March, 2022

### Brief Curriculum Vitae - Avishai Henik

## **Biographical information**

Born: April 26, 1945; Tel-Aviv, Israel Work Address: Department of Psychology

Ben-Gurion University of the Negev

Beer-Sheva, Israel 84105

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Website http://in.bgu.ac.il/en/Labs/CNL/Pages/CNL.aspx

Education

1968-1971 BA Ben-Gurion University of the Negev, Beer-Sheva, Psychology. 1971-1974 MA Hebrew University, Jerusalem, Psychology.

1974-1979 PhD Hebrew University, Jerusalem, Psychology.

1980-1982 Postdoctoral Fellow, Department of Psychology, University of Oregon,

Eugene, Oregon, and Cognitive Neuropsychology Laboratory, Neurological Sciences Center, Good Samaritan Hospital, Portland,

Oregon.

## **Employment history**

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1971-1973	Researcher, Military Psychological Unit, Israel Defense Forces.
1973-1979	Instructor, Department of Behavioral Sciences, Ben-Gurion University of the
	Negev (BGU), Beer-Sheva, Israel.
1979-1980	Lecturer, Department of Behavioral Sciences, BGU.
1982-1984	Lecturer, Department of Behavioral Sciences, BGU.
1984	Senior Lecturer, Department of Behavioral Sciences, BGU.
Summers	Visiting Scientist, Department of Psychology, University of Utah, Salt Lake City,
1986, 1988	Utah.
1987-1989	Chairman, Department of Behavioral Sciences, BGU.
1989-1990	Visiting Scientist, Department of Neurology, U.C. Davis, VA Medical Center,
	Martinez, California, U.S.A.
1992	Associate Professor, Department of Behavioral Sciences, BGU.
1992-1994	Associate-Dean, Faculty of Humanities and Social Sciences, BGU.
1994-1995	Visiting Scientist, Department of Neurology, U.C. Davis, VA Medical Center,
	Martinez, California, U.S.A.
1996	Professor, Department of Behavioral Sciences, BGU.
1997-2000	Chairman, Department of Behavioral Sciences, BGU

1996 Professor, Department of Behavioral Sciences, BGU.
1997-2000 Chairman, Department of Behavioral Sciences, BGU.
1999-2002 Chairman, Zlotowski Center for Neuroscience, BGU.
2001-2007 Dean, Faculty of Humanities and Social Sciences, BGU.

2007-2008 Visiting Scientist, Department of Psychology, U.C. Berkeley, California, U.S.A.

2014 Distinguished Professor, Ben-Gurion University of the Negev 2019- Dean, School for Advanced Studies, Achva Academic College

## **Editorial board**

1994-2002	Psychologia (Hebrew)
1997-2008	Neuropsychology

2002-2011 Associate editor: TheScientificWorldJOURNAL - Cognition and Higher Level

**Brain Function Domains** 

2006- Neuropsychologia

2007-2010 The Open Behavioral Science Journal

2010 Guest editor, Developmental Neuropsychology, special issue on numerical

cognition

2015-2018 Journal of Numerical Cognition, Associate Editor

2017- Journal of Experimental Psychology: General, Consulting Editor

2020- Psychonomic Bulletin and Review, Consulting Editor

### Awards and research fellowships

1980-1981 Rothschild Foundation Postdoctoral Fellowship.

1980-1982 Postdoctoral Fellowship, Neurological Sciences Center, Good Samaritan

Hospital, Portland, Oregon.

1997 Japan Society for the Promotion of Science (JSPS) Fellowship.

Zlotowski Chair in Cognitive Neuropsychology, BGU.
 BGU President's award for excellence in research.
 Fellow (elected) American Psychological Society (APS).

2017 Excellent Mentor Prize, awarded by the Israel Society for Neuroscience (ISFN)

for exceptional mentoring in neuroscience.

2018 Meitner Humboldt Research Award, awarded by the Alexander von Humboldt

Foundation.

2020 FENS-Kavli Network of Excellence Mentoring Prize 2020, awarded by the

Federation of European Neuroscience Societies and the Kavli Foundation scholars network for demonstrated leadership in fostering the careers of

neuroscientists.

