower and makes discussion of intelligence in other areas almost impossible.

Recently, a number of contemporary thinkers have challenged the traditional Western view of human intelligence. One of the most influential theorists of intelligence, Howard Gardner, has argued for a more catholic understanding of human cognitive abilities. In his Theory of Multiple Intelligences,^{1,2} Gardner redefines what it means to be smart, changing the question from “How smart are you?” to “How are you smart?” With this shift, a lot more gets changed than just the word order. “How smart are you?” asks for a single assessment, a numerical ranking. “How are you smart?” asks for a description of *intelligence possible*, a narrative of the ways in which learners are capable of demonstrating intelligence: from reading, writing, and arithmetic to acting, dancing, drawing, and singing.

In dance education, discussions about “smartness” and “intelligence possible” have become increasingly important as we are asked to articulate *cognitive* justifications – in addition to cultural, economic, and historic reasons – for inclusion of dance in elementary, secondary, and

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postsecondary education settings. The purpose of this essay is to clarify what has become a muddled and sometimes confusing topic for educators. At its best, the Theory of Multiple Intelligences (MI theory) redefines what it means to express intelligence, to be “smart.” At its worst, however, MI theory is employed as a kind of fashion-statement in schools, “we do MI,” without an understanding of its principal tenets or limitations.

My goal, therefore, is to take a clear-eyed look at MI theory – its past roots and present instantiation – and to consider the contributions to new ways of thinking about thinking in dance. I begin by placing Gardner’s MI theory in the context of larger historical discussions of intelligence. While MI theory does not represent the first or only model of intelligence, Gardner makes a case for a set of intellectual abilities that has resonated with people’s experience of the world, all across the world. Not surprisingly, MI theory has drawn much attention from education circles. Thus its relationship to the goals of education, its myths and pitfalls, are also considered. In the last section, I discuss the implications of MI theory for dance and dance education. It is my hope that this brief introduction will serve as a sound point of departure for those exploring the uses of MI theory in dance education and that, in the course of reading this special issue, the reader will recall this essay for clarification and deeper understanding.

Intelligence Past: Old Models of Cognitive Abilities

Of all activities that merit the attention of those interested in human behavior, the arts – and dance in particular – should top the list. From time immemorial, the visual and performing arts have played an important part in the lives of people everywhere. Early Chinese and Indian dance, Greek and Roman mime trace their origins back to prehistory; Australian and Tasmanian aborigines have maintained indigenous dance rituals that have remained unchanged for tens of thousands of years.³ Dance, as many observers have noted, lays fair claim to being the original form of creative expression, the one most likely to have been practiced by the first peoples of this earth.

Despite such illustrious origins, artistic behavior has remained largely ignored by philosophers, psychologists, and others interested in the workings of the human mind. The principal source of this neglect stems from longstanding biases within the tradition of thought we call Western. A number of scholars have discussed the pervasive influence of the classical Platonic-Cartesian split

between modes of knowing and the different causes of it, resulting in the now familiar dualisms of mind/body, reason/emotion, and subjective/objective.⁴⁻⁶ Generally speaking, Western epistemology has viewed the mind as the locus of universal, rational, non-corporeal forms of knowing, where linguistic facility and logical-mathematical reasoning are considered the ultimate expressions of intelligence.⁷

In contemporary American society, this “rationalistic” Western intellectual tradition has fostered widely held folk psychologies about human cognition – those socially-shared, often intuitive, beliefs about what the mind is and how it works.⁸ The folk consensus about how and why humans grow up and act as we do has been described as a theory of two minds.⁹ The cognitive/rational mind generates modes of thinking and behavior that contribute materially to the human condition. As the source of brainpower, it is worthy of investigation and education. Alternatively, the affective/creative mind contributes to activities – like the arts – that contribute little, if anything, to the struggle to survive and procreate. In the absence of a powerful theory to explain why humans engage in such activities, psychologists and lay people alike have tended to treat artistic behavior as a curious, if not a very serious, aspect of humanity. If the curious activity is dance, which relies in part on the feeling body in creative acts of expression, it is not hard to imagine why too little ink has been spilled on thinking about thinking in dance.

