

Ayelet Ben-Sasson

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Autism lab: Eshkol Building 919

Research Areas

- **Early childhood development**
- **Early screening with technology**
- **Autism spectrum disorders (ASD)**
- **Sensory processing disorders**
- **Anxiety and OC disorders**
- **Internet health studies**

My research focuses on early child development, sensory modulation, and developmental disorders. I study the efficacy of developmental screening tools for implementation in community settings. I am interested in the potential of screening for ASD early in life and the early noticeable signs. My work in this area spans longitudinal clinical assessments and internet networks using modern technologies. One of my main projects these days is the study of internet-based developmental diaries. In addition, I investigate the nature of sensory modulation capacities in typically developing children as well as those with ASD. The interplay between sensory symptoms and anxiety is of great interest to me at the theoretical and practical levels. Research in this area has ramifications for the design of interdisciplinary intervention programs and aids in the discovery of underlying mechanisms.

**Are you interested in research?
Ongoing research projects!**

babyTRACKS

**Do you have a child 0-3 years old?
Do you want to learn about your child's development?**

Join babyTRACKS.org to build a developmental diary describing your child's developmental milestones, and track development over time. You can get developmental progress reports and learn about the milestones parents like you are talking about.

In this research project early child development experts in my lab are collaborating with computer scientists from the Technion Israeli Institute of Technology bringing the latest algorithms to help parents around the world learn more about their children. The research aims to compare crowd-mediated developmental curves to traditional ones.

Learn about <http://babyTRACKS.org> from the media:

- <http://www.geektime.com/2015/08/09/monitor-your-childs-development-through-baby-croinc-a-research-backed-crowd-based-platform/>

- <http://www.haaretz.com/israel-news/business/1.670923>
- <http://192.118.60.6/RadioMP4/2015/08/12/6549201.mp4>
- <http://www.ifat.com/VT/Trans.aspx?ID=6549201&CID=102234>

Early Autism Screening

Are you a pediatric provider (e.g., physical therapist, occupational therapists)? In collaboration with the Physical Therapy department at University of Haifa we are studying the efficacy of training healthcare professionals in early ASD screening.

Sensory, Autism and OCD

Sensory modulation symptoms such as sensitivity to noise, smell aversions, touch resistance are often experienced by individuals with autism. As of May 2013 these sensory atypicalities are part of the ASD diagnosis. The underlying mechanisms and ramifications of these symptoms for behavioral rigidity and repetitiveness are not well understood. We are conducting a series of studies looking at the relation between OCD symptoms and sensory modulation symptoms in typical and clinical samples. We aim to understand the contribution of sensory symptoms to the emergence of OCD symptoms.

Published information on Autism:

- Ben-Sasson, A. (2015). Infant Social Development (Hebrew).
<http://www.israelibaby.co.il/joint-attention>
- Ben-Sasson A. (2011). Autism Spectrum Disorders (Hebrew).
http://ot4all.haifa.ac.il/index.php?option=com_content&view=article&id=74:autism-spectrum-disorders&catid=95:developmental-disorders&Itemid=119

Education

B.A.	1993-1997	Hebrew University, Hadassah Medical Center/Medical School, School of Occupational Therapy
M.A.	1999-2002	Hebrew University, School of Education, Special Education Division.
ScD.	2002-2007	Boston University, Department of Rehabilitation Sciences, Occupational Therapy
Post-Doctoral	2007-2008	UMASS Boston, Department of Psychology
	2009-2010	University of Haifa, Center for The Study of Child Development

Academic Positions:

Assistant Professor (Tenured) 2015-present Occupational Therapy Department
University of Haifa
Assistant Professor 2013-2015 Occupational Therapy Department University of
Haifa
Visiting Professor 2012-2013 Psychology Department, University of Haifa
Lecturer 2010-2014

Published Work

Journal Publications:

- Podoly, T., & Ben-Sasson, A. (in press). When It's Impossible to Ignore:
Development and Validation of the Sensory Habituation Questionnaire.
American Journal of Occupational Therapy.
- Ben-Sasson, A., Fluss, R., Katz, N., Gal, E., & Cermak, S.A. (2019). Update of a
meta-analysis sensory symptoms in ASD: A new decade of research. *Journal of
Autism and Developmental Disorders*.
- Gafni-Lachter, L., Josman, N. & Ben-Sasson, A. Evaluating change: using the
Measure of Processes of Care-Service Provider (MPOC-SP) as an outcome
measure for performance and confidence in Family-Centered Care (2019).
Child: Care, Health & Development. <https://doi.org/10.1111/cch.12668>
- Atun-Einy, O., & Ben-Sasson, A. (2018). Pediatric allied healthcare
professionals' knowledge and self-efficacy regarding ASD. *Research in
Autism Spectrum Disorders*, 47, 1-13.
- Ben-Sasson, A., Robins, D. L., & Yom-Tov, E. (2018). Risk assessment for
parents who suspect their child has autism spectrum disorder: Machine
learning approach. *Journal of Medical Internet Research*, 20(4).
- Ben-Sasson, A., Atun-Einy, O., Yahav-Jonas, G., Lev-On, S., & Gev, T. (2018).
Training physical therapists in early ASD screening. *Journal of Autism and
Developmental Disorders*, 48(11), 3926-3938.
- Podoly, T.Y., & Ben-Sasson, A. (2017). Sensory over responsivity and obsessive
compulsive symptoms: A cluster analysis. *Comprehensive Psychiatry*, 73,
151-159.
- Ben-Sasson, A., & \$Dickstein, N., \$Lazarovich, L. & \$Ayalon, N. (2017). In-
Vivo assessment of not just right experiences: Association with OC
symptoms and sensory over-responsivity. *OTMH*, 33(3 217-
234). DOI: 10.1080/0164212X.2017.1303418
- Ben-Sasson, A., Yom-Tov, E., & Pelleg, D. (2016). Does my child have ASD?
The clinical quality of online answers and their automated prediction.
Proceedings of the 10th AAAI CWSM, 543-546.
- Ben-Sasson, A., & Shmeltzer, R. (2015). The interplay between coordinated
motor-vocal imitation and development in toddlers. *Israeli Journal of
Occupational Therapy*, 25(1), E8-E23.
- Ben-Sasson, A., Soto, T. W., Herble, A., Carter, A. S., Briggs-Gowan, M. (2014).
Early markers and concurrent differences of clusters of children with ADHD
with and without sensory over-responsivity. *Journal of Attention Disorders*.
136, e582-e590. doi: 10.1177/1087054714543495.
- Ben-Sasson, A., & Gil, S. V. (2014). Motor and language abilities from early to late
toddlerhood: Using formalized assessments to capture continuity and
discontinuity in development. *Research in Developmental Disabilities*, 35(7),
1425-1432.

- Ben-Sasson, A., Habib, S., & Tirosh, I. (2014). Feasibility of early screening for the identification of autism traits in a well-baby clinic system. *Journal of Pediatric Nursing, 29*(3), 238-247.
- Ben-Sasson, A., Amit-Ben-Simhon, H., & Meyer, S. (2013). Cross-parent reliability in rating ASD markers in Infants. *Journal of Developmental Neurorehabilitation* [Epub ahead of print] PMID: 23924084.
- Ben-Sasson, A., & Carter, A. S. (2013). The contribution of sensory-regulatory markers to the accuracy of ASD screening. *Research in Autism Spectrum Disorders, 7*(7), 879-888.
- Ben-Sasson, A., Soto, T.W., Martinez-Pedraza, F., & Carter, A.S. (2013). Early sensory over-responsivity in toddlers with autism spectrum disorders as a predictor of family impairment and parenting stress. *Journal of Child Psychology and Psychiatry, 54*(8), 846-853.
- Ben-Sasson, A., Lamash, L., & Gal, E. (2012). To enforce or not to enforce? The use of collaborative interfaces to promote social skills in children with HFASD. *Autism: International Journal of Research, 17*(5), 608-622.
- Ben-Sasson, A. & Carter, A.S. (2012). The application of the First Year Inventory for ASD screening in Israel. *Journal of Autism and Developmental Disorders, 42*(9), 1906-1916.
- Carter, A., Ben-Sasson, A., & Briggs-Gowan, M. (2011). Sensory over-responsivity, psychopathology, and family impairment in school-aged children. *Journal of the American Academy of Child and Adolescent Psychiatry, 50*(12), 1212-1219.
- Green, S.A., Ben-Sasson, A., Soto, T., & Carter, A.S. (2012). Anxiety and sensory over-responsivity in toddlers with autism spectrum disorders: Bidirectional effects across time. *Journal of Autism and Developmental Disorders, 42*(6), 1112-1119.
- Mayer, S., Amit, H., Cohen, M., & Ben-Sasson, A. (2011). Reliability of the First Year Inventory in Israel: Mother versus father perspective. *Israeli Journal of Occupational Therapy, 20*(2), H75-H92.
- Ben-Sasson, A. (2011). Parent search for evidence-based practice: A personal story. *Journal of Paediatric and Child Health, 47*(7), 415-418.
- Ben-Sasson, A., Carter, A.S., & Briggs-Gowan, M. (2010). The development of sensory over-responsivity from infancy to elementary school. *Journal of Abnormal Child Psychology, 38*(8), 1193-1202.
- Battocchi, A., Gal, E., Ben-Sasson, A., Pianesi, F., Venuti, P., Zancanaro, M., & Weiss, P.L. (2010). The Collaborative Puzzle Game: A tabletop interface for fostering collaborative skills in children with autism spectrum disorders and with typical development. *Journal of Assistive Technology, 4*(1), 4-13.
- Green, S., & Ben-Sasson, A. (2010). Anxiety disorders and sensory over-responsivity in children with autism spectrum disorders: Is there a causal relationship? *Journal of Autism and Developmental Disorders, 40*(12), 1495-1504.
- Ben-Sasson, A., Carter, A. S., & Briggs-Gowan, M. (2009). Sensory over-responsivity in elementary school: Prevalence and social-emotional correlates. *Journal of Abnormal Child Psychology, 37*(5):705-16.
- Ben-Sasson, A., Stimmell, K.E., & Cermak, S.A. (2009). Sequence of gestural representations in children with high functioning autism. *Israeli Journal of Occupational Therapy, 18*(4), E57-E73.
- Battocchi, A., Pianesi, F., Tomasini, D., Zancanaro, M., Esposito, G., Venuti, P., Ben-Sasson, A., Gal, E., & Weiss, P. L. (2009). Collaborative puzzle game: A tabletop interactive game for fostering collaboration in children with autism