## **Current grants**

2016 ISF, Henik, A. Cognitive, functional and structural basis of natural and trained

synesthesia. Five years, \$48,000 per year.

### Research students

1985-2020 53 MA students, 10 post-doc fellows, 41 PhD students 7 PhD students, 3 MA students, 1 post-doc fellow

### Research interest

My research encompasses cognitive systems dealing with numerical processing, word processing, attention (spatial and selective), and synesthesia. In all of these areas I investigate the brain-behavior relationship both in normal and brain-injured populations. To this end, I use behavioral methods as well as various neuroimaging techniques like fMRI and ERP. Part of my research is devoted to understanding typical and atypical development.

# **Publications (2017-2022)**

241. Anaki, D., & Henik, A. (2017). Bidirectionality in synesthesia and metaphor. *Poetics Today, 38,* 141-161.

- 242. Arend, I., Ashkenazi, S., Yuen, K., Ofir, S., & Henik, A. (2017). Automatic numerical-spatial association in synaesthesia: An fMRI investigation. *Neuropsychologia*, *95*, 259-266.
- 243. Arend, I., & Henik, A. (2017). What can illusory conjunctions reveal about synaesthetic bindings? *Multisensory Research*, *30*, 235-251.
- 244. Bar-Hen-Schweiger, M., Schweiger, A., & Henik, A. (2017). G but not g: in search of the evolutionary continuity of intelligence. *Behavioral and Brain Sciences, 40*, e199. doi: https://doi.org/10.1017/S0140525X1600159X
- 245. Dadon, G., & Henik, A. (2017). Adjustment of control in the numerical Stroop task. *Memory & Cognition*, 45, 891–902.
- 246. Fruchtman-Steinbok, T., Salzer, Y., Henik, A., & Cohen, N. (2017). The interaction between emotion and executive control: Comparison between visual, auditory, and tactile modalities. *Quarterly Journal of Experimental Psychology*, 70, 1675-1674.
- 247. Gliksman, Y., Naparstek, S., Ifergane, G., & Henik, A. (2017). Visual and imagery magnitude comparisons are affected following left parietal lesion. *Frontiers in Psychology, 8,* 1622. doi: 10.3389/fpsyg.2017.01622
- 248. Gronau, N., Izoutcheev, A., Nave, T., & Henik, A. (2017). Counting distance: effects of egocentric distance on numerical perception. *PLoS ONE, 12,* e0174772. doi.org/10.1371/journal.pone.0174772.
- 249. Henik, A., Gliksman, Y., Kallai, A., & Leibovich, T. (2017). Size perception and the foundation of numerical processing. *Current Directions in Psychological Science*, 26, 45-51.

