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Mental action as visible bodily performance: an educational perspective*

Jean-Rémi Lapaire

*All the world's a stage,
And all the men and women merely players.*¹

*The similarities between the stage and the
classroom are endless.*²

Introduction

We are born wrigglers and babblers but soon grow into *social vocalizers and movers*, who have internalized the communication system of the society and culture we belong to.³ Our speech organs learn to produce *articulated sounds, intonation phrases* and *structured utterances* (as opposed to free vocalizations), which are strictly conventional in character. Our bodies are socially trained to make *patterned gestures* (as opposed to free movements), which are subject to “social restraints”.⁴ In short, we develop into social “performers” of language - not just speakers – doing our act, delivering our lines, at every moment, on the *interactional stage*.⁵

The inbuilt “performativity” of speech⁶ is an essential component of language but an oft-neglected feature in mainstream educational theory, which is loath to treat *learning spaces* as *performance spaces*, pedagogy as dramaturgy, lessons as “face-to-face encounters.”⁷ The claim made in the present article is that a “minimal model of the actor”⁸ is still needed in education to empower instructors and their students, to establish the basic “body to body starting point” of the primary teaching-and-learning

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¹ William Shakespeare, *As You Like It*, Act 2, scene 7.

² Robert Tauber, in Ellen Delisio, “Using Acting Skills in the Classroom,” *Education World*, 2007.

³ Ray Birdwhistell, *Kinesics and Context*, Philadelphia : University of Philadelphia Press, 1970.

⁴ John Gumperz, “Linguistic and Social Interaction in Two Communities,” *American Anthropologist*, New Series, Vol. 66, No. 6, Part 2: The Ethnography of Communication, 1964, pp. 137-15.

⁵ Erving Goffman, “The Interaction Order,” American Sociological Association, 1982 Presidential Address, *American Sociological Review*, Vol. 48, No. 1, Feb. 1983, pp. 1-17.

⁶ Richard Schechner, *Performance Theory*, Second Edition, New York : Routledge, 2003.

⁷ Dell Hymes, “Toward Ethnographies of Communication,” *American Anthropologist*, New Series, Vol. 66, No. 6, Part 2: The Ethnography of Communication, 1964, pp. 1-34.

⁸ Erving Goffman, *Interaction Ritual. Essays on Face-to-Face Behavior*. New York : Pantheon Books, 1967.

scenario,⁹ to turn all participants into skilled *social actors* making full use of the dramatic resources of speech.¹⁰

Performing meaning

*How does one perform a mental action? How does one come to know that one is performing a mental action?*¹¹

As we talk, we position our bodies in socio-physical space, just as actors position themselves on the stage. The selves we “present” to others in the daily “dramaturgy” of speech¹² are *sensing, moving* and *cognizing selves* that engage in multiple forms of *symbolic action*.¹³ As its name suggests, symbolic action is a dynamic process that makes a representational use of space and bodily movement. The area in front of the speaker – known as the “gesture space”¹⁴ – is endowed with expressive and ideational properties. It simultaneously functions as *interactional space* (where communicative engagement takes place); *narrative space* (where events are reported, located and connected); and *conceptual space* (where ideas or arguments may be shaped, displayed and connected). Since much of the talk that we produce contains emotive, narrative, and argumentative ingredients, the different spaces merge into a single *semiotic space*, filled with multiple meaningful signs, *verbal, co-verbal* and *non-verbal*. Whether we express needs, voice feelings, report events, or analyze experience, we use the discourse space and the animation of our bodies to influence – and possibly control – the addressee’s thoughts and behavior.

Interestingly, the more abstract and complex a topic tends to be, the more speakers resort to *kinetic imagery* in an attempt to make their meanings palpable and accessible. Teachers and scholars characteristically *draw diagrams* to help readers and listeners with difficult or confusing matters. They trace schematic lines and figures that “give shape to concepts” and structural features.¹⁵ Speakers also tend to move more as they grapple with intellectual complexity and engage in problem solving.¹⁶ Thus “gestures of the abstract”¹⁷ are instinctively produced in conjunction with speech, which “help free up cognitive resources”¹⁸: the movements *fuel the speaker’s own thoughts*, while making invisible mental operations *tangible and accessible to others*. Despite considerable

⁹ Goffman 1983, *op. cit.*, p. 2.

