

CURRICULUM VITAE AND LIST OF PUBLICATIONS

Education

- Ph.D. 2005–2010 Ben-Gurion University of the Negev, Cognitive Psychology
Advisor: Prof. Joseph Tzelgov
Title: The mental representation of the number zero
- M.A. 2003–2005 Ben-Gurion University of the Negev, Cognitive Psychology
- B.A. 2001–2003 Ben-Gurion University of the Negev, Behavioral Sciences

Employment History

- 2017– Present Senior Lecturer (tenured), Department of Psychology, Ariel University
- 2014–2017 Lecturer, Department of Behavioral Sciences, Ariel University
- 2013–2014 Postdoctoral Fellow, Department of Psychology, Ben-Gurion University of the Negev, ERP Lab for Developmental Studies,
Principal Investigator: Prof. Andrea Berger
- 2011–2013 Postdoctoral Associate, Center for Cognitive Neuroscience,
Duke University, USA, Development & Evolution of Numerical Cognition Lab, Principal Investigator: Prof. Elizabeth Brannon

Scientific Publications

1. Neumann, N., & **Pinhas, M.** (2026). Early neurophysiological signatures of multi-digit number length encoding. *Scientific Reports*. <https://doi.org/10.1038/s41598-026-35478-6>
2. Feder, A., Graithzer, Y., & **Pinhas, M.** (2025). Symbolic representations of infinity: The impact of notation and numerical syntax. *Psychological Research*, 89, 30. <https://doi.org/10.1007/s00426-024-02050-8>
3. Feder, A., Lozin, M., Neumann, N., & **Pinhas, M.** (2025). Numerical comparisons of exponential expressions: The saliency of the base component. *Psychonomic Bulletin and Review*, 32, 705–713. <https://doi.org/10.3758/s13423-024-02571-8>
4. Lozin, M., & **Pinhas, M.** (2025). Perceiving the “smallest” or “largest” multi-digit number: A novel numeric-scale end effect. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 51(3), 371–390. <https://doi.org/10.1037/xlm0001386>
5. Feder, A., Cohen-Gutman, S, Lozin, M., & **Pinhas, M.** (2024). Place-value and physical size converge in automatic processing of multi-digit numbers. *Memory and Cognition*, 52, 1001–1016. <https://doi.org/10.3758/s13421-023-01515-2>
6. **Pinhas, M.** (2024). Perceiving infinity: An interplay between numerical and physical magnitude, *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 50(8), 1265–1286. <https://doi.org/10.1037/xlm0001322>

7. Zukerman, G., **Pinhas, M.**, & Icht, M. (2023). Hypervigilance or shutdown? Electrophysiological processing of trauma-unrelated aversive stimuli after traumatic life events. *Experimental Brain Research*. <https://doi.org/10.1007/s00221-023-06578-w>
8. **Pinhas, M.**, Paulsen, D. J., Woldorff, M. G., & Brannon, E. M. (2023). Neurophysiological signatures of approximate number system acuity in preschoolers. *Trends in Neuroscience and Education*, 30, 100197. <https://doi.org/10.1016/j.tine.2022.100197>
9. Lozin, M., & **Pinhas, M.** (2022). Differential processing of “small” and “large” multi-digit numbers. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 48(3), 375–393. <https://doi.org/10.1037/xlm0001126>
10. Zagury, Y., Zaks-Ohayon, R., Tzelgov, J., & **Pinhas, M.** (2022) Sometimes nothing is simply nothing: Automatic processing of empty sets. *The Quarterly Journal of Experimental Psychology*, 75(10), 1810–1827. <https://doi.org/10.1177/17470218211066436>
11. **Pinhas, M.**, Zaks-Ohayon, R., & Tzelgov, J. (2021). The approximate number system represents rational numbers: The special case of an empty set. *Behavioral and Brain Sciences*, 44, E202. <https://doi.org/10.1017/S0140525X2100100X>
12. Zaks-Ohayon, R., **Pinhas, M.**, & Tzelgov, J. (2021). Nonsymbolic and symbolic representations of null numerosity. *Psychological Research*. <https://doi.org/10.1007/s00426-021-01515-4>
13. Zaks-Ohayon, R., **Pinhas, M.**, & Tzelgov, J. (2021). On the indicators for perceiving empty sets as zero. *Acta Psychologica*, 213, 103237. <https://doi.org/10.1016/j.actpsy.2020.103237>
14. Feder, A., Lozin, M., & **Pinhas, M.** (2021). No power: Exponential expressions are not processed automatically as such, *Psychological Research*, 85, 2079–2097. <https://doi.org/10.1007/s00426-020-01381-6>
15. Zukerman, G., **Pinhas, M.**, Ben-Itzhak, E., & Fostick, L. (2019). Reduced electrophysiological habituation to novelty after trauma reflects heightened salience network detection. *Neuropsychologia*, 134, 107226. <https://doi.org/10.1016/j.neuropsychologia.2019.107226>
16. Shaki, S., **Pinhas, M.**, & Fischer, M. H. (2018). Heuristics and biases in mental arithmetic: Revisiting and reversing operational momentum. *Thinking and Reasoning*, 24(2) 138-156. <https://doi.org/10.1080/13546783.2017.1348987>
17. **Pinhas, M.**, Buchman, C., Lavro, D., Mesika, D., Tzelgov, J., & Berger, A. (2015). The neural signatures of processing semantic end values in automatic number comparisons. *Frontiers in Human Neuroscience*, 9: 645. <https://doi.org/10.3389/fnhum.2015.00645>
18. **Pinhas, M.**, Shaki, S., & Fischer, M. H. (2015). Addition goes where the big numbers are: Evidence for a reversed operational momentum effect. *Psychonomic Bulletin and Review*, 22(4), 993-1000. <https://doi.org/10.3758/s13423-014-0786-z>
19. Tzelgov, J., Ganor-Stern, D., Kallai, A. Y., & **Pinhas, M.** (2015). Primitives and non-primitives of numerical representations. In R. Cohen Kadosh & A. Dowker (eds.), *The Oxford Handbook of Mathematical Cognition*. Oxford University Press, UK. <https://doi.org/10.1093/oxfordhb/9780199642342.013.019>

