

Nicholas Gaspelin

Associate Professor
Department of Psychological Sciences
Director, Cognition and Neuroscience Graduate Program
University of Missouri
Phone: (573) 882-1445
Email: ngaspelin@missouri.edu
[Google Scholar](#) [Lab Website](#)
Citations: 5959 | h-index: 31 | i10-index: 44

Professional Positions

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| 2023 – present | Associate Professor, Department of Psychological Sciences, University of Missouri, Columbia, MO. |
| 2017 – 2023 | Assistant Professor, Department of Psychology, Binghamton University, State University of New York (SUNY), Binghamton, NY. |
| 2011 – 2012 | Research Consultant, Sandia National Laboratories, Albuquerque, NM. |

Education

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| 2014 – 2017 | Postdoctoral Fellow, Center for Mind and Brain, University of California, Davis
Mentor: Steven J. Luck |
| 2014 | Ph.D. in Psychology with Distinction, University of New Mexico
Mentor: Eric Ruthruff |
| 2009 | M.S. in Psychology, University of New Mexico
Mentor: Eric Ruthruff |
| 2008 | B.A. with Honors in Psychology, University of Iowa
Mentors: Shaun P. Vecera and Cathleen Moore |

Peer-Reviewed Publications

**student in my laboratory (undergrad, grad, or postdoc)*

53. Zhang, Y.* & **Gaspelin, N.** (2026b). Rapidly learned suppression of salient distractors via multiple regularities. *Journal of Experimental Psychology: Learning, Memory, & Cognition*.
52. Zhang, Y.* & **Gaspelin, N.** (2026a). From capture to control: Initial capture increases learned suppression. *Psychological Science*. 37(4), 227–242.
51. **Gaspelin, N.** & Cowan, N. (2026). Cue-driven attentional orienting nearly eliminates salience effects in working memory. *Journal of Experimental Psychology: Learning, Memory, & Cognition*.
50. Drennan, K.N.* & **Gaspelin, N.** (2026). What can a half-million saccades tell us about distractor suppression? *Cognition*. 269, 106397.

49. Ma, X.*, Luck, S.J., & **Gaspelin, N.**, (2026). Ignoring salient distractors inside and outside the attentional window. *Journal of Cognitive Neuroscience*. 38(2), 242–263.
 48. **Gaspelin, N.**, Ma, X.*, & Luck, S.J. (2025). Signal suppression 2.0: A revised account of attentional capture and suppression. *Psychonomic Bulletin & Review*, 32(6), 2648-2668.
 47. **Gaspelin, N.** & Cowan, N. (2025). Restoring a top-down control assumptions: Salience effects in working memory are overcome with time, *Journal of Experimental Psychology: General*, 154(8), 2301-2317.
 46. Talcott, T.N.*, Kiat, J.E., Luck, S.J., & **Gaspelin, N.** (2025). Is covert attention necessary for programming accurate saccades? Evidence from saccade-locked event-related potentials, *Attention, Perception, & Psychophysics*. 87, 172-190.
 45. Zhang, Y.* & **Gaspelin, N.** (2024). Salience effects on attentional selection are enabled by task relevance, *Journal of Experimental Psychology: Human Perception & Performance*. 50(11), 1131-1142.
 44. Stilwell, B.T.*, Egeth, H.E., & **Gaspelin, N.** (2024). Evidence against the low-salience account of attentional suppression, *Journal of Experimental Psychology: Human Perception & Performance*, 50(10), 1033-1047.
 43. Adams, O.J.* & **Gaspelin, N.** (2024). Attentional suppression of dynamic versus static salient distractors, *Attention, Perception, & Psychophysics*. 86(5), 1-14.
 42. Liesefeld, H.R., Lamy, D., **Gaspelin, N.**, Geng, J.J., Kerzel, D., Schall, J.D., Allen, H.A., Anderson, B.A., Boettcher, S., Busch, N.A., Carlisle, N.B., Colonius, H., Draschkow, D., Egeth, H.E., Leber, A.B., Müller, H.J., Schubö, A., Slagter, H.A., Theeuwes, J., & Wolfe, J. (2024). Terms of debate: Consensus definitions to guide the scientific discourse on visual distraction. *Attention, Perception, & Psychophysics*, 86(5), 1445-1472.
- *Awarded Best Article of the Year**
41. **Gaspelin, N.**, Lamy, D., Egeth, H.E., Liesefeld, H.R., Kerzel, D., Mandal, A., Müller, M.M., Schall, J.D., Schubö, A., Slagter, H.A., Stilwell, B.T.*, van Moorselaar, D. (2023). The distractor positivity component and the inhibition of distracting stimuli. *Journal of Cognitive Neuroscience*, 35(11). 1693-1715.
 40. Stilwell, B.T.*, Adams, O.J.*, Egeth, H.E., & **Gaspelin, N.** (2023). The role of salience in suppression of distracting stimuli. *Psychonomic Bulletin & Review*, 30(6), 2262-2271.
 39. **Gaspelin, N.**, Egeth, H.E., & Luck, S.J. (2023). A critique of the attentional window account of capture failures. *Journal of Cognition*, 6(1), 39.
 38. Rigsby, T.J.*, Stilwell, B.T.*, Ruthruff, E., & **Gaspelin, N.** (2023). A new technique for estimating the probability of attentional capture. *Attention, Perception, & Psychophysics*, 85(2), 543–559.
 37. Adams, O.J.*, Ruthruff, E., & **Gaspelin, N.** (2023). Oculomotor suppression of abrupt onsets versus color singletons. *Attention, Perception, & Psychophysics*, 85(3), 613-633.
 36. Wöstmann, M., Störmer, V. S., Obleser, J., Addelman, D. A., Andersen, Søren K., **Gaspelin, N.**, Geng, J. J., Luck, S. J., Noonan, M. P., Slagter, H. A., & Theeuwes, J. (2022). Ten simple rules to study distractor suppression. *Progress in Neurobiology*, 213, 102269.
 35. Talcott, T.N.*, Levy, A. P.*, & **Gaspelin, N.** (2022). Covert attention is attracted to prior target locations: Evidence from the probe paradigm. *Attention, Perception, & Psychophysics*, 84(4), 1098-1113.

