

The Mind is a Muscle – or: the Muscle is a Mind?

Stephanie Schroedter

Understanding dance as a sensory and mentally grounded organisation of movement is at the core of Stephanie Schroedter's reflections. Of particular interest is the “muscle” or “movement” sense, which Émile Jaques-Dalcroze already insisted upon with great clairvoyance to train the transformation of sounds into spatio-temporal and dynamic nuanced, “plastic” movement creations. Against this backdrop Schroedter traces the “discovery” of our kinaesthesia back to its beginnings – as a sense responsible for the perception of one’s own movements, but also for self-perception based on movements. Subsequently, from a phenomenological perspective, the concept of a “kinaesthetic hearing” is established as an immediate interweaving of auditory perception with (visible or imaginary) movements.

The Mind Is a Muscle – or: the Muscle Is a Mind?

Stephanie Schroedter

It may be an audacious undertaking to directly link Émile Jaques-Dalcroze with Yvonne Rainer, one of the co-founders of Judson Dance Theater and a pioneer of postmodern dance. Yet a common point of reference can be established between these two protagonists of new art concepts (including their respective educational methods) – it is rooted in the seemingly idle question of whether the “mind” is a muscle and/or whether muscles have a “mind”. To be sure, from a neuroscientific perspective the answer would be simply “neither-nor” – and representatives of embodiment theories or so-called enactivism would not even formulate the underlying problem of this question, which is here (still) precariously grounded in a body/mind dualism, in this way.

Yet this seemingly paradoxical question in particular leads to a neuralgic point of avant-garde art aesthetics of the 20th century: with her performance *The Mind is a Muscle* (1968), Yvonne Rainer established a new model of artistic work in which (body) movements interacted directly with film and text. In this way, she sought to re-explore the tension between an artistic idea and its materialisation on stage, while at the same time radically questioning the “work”-character of art productions that dominated well into the 20th century. In this performance, she was also concerned with undermining traditional movement conventions and the narratives associated with them (above all those of the so-called classical-romantic ballet). The result of this experiment was a far-reaching dissolution of boundaries between the arts, which (despite or precisely because of their consistently maintained independence) intertwine with each other – above all in the “spirit”, i.e. in the perception of the spectators, as could be argued from a perceptual-psychological perspective (focusing on cross-modal sensory input). The “mind” of the performers advanced to become a muscle (the supposed impulse generator or rather motor of movements) in so far as “dance” was no longer to be understood as a primarily physical (in the sense of “purely” motoric) activity, but above all as a mental, i.e. intellectual and at the same time individual, that is, self-creative activity.¹

In contrast, Émile Jaques-Dalcroze – from a primarily musical and not dance-choreographic perspective, yet understanding music in a very comprehensive sense as a phenomenon of (inner/outer) motion – considers precisely “muscle movements” or a “sense of muscle” as essential for the development of a profound musicality, as can already be seen in his early lectures. For example, he sees the cause of an undeveloped sense of style in the

¹ Cf. on this also: Catherine Wood, *Yvonne Rainer: The Mind is a Muscle*, Cambridge/Massachusetts and London 2007.

(mis)interpretation of a piece of music in a “lack of muscular sense”, ultimately a “lack of understanding of the relationships between movement and sound, between cause and effect, aim and methods”.² Another article reads: “The knowledge of the relationship between muscular effort and the formation of sound is generally valid and applicable to every instrument”,³ “whereby particular attention must be paid to [an] even dynamic development of each muscle with a constant increase in strength, [in order] to bring the organs into the correct relationship of dependence to the activity of the will”.⁴

Ultimately, it is precisely these “muscles” that not only become the focus of a particular practice of musical interpretation, but also form the nucleus of Jaques-Dalcroze’s concept of “rhythmic gymnastics”, with which he obviously sought above all to train this sensorimotor ability: “[...] rhythmic gymnastics can cure the nerves, for it regulates muscular strength according to time and space”.⁵ A little later one reads: “The study of rhythm is the study of muscular force, of the mass of time and space, and of the influence which the magnitudes of these three factors exert on each other.”⁶ - and then again arguing from a higher level:

