

Academic year 2023-24 (תשפ"ד)

Course title (English): Topics in neurolinguistics A: autism

Course title (Hebrew): נושאים בנוירובלשנות א: אוטיזם

Course number:

Course slot (semester/s, weekday/s, hours): Yearly, wednesday. 8-10

Lecturer: Dr Dorit Ben Shalom

Lecturer's conference hour and contact details: wednesday 12, by appointment

Course description & objectives: This course will try to explore the nature of language in autism in terms of both the language system (phonology, syntax, and semantics), as well as the medial prefrontal cortex (motor, emotion, memory, and sensory behavior). Currently, it seems there are at least five different language groups in the autism spectrum: from children with rather selective deficits in pragmatics, to children who are minimally verbal (i.e., have very little to no language)

Course requirements:

pre-requirement: introduction to cognitive neuroscience or parallel knowledge

Attendance: % 0 required

Class activity % 20

Final paper: % 80

Topics & bibliography:

Diagnostic criteria for autism spectrum disorder

Classical autism

Asperger syndrome

A model for the language system

Phonology

Syntax

Semantics

Pragmatics

A model for the narrow prefrontal cortex

Motor functioning

Emotion

Memory

Sensory functioning

Intellectual disability

Diagnostic criteria for autism spectrum disorder

Classical autism

Coleman, M. & Gillberg, C. (2011). *The Autisms*. Oxford University Press. pp. 9-11.

Asperger syndrome

Coleman, M. & Gillberg, C. (2011). *The Autisms*. Oxford University Press. pp. 34-37.

Phonology

Rapin, I., Dunn, M. A., Allen, D. A., Stevens, M. C., & Fein D. (2009). Subtypes of language disorders in school-age children with autism. *Developmental Neuropsychology*, 34, 66-84.

Syntax

Sukenik, N., & Friedmann, N. (2018). ASD Is Not DLI: Individuals With Autism and Individuals With Syntactic DLI Show Similar Performance Level in Syntactic Tasks, but Different Error Patterns. *Frontiers in psychology*, 9, 279.

Semantics

Cantiani, C., Riva, V., Dondena, C., Riboldi, E. M., Lorusso, M. L., & Molteni, M. (2021). Detection without further processing or processing without automatic detection? Differential ERP responses to lexical-semantic processing in toddlers at high clinical risk for autism and language disorder. *Cortex; a journal devoted to the study of the nervous system and behavior*, 141, 465–481.

Pragmatics

Reyes-Aguilar, A., Valles-Capetillo, E., & Giordano, M. (2018). A Quantitative Meta-analysis of Neuroimaging Studies of Pragmatic Language Comprehension: In Search of a Universal Neural Substrate. *Neuroscience*, 395, 60–88.

Motor functioning

Chenausky, K. V., Brignell, A., Morgan, A. T., Norton, A. C., Tager-Flusberg, H. B., Schlaug, G., & Guenther, F. H. (2021). A Modeling-Guided Case Study of Disordered Speech in Minimally Verbal Children With Autism Spectrum Disorder. *American journal of speech-language pathology*, 30, 1542–1557.

Emotion

Kellerman, A. M., Schwichtenberg, A. J., Abu-Zhaya, R., Miller, M., Young, G. S., & Ozonoff, S. (2020). Dyadic Synchrony and Responsiveness in the First Year: Associations with Autism Risk. *Autism research : official journal of the International Society for Autism Research*, 13(12), 2190–2201.

Memory

Boucher, J., Bigham, S., Mayes, A., & Muskett, T. (2008). Recognition and language in low functioning autism. *Journal of Autism and Developmental Disorders*, 38, 1259-1269.

Sensory functioning

Roberts, T. P. L., Matsuzaki, J., Blaskey, L., Bloy, L., Edgar, J. C., Kim, M., Ku, M., Kushner, E. S., & Embick, D. (2019). Delayed M50/M100 evoked response component latency in minimally verbal/nonverbal children who have autism spectrum disorder. *Molecular Autism*, 10, 34.

Intellectual disability

Kover, S. T., Haebig, E., Oakes, A., McDuffie, A., Hagerman, R. J., & Abbeduto, L. (2014). Sentence comprehension in boys with autism spectrum disorder. *American Journal of Speech-Language Pathology*, 23(3), 385–394.