34. Stilwell, B.T.*, Egeth, H. E., & **Gaspelin, N.** (2022). Electrophysiological evidence for the suppression of highly salient distractors. *Journal of Cognitive Neuroscience*. 34(5), 787–805.
33. Blakley, E.C., **Gaspelin, N.**, & Gerhardstein, P. (2022). The development of oculomotor suppression of salient distractors in children. *Journal of Experimental Child Psychology*, 214, 105291.
32. **Gaspelin, N.**, & Luck, S.J. (2021). Progress and remaining issues: A response to the commentaries on Luck et al. (2021). *Visual Cognition*, 29(9), 650-656.
31. Stilwell, B.T.*, & **Gaspelin, N.** (2021). Attentional suppression of highly salient color singletons. *Journal of Experimental Psychology: Human Perception and Performance*, 47(10), 1313–1328.
30. Bansal, S., **Gaspelin, N.**, Robinson, B.M., Hahn, B., Luck, S.J., & Gold, J.M. (2021). Oculomotor inhibition and location priming in schizophrenia. *Journal of Abnormal Psychology*, 130(6), 651.
29. Talcott, T.N.*, & **Gaspelin, N.** (2021). Eye movements are not mandatorily preceded by the N2pc component. *Psychophysiology*. 58(6), 1-17.
28. Adams, O.J.*, & **Gaspelin, N.** (2021). Introspective awareness of oculomotor attentional capture. *Journal of Experimental Psychology: Human Perception & Performance*, 47(3), 442–459.
27. Luck, S.J., **Gaspelin, N.**, Folk, C.L., Remington, R.W., & Theeuwes, J. (2020). Progress toward resolving the attentional capture debate. *Visual Cognition*, 29(1), 1-21.
26. Maxwell, J.W., **Gaspelin, N.**, & Ruthruff, E. (2020). No identification of abrupt onsets that capture attention: Evidence against a unified model of spatial attention. *Psychological Research*, 1–17.
25. Ruthruff, E., Faulks, M., Maxwell, J.W., & **Gaspelin, N.** (2020). Attentional dwelling and capture by color singletons. *Attention, Perception, & Psychophysics*, 82, 3048–3064.
24. Talcott, T.N.*, & **Gaspelin, N.** (2020). Prior target locations attract overt attention during search. *Cognition*, 201, 104282.
23. Adams, O.J.*, & **Gaspelin, N.** (2020). Assessing introspective awareness of attention capture. *Attention, Perception, & Psychophysics*, 82(4), 1586–1598. ***Awarded Best Article of the Year***
22. Zhang, Z., **Gaspelin, N.**, & Carlisle, N.B. (2019). Probing early attention following negative and positive templates. *Attention, Perception, & Psychophysics*, 82, 1166–1175.
21. **Gaspelin, N.**, Gaspar, J.M., & Luck, S.J. (2019). Oculomotor inhibition of salient distractors: Voluntary inhibition cannot override selection history. *Visual Cognition*, 27 (3-4), 227-246.
20. Ruthruff, E., Kuit, D., Maxwell, J.W., & **Gaspelin, N.** (2019). Can capture by abrupt onsets be suppressed? *Visual Cognition*, 27 (3-4), 279-290.
19. **Gaspelin, N.**, & Luck, S.J. (2019). Inhibition as a potential resolution to the attentional capture debate. *Current Opinions in Psychology*, 29, 12–18.
18. **Gaspelin, N.**, & Luck, S.J. (2018). Combined electrophysiological and behavioral evidence for the suppression of salient distractors. *Journal of Cognitive Neuroscience*. 30(9), 1265-1280.
17. **Gaspelin, N.** & Luck, S.J. (2018). “Top-down” does not mean “voluntary.” [Commentary on "Visual selection: usually fast and automatic; seldom slow and volitional," by J. Theeuwes]. *Journal of Cognition*. 1(25), 1-4.

