

Nydia Teresa Ayala, Ph.D.

Department of Cognitive and Behavioral Science
 Washington & Lee University
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Education

Ph.D. in Cognitive Psychology, Iowa State University, Ames, IA

August 2019 – May 2024

Dissertation Title: “Do video recordings of lineups improve the abilities of outside observers to discriminate between accurate and inaccurate eyewitnesses?”

Concentration: Psychology and Law

Major Professor: Dr. Andrew M. Smith, Department of Psychology

Co-Major Professor: Dr. Gary L. Wells, Department of Psychology

M.S. in Cognitive Psychology, Iowa State University, Ames, IA

Attained: December 2021

Thesis Title: “When do eyewitness behaviors reflect the presence or absence of the culprit in a lineup?”

Major Professor: Dr. Andrew M. Smith, Department of Psychology

Co-Major Professor: Dr. Gary L. Wells, Department of Psychology

Certificate in Quantitative Psychology, Iowa State University, Ames, IA

Department of Psychology

Attained: May 2023

B.A. in Psychology (Hons.), Toronto Metropolitan University (formerly Ryerson University), Toronto, Canada

September 2010 – April 2014

Minor: Criminal Justice

Cumulative GPA (on 4.0 scale): 3.88; Psychology GPA: 3.93; Upper-Level GPA: 3.93

Professional Experience

Assistant Professor, Washington & Lee University, Lexington, VA

Cognitive and Behavioral Science Department

July 2024 – Present

Graduate Research Assistant/Lab Manager, Iowa State University, Ames, IA

Psychology and Law Lab

August 2019 – May 2024

Lab PI's: Dr. Andrew Smith & Dr. Gary Wells

Lead Project Manager, Rexel USA, Inc., Austin, TX

August 2014 – July 2019

**Peer
Reviewed
Publications**

* Denotes undergraduate student co-author

- 11 Ying, R.C., Smith, A.M., & **Ayala, N.T.** (2025). Toward the systematic assessment of eyewitness identification accuracy. *Manuscript Submitted for Review.*
- 10 **Ayala, N.T.**, Smith, A.M., Ying, R.C., Wells, G.L., & Sommervold, N.M*. (2025). An evidence-based imperative to videorecord eyewitness lineups. *Manuscript Submitted for Review.*
- 9 Smith, A.M., Lampinen, J.M., Ying, R.C., **Ayala, N.T.**, & Dobbins, I. (2025). The rejection-inferiority effect: Why are eyewitness lineups more effective at demonstrating guilt than innocence? *Manuscript Submitted for Review.*
- 8 **Ayala, N.T.**, Smith, A.M., & Wells, G.L. (2024). Beyond the confidence-accuracy relation: A multiple-reflector-variable approach to postdicting accuracy on eyewitness lineups. *Journal of Experimental Psychology: Applied.*
- 7 Smith, A. M., **Ayala, N. T.**, & Ying, R. C. (2024). Using artificial intelligence to assess eyewitness identification accuracy. *Journal of Applied Research in Memory and Cognition.*
- 6 **Ayala, N.T.** & Smith, A.M. (2024) Predicting and postdicting eyewitness identification accuracy on forensic-object lineups. *Journal of Applied Research in Memory and Cognition.*
<https://doi.org/10.1037/mac0000171>
- 5 Smith, A. M., Ying, R. C., **Ayala, N. T.**, & Goldstein, A. R. (2023). The untapped potential of lineups: Using eyewitness memory to rule out innocent suspects. *Psychology, Crime, and Law*, 1–11.
<https://doi.org/10.1080/1068316X.2023.2242998>
- 4 Smith, A. M., **Ayala, N. T.**, & Ying, R. C. (2022). The rule out procedure: A signal-detection-informed approach to the collection of eyewitness identification evidence. *Psychology, Public Policy, and Law*, 29(1), 19–31. <https://doi.org/10.1037/law0000373>
- 3 **Ayala, N. T.**, Smith, A. M., & Ying, R. C. (2022). The rule out procedure: Increasing the potential for police investigators to detect suspect innocence from eyewitness lineup procedures. *Journal of Applied Research in Memory and Cognition*, 11(4), 489–499.
<https://doi.org/10.1037/mac0000018>
- 2 Smith, A. M., & **Ayala, N. T.** (2021). Do traditional lineups undermine the capacity for eyewitness memory to rule out innocent suspects? *Journal of Applied Research in Memory and*

Cognition, 10(2), 215–220.
<https://doi.org/10.1016/j.jarmac.2021.03.003>

- 1 Smith, A. M., Smalarz, L., Ditchfield, R., & **Ayala, N. T.** (2021). Evaluating the claim that high confidence implies high accuracy in eyewitness identification. *Psychology, Public Policy, and Law*, 27(4), 479-491. <https://doi.org/10.1037/law0000324>

**Conference
Presentations**

* Denotes undergraduate student co-author

- 19 **Ayala, N.T.**, Smith, A.M., & Ying, R.C. (June, 2025). Can outside observers discriminate accurate from inaccurate eyewitnesses under contaminated conditions? Paper presented at the Society for Applied Research in Memory and Cognition, Dublin, Ireland.
- 18 Ying, R. C., Smith, A. M., & **Ayala, N. T.** (March, 2025). A standardized approach for assessing suspect-identification accuracy. Poster presented at the American Psychology and Law Society (AP-LS) Conference, San Juan, Puerto Rico.
- 17 **Ayala, N.T.**, & Smith, A.M. (November, 2024). Interpersonal Metacognition: Can Outside Observers Discriminate Between Accurate and Inaccurate Eyewitnesses? Paper presented at the Psychonomic Society conference, New York, New York, USA.
- 16 Smith, A.M., Lampinen, J.M., Ying, R.C., & **Ayala, N.T.** (November, 2024). Why Are Eyewitness Lineups More Effective at Demonstrating Guilt than Innocence? Paper presented at the Psychonomic Society conference, New York, New York, USA.
- 15 Ying, R.C., Smith, A.M., & **Ayala, N.T.** (November, 2024). Examining the Impact of Response-Scale Length on Identification Accuracy from Eyewitness Lineups. Poster presented at the Psychonomic Society conference, New York, New York, USA.
- 14 Sommervold, N.*, Ng, Z. S.*, Ying, R. C., **Ayala, N. T.**, Smith, A. M., & Wells, G. L. (April, 2024). Using eyewitness descriptions of perpetrators to forecast lineup identification accuracy. Poster presented at Poster presented at the Midwestern Psychological Association Conference, Chicago, Illinois, USA.
- 13 **Ayala, N.T.**, Smith, A.M., Ying, R.C., & Wells, G.L. (March, 2024). On the value of video recording eyewitnesses as they complete lineups: High fluency implies high accuracy and low fluency implies low accuracy. Paper presented at the American Psychology-Law Society, Los Angeles, California, USA.
- 12 **Ayala, N.T.**, & Smith, A.M. (August, 2024). Witnesses can forecast their accuracy on a vehicle lineup. Paper presented at the Society for Applied Research in Memory and Cognition, