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## Brief Curriculum Vitae - Avishai Henik

## **Biographical information**

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

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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**

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.
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
2019-2020	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
2017-2022	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.
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).
Excellent Mentor Prize, awarded by the Israel Society for Neuroscience (ISFN)
for exceptional mentoring in neuroscience.
Meitner Humboldt Research Award, awarded by the Alexander von Humboldt
Foundation.
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

### **Current grants**

2022 ISF, Henik, A. Task conflict. Five years, \$63,000 per year.

#### Research students

1985-2020 65 MA students, 6 post-doc fellows, 45 PhD students Current 5 PhD students, 3 MA students, 1 post-doc fellow

neuroscientists.

#### 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 (2018-2023)**

#### <u>Books</u>

- 3. Henik, A. & Fias, W. (Eds.). (2018). *Heterogeneity of function in numerical cognition*. San Diego: Academic Press.
- 4. Fias, W., & Henik, A. (Eds.). (2021). *Heterogeneous contributions to numerical cognition: Learning and education in mathematical cognition*. San Diego: Academic Press.

## Chapters in books and conference proceedings

- 23. 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.
- 24. 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.
- 25. 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.
- 26. 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.
- 27. Avitan, A., & Henik, A. (2023). Numerical cognition. In *Oxford Research Encyclopedia of Psychology*. https://doi.org/10.1093/acrefore/9780190236557.013.61
- 28. Milshtein, D., & Henik, A. (in press). Why should reading (books) be preferable to watching (television)? In D. Hung, A. Jamaludin, & A. Rahman (Eds.), *Applying the science of learning to education: An insight into the mechanisms that shape learning*. Singapore: Springer.

29. Hershman, R., Milshtein, D., & Henik, A. (in press). Processing and analyzing of pupillometry data. In M. Papesh & S. D. Goldinger (Eds.). *Modern pupillometry: Cognition, neuroscience, and practical applications*. Springer.

### Refereed articles in scientific journals

- 234. 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
- 235. Arend, I., Yuen, K., Sagi, N., & Henik, A. (2018). Neuroanatomical basis of number synaesthesias: A voxel-based morphometry study. *Cortex, 101,* 172-180. https://doi.org/10.1016/j.cortex.2018.01.020
- 236. Cohen, Z. Z., Aisenberg, D., & Henik, A. (2018). The effects of training on tactile enumeration. *Psychological Research*, *82*, 468-487. <a href="https://doi.org/10.1007/s00426-016-0835-5">10.1007/s00426-016-0835-5</a>
- 237. 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. https://doi.org/10.1016/j.bandc.2018.10.001
- 238. Gliksman, Y., & Henik, A. (2018). Conceptual size in developmental dyscalculia and dyslexia. *Neuropsychology*, 32, 190-198. http://dx.doi.org/10.1037/neu0000432
- 239. 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.
- 240. 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
- 241. 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
- 242. 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. http://dx.doi.org/10.1037/rev0000083
- 243. 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. https://doi.org/10.5334/joc.22
- 244. Moyal, N., Henik, A., & Anholt, G. E. (2018). Categorized affective pictures database (CAPD). *Journal of Cognition*, *1*, 41. <a href="http://doi.org/10.5334/joc.47">http://doi.org/10.5334/joc.47</a>
- 245. 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
- 246. 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>
- 247. 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*, *12*, 414.
- 248. 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>

- 249. Bar-Hen-Schweiger, M., & Henik, A. (2019). Intelligence as mental manipulation in humans and nonhuman animals. *Animal Sentience*, 23, 31.
- 250. 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. 10.1016/j.concog.2019.102773
- 252. 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.
- 252. 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
- 253. 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>
- 254. Gliksman, Y., & Henik, A. (2019). Size matters! Automaticity of conceptual size in learning disabilities. *Literacy and Language*, *7*, 66-83. (Hebrew).
- 255. 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>
- 256. 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
- 257. 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
- 258. 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. <a href="https://doi.org/10.3758/s13423-018-1556-0">https://doi.org/10.3758/s13423-018-1556-0</a>
- 259. 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
- 260. 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. <a href="https://doi.org/10.1353/cdr.2019.0017">https://doi.org/10.1353/cdr.2019.0017</a>
- 261. 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
- 262. 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. https://doi.org/10.1007/s10071-020-01375-2
- 263. 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
- 264. 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