16. Ruthruff, E., & **Gaspelin, N.** (2018). Immunity to attentional capture at ignored locations. *Attention, Perception, & Psychophysics*, 80(2), 325-336.
15. **Gaspelin, N.**, & Luck, S.J. (2018). The role of inhibition in avoiding distraction by salient stimuli. *Trends in Cognitive Sciences*, 22(1), 79–92.
14. **Gaspelin, N.**, & Luck, S.J. (2018). Distinguishing among potential mechanisms of suppression. *Journal of Experimental Psychology: Human Perception and Performance*, 44(4), 626-644.
13. **Gaspelin, N.**, Leonard, C.J., & Luck, S.J. (2017). Suppression of overt attentional capture by salient-but-irrelevant color singletons. *Attention, Perception, & Psychophysics*, 79(1), 45-62.
12. Luck, S.J., & **Gaspelin, N.** (2017). How to get statistically significant effects in any ERP experiment (and why you shouldn't). *Psychophysiology*, 54(1), 146-157.
11. Keller, J., Ruthruff, E., Keller, P., Hoy, R., Gaspelin, N., & Bertolini, K. (2017). "Your Brain Becomes a Rainbow": Perceptions and Traits of 4th-Graders in a School-Based Mindfulness Intervention. *Journal of Research in Childhood Education*, 31(4), 508–529.
10. Arexis, M., Maquestiaux, F., Didierjean, A., **Gaspelin, N.**, & Ruthruff, E. (2017). Attention capture in driving displays. *British Journal of Psychology*, 108(2), 259-275.
9. **Gaspelin, N.**, Ruthruff, E., & Lien, M.C. (2016). The problem of latent attentional capture: Easy search conceals capture by task-irrelevant abrupt onsets. *Journal of Experimental Psychology: Human Perception and Performance*, 42(8), 1104-1120.
8. **Gaspelin, N.**, Leonard, C.J., & Luck, S.J. (2015). Direct evidence for active suppression of salient-but-irrelevant sensory inputs. *Psychological Science*, 22(11), 1740-1750.
7. **Gaspelin, N.**, Margett-Jordan, T., & Ruthruff, E. (2015). Susceptible to distraction: Children lack top-down control over spatial attention capture. *Psychonomic Bulletin & Review*, 22(2), 461-468.
6. **Gaspelin, N.**, Ruthruff, E., & Jung, K. (2014). Slippage theory and the flanker paradigm: An early-selection account of selective attention failures. *Journal of Experimental Psychology: Human Perception & Performance*, 40(3), 1257–1273.
5. **Gaspelin, N.**, Ruthruff, E., & Pashler, H. (2013). Divided attention: An undesirable difficulty in memory retention. *Memory & Cognition*, 41(7), 978–988.
4. Jung, K., Ruthruff, E., & **Gaspelin, N.** (2013). Automatic identification of familiar faces. *Attention, Perception, & Psychophysics*, 75(7), 1438–1450.
3. **Gaspelin, N.**, Ruthruff, E., Lien, M.C., & Jung, K. (2012). Breaking through the attentional window: Capture by abrupt onsets versus color singletons. *Attention, Perception, & Psychophysics*, 74(7), 1461-1474.
2. **Gaspelin, N.**, Ruthruff, E., Jung, K., Cosman, J., & Vecera, S.P. (2012). Does low perceptual load enable capture by colour singletons? *Journal of Cognitive Psychology*, 24(6), 735–750.
1. Jung, K., Ruthruff, E., Tybur, J.M., **Gaspelin, N.**, & Miller, G. (2012). Perception of facial attractiveness requires some attentional resources: Implications for the "automaticity" of psychological adaptations. *Evolution and Human Behavior*, 33(3), 241–250.

Extramural Grants and Funding

Standard Research Grant

2615150 (PI: Nicholas Gaspelin)

Division of Behavioral and Cognitive Sciences

National Science Foundation
A Revised Signal Suppression Account of Learned Attentional Control
 Direct Costs: \$340,792
 Total Costs: \$521,472
 8/01/26–07/31/29
 Role: Principal Investigator

Faculty Early Career Development Program (CAREER)

2045624 / 2345898 (PI: Nicholas Gaspelin)
 Division of Behavioral and Cognitive Sciences
 National Science Foundation
Understanding the Relationship of Covert and Overt Attention Using Concurrent EEG and Eye Tracking
 Direct Costs: \$453,631
 Total Costs: \$708,000
 8/01/2021 – 7/31/2026
 Role: Principal Investigator

F32 National Research Service Award (NRSA)

F32EY024834 (PI: Nicholas Gaspelin)
 NIH - National Eye Institute
Top-down and Bottom-up Control of Visual Attention: Evidence from ERPs and Eye-Tracking
 Total Costs: \$108,594
 9/01/2015 – 8/31/2017
 Role: Principal Investigator

T32 National Research Service Award (NRSA)

T32EY015387 (PI: John S. Werner)
 NIH - National Eye Institute
 Total Costs: \$302,597
 9/01/2014 – 8/31/2015
Training Grant in Vision Science
 Role: Trainee

Applied Grants

Applied Research Grant

Department of Army
 14096340 (PI: Dominic K.C. Ho)
An Integrated System of Drone Mounted and Human Operated Subsurface Object Detection by Ground Penetrating Radar
 Direct Costs: \$172,523
 Total Costs: \$270,000
 9/1/2024– 8/31/2027
 Role: Co-Investigator

Honors & Awards

2025 Elected Fellow of Association for Psychological Science (APS)
 2025 Early Career Award from Psychonomic Society
 2024 Best Article of the Year in *Attention, Perception, & Psychophysics*
 2023 MizzouForward Faculty Hire

- 2021 Distinguished Alumni Award, Pleasant Valley School District
- 2021 NSF Career Award
- 2020 Best Article of the Year in *Attention, Perception, & Psychophysics*
- 2019 Early-Stage Investigator Travel Award, Vision Science Society
- 2016 Select Speaker Award, Psychonomic Society
- 2016 Elected Fellow of Psychonomic Society
- 2015 Individual NRSA Postdoctoral Fellowship (F32) from the NIH

Conference Presentations

**student in laboratory (grad, postdoc, undergrad)*

- Zhang, Y.* & **Gaspelin, N.** (2025, November). Attentional capture is necessary to initiate learned suppression. Talk presented at the Annual Meeting of Psychonomic Society, Denver, CO.
- Gaspelin, N.** & Cowan, N. (2025, November). *Flexibility in working memory: Salience is not automatically prioritized.* Talk presented at the Annual Meeting of Psychonomic Society, Denver, CO.
- Bao, C.*, Cowan, N., & **Gaspelin, N.** (2025, November). Examining feature-based and object-based limits in visual working memory: An ERP study. Data Blitz Talk presented at the Annual Meeting of Psychonomic Society, Denver, CO.
- Ma, X.*, & **Gaspelin, N.** (2025, November). *In focus, yet ignored: Salient distractors are suppressed regardless of attentional focus.* Poster presented at the Annual Meeting of Psychonomic Society, Denver, CO.
- Drennan, K.N.*, & **Gaspelin, N.** (2025, November). *What can a half-million saccades tell us about distractor suppression?* Poster presented at the Annual Meeting of Psychonomic Society, Denver, CO.
- Ma, X.*, Luck, S.J. & **Gaspelin, N.** (2025, May). *Ignoring salient distractors inside of the attentional window.* Poster presented at the Annual Meeting of Vision Science Society, St. Petersburg, FL.
- Zhang, Y.* & **Gaspelin, N.** (2025, May). *From capture to control: Initial capture leads to learned suppression.* Poster presented at the Annual Meeting of Vision Science Society, St. Petersburg, FL.
- Bao, C.*, Cowan, N., & **Gaspelin, N.** (2024, November). *Exploring the influence of object and feature complexity on working memory load: Insights from an ERP study.* Poster presented at CowanFest, New York City, NY.
- Gaspelin, N.** & Adams, O.J.* (2024, November). *Attentional suppression of dynamic motion and static salient distractors.* Talk presented at Annual Meeting of Psychonomic Society, New York City, NY.
- Ma, X.*, Luck, S.J., & **Gaspelin, N.** (2024, November). *Suppression of salient distractors inside versus outside the attentional window.* Poster presented at Annual Meeting of Psychonomic Society, New York City, NY.
- Zhang, Y.*, & **Gaspelin, N.** (2024, November). *Salience effects on attention are enabled by task relevance.* Poster presented at Annual Meeting of Psychonomic Society, New York City, NY.
- Drennan, K.N.*, & **Gaspelin, N.** (2024, November). *What can 160,000 saccades tell us about distractor suppression?* Poster presented at OPAM, New York City, NY.