How Smart Are You?

Perhaps the most obvious example of the influence of Western intellectual tradition – our folk psychology in action – can be seen in the study of human intelligence. Most psychometricians agree that the source of modern intelligence research and testing stems from Alfred Binet’s work on predicting school performance.¹⁰ In 1905, together with his colleague Theodore Simon, Binet developed a test of intelligence that measured things such as vocabulary, comprehension, and verbal relations. Binet’s mission was to distinguish children who are genuinely mentally retarded from those who have behavior problems but are otherwise intellectually competent. The result was that tests of intelligence were designed, and continue to be designed, in ways that predict so-called “general intellectual” ability and school performance.

The industry of intelligence testing grew substantially during the war years of the early to mid-1900s. In America, psychologists were increasingly called upon to screen soldiers for varying levels of

responsibility. The research and development of those early intelligence tests form the basis of a series of tests that today are used to measure various kinds of achievements and abilities.¹¹ Foremost among these standardized assessments are intelligent quotient (IQ) tests. IQ tests use multiple-choice and short-answer questions to measure specific domains of cognition including verbal fluency, mathematical deduction and computation, spatial visualization, and memory. All tests of mental ability rank individuals in about the same way or so the argument goes, and this overlap or correlation suggests that all such tests measure some global element of intellectual ability or “general intelligence” (abbreviated as “g”).¹²⁻¹⁴ A person’s “g” is thus illuminated by the light bulb metaphor: she’s bright (read smart), he’s dim (read dumb).

Recently, classical Western approaches to thinking and intelligence have been challenged by alternative philosophical traditions and advances in the cognitive sciences.¹⁵ Criticism of the notion of general intelligence in particular comes from diverse quarters, but especially from contemporary psychologists and educators who argue that tests for general intelligence focus on a narrow slice of the full range of human cognitive abilities. Intelligence tests are limited largely to logical abilities, and yet much of what defines the human species is not logical in any formal sense. For instance, how does one account for the combination of bodily-kinesthetic skills, intrapersonal (self) knowledge, and creativity that is required to perform a dance solo? Those contemporary psychologists and educators who want to see traditional models of intelligence lose influence point to new models of human cognitive abilities that began to appear in the mid-1900s. Often described as pluralistic, each puts forth a theory of human mental life consisting of a number of separate cognitive abilities.^{1,16-20} Arguably the most celebrated of the pluralistic models is Howard Gardner’s Theory of Multiple Intelligences.

Intelligence Present: The Theory of Multiple Intelligences

Gardner’s vision of multiple “frames of mind” emerges from the confluence of events, people, institutions, and ideas in and around Cambridge, Massachusetts during the late 1950s to mid-1960s.²¹ Here, Gardner encountered the aftermath of the so-called Cognitive Revolution: a time of rapid growth in interdisciplinary theorizing and modeling of the human mind after a long period

of psychological study devoted to conditioning human behavior. As a graduate student at Harvard University, Gardner began lifetime associations that marked him as an intellectual maverick. His mentors and intellectual community included the distinguished philosopher Nelson Goodman and colleagues at “Project Zero” – a first-of-its-kind think tank on the relationship between the arts, cognitive development, and education – as well as the internationally acclaimed neuropsychologist Norman Geschwind, with whom Gardner completed a postdoctoral fellowship. Gardner’s early writings²² reflect his growing interests, including an early attempt to describe the development of artistic behavior.

By the mid-1970s, these activities blossomed into an abiding interest in the nature of human intelligence. Gardner began conducting and examining research with groups that evinced distinctive profiles of cognitive abilities. These groups included children who displayed precocious performance in a particular area, such as a prodigious ability in visual art, and adults who suffered from strokes that compromised specific capacities while sparing others.^{15,23} These early forays into intelligence convinced Gardner that human beings are better thought of as possessing a number of relatively independent faculties rather than as having a certain amount of intellectual brainpower or “g.” Thus the Theory of Multiple Intelligences was born.^{1,2,24}

How are You Smart?

Gardner defines intelligence as “a biopsychological potential to process information that can be activated in a cultural setting to solve problems or create products that are of value in a culture.”²⁵ To proceed from a definition of intelligence to a set of human intelligences, Gardner developed criteria for analyzing candidate intelligences. These criteria were drawn from several sources, including psychology, anthropology, and biological sciences:

- *Potential isolation by brain damage.* For example, linguistic abilities can be compromised or spared by strokes.
- *The existence of prodigies and savants.* Case studies of extraordinary individuals permit intelligence to be observed in relative isolation.
- *An identifiable core operation or set of operations.* Musical intelligence, for instance, consists of a person’s sensitivity to melody, harmony, rhythm, timbre, and musical structure.

- *A distinctive developmental history within an individual, along with a definable nature of expert performance.* The examination of skills of an expert in dance for example, as well as the steps to attaining such expertise.
- *Support from experimental psychology and psychometric findings.* The existence of correlations (or lack of) between certain capacities.
- *Susceptibility to encoding in a symbol system.* The existence of symbol systems that encode certain kinds of meanings, such as language, arithmetic, and maps, capture important components of intelligences.

Based on these criteria and others,¹ seven abilities were initially included in MI theory. Later, Gardner^{2,24} added an eighth intelligence. These eight intelligences encompass abilities not previously categorized as “cognitive” abilities:

1. *Linguistic* intelligence describes the ability to perceive or generate spoken or written language. Linguistic intelligence is exemplified by poets, lawyers, and journalists.

2. *Logical-Mathematical* intelligence involves using and appreciating numerical, causal, abstract, or logical relations. It figures heavily in mathematics, science, and engineering.

3. *Spatial* intelligence describes the ability to perceive visual or spatial information, to transform and modify this information, and to recreate visual images. Spatial intelligence is used in sculpture, architecture, and navigation.

4. *Musical* intelligence refers to the ability to create, communicate, and understand meanings made out of sound. It can be seen in musicians but also can be discerned outside the musical sphere (e.g., auto mechanics and cardiologists make diagnoses based on careful listening to patterns of sound).

5. *Bodily-Kinesthetic* intelligence involves controlling all or part of one’s body to solve problems, communicate, or fashion products. It is used, for example, in athletics, surgery, dance, and dramatic performances.

6. *Interpersonal* intelligence involves the capacity to recognize and make distinctions among the feelings, beliefs, and intentions of other people. Interpersonal intelligence enables individuals such as Winston Churchill or Mohandas Gandhi to successfully communicate and work with others.

7. *Intrapersonal* intelligence enables individuals to form a mental model of themselves and to draw on that model to make decisions about vi-

able courses of action. The core operations of intrapersonal intelligence include the capacity to distinguish one’s feelings and to anticipate reactions to future courses of action.

8. *Naturalist* intelligence involves the ability to understand and work effectively in the natural world. Naturalist intelligence is exemplified by biologists, zoologists, and naturalists.

MI theory makes several key claims that distinguish it from other pluralistic theories. To begin with, the theory holds that each intelligence is characterized by a set of core information-processing mechanisms dedicated to specific kinds of input. Our biological inheritance insures that all normal humans possess the potential for successful use of all eight intelligences. At the same time, people are born with differing degrees of promise in these eight areas. Thus the intelligences are potentials that may or may not be activated, depending upon the opportunities available and values inherent in a specific cultural setting. In this way the intelligences *develop*: they change over time as individuals gain culturally-specific experiences and education. So, not only do we have unique profiles of intelligences but these profiles are also changing constantly. Gardner also suggests that *combinations* of intelligences support real world activities. A dancer activates a number of different intelligences in addition to the bodily-kinesthetic one, including — at a minimum — musical, logical-mathematical, and spatial intelligences. As such, Gardner makes the claim that the intelligences are integrated, unlike the “encapsulated” abilities posited in other theories of intelligence.

MI and the Goals of Education

Gardner’s theory has been profoundly influential among educators around the world in part because MI champions educational practices that most expert teachers agree with: 1. find ways to personalize instruction for all students and 2. test students’ understandings in contextualized, “real-world” ways. In Gardnerian terms, MI theory and the goals of education argue for multiple entry points into the curriculum and authentic “intelligence-fair” assessments.

A multiple entry points approach allows for a number of different ways to learn a topic. For example, MI supports those progressive dance history courses that offer multiple opportunities for understanding rather than just memorization of facts about the individual’s work and personage. One may research, read, and write about Isadora Duncan, but to put all learners at-promise for

understanding what Isadora meant when she said “The true dance must be the transmission of the earth’s energy through the body,”²⁶ teachers must provide students with a variety of learning activities. Learners need opportunities to try Duncan’s dance technique, listen to the music she used, and relate her intrapersonal knowledge of dance-making to their art and lives. Like good teaching, MI theory allows for a variety of ways in which people learn – instead of assuming that logical analysis and linguistic approaches are the “royal roads” to meaning-making.

Recently, Gardner² has begun to articulate specific entry points to engage students and place them centrally within the topic at hand. He has identified at least seven discrete entry points, which can be roughly aligned with specific intelligences:

1. *Narrational* – The narrational entry point addresses students who enjoy learning about topics through stories. A dancer studying choreography may be motivated to learn more about choreographic works by exploring the life story of dance-makers, which feature protagonists and their conflicts, problems to be solved, goals to be achieved, tensions aroused and dampened.

2. *Quantitative / Numerical* – The quantitative entry point speaks to those students who are interested in numbers, the patterns they make, the various operations that can be performed, and insights into size, ratio, and change. When learning new works, some dancers might be motivated to compare choreographers’ uses of certain movements or props, or count the number of movement actions to movement phrases.

3. *Logical* – The logical entry point animates the human capacity to think deductively. A dancer interested in a choreographer’s “movement logic” will seek to uncover basic patterns through systematic investigation. Through observation, she will deduce movement types and phrases characteristic of choreographic choices and perhaps schools of thought.

4. *Foundational / Existential* – This entry point appeals to students who are attracted to fundamental kinds of questions. One might ask why humans dance, where dance comes from, and why humans dance in certain ways in specific regions of the world and not other regions. Katherine Dunham’s work, for instance, challenges us to ask when dance is cultural and when is it intercultural.

5. *Aesthetic* – The aesthetic entry point highlights works of art or materials arranged in ways that feature expressiveness, ambiguity, or compo-

sition. This approach takes the art of dance on its own terms, so to speak, addressing the form and content of movement in space and time.

6. *Hands On* – The hands on entry point engages people in a topic through an activity in which they become fully, physically involved. One might learn *Lamentation* as a way to understand Martha Graham, her work, and her role in the history of dance.

7. *Social* – The social entry point addresses learning in a group setting, where students can assume different roles and observe others. Dancers may be asked to role-play a conversation between Isadora and Martha on the eve of a major performance together.

MI theory also makes some noteworthy claims concerning the methods used in cognitive-ability assessment. MI calls for “intelligence-fair” assessments that encompass all the individual’s cognitive abilities, explicitly avoiding the measurement of an individual’s mettle through the “window” of linguistic or logical-mathematical intelligence. Intelligence-fair assessment has two requirements. First, assessment procedures should be contextualized or “authentic.” Individuals must be assessed in situations that closely parallel conditions typical of the domain. For example, the best assessment of a lawyer’s ability would focus on the activities that practitioners in this domain actually do (e.g., briefing a case, interacting with clients). In the performing arts, this requirement seems almost silly. By its very nature, the assessments are performance-based.

