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Pre-movement, an essential moment for the dancer

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1. WHAT IS AFCMD?

Functional analysis of the dancing body: a working definition *(AFCMD, Analyse Fonctionnelle du Corps dans le Mouvement Dansé)*:

- An approach to movement observation and practice which has evolved and developed in France since the late 1980's. At that time, a first national diploma program was set up to train dance teachers in which dance kinesiology was to play an essential role. The dance kinesiology program itself, set up by Odile Rouquet and carried out by Hubert Godard, was tailored to give an integrated approach to both somatics and movement sciences, constantly

bearing in mind their relationship to artistic expression. The curriculum included course-work in anatomy, physiology, neurophysiology, basic biomechanics, movement observation, functional analysis and somatic practices. In order to provide an integrative overview of somatic practice, the program moved quickly from its first influences – *a)* Ideokinesis and *b)* Structural Integration – to include an understanding of the founding principles of diverse somatic approaches and how to find applications in the field of dance. One of the main fields of study which particularly concerns AFCMD practice and theory is that which is centered on perception in the elaboration of neuromuscular coordination. Each AFCMD practitioner develops different protocols which help to identify one's own coordination processes, and offer neuromuscular facilitation within the movement context. The focus of analysis is not only on the more easily visible structures of movement, but also the internal changes related to intentionality. Specific attention is given to the postural support system preceding gesture. The bridge between kinesiology and somatics is one of our principal continuing projects.

2. THE MOVEMENT WORKSHOP IS BASED ON THE FOLLOWING CONCEPTS

2.1. *Tonic function*

This term, first used in the context of European psychomotricity research and practice, refers to the physiological function relative to muscular tension and its regulation - involving physical, social and emotional factors - which develops through our relationship to the world around us. (Corraze, 2007). (See also: Julian de Ajuriaguerra, French neuro-psychiatrist and psychoanalyst)

Important aspects of this function in psychomotor development concern the progressive attainment of the complex ability to stand (*l'acquisition de la verticalité).* Some of the structures involved: Being upright involves a network of deeper, intrinsic muscles which respond to the force of gravity in a constant dialogue, structuring and stabilizing the skeletal system while sustaining its ability for motion. The nervous system takes care of this constant background activity through sub cortical connections. Tonic function, and specifically our relationship to gravity, becomes the background and support for action. We note that, when dealing with questions of coordination, the « background » needs to be addressed - but can't be taken head on. Due to the pre-reflexive nature of the tonic function, it is essential to use an indirect approach when looking to experience change.

2.2. *Pre-movement*

Godard considers the "pre-movement" phase to be the "non conscious language of posture" (expressed through the deep, intrinsic muscular system). « Before we move, we have already established a personal attitude to gravity, through the very act of standing ..." (Godard, 1995, p. 225). The quality, colour and expressive power of movement will depend on this pre-movement state which is closely linked to subjective experience.

2.3. *Functional predisposition (terrain fonctionnel)*

Godard's hypothesis: "I will call "functional predisposition" each individual's almost innate tendency, which orients (ascending or descending dynamics) his or her way of dealing with gravity, physically and symbolically." (Godard, 1990, p. 22)

3. OVERALL THEORETICAL CONTEXT

Core connexion is a theme often dealt with in terms of anatomy and muscle strength. We propose to look at it also, and moreover, as a learned perceptual activity involving intention, relation and coordination. The following framework of ideas informs our perspective on the question of **coordination**:

- perception is action (Berthoz, 1997)
- evolves in interaction between the subject and the environment (ecological model) (Gibson, 1979)
- requires synergy and relation to gravity, the only invariable in our environment (Bernstein, 1967)
- a dynamic systems perspective (Thelen & Smith, 1994)

4. MOVEMENT SESSION NOTES

4.1. *Observing an arm gesture:*

- Seeing the "foreground" and the "background".
- Does the background relate to gravity in a predominantly ascending/ or descending dynamic?

As soon as intention is present, muscle tone organisation changes in subtle ways.

4.2. *"Standing up": observing a particular moment in learning fundamental coordination patterns*[1]*:*

- A simple reminder from observed behaviour - Some children function more often like a "periscope" (ascending dynamic): pushing up from the ground to look around and then getting to a new location on all fours; and other children more like a "comet" (descending dynamic): having pulled themselves up to a place or person to hold onto, they then are attracted to a new person or object - they just reach out to get there, setting off a dynamic, but not yet mastered, off-balance walking-as-falling, letting their legs trundle along to catch up, until they either do fall, or manage to catch onto another support. Everyone combines both dynamics, but Godard postulates a personal predominance (ascending or descending). We do initiate and accentuate differently

[1] At this point, children have already combined thousands of important and identifiable movement experiences preparing for verticality. We are looking at this transition point in relationship to our theme material.

our relationship to gravity and habited space. The actions of push and reach can be seen as aspects of this dynamic interaction; again, we can posit personal predisposition, or perhaps preferred strategies.

4.3. *Observing how we initiate walking:*

- Observing our own way of walking - paying particular attention to the first movement (Sohier & Haye, 1989). How do we "start off"? (Remember of course, that this may change according to context, but we are looking for our own comfortable base.)
- Observing and modeling others (Nicole/Catherine): notice the relationship of upper and lower body. If we took the time, we could note a constellation of characteristics such as degrees of thrust, of impact, changes in rhythm and how the centers of mass relate to each other, etc.