- Gaspelin, N.**, Stilwell, B.T.*, & Egeth, H.E. (2024, May). *Evidence against the low-salience criticism of signal suppression*. Poster presented at the Annual Meeting of Vision Science Society, St. Petersburg, FL
- Gaspelin, N.**, Stilwell, B.T.*, & Egeth, H.E. (2023, November). *The role of salience in suppression of distracting stimuli*. Talk presented at the Annual Meeting of Psychonomic Society, San Francisco, CA.
- Ruthruff, E., Rigsby, T.J.*, Stilwell, B.T.*, & **Gaspelin, N.** (2023, November). *Estimating the probability of attentional capture*. Talk presented at the Annual Meeting of Psychonomic Society, San Francisco, CA
- Stilwell, B.T.*, Egeth, H.E., & **Gaspelin, N.** (2023, May). *A new technique for measuring the salience of distractors*. Poster presented at the Annual Meeting of Vision Science Society, St. Petersburg, FL.
- Gaspelin, N.** & Talcott, T.N.* (2022, November). *Eye movements are not automatically preceded by the N2pc component*. Talk presented at the Annual Meeting of Psychonomic Society, Boston, MA.
- Stilwell, B.T.*, Egeth, H.E., & **Gaspelin, N.** (2022, November). *The role of salience in the suppression of distracting stimuli*. Talk presented at the Annual Meeting of Psychonomic Society, Boston, MA.
- Adams, O.J.* & **Gaspelin, N.** (2022, November). *Assessing attentional suppression of salient stimuli*. Poster presented at the Annual Meeting of Psychonomic Society, Boston, MA.
- Talcott, T.N.*, Luck, S.J., & **Gaspelin, N.** (2022, November). *Using ERPs to evaluate covert attentional processes that occur before eye movements*. Poster presented at the Annual Meeting of Psychonomic Society, Boston, MA.
- Stilwell, B.T.*, Egeth, H.E., & **Gaspelin, N.** (2022, May). *Electrophysiological evidence for attentional suppression of highly salient distractors*. Poster presented at Annual Meeting of Vision Science Society, St. Petersburg, FL.
- Talcott, T.N.*, Luck, S.J., & **Gaspelin, N.** (2022, May). *Using ERP decoding to measure covert attention before eye movements*. Poster presented at the Leading-Edge Workshop on Co-Registration, St. Petersburg, FL
- Gaspelin, N.**, & Talcott, T.N.* (2022, May). *Eye movements are not mandatorily preceded by the N2pc component*. Talk presented at the Leading-Edge Workshop on Co-Registration, St. Petersburg, FL.
- Gaspelin, N.**, Stilwell, B.T.*, & Egeth, H.E. (2021, November). *Attentional suppression of highly salient distractors*. Talk presented at the Annual Meeting of the Psychonomic Society, virtual conference.
- Talcott, T.N.*, Levy, A.P.*, & **Gaspelin, N.** (2021, November). *Intertrial location priming influences covert attentional selection*. Poster presented at the Annual Meeting of the Psychonomic Society, virtual conference.
- Adams, O.J.*, & **Gaspelin, N.** (2021, November). *Can abrupt onsets be suppressed like color singletons?* Poster presented at the Annual Meeting of the Psychonomic Society, virtual conference.
- Rigsby, T. J.*, Stilwell, B. T.*, Ruthruff, E., & **Gaspelin, N.** (2021, November). *Estimating the probability of attentional capture*. Poster presented at the Annual Meeting of Psychonomics Society, virtual conference.
- Talcott, T.N.*, & **Gaspelin, N.** (2021, May). *The N2pc component does not always precede eye movements*. Poster presented at the Annual Meeting of Vision Science Society, virtual conference.