The second requirement calls for intelligence-fair assessments that are by definition *ongoing* – that is, structured with repeated data collection events – as opposed to the one-shot-deal test. This provision runs counter to conventional “audition” practices in dance. Even if an audition could be devised to capture everything about the dancer’s abilities, Gardner argues, a single test-administration could not capture long-term aspects of the target performance (e.g., degree of motivation or the ability to bring difficult projects to fruition). A true assessment can be made only by evaluating the individual over time, using multiple measures. Dance companies the world over know this to be true, and in fact assign plum roles based on such information, but they also remain as committed to auditions as most U.S. colleges and universities are to the Scholastic Aptitude Test (SAT).

Myths and Pitfalls

Over the course of its lifetime, MI Theory has been subject to more than its usual share of misconcep-

tions and misusages. The myths about MI typically result in unfortunate pitfalls to be avoided when applying it to educational practice. In what follows, three of the most common myths and pitfalls are summarized. Under each heading is a “reality check” to keep in mind when confronted with those who tell you they “do MI.”

Practical Guide

- Myth: MI is a practical guide to curriculum development and there is a single “approved” educational approach based on MI.
- Pitfall: MI becomes the center around which the curriculum is organized.
- Reality: MI is not an educational prescription; rather it is a tool for looking at the curriculum and for considering how to design learning activities that serve a larger percentage of students. This is what Gardner considers to be true “personalization” of curriculum and instruction.

The idea of MI theory as a practical guide to building curricula is a natural response to the perceived value of it as a rationale for progressive education and differentiated instruction. However, while MI is a good rationale, it does *not* stipulate eight educational objectives for every lesson. Gardner stresses three key propositions to keep in mind when considering the role of MI in the classroom: “We are not all the same; we do not all have the same kinds of minds (that is, we are not all distinct points on a single bell curve); and education works most effectively if these differences are taken into account rather than denied or ignored.”²⁷

Labeling

- Myth: An intelligence is the same as a learning style, a cognitive style, or a working style.
- Pitfall: The labeling of learners, for example, as bodily-kinesthetic “hands-on” or linguistic “verbal” learners.
- Reality: The concept of style represents a general approach to learning that an individual can apply equally to a range of subject matter. An intelligence is a capacity that is geared to a specific content in the world.

Gardner rejects labeling learners for any reason. To his thinking, a learning style is more akin to the way one approaches a topic. It reflects a personality trait, such as introverted or extroverted tendencies. One way to understand the difference between intelligence and style is to consider someone with strengths in particular intelligences. The person who demonstrates particularly strong bodily-kinesthetic and spatial in-

telligences must still decide *how* to use those capacities. If she is extroverted, she might choose to be in the limelight as a professional dancer or athlete; if she is more introverted, she might choose the more private study that leads one on the career path of a painter or brain surgeon.

Testing

- Myth: Now that eight intelligences have been identified, assessment specialists can – and should – create a variety of tests and secure the scores.
- Pitfall: The assessment of intelligences separately, assigning a number (and therefore value) to each student’s profile of cognitive abilities.
- Reality: MI represents a critique of the standard psychometric approach. This myth recapitulates the false assumptions of the IQ model and serves to further decontextualize learning and neglect authentic assessment.

Most all pluralistic models of human cognitive abilities grow out of a strong belief in psychometrics: the idea that intelligence is in some way a measurable “quantity.” As suggested previously, Gardner’s ideas are more a reaction against than a variation of psychometric theories. Because the intelligences are thought to operate in combinations and thus cannot be independently assessed in a valid way, Gardner vehemently opposes the development of a set of eight MI tests.

Criticisms

While Gardner’s theory has been profoundly influential among educators around the world, it has also been criticized in a number of ways. One common critique holds that MI is not really a theory because it cannot be proved (or disproved) empirically. This criticism misses the mark. The configuration of intelligences can change (and likely will do so) as new research influences the way in which MI’s criteria are interpreted. The number of intelligences, which intelligences are posited, and how the intelligences work are all subject to revision in the light of new findings.