“Rhythm is of a physical nature, it is the movement of matter in time and space in a logical and proportionate division. The life task of every muscle consists in producing movements of a certain strength [= dynamics, note St. Sch.] and a certain length [= time, note St. Sch.] and in a certain space. By logically arranging the relations of these three elements of movement, each muscle evokes a rhythmical impression in the brain, and the brain converts the sum of the impressions into will, i.e. into regular habits, into constant spontaneous readiness for action and into complete freedom of imagination. This is how the spirit’s forces of movement are formed.”⁷

The last quotation in particular seems like a condensed manifesto of the “rhythmics” developed by Jaques-Dalcroze, which thus obviously sprang from a pianistic nucleus, or at least from an instrumental pedagogical-didactic concern. In other words: starting from primarily instrumental-practical challenges – discussions on a subtle dosage of “muscle power” (or rather its training) as a prerequisite for a nuanced differentiation of sound – Jaques-Dalcroze gradually arrived at the

² Émile Jaques-Dalcroze: *Der Rhythmus als Erziehungsmittel für das Leben und die Kunst. Sechs Vorträge zur Begründung seiner Methode der rhythmischen Gymnastik*, German, ed. Paul Boepple, Basel 1907, here a quotation from the first lecture, P. 9; abbreviated here as J-D, *Rhythmus* [Vortragsnummer in röm. Ziffern]/[Seite in arab. Zahlen].

³ J-D, *Rhythmus* I/10.

⁴ J-D, *Rhythmus* I/17.

⁵ J-D, *Rhythmus* I/20.

⁶ J-D, *Rhythmus* I/22.

⁷ Ibid.

design of whole-body or holistic movements, which of course continued to be oriented towards musical time and space coordinates, i.e. towards rhythmic parameters and parameters for shaping sounds. For this purpose, Jaques-Dalcroze transfers his observations on the “sense of muscle”, gained as it were microscopically on the piano keyboard, to the macroscopic, namely whole-body movements, which lend his theses on “muscular power” enlarged, and thus more clearly recognisable, temporal/spatial contours. Nevertheless, these “plastic” (temporally and spatially enlarged) movements now no longer serve to produce sound; instead, sounds are modelled, translated or even transcribed into physical, (thoroughly idiosyncratic) movement creations with a dance-choreographic character.⁸

“Muscle” and “Mind” in Interaction

In the artistic-pedagogical “rhythmics” conceived by Jaques-Dalcroze, the “sense of muscle” mentioned at the beginning is essential both for the (playing) movements for the purpose of sound production (on an instrument) and for the transformation of music into temporally/spatially expansive, “plastic” (whole-body) movement creations. The “sense of muscle”-mentioned above is essential in that it is responsible for an appropriately dosed use of (muscular) strength/dynamics, i.e. one that is nuanced according to the rhythm and sounds. There is no doubt that this “muscle sense” concept is directly related to the ability to control one’s own movements in relation to the spatial environment.⁹ The latter was described by the British neurologist Henry Charlton Bastian (1817–1915) as early as 1880 with the term “kinaesthesia” (from Greek κινέω “to move” and αἴσθησις “sense/perception”) or “kinaesthesia”, but did not associate it with musical issues.¹⁰ However, this is precisely what Jaques-Dalcroze is concerned with – as his references to the “muscular sense” for the purpose of sound production or modelling of (body) movements along

⁸ It would be going too far to discuss here whether these are artistic translation processes or cross-media transcription processes - in this respect, the comparatively neutral term of ‘modelling’, which also corresponds with the ‘plasticity’ repeatedly mentioned by Jaques-Dalcroze, seems to me to be the most appropriate. Even if Jaques-Dalcroze initially pursued a primarily pedagogical-didactic concern for musicians, the last mentioned ‘field of application’ tends towards a musical training of dancers, who, as is known, also attended his courses (at least for a short time). Cf. on this, as well as on the musical visualisations that were popular at the time but soon disdained (as “Mickey Mousing”), which also find their echo in Dalcroze’s rhythmics: Stephanie Jordan, *Moving Music. Dialogues with Music in the Twentieth-Century Ballet*, London 2000, esp. pp. 15ff.

⁹ For more insights, especially historiographical backgrounds of the terminologies “Muskelsinn”/“muscle sense” versus “kinaesthesia” and also “proprioception” see Edwin G. Boring, *Sensation and Perception in the History of Experimental Psychology*, New York 1942 or (for German-speaking readers): Peter Lasslop, “Kinästhesie”, in: *Historisches Wörterbuch der Philosophie*, ed. by Joachim Ritter and Karlfried Gründer et al., vol. 4 (I–K), Basle/Stuttgart 1976, cols. 819–827.

¹⁰ Bastian, *The Brain as an Organ of Mind*, London 1880, p. 543. However, this movement control is by no means exclusively, not even primarily via muscles, but via proprioceptors, i.e. receptor cells that are responsible for our depth sensitivity.

musical parameters forcefully illustrate.¹¹ It is obvious that his efforts revolve around an interweaving of listening and sensing (body) movements, alias kinaesthesia – in other words, that cross-modal interweaving of the senses that, despite its cross-culturally anthropological omnipresence, still represents a perceptual phenomenon that is far from being adequately researched. In his search for this “kinaesthetic listening” (as I prefer to describe this ability), which here is characterised by (or rather is intended to serve the training of) a quasi-musical intelligence of movement, Jacques-Dalcroze sets out on the path to ancient Greece. After all, it is a promising terrain, which, as is well known, has repeatedly provided decisive impulses for fundamental art reforms since the Renaissance.

Against this background, Jaques-Dalcroze’s reception of antiquity can be explained – mainly communicated through the small treatise “Περὶ Ὀρχήσεως” or rather “De Saltatione” by Lucianos of Samosata, which had been circulating in relevant dance circles since the 17th century and inspired a wide variety of artistic ideas (based on a supposedly ancient, holistic or gestural-pantomimic music-dance-theatre).¹² However, his closeness to the dance reforms of the early 20th century also takes on very clear contours¹³ at this point – and yet Jaques-Dalcroze stands out significantly from his fellow artists due to his very specific ideas about the relationship between music and dance. Unfortunately, in his early lectures he proves to be increasingly dogmatic, especially with regard to his music-choreographic ideas (note his insistence on march rhythms as ideal pedagogical-didactic models: “The march is the be-all and end-all of our method”¹⁴). Furthermore, he tends in places to ideologically constricting argumentations (cf. e.g. his exaggeratedly polemical statements on “today’s ballet”, J-D, *Rhythmus* VI/122f.), to finally become entangled in pedantry (cf. for example his criticism of “Miss Feodora Duncan”¹⁵). At this point, however, I will not dwell further on Jaques-Dalcroze’s “plasticity” of rhythmic movement creations. Instead, I would like to explore the “sense of muscle” repeatedly mentioned by Jaques-Dalcroze a little further here, as it contains very diverse, iridescent facets. These facets, on the one

¹¹ In this context, he also occasionally refers to “sensory nerves” or “fibre bundles” and thus seems to be hinting at the function of proprioceptors and fasciae, which had hardly been researched at the time; cf. e.g. D-J, *Rhythmus*, I/24.

¹² Cf. on this in particular J-D, *Rhythmus*, VI/pp. 113ff.

¹³ Cf. on this e.g. J-D, *Rhythmus*, V/pp. 104ff.

¹⁴ J-D, *Rhythmus* III/51. – I am grateful to Dorothea Weise for pointing out that this could also be a translation error and that the French manuscript of these early lectures (according to Michael Kugler, lost), mainly spoke of „marcher“ (to walk). Nonetheless, the march as a musical genre may well have had a special significance for Jaques-Dalcroze, as evidenced, for example, by his collection of 164 marches, which were obviously composed at about the same time that he was working on his lectures (publication: Neuchâtel/Paris/Leipzig 1906). Cf. additionally Michael Kugler, *Die Methode Jaques-Dalcroze und das Orff-Schulwerk Elementare Musikübung. Bewegungsorientierte Konzeptionen der Musikpädagogik*, Frankfurt a.M./Berlin/Bern etc. 2000, S. 352 (Beiträge zur Geschichte der Musikpädagogik, vol. 9).

¹⁵ J-D, *Rhythmus* VI/138.

hand, tend towards a not unobjectionable, politically contaminated vocabulary of force (with which Jaques-Dalcroze certainly unintentionally and yet inevitably reveals himself to be a “child of his time”) and, on the other hand (at least vaguely hinted at), refer to findings that have recently fundamentally revolutionised our understanding of cognitive or rather neuronal processes.

Thus, it is remarkable for instance how extensively Jaques-Dalcroze devotes himself to “voluntary”, i.e. consciously controlled movement designs – while “unconscious” “reflex movement(s)”¹⁶ or “semi-conscious” “self-acting [] movements, which first become arbitrary, later involuntary”¹⁷ – today one would speak of “tacit knowledge” or “implicit knowledge”¹⁸ – are mentioned only peripherally. (In the meantime, we know how important these “unconscious” or “semi-conscious” “stores of knowledge” are for improvisational and especially movement-based art practices). Instead, Jaques-Dalcroze recommends “commands” for an “automatic” or rather “machine-like” practice of movements¹⁹ in order to engrave the will of the “mind” or rather “brain” into the “body”, as it were a teaching concept that is more reminiscent of the etude-obsessed 19th century than of the need for freedom of reform pedagogical and equally artistic ambitions of the early 20th century.

“The brain, as the home of mental activity and the will, is the starting point of every movement of the body parts. From the brain, like telegraph wires, nerves run to all parts of the body, and these in turn transmit the expression of will triggered in the brain to the muscles, which run in fibre bundles along the bones and joints, partly fused with them, through the flesh of the whole body. The will is transformed into force by the muscles.”²⁰ – and a little later:

“In order to give the brain rhythmic consciousness, one must also give rhythm to the muscles so that the nerves (the emotional nerves) can supply it to the brain; in addition, the brain needs rhythm so that the nerves (the motor nerves) can convey it to the muscles. In this way, body and mind are inseparably connected. What is indispensable for life: *thinking* and *acting*, become *one*, i.e. arbitrariness is organised.”²¹ – and finally even more powerful:

¹⁶ J-D, *Rhythmus* II/30f.

¹⁷ J-D, *Rhythmus* II/32.

¹⁸ Michael Polanyi, *The Tacit Dimension*, London 1966.

¹⁹ J-D, *Rhythmus* II/34 and 64.

²⁰ J-D, *Rhythmus* II/24.

²¹ J-D, *Rhythmus* II/27; italics as in the original.

“A strong-willed person is able, through systematic exercise and education, to develop his muscles to the highest level of performance, just as he is always in control of his ‘nerves’. A person gifted with an energetic will will never be so easily seized by terror, fear and horror as a weak character. *Therefore, one increases muscular strength at the same time as one increases will.* A good means of strengthening both, and of accustoming the mind to a greater expression of will, is through the increasing exercises of muscular innervation.”²²

In this respect, Jaques-Dalcroze also places the brain at the “starting point” (see above) of any (voluntary) movement activity, even though he starts from completely different premises than Yvonne Rainer. The latter developed against the background of her pointedly accentuated body/muscle dualism new, interdisciplinary artistic concepts in which movements in the broadest sense were used to expand the traditional concept of dance. In contrast, Jaques-Dalcroze arrived at spatial (whole-body) movement designs in relation to music through his analysis of (functional, i.e. sound-generating) playing movements, which inevitably led him to dance-choreographic phenomena. His ideals of “harmony” and “beauty” propagated in this context, which go back to the 18th and 19th centuries more than they refer to Greek antiquity (as Jaques-Dalcroze pretends), may retain relevance from a historical perspective – their artistic and pedagogical content seems largely outdated from the perspective of the 21st century. Additionally, other statements by Jaques-Dalcroze are also hardly compatible with current practices in this form: for example, when he distinguishes between a “physical” and a “moral” aspect of movements,²³ or also seeks to solidify gender-specific role clichés about ideas of movement that were common at the time.²⁴ This aside, the numerous redundancies, which lend emphasis to the sometimes overconfident lecturing tone but hardly contribute to the substantive argumentation, make the reading of these lectures all too tedious at times. This circumstance is all the more regrettable because the innovative potential that underpins these lectures is thereby substantially levelled, if not clearly diminished or concealed.

This innovative potential of Dalcroze’s rhythmics has recently been pointed out by Jay Seitz from a cognitive science-informed music psychology perspective²⁵ and Eckart Altenmüller with his neuroscience-trained music physiology and music-medical approach.²⁶ These very

²² J-D, *Rhythmus* II/36; italics as in the original; Jaques-Dalcroze uses the term ‘muscle innervations’ to describe arbitrary, but at the same time very precisely trained muscle controls.

²³ Cf. D-J, *Rhythmus*, IV/66.

²⁴ Cf. D-J, *Rhythmus*, IV/75 and 80.

²⁵ Cf. on this his contribution “Dalcroze, the body, movement and musicality”, in: *Psychology of Music*, ed. Society for Education, Music and Psychology Research, vol. 33 (4)/2005, pp. 419–435, or his publication *Mind Embodied. The Evolutionary Origins of Complex Cognitive Abilities in Modern Humans*, New York etc. 2019.