¹⁰ Robert Tauber and Cathy Sargent Mester, *Acting lessons for teachers: using performance skills in the classroom*, Second Edition, Westport, CT : Praeger Publishers, 2007.

¹¹ Michael Brent, “Mental Actions,” A Bibliography, *PhilPapers*, 2018.

¹² Erving Goffman, *The Presentation of Self in Everyday Life*, New York : Anchor Books, 1959.

¹³ Adam Kendon. *Gesture. Visible Action as Utterance*, Cambridge: Cambridge University Press, 2004.

¹⁴ David McNeill, *Hand and Mind. What Gestures Reveal About Thought*, Chicago: The University of Chicago Press, 1992, p. 86.

¹⁵ Rudolf Arnheim, *Visual Thinking*, Berkeley: University of California Press, 1969.

¹⁶ Susan Goldin-Meadow, “From action to abstraction: Gesture as a mechanism of change,” *Developmental Review*, Volume 38, 2015, pp. 167-184.

¹⁷ McNeill, *op.cit.*, p. 145.

¹⁸ Susan Goldin-Meadow, *Hearing Gesture. How Our Hands Help Us Think*, Cambridge, Mass. : The Belknap Press of Harvard University Press, [2003] 2010, p. 166.

interpersonal variation, individual speakers use abstract gesticulation consistently, assigning different spaces (or *loci*) to different ideas, and integrating *gestural action* with *mental action*.¹⁹

It is important to realize that all the *hand movements* – and more generally the *motion events* – which occur in narrative or argumentative discourse not only *accompany* but also *enact* (perform, accomplish) such fundamental *cognitive operations* as counting items or occurrences, locating events in space or time, establishing the reality of ideas or phenomena, ranking, measuring, linking, limiting, including or excluding, binding or unbinding, opening or closing, comparing or contrasting, growing or diminishing, stopping or continuing, uniting or separating, developing or compressing, exchanging.²⁰ As this happens, ideas, events and phenomena are *reified* (or *entified*): they are turned into “things” (or “entities”) that can be held, pointed to, and fictively manipulated in discourse space.²¹ The speaker’s hands thus become an extension of his mind, and cognitive processing is symbolically staged as a process of *object creation and manipulation*. As meanings are “manu-factured” before the listener’s eyes, as space is used to shape and display objects of conception, intellectual ability becomes a kind of “gesturecraft.”²²

All speakers have the ability to shape and convey meanings by making a symbolic use of space and bodily motion. All are equipped to physically engage in “whole and holistic” acts of representation.²³ This shows not only in “gestures of the abstract” but also in ritual performances like religious rituals, rites of initiation, sacred or traditional dances which humans *engage in* across cultures.²⁴ In such bodily practices, space, body parts and physical movement are made to *signify* in an abstract-yet-visible sort of way. This is why all instructors, irrespective of the subject they teach, should strive to develop a deeper understanding of the “active intelligent body” in motion.²⁵

A good starting point might be to explore the rich vocal, visual and kinetic potential present in the human body, as was once the case in Classical Rhetoric.²⁶ Filming, observing and assessing the impact of teachers’ gestures – including one’s own – might also prove useful, however stressful this might feel at first. Whatever method is chosen, it is important to become conscious of the *physicality* of teaching and learning, to

¹⁹ See David McNeill, *Gesture and Thought*, Chicago : The University of Chicago Press, 2005 ; Fey Parrill and Kashmiri Stec, “Gestures of the abstract,” *Pragmatics and Cognition*. Volume 24 (1), 2018, pp. 33-61.

²⁰ Geneviève Calbris, *Elements of Meaning in Gesture*, Amsterdam / Philadelphia: John Benjamins, 2011.

²¹ Jean-Rémi Lapaire, “From ontological metaphor to semiotic make-believe: giving shape and substance to fictive objects of conception with the *globe gesture*,” *Signo*. vol. 41, n° 70, 2016

²² Jürgen Streeck, *Gesturecraft : The Manu-facture of Meaning*. Amsterdam / Philadelphia : John Benjamins, 2009.

²³ Marcel Jousse, *The Fundamentals of Human Expression and Communication. Seven Lectures by Marcel Jousse*, Translated and presented by Edgard Sienaert and Joan Conolly, Durban, South Africa : Mantis Publishing, 2005, p. 192.

²⁴ See Marcel Jousse, *L’Anthropologie du Geste*, Paris : Gallimard, 1974 ; Gunter Gebauer und Christoph Wulf, *Spiel - Ritual – Geste. Mimetisches Handeln in der sozialen Welt*, Reinbek: Rowohlt, 1998; Richard Schechner, “Ritual and Performance,” in *Companion Encyclopedia of Anthropology. Humanity, Culture and Social Life*, Chapter 22, London: Routledge, 2002, pp. 613-647.

²⁵ Streeck, *op. cit.*, p. 160.

²⁶ See Marcus Fabius Quintilianus (Quintilian), *De institutione oratoria* (The Education of the Orator), *Liber I, xi-xii* (92), An English translation by E.M. Butler, London: William Heineman, 1920.

acknowledge the centrality of the *teacher's* and *learners' bodies* in the classroom, both as social and physical entities.²⁷ Once this has been achieved, lesson plans that integrate kinesthetic activities can be designed and experimented. The following section briefly describes ways in which it can be done, so that participants eventually find themselves “emboldened by embodiment”.²⁸

Enacting knowledge and understanding

Because *bodily action* and *mental action* work together in speech, both at the ideational and expressive levels, all students have the ability to use vocalization and movement for exploring any kind of *space*, be it social, interactional, semantic, conceptual, narrative, discursive, historical, mathematical, or even astrophysical.²⁹ As the process of inquiry unfolds at the kinetic level, the *learning body* holistically engages in *living acts of perception and conceptualization*.

Although the traditional “teacher” and “student” roles are preserved during the workshop sessions, instructors find themselves acting as *choreographers* who lead participants through movement sequences. They also act as *directors* staging short *revelation* or *elucidation scenes*: some truth about some notion or situation must eventually come to light; some concept or phenomenon is to be experienced differently and with greater intensity as a result of bodily engagement.

As the first kinesthetic learning sessions take place, instructors discover something important about themselves: that they have a sentient and moving *teaching body*; that their positioning in space and level of kinetic activity matter; that they can do more than just sit and stand in the classroom. The range of teaching positions and physical actions is actually much wider than they would have ever thought: they may stretch, squat, roll, fall, crouch, bend forward, prance, run, jump, wave, whisper, mumble, whistle, scream, etc. to teach their subject, with remarkable effect upon their students. The same can be said of the liberated *learning bodies* of the students, who discover that they too can engage in new forms of interaction and collaborative work with their peers (and their teachers) during a lesson.

Technically, Goffman’s “body to body starting point” serves as a foundation for all the workshop sessions that are organized inside school and university buildings, whatever topics and objectives are set. Conditions for a safe and efficient learning environment, where social, physical, or emotional inhibition runs low, are created by:

- developing an awareness of the *immediate presence of others* through the senses (smell, vision, hearing, haptic contact);

²⁷The teaching situation brings together teachers and learners as *body* corporates – i.e. socially constituted groups of individuals, collectively defined by statutory, rights, duties, positions etc.- and individual physical *bodies*. See Bernard Andrieu et al., *Enseigner par son corps*, Paris: L’Harmattan, 2014.

²⁸ An inspiring phrase used by Robb Lindgren and Mina Johnson-Glenberg in “Embodied by Embodiment. Six Precepts for Research on Embodied Learning and Mixed Reality,” *Educational Researcher*, Vol 42, Issue 8, 2013, pp. 445 – 452.

²⁹ Emmanuël Rollinde, a French professor of astrophysics, has developed an approach known as “enacted astronomy” described in “Learning Science through enacted astronomy”, *International Journal of Science and Mathematics Education*, 2017. In the “Human Orrery” an analogy is created between human bodies and celestial bodies in the solar system, bodily motion and planetary motion.

- using simple breathing, walking and vocalizing exercises to prepare the body and explore the *workshop space* in its physical and socio-interactional dimensions.

In order to “build knowledge holistically” and “engage the whole human being”³⁰ sufficient time and attention must be devoted to warming up. Preparatory activities should truly be “preparatory”: they should allow participants to transition from one space and learning style to the other, and develop a general state of readiness for the upcoming activities.