- 250. Kalanthroff, E., Henik, A., Simpson H. B., Todder, D., & Anholt, G. E. (2017). To do or not to do? Task control deficit in obsessive-compulsive disorder. *Behavior Therapy, 48*, 603-613.
- 251. Leibovich, T., Katzin, N., Harel, M., & Henik, A. (2017). From 'sense of number' to 'sense of magnitude' The role of continuous magnitudes in numerical cognition. *Behavioral and Brain Sciences*, *40*, e164. doi:10.1017/S0140525X16000960
- 252. Leibovich, T., Katzin, N., Salti, M., & Henik, A. (2017). Towards an integrative approach of numerical cognition. *Behavioral and Brain Sciences*, 40, e194. doi:10.1017/S0140525X17000619
- 253. Lichtenstein-Vidne, L., Gabay, S., Cohen, N., & Henik, A. (2017). Lateralization of emotions: Evidence from pupil size measurement. *Cognition and Emotion*, *31*, 699-711.
- 254. Lichtenstein-Vidne, L., Okon-Singer, H., Cohen, N., Todder, D., Aue, T., Nemets, B., & Henik, A. (2017). Attentional bias in clinical depression and anxiety: The impact of emotional and non-emotional distracting information. *Biological Psychology*, *122*, 4-12.
- 255. Salti, M., Katzin, N., Katzin, D., Leibovich, T., & Henik, A. (2017). One tamed at a time: A new approach for controlling continuous magnitudes in numerical comparison tasks. *Behavior Research Methods*, *49*, 1120–1127.
- 256. Weinbach, N., Perry, A., Sher, H., Lock, J. D., & Henik, A. (2017). Weak central coherence in weight-restored adolescent anorexia nervosa: Characteristics and remediation. *International Journal of Eating Disorders*, *50*, 924–932. https://doi.org/10.1002/eat.22711
- 257. Aisenberg, D., Sapir, A., Close, A., Henik, A., & d'Avossa, G. (2018). Right anterior cerebellum BOLD responses reflect age related changes in Simon task sequential effects. *Neuropsychologia*, 109, 155-164. https://doi.org/10.1016/j.neuropsychologia.2017.12.012
- 258. Arend, I., Yuen, K., Sagi, N., & Henik, A. (2018). Neuroanatomical basis of number synaesthesias: A voxel-based morphometry study. *Cortex, 101,* 172-180. <a href="https://doi.org/10.1016/j.cortex.2018.01.020">https://doi.org/10.1016/j.cortex.2018.01.020</a>
- 259. Cohen, Z. Z., Aisenberg, D., & Henik, A. (2018). The effects of training on tactile enumeration. *Psychological Research*, *82*, 468-487. 10.1007/s00426-016-0835-5
- 260. Cohen, Z. Z., Arend, I., Yuen, K., Naparstek, S., Gliksman, Y., Veksler, R., & Henik, A. (2018). Tactile enumeration: A case study of acalculia. *Brain and Cognition, 127,* 60-71. <a href="https://doi.org/10.1016/j.bandc.2018.10.001">https://doi.org/10.1016/j.bandc.2018.10.001</a>
- 261. Fias, W., & Henik, A. (2018). Introduction. In A. Henik & W. Fias (Eds.), *Heterogeneity of function in numerical cognition* (pp. xvii-xx). San Diego: Academic Press.
- 262. Gliksman, Y., & Henik, A. (2018). Conceptual size in developmental dyscalculia and dyslexia. *Neuropsychology*, 32, 190-198. <a href="http://dx.doi.org/10.1037/neu0000432">http://dx.doi.org/10.1037/neu0000432</a>
- 263. Henik, A., Bugg, J. M., & Goldfarb, L. (2018). Inspired by the past and looking to the future of the Stroop effect. *Acta Psychologica*, *189*, 1-3.
- 264. Henik, A. & Fias, W. (Eds.). (2018). *Heterogeneity of function in numerical cognition*. San Diego: Academic Press.
- 265. Henik, A., Katzin, N., & Hochman, S. (2018). The interplay between proficiency and executive control. In A. Henik & W. Fias (Eds.), *Heterogeneity of function in numerical cognition* (pp. 147-154). San Diego: Academic Press.
- 266. Hershman, R., Henik, A., & Cohen, N. (2018). A novel blink detection method based on pupillometry noise. *Behavior Research Methods*, *50*, 107–114. doi.org/10.3758/s13428-017-1008-1
- 267. Hochman, S., Henik, A., & Kalanthroff, E. (2018). Stopping at a red light: Recruitment of inhibitory control by environmental cues. *PLoS ONE, 13*, e0196199. https://doi.org/10.1371/journal.pone.0196199

- 268. Kalanthroff, E., Davelaar, E. J., Henik, A., Goldfarb, L., Usher, M. (2018). Task conflict and proactive control: A computational theory of the Stroop task. *Psychological Review, 125,* 59-82. <a href="http://dx.doi.org/10.1037/rev0000083">http://dx.doi.org/10.1037/rev0000083</a>
- 269. Leibovich-Raveh, T., Stein, I., Henik, A., & Salti, M. (2018). Number and continuous magnitude processing depends on task goals and numerosity ratio. *Journal of Cognition, 1*, 19. <a href="https://doi.org/10.5334/joc.22">https://doi.org/10.5334/joc.22</a>
- 270. Moyal, N., Henik, A., & Anholt, G. E. (2018). Categorized affective pictures database (CAP-D). *Journal of Cognition, 1,* 41. <a href="http://doi.org/10.5334/joc.47">http://doi.org/10.5334/joc.47</a>
- 271. Reznik, D., Gertner-Saad, L., Even-Furst, H., Henik, A., Ben Mair, E., Shechter-Amir, D., & Soffer-Dudek, N. (2018). Oneiric synesthesia: preliminary evidence for the occurrence of synesthetic-like experiences during sleep-inertia. *Psychology of Consciousness: Theory, Research, and Practice, 5*, 374-383. http://dx.doi.org/10.1037/cns0000160
- 272. Reynvoet, B., Vos, H., & Henik, A. (2018). Comparative judgement of familiar objects is modulated by their size. *Experimental Psychology*, *65*, 353-359. <a href="https://doi.org/10.1027/1618-3169/a000418">https://doi.org/10.1027/1618-3169/a000418</a>
- 273. Schmidt, C. C., Timpert, D. C., Arend, I., Vossel, S., Dovern, A., Saliger, J., Karbe, H., Fink, G. R., Henik, A. & Weiss, P. H. (2018). Preserved but less efficient control of response interference after unilateral lesions of the striatum. *Frontiers in Human Neuroscience*, *1*2, 414.
- 274. Weinbach, N., Sher, H., Lock, J. D., & Henik, A. (2018). Attention networks in adolescent anorexia nervosa. *European Child & Adolescent Psychiatry*, 27, 343-351. <a href="https://doi.org/10.1007/s00787-017-1057-0">10.1007/s00787-017-1057-0</a>
- 275. Bar-Hen-Schweiger, M., & Henik, A. (2019). Intelligence as mental manipulation in humans and nonhuman animals. *Animal Sentience*, 23, 31.
- 276. Binyamin-Suissa, L., Moyal, N., Naim, A. & Henik, A. (2019). Perspective taking and emotion: The case of disgust and sadness. *Consciousness and Cognition*, *74*, 102773. <a href="https://doi.org/10.1016/j.concog.2019.102773">https://doi.org/10.1016/j.concog.2019.102773</a>
- 277. Cohen, Z., Gliksman, Y., & Henik, A. (2019). Modal-independent pattern recognition deficit in developmental dyscalculia adults: Evidence from tactile and visual enumeration. *Neuroscience*, 423, 109-121.
- 278. Geva, D. & Henik, A. (2019). Perspective taking in judgement of relative direction tasks. *Memory & Cognition*, 47, 1215-1230. https://doi.org/10.3758/s13421-019-00929-1
- 279. Gliksman, Y., & Henik, A. (2019). Enumeration and alertness in developmental dyscalculia. *Journal of Cognition*, 2(1), 5. DOI: <a href="https://doi.org/10.5334/joc.55">https://doi.org/10.5334/joc.55</a>
- 280. Gliksman, Y., & Henik, A. (2019). Size matters! Automaticity of conceptual size in learning disabilities. *Literacy and Language*, *7*, 66-83. (Hebrew).
- 281. Hershman, R. & Henik, A. (2019). Dissociation between reaction time and pupil dilation in the Stroop task. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 45*, 1899-1909. <a href="http://dx.doi.org/10.1037/xlm0000690">http://dx.doi.org/10.1037/xlm0000690</a>
- 282. Hershman, R., Henik, A., & Cohen, N. (2019). CHAP: Open-source software for processing and analyzing pupillometry data. *Behavior Research Methods*, *51*, 1059-1074. doi: 10.3758/s13428-018-01190-1
- 283. Jamaludin, A., Henik, A., & Hale, J. B. (2019). Educational neuroscience: bridging theory and practice. *Learning: Research and Practice*, *5*, 93-98. doi:10.1080/23735082.2019.1685027
- 284. Katzin, N., Cohen, Z., & Henik, A. (2019). If it looks, sounds or feels like subitizing is it subitizing? A modulated definition of subitizing. *Psychonomic Bulletin & Review*, 26, 790–797.