A somewhat more robust criticism of MI concerns the assessment of the intelligences. Gardner’s belief in assessing how people carry out valued performances under realistic conditions and his insistence on “intelligence-fair,” multi-dimensional measurement has been somewhat problematic for assessment specialists. If intelligence can be assessed only in context, then assessment practices must focus on real-world tasks in a domain, which by definition the beginner has yet to

learn much less master. How can one assess candidates' worthiness for medical school when they have not yet been taught to be a doctor? Medical-school admissions personnel are left only with assessments of isolated skills that may or may not be predictive of success in medicine. It is an assessment conundrum: it is impossible to evaluate candidates on what they have not learned, yet it is inadvisable to place too much confidence in decontextualized measures. In some cases, there may be no valid way to assess the abilities needed in a particular educational or occupational context.

This conundrum has resulted in a situation wherein MI theory has become well known as a taxonomy of human abilities, but its assessment implications – the potentially most profound statement – are all but ignored. The theory has provided psychologists and educators with a way to think about human abilities, but the corresponding assessment revolution never materialized.^{28,29}

Finally, and perhaps most importantly, theories of intelligence in general have come under scrutiny for the focus on abilities.³⁰ Even the most avant-garde theories of intelligence, like MI theory and Daniel Goleman's emotional intelligence,³¹ are innovative precisely because of the different kinds of abilities they recognize as important. Instead, researchers interested in high-level thinking argue that we need to rethink what it means to be smart by asking about the character of intelligence and cultivation of thinking.^{32,33} What does intelligence look like in action? What are the qualities of thought and characteristics of mind that we expect to see when someone is expressing intelligence or acting intelligently? This line of investigation seeks to understand the modes of thinking or "dispositions" that *activate* our intellectual potential and *deploy* the multiple intelligences in domains like dance.

Intelligence Possible: Implications of MI for Dance Education

One of the great virtues of Gardner's MI theory is that it invites application of its major tenets to specific areas of human experience; this is especially true for those domains, such as the arts, that traditionally have been ignored. In my view, MI theory has two implications for dance. The first implication is really more of an acknowledgment: MI theory validates dance as a domain of knowledge and posits the absolute potential, or possibility, of actualizing one's multiple intelligences through dance. Gardner's work has

enlarged our understanding of dance as a vehicle of thought; as a symbolic system that integrates the mind and body for intelligent expression of the self in movement, time, and space. Secondly, MI theory requires reconsideration of conventional approaches to dance education and training. If dance is the embodiment of "intelligence possible," then dance educators must take seriously the call to cultivate thinking in dance.

While the message of "intelligence possible" in dance may sound obvious or passé to dance educators in the early 21st century, it is important to note that this view is not widely shared even within our own ranks. Dance remains relatively understudied by students of human intelligence, development, and education. And, while the Western intellectual tradition may have dampened general interest, it is also true that we dancers have discouraged such investigation. Indeed, many of my closest friends aid and abet the folk psychology of dance as non-cognitive, justifying the experience in Martha Graham-esque terms of resistance: "If I could explain it then I wouldn't have to dance it." The retreat into inscrutability may be convenient for maintaining traditional myths and rituals surrounding the world of dance. However this line of thinking should leave one feeling cheated, because, in fact, the details of creating meaningful movement are related to the physiology of the brain and body: to the development of intelligence in our thinking bodies, dancing minds.

The fact that folk psychology has an attendant "folk pedagogy" – a set of beliefs about what teaching is and how it should be done – contributes to the view of dance as non-cognitive. Intuitive conceptions about learning and teaching rely on a memory-based model of the human mind.³⁴ In this view, learning occurs via the reception of externally-provided information transmitted from a knowledgeable person. This "transmission model" of teaching and learning emphasizes the acquisition of content knowledge through direct instruction and memorization. Adherents of this position deride as soft those student-centered instructional techniques championed by educational psychologists, such as the use of higher order thinking skills. Nowhere is this truer than in dance education. Wander into your average dance studio and you will find the folk pedagogy alive and well. From Main Street to Broadway, many dance teachers rely primarily on demonstration and imitation, telling their students to "stop asking questions" and "do it again until I tell you it's right."