The kinesthetic learning scenarios sampled below have been tested in French schools and European universities with success:

- *Linguistic theory in motion*: analyzing the formal (e.g. tense,³¹ modality, word formation) and the socio-interactional properties of language (e.g. “in-group vs. out-group membership,” “social contact”).³² The idea is to explore abstract notions and processes physically,³³ through guided forms of “replay” or “re-enactment”³⁴ and “choreographic thinking.”³⁵
- *Literature in the flesh*: reducing a complex piece of literature to bare essentials, while re-enacting the meaningful events that inspired it.³⁶ The idea is to design a short but powerful group performance, with successions of tableaux (static or dynamic), expressive pauses, silent kinetic episodes, and dramatic moments (with vocalizations). Participants follow Quintilian’s method during the first phase: they compress and simplify the form of the original piece, and elaborate a condensed version. They reflect and learn through the medium of “paraphrase” – an activity mistakenly construed as idle or sterile imitation.
- *Quotations in motion*. Understanding, internalizing *and* projecting chunks of academic or literary discourse. The idea is to fully experience ideas, to internalize and memorize them, and to project them dramatically. Participants experiment with different moods and delivery styles.

In all these activities, *performativity* – the physical enactment of meanings and processes – becomes inseparable from *understanding*. The workshops are systematically assessed using direct observation, online questionnaires and the learning diaries produced by the students. Results show that embodied strategies of this kind produce higher levels of

³⁰ Jousse 2005, *op. cit.*, p. 209.

³¹ Jean-Rémi Lapaire, “The choreography of time: metaphor, gesture and construal, in Rosangela Gabriel e Ana Cristina Pelosi, *Linguagem e cognição: emergência e produção de sentidos*, Florianópolis: Insular, 2016, pp. 217-234.

³² Jean-Rémi Lapaire, “Grammar, gesture and cognition: insights from multimodal utterances and applications for gesture analysis,” *Visnyk of Lviv University, Philology Series*, Issue 52, 2011, pp. 88-103.

³³ Jean-Rémi Lapaire, “Visuo-kinetic explorations of grammar,” in András Benedek and Kristóf Nyíri (eds.), *Visual Learning- Metaphors and Metamorphoses*, Frankfurt/M: Peter Lang, 2011, pp. 41-55.

³⁴ In his anthropological theory of gesture, Marcel Jousse uses the French word *rejeu* - literally a “replay” of something.

³⁵ William Forsythe, “Synchronous objects as a choreographic object,” an interview recorded at The Ohio State University, 2009.

³⁶ Jean-Rémi Lapaire and Hélène Duval, “To the Lighthouse (1927): a choreographic re-elaboration,” *Miranda*: 15 | 2017.

group cohesion and *teacher-learner interaction*; encourage *peer proximity*; stimulate *concentration* and *personal reflection*, while feeding *student curiosity* and *creativity*. Although workshops are rarely perceived as indispensable for comprehension and memorization, they are overwhelmingly experienced as *stimulators* and *eye-openers*. Remote, difficult or uninspiring topics are viewed differently after the sessions: a sense of “life” and “proximity” is instilled, which eventually makes dull subjects more attractive and meaningful. Further testing is still necessary to get a fuller picture and is currently under way.

Concluding remarks

Unlike politicians, news readers, talk show hosts and other professional communicators, teachers and university professors tend to behave as *undertrained public speakers*, whose vocalizations, bodily moves and interactional strategies largely operate out of awareness. Few have received serious instruction in voice production and articulatory phonetics, movement dynamics and gesture semiotics, pragmatics and performance theory, during their formative years. Their limited awareness of the *physicality* and *performativity* of speech prevents them from making a richer and more creative use of space with their students. The part played by bodily motion in abstraction and reasoning is accordingly downplayed. As Jousse convincingly argues, the entire sensing and performing human body – rhythmically moving and vocalizing – is the prime medium of perception, expression and understanding. Our Western education system has developed a form of “bookish ethnicity” that values writing and reading skills. Higher forms of knowledge tend to be equated with the stativity of the printed letter – “*scientia cum libro*.”³⁷