- 265. Hershman, R., & Henik, A. (2020). Pupillometric contributions to deciphering Stroop conflicts. *Memory & Cognition, 48,* 325-333. https://doi.org/10.3758/s13421-019-00971-z
- 266. 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
- 267. 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*, 342, 108809. https://doi.org/10.1016/j.jneumeth.2020.108809
- 268. 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
- 269. 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
- 270. 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
- 271. 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
- 272. 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
- 273. 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. https://doi.org/10.1038/s41598-020-77744-1
- 274. 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
- 275. Henik, A., Bar-Hen-Schweiger, M., Milshtein, D., & Jamaludin, A. (2021). Yes, memorize. *Mind, Brain and Education, 15,* 18-23.
- 276. 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.
- 277. 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
- 278. Hershman, R., Levin, Y., Tzelgov, J., & Henik, A. (2021). Neutral stimuli and pupillometric task conflict. *Psychological Research*, *85*, 1084–1092. <a href="https://doi.org/10.1007/s00426-020-01311-6">https://doi.org/10.1007/s00426-020-01311-6</a>
- 279. Lask, L. S., Moyal, N., & Henik, A. (2021). Rumination, emotional intensity and emotional clarity. *Consciousness and Cognition*, *96*, 103242. https://doi.org/10.1016/j.concog.2021.103242
- 280. 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. doi.org/10.5334/ joc.133
- 281. Sapir, A., Hershman, R., & Henik, A. (2021). Top-down effect on pupillary response: Evidence from shape from shading. *Cognition*, *212*, 104664.

- 282. 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*. https://doi.org/10.1016/j.cognition.2021.104893
- 283. Arend, I., Yuen, K., Ashkenazi, S., & Henik, A. (2022). Cognitive and brain correlates of acquired number-colour synaesthetic-like associations. *Neuropsychologia*, *166*, *108155*. <a href="https://doi.org/10.1016/j.neuropsychologia.2022.108155">https://doi.org/10.1016/j.neuropsychologia.2022.108155</a>
- 284. Ashkenazi, S., Gliksman, Y., & Henik, A. (2022). Understanding estimations of magnitudes: An fMRI investigation. *Brain Sciences*, *12*, 104. <a href="https://doi.org/10.3390/brainsci12010104">https://doi.org/10.3390/brainsci12010104</a>
- 285. Binyamin-Suissa, L., Hochman, S., & Henik, A. (2022). Asymmetric affective perspective taking effects toward valence influenced by personality perspective taken. *Psychonomic Bulletin & Review, 29*, 1978–1985. doi: 10.3758/s13423-022-02090-4
- 286. Cohen, Z. Z., Gotlieb, N., Erez, O., Wiznitzer, A., Arbel, O., Matas, D., Koren, L., & Henik, A. (2022). Attentional networks during the menstrual cycle. *Behavioural Brain Research*, 425, 113817. https://doi.org/10.1016/j.bbr.2022.113817
- 287. Gliksman, Y., Berebbi, S., & Henik, A. (2022). Math fluency during primary school. *Brain Sciences*, 12, 371. https://doi.org/10.3390/brainsci12030371
- 288. Gliksman, Y., Berebbi, S., Hershman, R., & Henik, A. (2022). BGU-MF: Ben-Gurion University Math Fluency test. *Applied Cognitive Psychology*, *36*, 93–305. doi:10.1002/acp.3918
- 289. Hershman, R., Beckmann, L., & Henik, A. (2022). Task and information conflicts in the numerical Stroop task. *Psychophysiology*, *59*(9), e14057. doi:10.1111/psyp.14057
- 290. Aisenberg-Shafran, D., Henik, A., & Gronau, N. (2023). Observing ageism implicitly using the numerical parity judgment task. *Scientific Reports*, *13*, 21195. Doi: 10.1038/s41598-023-40876-1
- 291. Hershman, R., Dadon, G., Kiesel, A., & Henik, A. (2023). Resting Stroop task: Evidence of task conflict in trials with no required response. *Psychonomic Bulletin & Review*. doi:10.3758/s13423-023-02354-7
- 292. Hershman, R., Milshtein, D., & Henik, A. (2023). The contribution of temporal analysis of pupillometry measurements to cognitive research. *Psychological Research*, *87*, 23-42. doi:10.1007/s00426-022-01656-0
- 293. Kallai, A. Y. & Henik, A. (2023). Absolute or relative size: What do we perceive when we look at a glass that is half full? *Journal of Experimental Psychology: Learning, Memory, and Cognition.* 49, 230-248. doi:10.1037/xlm0001198
- 294. Moyal, N., Stelmach-Lask, L. S., Anholt, G. E, & Henik, A. (2023). Choosing an emotion regulation strategy The importance of emotional category. *Journal of Affective Disorders Reports*, 12, 100498. doi:10.1016/j.jadr.2023.100498
- 295. Avitan, A., Wasserman, S., & Henik, A. (in press). Endogenous attention modulates automaticity of number processing. *Psychonomic Bulletin & Review*.
- 296. Hershman, R., Sapir, A., Keha, E., Wagner, M., Weiss, E. M., & Henik, A. (in press). The contribution of difficulty of an irrelevant task to task conflict. *Quarterly Journal of Experimental Psychology*.