²⁶ Cf. on this his contribution “Émile Jaques-Dalcroze as a Visionary of Modern Brain Sciences”, in: *Le Rythme*, Report of the International Eurhythmics Festival 2015, ed. Fédération Internationale des Enseignants de

stimulating approaches, which lend Jaques-Dalcroze's reflections new topicality, will not be discussed in detail here, but instead a further approach to Jaques-Dalcroze's writings will be outlined, which makes them appear remarkably up-to-date. The guiding thesis is that Jaques-Dalcroze's remarks about a "muscular sense", through which movements are differentiated temporally/rhythmically, spatially/soundly and dynamically (through "muscular force", "muscular strength") address a phenomenon that has already been described above as "kinaesthetic listening". In order to outline this "kinaesthetic listening" more clearly, I refer to phenomenological studies on kinaesthesia – especially in its interweaving with an auditory perception.

In Search of Kinaesthetic Listening

"Why is there such opacity and even avoidance of the sense modality of kinesthesia and its experiential reality and why is there so much confusion of kinesthesia with proprioception?" – asks Maxine Sheets-Johnstone at the beginning of her "extended critical overview" on the phenomenon of kinaesthesia,²⁷ our (most regrettably) still all too poorly researched "sixth" sense, with which we perceive ourselves and others as moving living beings, and what is more: without which we could not live. The essential importance of kinaesthesia, the original source of our concept of force must be so evident, "that the real-life, real-time significance of the 'muscle sense' can hardly be doubted"²⁸ – emphasises Sheets-Johnstone, after detailing the extent to which even in recent research there are fundamental confusions in this regard, which ultimately lead to the continued and fatal underestimation of this sensory modality. It is not without reason that Sheets-Johnstone insists on this only seemingly marginal detail: originally coming from dance, she switched to philosophy in order to be able to deepen her movement studies from a phenomenological perspective. These circumstances subsequently led her to (evolutionary) biological, anthropological, psychological and, above all, cognitive-scientific aspects of movement in the broadest sense – meanwhile with the ambition of founding a "Phenomenology of Learning".²⁹ In her opinion, the conviction of being able to do something or of mastering something is primarily based on a consciousness of movement. "I can" would thus be synonymous

Rythmique (FIER), Genf: FIER 2016, pp. 70–81; or his publication *Vom Neandertal in die Philharmonie. Warum der Mensch ohne Musik nicht leben kann*, Berlin 2018.

²⁷ Maxine Sheets-Johnstone, "Kinesthesia: An extended critical overview and a beginning phenomenology of learning", in: *Continental Philosophy Review* 52/2 (2019), pp. 143–169, here p. 144, <https://doi.org/10.1007/s11007-018-09460-7>.

²⁸ Sheets-Johnstone, "Kinesthesia: An extended critical overview" (s. fn 27), p. 148

²⁹ On her biography or rather bibliography of her most important publications cf.. <https://philosophy.uoregon.edu/profile/msj/>

with “I move” in the most elementary sense, based on kinaesthesia as the “pan-human ability to learn one’s body and learn to move oneself.”³⁰

Without being able to go into the far-reaching consequences of this approach at this point, it is worth pointing out a very revealing remark by Sheets-Johnstone with regard to Jaques-Dalcroze’s writings. With reference to Eckart Scheerer’s study on the historical origins of “muscular sense” and “innervation feelings”³¹, she notes that the author of this term was probably the writer, theatre director and philosopher Johann Jacob Engel (1741–1802). He was extremely well known in the German-speaking world at the time because he worked in Berlin, among other places. It seemed important to Engel to emphasise from this premise that we perceive our environment differently through our “muscles” (which seems to refer to the deep sensibility that was still largely unexplored at the time) than through our sense of sight. If one recalls that Jaques-Dalcroze also refers several times to “muscular innervation” or “muscle innervation”³² (cf. note 22 above), it is obvious that he refers to older sources with regard to his remarks on the “sense of muscle”, though without naming them. To investigate this further would undoubtedly be a revealing endeavour in order to be able to contextualise his concept of rhythmic training appropriately.³³