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- 285. Katzin, N., Salti, M., & Henik, A. (2019). Holistic processing of numerical arrays. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 45*, 1014-1022. http://dx.doi.org/10.1037/xlm0000640
- 286. Milshtein, D., & Henik, A. (2019). Actor mindreading: Cognitive processes underpinning theories and practices of European stage acting in the eighteenth century. *Comparative Drama*, 53(3-4), 175-200. https://doi.org/10.1353/cdr.2019.0017
- 287. Arend, I., Yuen, K., Ashkenazi, S., & Henik, A. (2020). Space counts! Brain correlates of spatial and numerical representations in synaesthesia. *Cortex, 122,* 300-310. DOI: 10.1016/j.cortex.2018.11.006
- 288. Bar-Hen-Schweiger, M., & Henik, A. (2020). The transition of object to mental manipulation: Beyond a species-specific view of intelligence. *Animal Cognition*, 23, 691-701. <a href="https://doi.org/10.1007/s10071-020-01375-2">https://doi.org/10.1007/s10071-020-01375-2</a>
- 289. Gabay, Y., Gabay, S., Schiff, R., & Henik, A. (2020). Visual and auditory interference control of attention in developmental dyslexia. *Journal of the International Neuropsychological Society*, 26(4), 407-417. https://doi.org/10.1017/S135561771900122X
- 290. Ganor-Stern, D., Gliksman, Y., Naparstek, S., Ifergane, G., & Henik, A. (2020). Damage to the intraparietal sulcus impairs magnitude representations of results of complex arithmetic problems. *Neuroscience*, *438*, 137-144. https://doi.org/10.1016/j.neuroscience.2020.05.006
- 291. Hershman, R. & Henik, A. (2020). Pupillometric contributions to deciphering Stroop conflicts. *Memory & Cognition, 48,* 325-333. <a href="https://doi.org/10.3758/s13421-019-00971-z">https://doi.org/10.3758/s13421-019-00971-z</a>
- 292. Hochman, S., Cohen, Z. Z., Ben-Shachar, M. S., & Henik, A. (2020). Tactile enumeration and embodied numerosity among the deaf. *Cognitive Science, 44*, e12880. Doi:10.1111/cogs.12880
- 293. Hochman, S., Leshem, S., Henik, A., & Kalanthroff, E. (2020). Conditioning automatic inhibition task: Introducing a novel task to associate automatic inhibition with specific cues. *Journal of Neuroscience Methods, 34*2, 108809. <a href="https://doi.org/10.1016/j.jneumeth.2020.108809">https://doi.org/10.1016/j.jneumeth.2020.108809</a>
- 294. Katzin, N., Katzin, D., Rosen, A., Henik, A., & Salti, M. (2020). Putting the world in mind: The case of mental representation of quantity. *Cognition*, *195*, 104088. https://doi.org/10.1016/j.cognition.2019.104088
- 295. Milshtein, D., & Henik, A. (2020). I read, I imagine, I feel: Feasibility, imaginability and intensity of emotional experience as fundamental dimensions for norming scripts. *Basic and Applied Social Psychology*, 42, 432-459. https://doi.org/10.1080/01973533.2020.1796670
- 296. Milshtein, D. Hochman, S., & Henik, A. (2020). Do you feel like me or not? This is the question: Manipulation of emotional imagery modulates affective priming. *Consciousness and Cognition*, 85, Article 103026. https://doi.org/10.1016/j.concog.2020.103026
- 297. Okon-Singer, H., Henik, A., & Gabay, S. (2020). Increased inhibition following negative cues: A possible role for enhanced processing. *Cortex*, *122*, 131-139. https://doi.org/10.1016/j.cortex.2018.12.008
- 298. Rotem, A., & Henik, A. (2020). Multiplication facts and number sense in children with mathematics learning disabilities and typical achievers. *Cognitive Development*, *54*, 100866. https://doi.org/10.1016/j.cogdev.2020.100866
- 299. Schmidt, C. C., Timpert, D. C., Arend, I., Vossel, S., Fink, G. R., Henik, A. & Weiss, P. H. (2020). Control of response interference: caudate nucleus contributes to selective inhibition. *Scientific Reports*, *10*, Article 20977. <a href="https://doi.org/10.1038/s41598-020-77744-1">https://doi.org/10.1038/s41598-020-77744-1</a>

