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Professional Profile

Dr. Nadia Tavassolie is a developmental psychologist who specializes in spatial cognition in humans.

Dr. Tavassolie's expertise includes understanding human behavior as it relates to spatial visualization, working memory, executive function, visual imagery, and motor simulation. Dr. Tavassolie applies her expertise to the investigation of human factors and human performance in different contexts and her knowledge of human development to investigations of accidents involving children and adolescents. Dr. Tavassolie also has extensive experience designing, implementing, and analyzing research studies on human subjects, and investigating how child and adolescent users interact with products and environments. She is proficient in qualitative and quantitative data analysis, experimental and survey research, and user testing.

Dr. Tavassolie earned her PhD in Psychology at Temple University where she worked on developing products and designing interventions aimed at improving young children's math and spatial skills. Additionally, she also developed recommendations for best practices for parents to best support their children in the home learning environment before the start of formal schooling. Dr. Tavassolie also served as a Graduate Teaching Assistant for several courses at Temple University including courses on Learning and Behavior Analysis, Workings of the Mind, Phases of Development: Infancy, and Foundation of Psychopathology.

Academic Credentials & Professional Honors

Ph.D., Psychology, Temple University, 2024

National Science Foundation Graduate Research Fellowship Honorable Mention, 2018

Prior Experience

Graduate Research Assistant, Temple University, 2019-2024

Professional Affiliations

The Mathematical Cognition and Learning Society

Cognitive Development Society

Cognitive Development Society

American Psychological Association

Publications

DePascale, M., Feng, Y., Lin, G., Barkin, R., Akhavein, K., Tavassolie, N., Ghil, E., Gaye, F., Buschkuehl, M., Ramani, G., Jaeggi, S. (2024). Uncovering the reciprocal relationship between domain-specific and domain-general skills: Combined numerical and working memory training improves children's mathematical knowledge. Contemporary Educational Psychology.

Tian, J., Bennet Pierre, G., Tavassolie, N., Newcombe, N., Weinraub, M., Hindman, H. A., Newton, K. J., & Gunderson, E. A. (2023). A growth mindset message leads parents to choose more challenging informal learning activities. Journal of Intelligence. Special Issue: Spatial Intelligence and Learning, 11(10), 193. https://www.mdpi.com/2079-3200/11/10/193

Scalise, N. R., DePascale, M., Tavassolie, N., McCown, C., & Ramani, G. B. (2022). Deal me in: Playing cards in the home to learn math. Education Sciences, 12(3), 190.

Fuhs, M. W., Tavassolie, N., Wang, Y., Bartek, V., Sheeks, N. A., Gunderson, E. A. (2021). Children's flexible attention to numerical and spatial magnitudes in early childhood. Journal of Cognition and Development, 22(1), 22-47. doi:10.1080/15248372.2020.1844712

Butler, L.P., Gibbs, H.M., & Tavassolie N.S. (2020). Children's developing understanding that even reliable sources need to verify their claims. Cognitive Development, 54, 1-12. https://doi.org/10.1016/j.cogdev.2020.100871

Butler, L.P. Schmidt, M.F.H., Tavassolie, N.S., & Gibbs, H.M. (2018). Children's evaluations of verified and unverified claims. Journal of Experimental Child Psychology, 176, 73-83. doi:10.1016/j.jecp.2018.07.007

Presentations

Tavassolie, N., Sylverne, L., D'Antonio, E., Newcombe, N., Weinraub, M., Gunderson, E. (March, 2024). Using Books to Improve Mental Rotation Skills in 4- and 5-Year-Old Children. Poster to be presented at the Cognitive Development Society Conference, Pasadena, California.

Tavassolie, N., Sylverne, L., Newcombe, N., Weinraub, M., Gunderson, E. (2023, June). Using Books to Improve Mental Rotation Skills in 4- and 5-Year-Old Children. Poster presented at the Mathematical Cognition and Learning Society Conference 2023, Loughborough, England.

