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   Sommario/riassunto Autism Spectrum Disorders (ASD) are portrayed as cognitive and social
                      disorders. Undoubtedly, impairments in communication and restricted-
                      repetitive behaviors that define the disorders have a profound impact
                      on social interactions. But can we go beyond the descriptive nature of
                      this definition and objectively measure behavior? In this Research Topic
                      we bring movement to the forefront of autism research, diagnosis, and
                      treatment. We gather researchers across disciplines with the unifying
                      goal of recognizing movement and sensory disturbances as core
                      symptoms of the disorder. We will present evidence that profound
                      movement and sensory differences exist in ASD that can be
                      characterized in a way that is conducive with new behavioral
                      treatments, an advantage over observational inventories. We will show
                      that movement patterns can be used to identify sub-types of autism

and to design target treatments tailored to each individual. We will show that, when utilizing motor behavior in conjunction with cognitive tasks, we can unveil the best sensory capabilities of each child as well as their unique predispositions to learn. Many individuals on the spectrum have been perceived as "non-verbal" because they do not speak. Yet, they can communicate through other means. In the absence of spoken language, movement research can open a door into sensorially-driven and gestural forms of communication. Movement can be used to amplify and modulate the sensory signal and help connect individuals with themselves and with their physical and social surroundings. Movement can help us evoke in each child the will to leave "the autistic bubble" and explore the world. We seek to standardize our measurements and definitions of movement abnormalities in autism relative to cognitive and social capabilities both at the individual level and within a social group. We will argue that movement, its sensation and its perception, will play a fundamental role in objectively measuring and standardizing autism: Its diagnosis, its treatment, and the tracking of an individual's changes over time. We will redefine autism from the motor perspective—in closed loop with cognition—in such a way that cognitive and motor behaviors reshape each other to help evoke social awareness. While psychologists, psychiatrists, and cognitive scientists have provided an important conceptual framework to define the most obvious problems of the autistic behavior—those centered at the social and cognitive issues—we gather here occupational therapists, physical therapists, movement disorders specialists, the fellows in movement science, kinesiology and computational motor control, the pediatricians, and the teachers of children with ASD to focus on important sensory-motor differences that can be used to revise our definitions of ASD and unambiguously define its subtypes. We will move into action to go beyond subjective inferences to objectively understand real, physical behaviors using unprecedentedly fast and formal methods that can complement pencil-and-paper inventories. We will let the autistic body move and teach us what it feels, what it senses, and what it says. In turn, we will teach it to reach out into the world and seek communication. We will let those labeled "high-functioning" and "low-functioning" alike unlock their potential. We will use natural, physical motions to open new channels of sensorial and gestural communication. We will let movement play the transformative role that it can in broadening the spectrum of basic research in ASD to bring out the hidden inner voices of autism.