Reconsidering Dance Education

One way to champion “intelligence possible,” and countermand the idea of dance as mindless acquisition of physical and mimetic skill, is to validate the role and place of conceptual approaches in dance education. As my colleague, Barbara Bashaw puts it, “the end goal becomes not to create children who can imitate well, but create *dance experiences* which *educate children* in a way so that they may continue to educate themselves in dance and in life.”³⁵

Though some dance teachers may argue that professional training and dance education seek very different goals, two recent approaches provide strong bridges between educational and professional concerns. These approaches resonate with the tenets of MI theory. The first, Ann Hutchinson Guest’s *Language of Dance*,³⁶ employs key movement concepts and symbolic representations (i.e., notations) to build a foundation of dance knowledge and movement literacy. Recently, I reported on a study of the effects of notation-use in dance.³⁷ I asked: if a child reads dance notation, as she would read a musical score, in what ways does her thinking in and about dance change, if at all? I found that notation-use matters. Students who used notations were more able to look at and understand dance than students without access to symbols. Movement notation presents a way of knowing dance that is qualitatively different from that which is accessed by verbal description or physical demonstration alone.

A second model, Jean Smith-Autard’s “midway model”³⁸ of the art of dance in education, provides a theoretical foundation for the integration of process-oriented and product-oriented approaches. Smith-Autard’s comprehensive model incorporates the flexibility of “open concepts” in movement³⁹ with stylized techniques common in the professional dance world. Her model places equal emphasis on dance problem-solving and training through the processes of creating, performing, and appreciating dance. In my view, Smith-Autard’s “art of dance” model supports the understanding of dance as mindful movement, that is, as a symbolic system for creating meaning in movement within the context of artistic, aesthetic, and cultural practices.

Both of these perspectives support the notion that *understanding* requires the cognitive flexibility to adopt different stances toward the work.⁴⁰ The ability to approach the work from the stance of an audience member, critic, performer, and maker among others, is crucial to the development of knowledge in the domain. Both Hutchinson Guest’s *Language of Dance* and Smith-Autard’s

midway model invoke Gardner’s three propositions cited earlier, and they use assessments that reveal the richness and multidimensional aspects of intelligence, skill, and knowledge in dance.²⁹

Into the Future

The neglect of “intelligence possible” in dance – and the implications for teaching and learning – might reflect, in part, an aversion to demystification. The myth of two minds, of divine inspiration, of unquestioning disciple all serve to reserve knowledge and power in the hands of dance authorities. While this may serve some traditional function, historically the prescription of demystification in art and science has been unproductive, justified only by the strange illusion that no knowledge is better than some. In contrast, theories of human behavior and cognition, such as Gardner’s MI theory, have traditionally predicted, synthesized, and inspired empirical and creative work. Such theories provide direction, enriching the imagination and understanding of human potential.

In the field of dance education at large, the growing acknowledgment of dance as an act of expression and intelligence owes much to Gardner and his MI theory. Gardner argues for viewing the art of dance as fundamentally cognitive; this characterization demands appreciation of the complex, multidimensional, and evolving nature of mind and body in the context of cultural practices. In music and the visual arts in particular, educational researchers and practitioners have embraced this view. Investigators in these areas have sought to better understand the mind behind the drawing hand and musical ear. It may well be the reason why art and music have remained relatively strong in our schools. Dance needs more such investigation, and more of that demystification and respect for the parts that has raised other fields to such spectacular wholes. In the final analysis, MI theory has opened the door to new explorations of human thought and action, novel explanations of intelligence and individual potential, and innovative approaches to education. The key for dancers and dance educators is to move ourselves, and our communities, beyond intelligence past, through the possible, and into the future.

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