- spectrum disorders (ASD). Proceedings of the ACM International Conference on Interactive Tabletops and Surfaces, Banff, Alberta, Canada (pp. 197-204).
- Battocchi, A., Pianesi, F., Venuti, P., Ben-Sasson, A., Gal, E., & Weiss, P. L. (2009). Collaborative puzzle game: Fostering collaboration in children with autism spectrum disorders (ASD) and with typical development. Proceedings of the Virtual Rehabilitation International Conference, Haifa, Israel (pp. 204).
- Ben-Sasson, A., Hen, L., Fluss, R., Cermak, S.A., Engel-Yeger, B., & Gal, E. (2008). Meta-analysis of sensory modulation symptoms in individuals with autism spectrum disorders. *Journal of Autism and Developmental Disorders*, 39, 1-11.
- Ben-Sasson, A., Cermak, S.A., Orsmond, G.I., Tager-Flusberg, H., Carter, A.S., & Kadlec, M.B. (2008). Sensory clusters of toddlers with autism spectrum disorders: Differences in internalizing symptoms. *Journal of Child Psychology and Psychiatry*, 49(8), 817-825.
- Battocchi, A., Gal, E., Ben-Sasson, A., Pianesi, F., Venuti, P., Zancanaro, M., & Weiss, P. L. (2008). The Collaborative puzzle game - an interface for studying collaboration and social interaction for children who are typically developed or who have autistic spectrum disorder. Proceeding at the 7th ICDVRAT with ArtAbilitation, Maia, Portugal, University of Reading, UK (pp. 1-8).
- Ben-Sasson, A., Cermak, S. A., Orsmond, G. I., Carter, A. S., Kadlec, M. B., & Dunn, W. (2007). Extreme sensory modulation behaviors in toddlers with autism. *American Journal of Occupational Therapy*, 61(5), 584-592.
- Ben-Sasson, A., Cermak, S. A., Orsmond, G. I., Carter, A. S., & Fogg, L. (2007). Can we differentiate sensory over-responsivity from anxiety in toddlers? Perspectives of occupational therapists and psychologists. *Infant Mental Health Journal*, 28(5), 536-558.
- Ben-Sasson, A. (2004). Natural applications of Applied Behavior Analysis for children with autism. *Israeli Journal of Occupational Therapy*, 13(2), E37-E53.

Articles in Conference Proceedings:

- Ben-Sasson, A., Ben-Sasson, E., Jacobs, K., & Sayag, E. (2017, May). Baby CROINC: an online, crowd-based, expert-curated system for monitoring child development. In *Proceedings of the 11th EAI International Conference on Pervasive Computing Technologies for Healthcare* (pp. 110-119). ACM.
- Ben-Sasson, A., Ben-Sasson, E., Jacobs, K., Rothman-Argaman, E., & Sayag, E. (May 2019). Evaluating Expert Curation in a Baby Milestone Tracking App. CHI'19, Glasgow, U.K.
- Ben-Sasson, A., Pelleg, D., & Yom-Tov, E. (2016). *The quality of online answers to parents who suspect that their child has an autism spectrum disorder*. Proceedings of the AAAI Conference on Web and Social Media (ICWSM 2016), Cologne, Germany (pp. 543-546).
- Battocchi, A., Gal, E., Ben-Sasson, A., Pianesi, F., Venuti, P., Zancanaro, M., & Weiss, P. L. (2008). *The Collaborative puzzle game - an interface for studying collaboration and social interaction for children who are typically developed or who have autistic spectrum disorder*. Proceeding at the 7th ICDVRAT with ArtAbilitation, Maia, Portugal, University of Reading, UK (pp. 1-8).
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Edited books and special Journal Issues:

Shadmy, E., Ben-Sasson, A., Drach-Zehavy, A., Roe, D., & Sachs, D. (2015). *Evidence-Based Practice in Health and Welfare: Theory and Application, A Practice Guide* (book in Hebrew). Pardes Publishing.

Ben-Sasson, A. & Gal, E. (2011). Special Issue on Autism. *Israeli Journal of Occupational Therapy*, 20(2).

Book Chapters:

Ben-Sasson, A. & Podoly, T. (2014). Anxiety and sensory over-responsivity in autism: Expression, Identification, and Intervention. In S. Lowinger (Ed.) *Over the rainbow: Innovations in assessment and intervention for children with autism spectrum disorders* (52 pages, in Hebrew). Ach Publishers.

Gal, E., Cermak, S. A., & Ben-Sasson, A. (2007). Sensory processing disorders of children with autism: Nature, assessment and intervention. In R. Gabriels, & D. Hill (Eds.) *Growing up with autism: Working with school age children and adolescents*. NY: Guilford Press.