It is also remarkable that artists who work with movement in a sensitively differentiated way – be it in the field of music, dance and/or theatre – not only have no doubts about its existence, but also are firmly convinced of the fundamental importance of kinaesthetic perception for artistic and everyday learning processes. And yet it was initially a philosopher, namely Edmund Husserl – in the course of his development of a phenomenology – who spoke most extensively about this sensory modality, which is perhaps so neglected because it is not limited to a single organ, but instead extends (via proprioceptors), as it were, over our entire body and yet is invisible. Husserl is also the first to associate this kinaesthesia with auditory perception – in short, to describe kinaesthetic listening, but without naming it: “Moving, I approach the ear in order to hear”.³⁴ Picking up on Husserl’s references to hearing from a phenomenological perspective,³⁵ Don Ihde has more recently proclaimed an “auditory turn” in which auditory perception is embedded in a

³⁰ Sheets-Johnstone, “Kinesthesia: An extended critical overview” (s. fn. 27), S. 143.

³¹ Cf. Scheerer, “Muscle Sense and Innervation Feelings: A Chapter in the History of Perception and Action”, in: *Perspectives on Perception and Action*, eds. Herbert Heuer and Andries F. Sanders, Hillsdale, NJ 1987 [Sheets-Johnstone n.p.].

³² D-J, *Rhythmus*, II/36

³³ For such an approach the bibliographies in note 9 are very instructive.

³⁴ Husserliana (Edmund Husserl: Gesammelte Werke) Vol. IV (= *Ideen zu einer reinen Phänomenologie und phänomenologischen Philosophie*), p. 56 – here as cited in Daniel Schmicking, *Hören und Klang. Empirisch phänomenologische Untersuchungen*, Würzburg 2003, p. 116 (chapter „Die kinästhetische Organisation des Hörfeldes im Vergleich zum Sehfeld“).

³⁵ Cf. on Schmicking, *Hören und Klang*, pp. 47ff (chapter “Das Hören im Rahmen der Phänomenologie Husserls”).

“global kinaesthetic, i.e. whole-body mediated character of perception”³⁶. And yet, Ihde’s urgent appeal for holistic listening still seems all too much shaped by the ambition to place something comparable alongside those studies on our visual perception that continue to dominate – less in opposition, but still as a supplement. This may be argumentatively comprehensible and understandable, but it leads away from a central aspect: kinaesthetic listening as the interweaving of one’s own movements, movements in space and/or ideas of movement with an auditory perception and/or ideas of sound (also completely independent of visual impressions) – ultimately the phenomenon that Émile Jaques-Dalcroze sought to train through his “rhythmic gymnastics”.

Vita Stephanie Schroedter

Stephanie Schroedter earned her PhD while working as a research assistant at the University of Salzburg’s Institute for Musicology (Department of Dance and Music Theatre Research) with a thesis on developments in dance poetics around 1700 (awarded with the Dance Studies Prize of North Rhine-Westphalia 2001). Later on, as a research fellow at the University of Bayreuth’s Department of Music Theatre Research, she initiated a project (funded by the DFG, the DAAD’s MSH programme, and DHI Paris) on interplays between music, dance, and theatre in 19th-century Paris. Following multiple interim and visiting professorships in musicology, dance studies, theatre studies, and media studies (in Bern, Bayreuth, Berlin, Heidelberg, and elsewhere) as well as further work on DFG- and SNF-funded research projects, she wrote her second monograph *Paris qui danse: Bewegungs- und Klangräume einer Großstadt der Moderne* [“Movement and Sound Spaces in a Modern City”] (“habilitation”), thereby receiving a *venia legendi* for dance studies and musicology from the Freie Universität Berlin. Alongside numerous lectures in Europe, the USA, and Canada, Stephanie Schroedter has already organised several international symposia on intersections of music/dance/theatre/performance and media studies.

She continues her current DFG-funded research project *Körper und Klänge in Bewegung* [“Bodies and Sounds in Motion”], which aims at methodical approaches for the analysis of intertwinings of music/sound and dance/movement, as part of her professorship for theories of music and movement at the University for Music and Performing Arts Vienna (mdw), where she has been appointed in 2021 (Department of Music and Movement Education/Rhythmics and Music Physiology).



Co-funded by the
Erasmus+ Programme
of the European Union

The European Commission's support for the production of this publication does not constitute an endorsement of the contents, which reflect the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

³⁶ Schmicking, *Hören und Klang*, S. 59 (chapter “Don Ihdes auditory turn”).