- Stilwell, B.T.*, & **Gaspelin, N.** (2021, May). *Even highly salient distractors are proactively suppressed*. Poster presented at the Annual Meeting of Vision Science Society, virtual conference.
- Blakley, E., Duggan, N., **Gaspelin, N.** & Gerhardstein, P. (2021, May). *Children Display Neither Attentional Capture nor Suppression by Salient Stimuli*. Poster presented at the Annual Meeting of Vision Science Society, virtual conference.
- Talcott, T.N.*, & **Gaspelin, N.** (2020, November). *Covert attention does not always precede eye movements during search*. Poster presented at the Annual Meeting of the Psychonomic Society, virtual conference.
- Adams, O.J.*, & **Gaspelin, N.** (2020, November). *Introspective awareness of oculomotor attentional capture*. Poster presented at the Annual Meeting of the Psychonomic Society, virtual conference.
- Adams, O.J.*, & **Gaspelin, N.** (2020, June). *Assessing introspective awareness of overt attentional capture*. Poster presented at the Annual Meeting of the Vision Science Society, virtual conference.
- Talcott, T.N.*, & **Gaspelin, N.** (2019, November). *Past is prologue: The prior target location attracts overt eye movements*. Poster presented at the Annual Meeting of the Psychonomic Society, Montreal, Canada.
- Adams, O.J.*, & **Gaspelin, N.** (2019, November). *Assessing introspective awareness of attention capture*. Poster presented at the Annual Meeting of the Psychonomic Society, Montreal, Canada.
- Gaspelin, N.** (2019, July). *Selection history overpowers explicit goals during visual search*. Talk presented at the Mid-Atlantic Meeting on Attention, Villanova, PA.
- Talcott, T.N.*, & **Gaspelin, N.** (2019, July). *Past is prologue: The prior target location attracts overt eye movements*. Poster submitted at the Mid-Atlantic Meeting on Attention, Villanova, PA.
- Adams, O.J.*, & **Gaspelin, N.** (2019, July). *Assessing introspective awareness of attention capture*. Poster presented at the Mid-Atlantic Meeting on Attention, Villanova, PA.
- Gaspelin, N.**, Talcott, T.N.*, & Luck, S.J. (2019, May). *Assessing the competition between location-based selection history and explicit goals*. Talk presented at the Annual Meeting of the Vision Science Society, St. Pete's Beach, FL.
- Zhang, Z., **Gaspelin, N.**, & Carlisle, N. (2019, May). *Probing Early Attention Following Negative and Positive Templates*. Poster presented at the Annual Meeting of the Vision Science Society, St. Pete's Beach, FL.
- Gaspelin, N.**, & Luck, S.J. (2018, March). *Combined Electrophysiological and Behavioral Evidence for the Suppression of Salient Distractors*. Talk presented at the Annual Meeting of Cognitive Neuroscience Society, San Francisco, CA.
- Gaspelin, N.**, Gaspar, J.M., & Luck, S.J. (2018, November). *Selection History Overpowers Explicit Goals in Visual Search*. Talk presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.
- Luck, S.J. & **Gaspelin, N.** (2018, November). *Combined Electrophysiological and Behavioral Evidence for the Suppression of Salient Distractors*. Talk presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.
- Maxwell, J., Ruthruff, E., & **Gaspelin, N.** (2018, November). *Voluntary vs. involuntary attention: How capture modulates depth of processing*. Poster presented at the Annual Meeting of the Psychonomic Society, New Orleans, LA.

- Gaspelin, N.,** Gaspar, J.M., & Luck, S.J. (2018, November). *Selection history overpowers explicit goals in visual search*. Poster presented at the Vision Science Society, St. Pete's Beach, FL.
- Gaspelin, N.,** Ruthruff, E., and Lien, M.C. (2017, November). *Latent attention capture: How to shrink a capture effect without altering the probability of capture*. Talk presented at the Annual Meeting of the Psychonomic Society, Vancouver, Canada.
- Gaspelin, N.,** & Luck, S.J. (2017, May). *Mechanisms underlying suppression of attentional capture by salient items*. Talk presented at the Annual Meeting of the Vision Science Society in special symposium on *Cutting Across Bottom-Up vs. Top-Down Theories of Attention Capture*, St. Pete's Beach, FL.
- Gaspelin, N.,** & Luck, S.J. (2016, November). *Converging evidence for suppression of attentional capture by salient-but-irrelevant stimuli*. Talk presented at the Annual Meeting of the Psychonomic Society, Boston, MA. (*Select Speaker Award*)
- Gaspelin, N.,** & Luck, S.J. (2016, July). *Suppression of covert and overt attentional capture*. Talk presented at the Cognitive Science Association for Interdisciplinary Learning Conference, Hood River, OR.
- Gaspelin, N.,** Leonard, C.J., & Luck, S.J. (2016, May). *Evidence of active suppression of covert and overt attentional capture*. Talk presented at the annual meeting of the Vision Sciences Society, St. Pete's Beach, FL.
- Gaspelin, N.,** Leonard, C.J., & Luck, S.J. (2015, November). *Evidence of active suppression of covert and overt attentional capture*. Poster presented at the annual meeting of the Psychonomic Society, Chicago, IL.
- Gaspelin, N.,** & Luck, S.J. (2015, May). *Behavioral evidence of top-down suppression of attention capture with the capture-probe task*. Poster presented at the annual meeting of the Vision Sciences Society, St. Pete's Beach, FL.
- Gaspelin, N.,** Margett-Jordan, T. & Ruthruff, E. (2014, November). *Susceptible to distraction: Children lack top-down control over spatial attention*. Poster presented at the annual meeting of the Psychonomic Society, Long Beach, CA.
- Gaspelin, N.,** Ruthruff, E., and Lien, M.-C. (2013, November). *Capture by abrupt onsets: Now you see it, now you don't*. Poster presented at the annual meeting of the Psychonomic Society, Toronto, Canada.
- Gaspelin, N.,** Ruthruff, E., Jung, K., & Crane, E. (2012, November). *On the identification of irrelevant flankers: Dilution vs. load vs. slippage*. Poster presented at the annual meeting of the Psychonomic Society, Minneapolis, MN.
- Lien, M.-C., Ruthruff, E., & **Gaspelin, N.** (2012, November). *Do salience and relevance have multiplicative effects on the capture of spatial attention?* Paper presented at annual meeting of the Psychonomic Society, Minneapolis, MN.
- Jung, K., **Gaspelin, N.**, Keller, J., & Ruthruff, E. (2011, November). *Automaticity of the identification of familiar and unfamiliar faces*. Poster presented at the annual meeting of the Psychonomic Society, Seattle, WA.
- Risom, S., Lien, M.-C., Ruthruff, E., & **Gaspelin, N.** (2011, October). *Capturing spatial attention: do salience and relevance have multiplicative effects?* Poster presented at the Annual Meeting of the European Society for Cognitive Psychology, San Sebastian, Spain

Gaspelin, N., Ruthruff, E., & Pashler, H. (2010, October). *Dual-tasking: An undesirable difficulty?* Poster presented at the annual meeting of the A.R.M.A.D.I.L.L.O., Texas A&M, College Station, TX.