We find many of these characteristics recurring in the way we approach dance movement. We hypothesize that these characteristics are strongly related, perhaps tributary, to pre-movement (the state of the tonic function that supports and prepares gesture and locomotion).

4.4. *Personal predisposition in the context of teaching dance:*

Our personal tendency to use ascending or descending dynamics not only gives a distinctive quality to our own movement expression, but also - as "pre-set" (Berthoz, 1997) - it influences what we observe in our student's movement, our choice of strategies in teaching, our vocabulary and our individual approach (organizing the timing, the initiation, the transitions) to even basic movements. We briefly visited the example of "battement tendu".

A paradoxical situation: we were asked to choose only one indication to teach our "battement tendu". All of us were faced with more than one dilemma:

a. Background or foreground? (If I choose only background the gesture won't happen.)
b. Support? Or the space around and above us?

Again we see the multidirectional and three dimensional nature of "battement tendu" as gesture *and* as the support for gesture. The teaching/learning experience requires many variations on the theme, over time.

Here, we can observe that with experienced and often somatic-savvy teachers the use of metaphor or images - all-inclusive or sometimes specific - is a preferred strategy. One of the important goals would be to change the perceptual state that influences pre-movement, **without directly addressing "placement" issues** (by repositioning body segments, for example); a wise choice considering the way posture is connected into the nervous system. We did notice that many indications are related to spatial intent. During the movement session we did *fast-forward* to the next step in order to experience different aspects of the AFCMD process, without going into detail, but…

But if we took a minute to observe pre-movement in this situation, we would need to look at:

"What does my body do **just before** the leg gesture?"

It is this precious instant, when the body *prepares for and carries out the shift of weight*, when all of our coordination patterns are redistributed and prepared. In fact (and this requires taking time) the whole workshop could focus on this instant and its subsequent effects. The choice of descending or ascending dynamics is already triggered here. Workshop strategies would include playing with opposites, for instance, emphasizing different polarities in order to *avoid prescribing* "how to stand", or "how to create stability": we are trying to stimulate a dynamic- not a static- process that should engage on a deep level, without producing the unhappy stiffness and lack of breathing experienced by many novice dancers.

Reminders for teachers: the spine needs to "breathe"; this is helped by activating support and space the instant before we move. Creative and somatically-educated teachers can work wonders with: "the instant before we move, we **are already** moving" (remember Steve Paxton's *small dance* – the mobility inside standing – and N. Bernstein's "*readiness-to-move*" (Bernstein, 1967).

An educated eye can learn to see holding patterns (interfering with a better sense of grounding or diminishing ease of movement) which can be addressed through the use of images and touch; but in fact, one of the most powerful tools is the use of non-habitual movement experiences facilitating change in our perceptions:

- in relationship to gravity;
- in relationship to the space around us.

Also allow for noticing changes in muscle tone.

We'll call this process neuromuscular facilitation.

4.5. *An example of neuromuscular facilitation*

Objectives: balancing the tensions of the lower limbs and their relationship to the pelvis, giving better grounding and coordination.

Means (guided exploratory movement):

Pre-test: "plié parallel", feet approximately the width of the distance between the femoral joints.

- Step 1: Three-dimensional mobilization of the femoral joints (horizontal 8): closed chain; (moving through abduction, flexion, adduction, extension) in continuous, low amplitude, low intensity movement (Focus: looking for continuity, smooth transitions, even spacing and timing). Note: while one hip is moving through adduction the other is in abduction. The pelvic floor remains as parallel to the floor as possible, aiming for translation rather than tilt of the pelvis.
- Step 2: Changing our perception of support by stimulating the foot's adaptability to changing terrain; remembering that 26 bones can compose an entire alphabet of

movement, here we can we differentiate the talocrural movement possibilities - mainly sagittal - from the incredibly rich subtalar function. (Focus: Plantar surface of the foot adhering to – to be distinguished from standing on – a large spherical moving surface/ball; Let the rest of the kinetic chain follow the movement, guided by the activity of the foot.) Important: complete through to "post-test" before trying the movement with the other foot.

Post-tests: Again, (A) three-dimensional mobilization of the femoral joint (horizontal 8) noting coordination differences and (B) "plié", noting changes, and the way these changes tend to "be propagated" through the system.

5. SEEING THE INFLUENCE OF FUNCTIONAL PREDISPOSITION ON DANCE PERFORMANCE

Fred Astaire and Gene Kelly in "The Babbitt and the Bromide" from Ziegfeld Follies (1946): Both dancers have apparently perfect timing but they have fundamentally contrasting ways of relating to gravity (which change the approach to timing).

Fred Astaire accentuates reach-space, suspension and descending dynamics.

Gene Kelly gives greater emphasis to thrust from the floor, percussive attack and ascending dynamics.

Looking closely, in slow motion, we notice that they initiate movement sequences differently.

Questioning our own teaching practices: If Fred had insisted that his own dynamics be reproduced by Gene, or vice versa, would this particular choreographic offering ever have come to be?

As pointed out above, our personal tendency (ascending or descending dynamics) not only gives a distinctive color to our own movement expression, but also influences our movement choices and the way we see other movers move. Recognizing our predisposition should help us to dance "with" our own dynamic tendency and not "against" it.

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