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Editorial: Movement, embodiment, Kinesemiotics: interdisciplinary approaches to movement-based communication

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Editorial on the Research Topic

[Movement, embodiment, Kinesemiotics: interdisciplinary approaches to movement-based communication](#)

This Research Topic was created with the idea of offering an interdisciplinary platform for scholars and readers who are interested in movement-based communication and whose work is usually located within traditionally “distant” research fields. Movement-based communication studies are an emerging area of interest within the wider field of Multimodality, an area that offers a real opportunity for exploring new theories and methodologies. The articles in this Research Topic cover a variety of contexts and practices: the common goal is the investigation of the movement-based communication as a multimodal performance with different functions that can be approached by a variety of perspectives contributing to the theoretical and methodological development of this fascinating research area. Specific schools of thought grounded in linguistics and social semiotics have provided groundbreaking analytical tools to Multimodality and have allowed for this research area to develop in multiple ways. However, this disciplinary appropriation did not facilitate much contact with theoretical developments and analytical frameworks generated by a much more diversified ensemble of approaches: this Research Topic wishes to reinforce precisely this type of contact, and it highlights four specific areas of research interest where different disciplines converge.

Movement as exchange of embodied experience and knowledge

The articles that address this area share an interest in investigating common practices as multimodal embodied cognitive experiences. The very act of reading is approached through this innovative perspective by [Trasmundi et al.](#) (*Human Pacemakers and Experiential Reading*), who focus on the phenomenon of *cognitive pacemaking*, whereby readers

control attention. The article considers attention shifts as the embodiment of temporality modulations and argues that the meaning derived by readings is not only made by the comprehension of the verbal language used but also by the multimodal engagement emerging from embodied cognitive pacemaking. Embodied interaction is also the focus of the article by [Rohlfing et al.](#) (Which “motionese” parameters change with children’s age? Disentangling attention-getting from action-structuring modifications), who work on adults-children embodied communicative behavior by investigating *motionese*. The authors describe in this way action demonstrations and demonstrate how these change with children’s age through a study based on four analytic parameters—Motion Pace, Velocity, Acceleration, Pauses. In a different context but focusing as well on embodied interaction between adults and children, [Katila and Philipsen](#) (Forms of professional interkinesthesia in nurses’ body work: a case study of an infant’s stepping) explore the complex phenomenon of co-movement of nurse and baby when a baby within its first month of life is checked by a professional nurse to assess neonatal stepping ability. This particular operation is seen as an example of professional interkinesthesia that allows for important information on body development to emerge. This study also opens the door to further investigation into this particular professional skill that is applied in various other areas of body healthcare. In a context that crosses the boundary between embodied communication and embodied performance, [Gómez-Lozano et al.](#) (*Influence of Aikido and Taijiquan-Tuishou on Contact Improvisation*) explore the practice of Contact Improvisation in several martial arts, providing a state-of-the-art overview of how this shared practice functions to facilitate a choreographed exchange of embodied cultural knowledge.

Embodied cognition of movement in figurative arts

The articles addressing this area propose new multimodal approaches to explore the embodiment of movement in its pictorial and literary representations, thus showing a new path for reconsidering the experience of described movement. [Bolens](#) (*Embodied Cognition, Kinaesthetic Knowledge, and Kinesic Imagination in Literature and Visual Arts*) proposes a new model for studying art reception as embodied cognition. Her article argues that embodiment, kinaesthetic knowledge, and kinetic interaction do not only inhere the act of creation but also the experience of art. She supports her claim with examples based on figurative art and literature, highlighting how representations of dynamicity necessarily involve an embodied elaboration of represented acts of movement, a multimodal, multisensorial experience that that connects to personal perception of kinesis. [O’Connor and Cienki](#) (*The materiality of lines: The kinaesthetics of bodily movement uniting dance and prehistoric cave art*) move in the same area but integrating dance practice and prehistoric cave art through a multimodal approach to lines seen as embodiment of movement experience. Drawing on cognitive archaeology and phenomenology, their article foregrounds a new interpretation of *linealogy* and the kinaesthetic response that bodies have to lines as animate entities delineating movement. Both static and dynamic

lines are treated as components of the extended mind which have a phenomenological and representational nature to them; thus, examples of lines and tracings in artistic practices are explored as acts of extended cognition.

Movement as integrated embodied instructions in performance rehearsals

New approaches in the study of the nature and use of embodied instructions in performance rehearsals offer an opportunity to reconsider the value and function of movement as embodied communication in context. In the context of theater drama rehearsals, [Schmidt and Deppermann](#) (*Showing and telling—How directors combine embodied demonstrations and verbal descriptions to instruct in theater rehearsals*) use an adapted multimodal conversation-analytical approach to examine interactions between theater directors and actors during rehearsals. Drawing on a large corpus of filmed interactions from three theater productions, they observe that directors manage to produce in their practice a division of labor between *telling* and *showing* where verbal descriptions and embodied demonstrations stand in a mutual reflexive relationship. On the other hand, in the context of dance rehearsals, [Krug](#) (*Temporal procedures of mutual alignment and synchronization in collaborative meaning-making activities in a dance rehearsal*) explores the temporal procedures of mutual alignment and synchronization, focusing on how they are used by interactants in a dance performance in order to establish resonance and synchronize with other participants in terms of intensity, speed, and multimodal ensemble. [Ingram and Wallace](#) (*Making a mark: Transforming everyday work of city arborists into dance*), instead, conduct a fascinating investigation that integrates two communities, dancers and arborists, in the creation of a dance rehearsal based on the practice of marking together. Their article focuses on movement marking, a type of activity widely used by dancers that is also used by other communities of practice to memorize and co-ordinate movement-based activities.

Movement-based discursive strategies in performing arts

The scholars addressing this area focus on music, dance, and singing performances, showing a specific convergence of interests in researching new approaches to the study of movement-based discourse and the innovative insights these provide. Drawing on Kinesemiotics and Psychomusicology, [Prové](#) (*Measuring embodied conceptualizations of pitch in singing performances: Insights from an OpenPose study*) aims at empirically analyzing how conventionality and situatedness interact in embodying spatial conceptualizations of pitch as a property of music. Through the use of the *OpenPose* algorithm to track the movement trajectories, this study investigates the head movements of musically trained and untrained speakers of Dutch in a melody reproduction task as embodied instantiations of a vertical conceptualization of pitch. Drawing as well on Kinesemiotics and the Functional Grammar of Dance, [Maiorani and Liu](#) (*Developing Kinesemiotics: Challenges and solutions using the Functional Grammar of Dance*) move

from previous work on classical ballet and apply a new type of annotation to a seminal modern choreography by Martha Graham. Their analysis offers the opportunity for expanding this innovative analytical method and provides new insights into the way specific discursive patterns and functional interaction with costumes are created through choreography. The article by Meissl et al. (*Mapping musical dynamics in space. A qualitative analysis of conductors' movements in orchestra rehearsals*) offers instead a multimodal analysis of five conductors' gestures and movements during orchestra rehearsals that focuses on how dynamics in the music are being elicited via various movement patterns. Interestingly, in their data some instructions are given via mismatched movements, like the use of an upward movement to request louder as well as softer sound. These unexpected cases are described as more than just metaphorically motivated.

The editors of this Research Topic are grateful for the invaluable contributions offered by these scholars and hope that the range of contexts, case studies, and practices covered by these articles will be an example that will inspire the development of future interdisciplinary dialogue and collaborations for the development of Multimodality.

Author contributions

All authors listed have made a substantial, direct, and intellectual contribution to the work and approved it for publication.

Conflict of interest

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