Gaspelin, N., Ruthruff, E., Vecera, S.P., & Cosman, J.D. (2009, November). *Why don't color singletons capture attention? The role of perceptual load.* Poster presented at the annual meeting of the Psychonomic Society, Boston, MA.

Published Conference Abstracts

**student in laboratory (grad, postdoc, undergrad)*

Zhang, Y.*, & **Gaspelin, N.** (2025). From capture to control: Initial capture leads to learned suppression. *Journal of Vision*, 25(9), 2315.

Ma, X.*, Luck, S. J., & **Gaspelin, N.** (2025). Ignoring salient distractors inside of the attentional window. *Journal of Vision*, 25(9), 2177.

Gaspelin, N., Stilwell, B. T.*, & Egeth, H. E. (2024). Evidence against the low-salience criticism of signal suppression. *Journal of Vision*, 24(10), 553.

Stilwell, B. T.*, Egeth, H., & **Gaspelin, N.** (2023). A new technique for measuring the salience of distractors. *Journal of Vision*, 23(9), 4735.

Stilwell, B. T.*, Egeth, H., & **Gaspelin, N.** (2022). Electrophysiological evidence for attentional suppression of highly salient distractors. *Journal of Vision*, 22, 3061.

Stilwell, B. T.*, & **Gaspelin, N.** (2021). Even highly salient distractors are proactively suppressed. *Journal of Vision*, 21(9), 2225.

Blakley, E. C., Duggan, N., **Gaspelin, N.**, & Gerhardstein, P. (2021). The development of oculomotor suppression of salient distractors in children. *Journal of Vision*, 21(9), 2704.

Adams, O.*, & **Gaspelin, N.** (2020). Assessing introspective awareness of overt attentional capture. *Journal of Vision*, 20(11), 334.

Talcott, T. N.*, & **Gaspelin, N.** (2019). Assessing the competition between location-based selection history and explicit goals. *Journal of Vision*, 19(10), 203.

Zhang, Z., **Gaspelin, N.**, & Carlisle, N.B. Probing the early attentional benefits of negative templates. *Journal of Vision*, 19(10), 315–315.

Gaspelin, N., Gaspar, J. M., & Luck, S. J. (2018). Suppression of attention capture: The role of selection history. *Journal of Vision*, 18(10), 467.

Ruthruff, E., Faulks, M., Maxwell, J., & **Gaspelin, N.** (2017). Attentional dwelling and capture by color singletons. *Journal of Vision*, 17(10), 938-938.

Gaspelin, N. (2017). Mechanisms underlying suppression of attentional capture by salient stimuli. *Journal of Vision*, 17(10), 3.

Gaspelin, N., Leonard, C. J., & Luck, S. J. (2016). Suppression of covert and overt attentional capture. *Journal of Vision*, 16(12), 189.

Gaspelin, N., & Luck, S. J. (2015). Behavioral evidence of top-down suppression of attention capture with the letter-probe technique. *Journal of Vision*, 15(12), 315.

Invited Talks

- Gaspelin, N.** (2026, July). *Signal suppression 2.0: A revised account of attentional capture by salient distractions*. Talk presented to Harvard University (Jeremy Wolfe's lab).
- Gaspelin, N.** (2026, February). *The signal suppression account: The role of inhibition in avoiding salient distractions*. Talk presented to University of Illinois Urbana-Champaign.
- Gaspelin, N.** (2025, November). *Signal suppression 2.0: A new and improved account of attentional capture*. Talk presented to Guangzhou Cognitive Neuroscience Symposium.
- Gaspelin, N.** (2025, March). *The role of attentional suppression in preventing distraction by salient stimuli*. Talk presented to Washington University, St. Louis, MO.
- Gaspelin, N.** (2024, October). *What is salience and how can we measure it?* Talk presented at Festschrift for Charles Folk and Roger Remington. Ohio State University, Columbus, OH.
- Gaspelin, N.** (2024, September). *Does covert attention precede eye movements? Evidence from the N2pc*. Talk presented to the Eye Tracking workshop at the National Institutes of Health (NIH), Bethesda, Maryland.
- Gaspelin, N.** (2023, October). *Preventing distraction via attentional suppression*. Talk presented to HPP group at the University of Iowa, Iowa City, IA.
- Gaspelin, N.** (2023, October). *The role of suppression in ignoring distracting Stimuli*. Talk presented to C&N seminar University of Missouri.
- Gaspelin, N.** (2023, September). *Preventing distraction via inhibition of attention*. Talk presented to Clinical and Social seminar University of Missouri.
- Gaspelin, N.** (2023, February). *Attentional suppression of salient distractors*. Talk presented at the University of Toronto, Toronto, Canada.
- Gaspelin, N., Stilwell, B.T., & Egeth, H.E.** (2022, July). *Attentional suppression of highly salient color singletons*. Talk presented to the CAS Group on Handling Visual Distraction, Munich, Germany.
- Stilwell, B.T.*, & Gaspelin, N.** (2021, January). *Attentional suppression of highly salient color singletons*. Talk presented at the University of Iowa.
- Gaspelin, N.** (2020, December). *Assessing overt and covert awareness of attentional capture*. Talk presented at the University of Iowa.
- Gaspelin, N.** (2020, July). *The role of inhibition in the avoidance of attentional capture*. Talk presented at Ludwigs-Maximilians-Universität.
- Gaspelin, N.** (2020, June). *The role of inhibition in the avoidance of attentional capture*. Talk presented at Vrije Universiteit Amsterdam.
- Gaspelin, N.** (2019, October). *The role of inhibition in avoiding attention capture by salient stimuli*. Talk presented at the Rovereto Attention Workshop, Verona, Italy.
- Gaspelin, N.** (2018, March). *Converging electrophysiological and behavioral evidence of inhibition*. Invited talk at the University of California at Davis.
- Gaspelin, N.** (2018, January). *The role of inhibition in the avoidance of attentional capture*. Ebbinghaus Empire Lecture at University of Toronto.
- Gaspelin, N.** (2018, October). *Proactive inhibition as a resolution to the attentional capture debate*. Invited talk at Pennsylvania State University.

