

Helen Tager-Flusberg, Ph.D.

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Biographical Information

Helen Tager-Flusberg received her Bachelors in Science in Psychology from University College London, and her doctorate from Harvard University. From 1978 through 2001 she was a Professor in the Department of Psychology at the University of Massachusetts – Boston and from 1996 – 2001 she also held the position of Senior Scientist at the Eunice Kennedy Shriver Center/UMass Medical Center. Since 2001 Dr. Tager-Flusberg has been at Boston University, initially with primary appointments in the Department of Anatomy and Neurobiology and Pediatrics in the School of Medicine and now as Professor of Psychology at Boston University, where she was the Director of the Developmental Science Program from 2009 to 2012. Dr. Tager-Flusberg has conducted research on autism and other neurodevelopmental disorders (including Williams syndrome, Down syndrome, Prader-Willi syndrome, 16p, and Specific Language Impairment) for over 35 years, investigating developmental changes in language and social cognition in these populations using behavioral and brain imaging methodologies. Her research has been funded by the National Institutes of Health and private foundations, including Autism Speaks, The Simons Foundation, the Autism Consortium, the Nancy Lurie Marks Family Foundation and the March of Dimes. Dr. Tager-Flusberg took NIH-funded research leadership roles as the Principal Investigator for the Boston University CPEA (Collaborative Programs of Excellence in Autism; 1997-2009), STAART (Studies to Advance Autism Research and Treatment; 2003-2009) and current ACE (Autism Center of Excellence; 2012-2017). She has edited four books and written over 170 journal articles and book chapters. Dr. Tager-Flusberg is currently the President of the International Society for Autism Research, serves on the editorial board of several professional journals and is Associate Editor of the *Journal of Neurodevelopmental Disorders*. She has presented her research at many professional conferences, parent advocacy group meetings, and training institutes.

Presentation Abstract (4:30 pm)

On the Origins and Development of Language and Communication in Autism Spectrum Disorder

Impairments in language and communication are among the core symptoms of autism spectrum disorder (ASD). These impairments are often the first symptoms to emerge and parents may raise initial concerns about their baby, later diagnosed with ASD, because he or she fails to communicate and has not begun speaking. In this talk I will present data from two large-scale longitudinal studies that focus on the early development of language in this population: a study of infants at risk for ASD and a study of toddlers with ASD who were followed from age 2 to 4, with an emphasis on which factors predict variability in language outcomes in ASD. Infants at risk for ASD are defined on the basis of an older sibling with the disorder. We have investigated early speech perception in the first year of life using event-related potentials as an index of the neurobiological basis of the development of speech perception, based on a paradigm developed by Kuhl and her colleagues. As a group, infants at risk for ASD fail to activate typical brain regions in response to speech sounds by the age of 12 months; this atypical laterality is a predictor of later language outcomes. We have also investigated child and mother gesture use in the first year in these infants to explore their relationships to later language. For the high risk infants, maternal gesture predicts later language, but only when the infant is directly looking at her. Our studies of toddlers with ASD confirm the important role of gesture and several other key pre-linguistic skills for predicting later language outcomes. Together, these studies highlight some of the behavioral, environmental, and neurobiological origins of language and communicative development in very young children with ASD.