To a large extent, Jousse’s criticism still holds: *texts* (printed or digitalized) remain the dominant mediators between reality and understanding. As a result, more time is spent on *exegesis*³⁸ – the critical interpretation of written material – than on the *observation* of the world around us, and too many learners still find themselves “mummified in sarcophagi of printed pages and books.”³⁹

The “living and gestural element,” the ability to memorize and “replay,” which are conspicuous in children and highly valued in oral cultures, are still largely devalued in mainstream Western education. It is only in early childhood that learners are treated as “living beings.” The instruction they receive during their preschool years is aptly conceived and designed as “*scientia in vivo*.”⁴⁰ But the animation of the young learning body is not tolerated for very long. The moment reading and writing are introduced in the curriculum – typically around ages 5-6 – printed or digitalized texts take over, and literacy reigns supreme. Although greater sensory stimulation can now be achieved by using tablets and computer systems, *motor disengagement* remains the norm almost

³⁷ Marcel Jousse, *The Anthropology of Geste and Rhythm*, Second revised edition, edited from the original French [1974-78] by Edgard Sienaert and translated in collaboration with Joan Conolly, Durban, South Africa : Mantis Publishing, 2000, p. 26.

³⁸ *Exegis*, as understood in this paper, denotes any kind of interpretative process that applies to written texts. This ranges from a student working out the meaning a friend’s SMS or Twitter posts to the scholarly interpretation of Scripture.

³⁹ *Ibid*, p. 28.

⁴⁰ *Ibid*, p. 26.

everywhere in the teaching room. This results in the *petrification of knowledge and learning*: “For us, science has become gravely serious. It has become immobile. When one goes to introduce oneself to a savant, one always imagines a grave immobility.”⁴¹

Can this change? Will this ever change? A recent survey of “effective teacher policies,” which was commissioned by the *Organization for Economic Co-operation and Development* (OECD 2018),⁴² does not mention anything like *scientia in vivo*. Not a single reference is made to “embodiment” (or “embodied cognition”) as a “unifying perspective” for education,⁴³ although one would assume that “students” and “teachers” interact physically in the classroom, and “enact knowledge through (some) activity of their bodies” – if unconsciously.⁴⁴ The report rightly insists that teachers are “the most important resource in today’s schools.”⁴⁵ It also makes a number of useful claims: that teachers are not “interchangeable workers in some sort of industrial assembly line”⁴⁶; that they “can change lives”⁴⁷; that recruiting “better teachers” is “crucial to improving the education that schools provide.”⁴⁸ But what makes teachers “better;” what improves the “quality” of the training they get, the lessons they give and the “professional development” they achieve; what makes strategies for correcting “student disadvantage” more efficient; and what might make “classroom experience” feel more intense and special, remain thoroughly unspecified at the *physiological* and *phenomenological* levels. Unsurprisingly, the word “body” – which occurs 4 times in the 168-page report - is not used even once in its primary physical sense. Yet there is some hope in the fact that “high performing countries” invest more in “teacher-preparation programs” and lifelong learning. Teachers are expected to behave like “inquisitive professionals”⁴⁹ and attend regular “workshops organized by the school.”⁵⁰ In our experience, such workshops can provide precious opportunity for teachers to reflect on the wonders that the *thinking-and-moving bodies* of teachers and learners can achieve in learning space. For change is definitely possible and there is indeed a future for enhanced educational practice using bodily action to fuel, sustain or improve mental action. But the road leading to that change is still a long and sometimes solitary one to travel.

⁴¹ Jousse 2005, *op.cit.*, p. 52.

⁴² OECD. *Effective Teacher Policies: Insights from PISA*. PISA : OECD Publishing, 2018.

⁴³ Arthur Glenberg, “Embodiment as a unifying perspective for psychology” *Cognitive Science*, pp. 586–596, 1 / 2010. While acknowledging that humans are “symbolic creatures,” Glenberg stresses the necessity of grounding symbols “in something other than additional symbols,” namely “the sensory, action, and emotion systems of our bodies” (p. 587).

⁴⁴ Lindgren and Johnson-Glenberg, *op. cit.*, p. 445.

⁴⁵ OECD, *op. cit.*, p. 168.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*, p. 32.

⁴⁸ *Ibid.*, p. 168.

⁴⁹ *Ibid.*, p. 131.

⁵⁰ *Ibid.*, p. 32.