- Gaspelin, N.** (2018, March). *Suppressing visual distraction by salient stimuli*. Invited talk at Le High University.
- Gaspelin, N.** (2017, October). *The role of inhibition in avoiding distraction by salient stimuli*. Cognitive Brown Bag at Villanova University.
- Gaspelin, N.** & Luck, S.J. (2016, October). *Suppression of overt and covert attentional capture*. Invited talk at Reed College, Portland, OR.
- Gaspelin, N.** & Ruthruff, E. (2014, June). *Do onsets capture attention? Searching for a unified theory of attention capture*. Invited talk at Université de Franche – Comté, Besançon, France.
- Gaspelin, N.** & Ruthruff, E. (2014, May). *Contingent capture or contingent costs? Resolving the attention capture debate*. Invited talk to the Maquestiaux laboratory at Université Paris-Sud, Paris, France.
- Gaspelin, N.** (2013, July). *Wanted: A unified theory of attention capture*. Invited talk at Johns Hopkins University, Baltimore, MD.
- Ruthruff, E., **Gaspelin, N.**, & Pashler, H. (2011, December). *Undesirable difficulties in memory retrieval*. Invited talk at the Université Paris-Sud, Paris, France.

Professional Memberships

Fellow, Psychonomic Society
 Fellow, Association for Psychological Science (APS)
 Member, Cognitive Neuroscience Society
 Member, Vision Sciences Society
 Member, Society for Neuroscience
 Member, American Association for the Advancement of Science

Editorial Work and Reviews

- 2025 – present Associate editor, *Journal of Experimental Psychology: Learning, Memory, & Cognition*. [APA Journal]
- 2019 – 2024 Consulting editor, *Attention, Perception, & Psychophysics*. [Psychonomic Society Journal]
- 2018 – 2024 Consulting editor, *Journal of Experimental Psychology: Human Perception & Performance*. [APA Journal]

More than 200 ad hoc journal reviews for journals including:
Addictive Behaviors | *Attention, Perception, & Psychophysics* | *Brain Research* | *Cognition* | *Journal of Cognitive Psychology* | *Journal of Cognition* | *Journal of Cognitive Neuroscience* | *Journal of Experimental Psychology: General* | *Journal of Experimental Psychology: Human, Perception, & Performance* | *Journal of Experimental Psychology: Learning, Memory, and Cognition* | *Journal of Neuroscience* | *Memory & Cognition* | *Neuroimage* | *Nature Communications* | *Nature Communications Biology* | *Scientific Reports* | *Plos One* | *Proceedings of the National Academy of Sciences* | *Psychophysiology* | *Psychological Research* | *Psychological Science* | *Psychonomic Bulletin & Review* | *Quarterly Journal of Experimental Psychology* | *Visual Cognition* | *Vision Research*

More than 20 ad hoc grant reviews including:

National Science Foundation | Israeli Science Foundation | Deutsche Forschungsgemeinschaft (DFG) | Research Council of University of Missouri

Current Mentees – Postdoc and Graduate

Xiaojin Ma, Postdoctoral Fellow

Yue Zhang, Graduate Student

Yakup Yilmaz, Graduate Student

Previous Mentees – Postdoc, Graduate, Postbacc, Honors

Name	Role in Lab	Dates	Placement
Chenye Bao	Grad Student	2023–2026	Postdoctoral Fellow at University of Iowa (PI: Wessel)
Brad T. Stilwell	Postdoc	2020–2023	Assistant Professor at Wake Forest University
Owen J. Adams	Grad Student	2018–2023	Cognitive Scientist at Pacific Science and Engineering
Travis N. Talcott	Grad Student	2018–2023	Data Analyst at Google Inc.
Kaitlyn N. Drennan	Postbacc	2020–2023	PhD student at the University of Iowa (PI: Hollingworth)
Camryn Marteeny	Honors Student	2023-2024	Postbacc at Washington University
Isaac Savelson	Honors Student	2019-2020	PhD student at the Ohio State University (PI: Leber)
Victoria Tcacikova	Postbacc	2017-2019	PhD student at the University of Pittsburg (PI: Tokowicz)
Cristina Ceja	McNair Student	2015-2017	PhD student at Northwestern University (PI: Franconeri)
Aaron Simmons	Postbacc	2015-2019	Ph.D. student at Kansas University
Wenhao Dai	Honors Student	2015-2016	Ph.D. from University of Illinois Urbana-Champaign
Tisnue Jean-Baptiste	McNair Student	2017-2019	PhD Student at Rice University

Graduate Examination Committees

Doctoral, Masters, Prelims

Student	University	Role	Type	Year
Tingyan Liu	University of Missouri	Member	Masters	2025
Chenye Bao	University of Missouri	Member	Dissertation	present
Yue Zhang	University of Missouri	Chair	Masters	2024

Chenye Bao	University of Missouri	Member	Prelims	2024
Xiaojin Ma	Washington University	Member	Dissertation	2023
Isabella Lim	University of Toronto	Member	Dissertation	2023
Nick Duggan	Binghamton University	Member	Dissertation	2023
Emily Blakely	Binghamton University	Member	Dissertation	2023
Travis Talcott	Binghamton University	Chair	Dissertation	2023
Owen Adams	Binghamton University	Chair	Dissertation	2023
Chenye Bao	University of Missouri	Member	Prelims	2023
Daniel Silliman	Binghamton University	Member	Dissertation	2021
Owen Adams	Binghamton University	Chair	Prelims	2021
Travis Talcott	Binghamton University	Chair	Prelims	2021
Jack Rhodes	Binghamton University	Member	Dissertation	2020
Mavi Ruiz-Blondet	Binghamton University	Member	Dissertation	2020
Alecia Moser	Binghamton University	Member	Dissertation	2020
Nick Duggan	Binghamton University	Member	Masters	2020
Emily Blakley	Binghamton University	Member	Masters	2020
Nadia Haddara	Binghamton University	Member	Masters	2020
Samira Dodson	Binghamton University	Member	Prelims	2020
Emily Blakley	Binghamton University	Member	Prelims	2020
Matt Wetzel	Binghamton University	Member	Prelims	2020
Daniel Silliman	Binghamton University	Member	Prelims	2020
Owen Adams	Binghamton University	Chair	Masters	2019
Travis Talcott	Binghamton University	Chair	Masters	2019
Jack Rhodes	Binghamton University	Member	Prelims	2018
Mavi Ruiz-Blondet	Binghamton University	Member	Prelims	2018
Kenneth Houghton	Binghamton University	Member	Masters	2017

Undergraduate Research Projects

Honors Thesis, McNair, Capstone

Student	School	Role	Project Type	Year
Andrew Grassi	University of Missouri	Mentor	Honors Thesis	2026
Tragan Chambers	University of Missouri	Mentor	McNair Scholar	2026
Camryn Marteeny	University of Missouri	Mentor	Honors Thesis	2025
Isaac Savelson	Binghamton University	Mentor	Honors Thesis	2023
Alyssa Levy	Binghamton University	Mentor	Honors Thesis	2021
Ripley Mars	Binghamton University	Mentor	Capstone	2021
Michael Salerno	Binghamton University	Mentor	Honors Thesis	2020
Tisnue Jean-Baptiste	Binghamton University	Mentor	McNair Scholar	2017
Cristina Ceja	UC Davis	Mentor	Honors Thesis	2016
Mark Cubillan	UC Davis	Mentor	Honors Thesis	2015
Cristina Ceja	UC Davis	Mentor	McNair Scholar	2015
Wenhao Dai	UC Davis	Mentor	Honors Thesis	2014

Popular Press Interviews

White, T. (2025). Can we have your attention please? *Vox Magazine*.

[\[Link to Online Article\]](#)

Healey, N. (2021). How to use science to focus at work. *WIRED*.

[\[Link to Online Article\]](#)

Micale, J. (2020). Paying attention to how we see: Nicholas Gaspelin receives NSF CAREER Award.
BingUNews.
[\[Link to Online Article\]](#)

Educational Outreach, Workshops, and Local Conferences

- 2022 – present Instructor and Organizer, *R Programing Workshop for Psychology and Neuroscience*, Sponsored by National Science Foundation and the University of Missouri. Annual 10-day virtual workshop of about 50-75 students on R coding for data analysis in psychology.
 More info: <https://rworkshop.missouri.edu>
- 2026 Organizer, *Show-Me Mental State Conference*, Local Cognitive Neuroscience Conference Between University of Missouri and Washington University. Keynote speaker: Edward Awh.
 More info: <https://sites.google.com/view/showmementalstate/home>

Professional Service

- 2022 Chair of the spoken session on “Attention Capture” at the Annual Meeting of Psychonomic Society.
- 2022 Visting Fellow, Center for Advanced Studies, Ludwig-Maximillians Universität München, Munich, Germany. *Research Group on “Handling Visual Distraction”*
 More info: <https://www.cas.lmu.de/en/programs/cas-research-groups/handling-visual-distraction.html>
- 2021 Chair of the spoken session on “Attention Capture” at the Annual Meeting of Psychonomic Society.
- 2019 Chair of the spoken session on “Attention Capture” at the Annual Meeting of Psychonomic Society.
- 2019 Guest editor of special issue at *Visual Cognition* “Dealing with distractors: The role of inhibition in visual search”
- 3 x External Evaluator, Tenure and Promotion Cases
- 2 x External Examiner, Dissertation Committees at External Universities
- 6 x Panelist Member, National Science Foundation, Directorate of Behavioral and Social Sciences
- ...See also “Editorial Work and Reviews” above

Service at University of Missouri

- 2025 – present Director, *Cognition and Neuroscience Graduate Program*
 Department of Psychological Sciences
<https://psychology.missouri.edu/cognition-and-neuroscience>

2025 – present	Member, <i>Committee of Directors</i> Department of Psychological Sciences
2024 – present	Member, <i>Distinguished Lecture Services Committee</i> Department of Psychological Sciences
2024 – present	Member, <i>Progress Toward Promotion (PtP) Committee</i> Dept. of Psychological Sciences
2023 – present	Member, <i>Interdisciplinary Neuroscience Program (INP)</i> https://inp.missouri.edu
2023 – 2025	Member, <i>Executive Committee of Interdisciplinary Neuroscience Program (INP)</i> https://inp.missouri.edu
2024 – 2025	Member, <i>STEM Committee of Research Council</i>

Service at Binghamton University

2022 – 2023	Member, <i>Transdisciplinary Areas of Excellence (TAE) Steering Committee</i>
2021 – 2023	Member, <i>Awards Committee</i> , Dept. of Psychology
2020 – 2022	Member, <i>Resource Allocation Committee</i> , Dept. of Psychology
2018 – 2023	Member, <i>Center for Cognitive Applications</i> , Campus-wide
2017 – 2023	Member, <i>fMRI Initiative Committee</i> , Campus-wide
2018 – 2020	Member, <i>Colloquium Speaker Committee</i> , Dept. of Psychology
2017 – 2018	Member, <i>Awards Committee</i> , Dept. of Psychology