- 300. Binyamin-Suissa, L., Hochman, S., Moyal, N., & Henik, A. (2021). Perspective taking effects are modulated by the valence of stimuli. *Acta Psychologica*, *215*, 103267. doi:10.1016/j.actpsy.2021.103267
- 301. Fias, W., & Henik, A. & (Eds.). (2021). *Heterogeneous contributions to numerical cognition: Learning and education in mathematical cognition.* San Diego: Academic Press.
- 302. Fias, W., & Henik, A. (2021). Introduction. In Fias, W., & Henik, A. & (Eds.). *Heterogeneous contributions to numerical cognition: Learning and education in mathematical cognition* (pp. xiii-xix). San Diego: Academic Press.
- 303. Henik, A. (2021). Early difficulties in numerical cognition. In Fias, W., & Henik, A. & (Eds.). Heterogeneous contributions to numerical cognition: Learning and education in mathematical cognition (pp. 383-398). San Diego: Academic Press.
- 304. Henik, A., Bar-Hen-Schweiger, M., Milshtein, D., & Jamaludin, A. (2021). Yes, memorize. *Mind, Brain and Education, 15,* 18-23.
- 305. Henik, A., Salti, M., Avitan, A., Oz-Cohen, E., Shilat, Y., & Sokolowski, H. M. (2021). Numerical cognition: Unitary or diversified system(s)? *Behavioral and Brain Sciences, 44,* e191. doi: 10.1017/S0140525X21001035.
- 306. Hershman, R., Levin, Y., Tzelgov, J., & Henik, A. (2021). The contribution of meaning to the detection of task conflict. *Quarterly Journal of Experimental Psychology, 74,* 1553-1561. DOI: 10.1177/17470218211001331
- 307. Hershman, R., Levin, Y., Tzelgov, J., & Henik, A. (2021). Neutral stimuli and pupillometric task conflict. *Psychological Research*, *85*, 1084–1092. https://doi.org/10.1007/s00426-020-01311-6
- 308. Linkovski, O., Rodriguez, C. I., Wheaton, M. G., Henik, A., & Anholt, G. E. (2021). Momentary induction of inhibitory control and its effects on uncertainty. *Journal of Cognition*, *4*(1), 10. https://doi.org/10.5334/joc.133
- 309. Sapir, A., Hershman, R., & Henik, A. (2021). Top-down effect on pupillary response: Evidence from shape from shading. *Cognition*, 212, 104664.
- 310. Shilat, Y., Salti, M., & Henik, A. (2021). Shaping the way from the unknown to the known: The role of convex hull shape in numerical comparisons. *Cognition*, *217*, *104893*. <a href="https://doi.org/10.1016/j.cognition.2021.104893">https://doi.org/10.1016/j.cognition.2021.104893</a>
- 311. Lask, L. S., Moyal, N., & Henik, A. (2021). Rumination, emotional intensity and emotional clarity. *Consciousness and Cognition*, *96*, 103242. <a href="https://doi.org/10.1016/j.concog.2021.103242">https://doi.org/10.1016/j.concog.2021.103242</a>
- 312. Ashkenazi, S., Gliksman, Y., & Henik, A. (2022). Understanding estimations of magnitudes: An fMRI investigation. *Brain Sciences*, *12*, 104. https://doi.org/10.3390/brainsci12010104
- 313. Gliksman, Y., Berebbi, S., & Henik, A. (2022). Math fluency during primary school. *Brain Sciences*. *12*, 371. https://doi.org/10.3390/brainsci12030371
- 314. Arend, I., Yuen, K., Ashkenazi, S., & Henik, A. (in press). Cognitive and brain correlates of acquired number-colour synaesthetic-like associations. *Neuropsychologia*.
- 315. Binyamin-Suissa, L., Hochman, S., & Henik, A. (in press). Asymmetric affective perspective taking effects toward valence influenced by personality perspective taken. *Psychonomic Bulleting & Review.*
- 316. Cohen, Z. Z., Gotlieb, N., Erez, O., Wiznitzer, A., Arbel, O., Matas, D., Koren, L., & Henik, A. (in press). Attentional networks during the menstrual cycle. *Behavioural Brain Research*.

- 317. Gliksman, Y., Berebbi, S., Hershman, R., & Henik, A. (in press). BGU-MF: Ben-Gurion University math fluency test. *Applied Cognitive Psychology*.
- 318. Hershman, R., Milshtein, D., & Henik, A. (in press). The contribution of temporal analysis of pupillometry measurements to cognitive research. *Psychological Research*.
- 319. Hershman, R., Beckmann, L., & Henik, A. (in press). Task and information conflicts in the numerical Stroop task. *Psychophysiology*.