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Sommario/riassunto	The brain's ability to process information crucially relies on connectivity. Understanding how the brain processes complex information and how such abilities are disrupted in individuals with neuropsychological disorders will require an improved understanding of brain connectivity. Autism is an intriguingly complex neurodevelopmental disorder with multidimensional symptoms and cognitive characteristics. A biological origin for autism spectrum disorders (ASD) had been proposed even in the earliest published accounts (Kanner, 1943; Asperger, 1944). Despite decades of research, a focal neurobiological marker for autism has been elusive. Nevertheless, disruptions in interregional and functional and anatomical connectivity have been a hallmark of neural functioning in ASD. Theoretical accounts of connectivity perceive ASD as a cognitive and neurobiological disorder associated with altered functioning of integrative circuitry. Neuroimaging studies have reported disruptions in functional connectivity (synchronization of activated brain areas) during cognitive tasks and during task-free resting states. While these insights

are valuable, they do not address the time-lagged causality and directionality of such correlations. Despite the general promise of the connectivity account of ASD, inconsistencies and methodological differences among studies call for more thorough investigations. A comprehensive neurological account of ASD should incorporate functional, effective, and anatomical connectivity measures and test the diagnostic utility of such measures. In addition, questions pertaining to how cognitive and behavioral intervention can target connection abnormalities in ASD should be addressed. This research topic of the Frontiers in Human Neuroscience will address “Brain Connectivity in Autism” primarily from cognitive neuroscience and neuroimaging perspective.