20. **Pinhas, M.**, Donohue, S. H., Woldorff, M. G., & Brannon, E. M. (2014). Electrophysiological evidence for the involvement of the approximate number system in preschoolers' processing of spoken number words. *Journal of Cognitive Neuroscience*, 26(9), 1891-1904. https://doi.org/10.1162/jocn_a_00631
21. **Pinhas, M.**, Shaki, S., & Fischer, M. H. (2014). Heed the signs: Operation signs have spatial associations. *The Quarterly Journal of Experimental Psychology*, 67(8), 1527-1540. <https://doi.org/10.1080/17470218.2014.892516>
22. **Pinhas, M.**, Pothos, E. M., Tzelgov, J. (2013). Zooming in and out from the mental number line: Evidence for a number range effect. *Journal of Experimental Psychology: Learning Memory and Cognition*, 39(3), 972-976. <https://doi.org/10.1037/a0029527>
23. **Pinhas, M.**, & Tzelgov, J. (2012). Expanding on the mental number line: Zero is perceived as the "smallest". *Journal of Experimental Psychology: Learning, Memory and Cognition*, 38(5), 1187-1205. <https://doi.org/10.1037/a0027390>
24. **Pinhas, M.**, Tzelgov, J. & Ganor-Stern, D. (2012). Estimating linear effects in ANOVA designs: The easy way. *Behavior Research Methods*, 44(3), 788-794. <https://doi.org/10.3758/s13428-011-0172-y>
25. Ganor-Stern, D., **Pinhas, M.**, Kallai, A., & Tzelgov, J. (2010). Holistic representation of negative numbers is formed when needed for the task. *The Quarterly Journal of Experimental Psychology*, 63(10), 1969-1981. <https://doi.org/10.1080/17470211003721667>
26. **Pinhas, M.**, Tzelgov, J. & Guata-Yaakobi, I. (2010). Exploring the mental number line via the size congruity effect. *Canadian Journal of Experimental Psychology/Revue canadienne de psychologie expérimentale*, 64(3), 221-225. <https://doi.org/10.1037/a0020464>
27. Tzelgov, J., & **Pinhas, M.** (2009). In search of nonabstract representation of numbers: Maybe on the right track, but still not there. *Behavioral and Brain Sciences*, 32, 353-354. <https://doi.org/10.1017/S0140525X09990896>
28. Ganor-Stern, D., **Pinhas, M.**, & Tzelgov, J. (2009). Comparing two-digit numbers: the importance of being presented together. *The Quarterly Journal of Experimental Psychology*, 62(3), 444-452. <https://doi.org/10.1080/17470210802391631>
29. **Pinhas, M.**, & Fischer, M. H. (2008). Mental movements without magnitude? A study of spatial biases in symbolic arithmetic. *Cognition*, 109(3), 408-415. <https://doi.org/10.1016/j.cognition.2008.09.003>

Research Grants

- 2018-2022 Israel Science Foundation individual research grant. Pinhas, M. The mental representations of infinity and "large" numbers. (\$209,000).
- 2018-2019 Israel Defense Forces (Medical Corps). Zukerman, G. (PI) & Pinhas, M., Ben-Basat, L. A, Fostick, L., Rubinstein, R. Transcranial Direct Current Stimulation (tDCS) effects on electrophysiological and neuropsychological indices of brain activity among adults with Post-Traumatic Stress Disorder (\$29,300).

Teaching (2024-2025)

Undergraduate level

Numerical Cognition Seminar; Research Methods; Developmental Psychology

Graduate level

Brain Waves and Cognition; The Electric Brain