Tian, J., Bennett-Pierre, G., Tavassolie, N., Zhang, X., D'Antonio, E., Sylverne, L, Newcombe, N., Weinraub, M., Hindman, A., Newton, K., & Gunderson, E. (2023, June). A Month-Long Parent-Led Spatial Intervention. Poster presented at the Mathematical Cognition and Learning Society Conference 2023, Loughborough, England.

Tavassolie, N., Tian, J., Bennett-Pierre, G., Newcombe, N., Weinraub, M., Hindman, A., Newton, K., & Gunderson, E. (2022, June). Measuring the Spatial Home Learning Environment: Initial Test of the Spatial Toys and Activities Checklist (STAC). Poster presented at the Mathematical Cognition and Learning Society Conference 2022, Belgium.

Tian, J., Tavassolie, N., Bennett-Pierre, G., Newcombe, N., Weinraub, M., Hindman, A., Newton, K., & Gunderson, E. (2022, June). Growth mindset message influences parents' choices of games. Poster presented at the Mathematical Cognition and Learning Society Conference 2022, Belgium.

Tavassolie, N.S., Gunderson, E. A. (2022, April). Flexible Attention to Magnitudes: Investigating Specificity in Dimensional Attention. Poster presented at the 2022 Biennial Meeting of the Cognitive Development Society, Madison, WI.

Tavassolie, N., Wang, Y., Gunderson, E. A., Sheeks, N., Vrabec, A., Fuhs, M. W. (2021, April). Young

Children’s Flexible Attention to Numerical and Spatial Magnitudes. Poster presented at the 2021 Biennial Meeting of the Society for Research in Child Development (Virtual)

Tavassolie, N., Wang, Y., Gunderson, E. A., Sheeks, N., Vrabec, A., Fuhs, M. W. (2020, June). Young Children’s Flexible Attention to Numerical and Spatial Magnitudes. Poster accepted by the Mathematical Cognition and Learning Society Meeting, Dublin, Ireland. (Conference cancelled

Scalise, N., DePascale, M., Tavassolie, N., McCown, C., & Ramani, G. (2020, June). Playing cards to learn math: A home numeracy intervention. In G. Ramani (Chair), Families Count: Variability in the Early Home Math Environment. Paper accepted by the Mathematical Cognition and Learning Society Meeting, Dublin, Ireland. (Conference cancelled)

DePascale, M., Tavassolie, N.S., Jaeggi, S., Ramani, G. (October, 2017). “I counted with my fingers”: The role of domain- general and domain-specific factors in kindergarten children’s addition strategy use. Poster presented at the 2019 Biennial Meeting of the Cognitive Development Society, Louisville, KY.

Gibbs, H.M., Tavassolie, N.S., & Butler, L.P. (2019, March). Children’s understanding of verification as a necessary condition for helpful and effective teaching. Paper presented in symposium at the 2019 Biennial Meeting of the Society for Research in Child Development, Baltimore, MD.

Gibbs, H.M., Tavassolie, N.S., & Butler, L. P. (July, 2018). Children's understanding of verification as a necessary condition for helpful and effective teaching. Poster presented at the 2018 Annual Meeting of the Society for Philosophy and Psychology, Ann Arbor, MI.

Tavassolie, N. S., Gibbs, H. M., Schmidt, M. F. H., Butler, L. P. (October, 2017). Children's Evaluation of Verified and Unverified Claims. Poster presented at the 2017 Biennial Meeting of the Cognitive Development Society, Portland, OR.

Gibbs, H. M., Tavassolie, N. S., Butler, L. P. (October, 2017). Children's Understanding of Verification as a Necessary Condition for Helpful and Effective Teaching. Poster presented at the 2017 Biennial Meeting of the Cognitive Development Society, Portland, OR.

Tavassolie, N. S., Friedman, S. L., Sigelman, C. K., Rohrbeck, C. A. (May, 2015). Distance communication in military families. Poster presented at The George Washington University Research Days, Washington, DC.

Tavassolie, N. S., Bills, H., Troutt, C. (May, 2015). DC Greens grant proposal. Poster presented at The George Washington University Service Learning Symposium, Washington, DC.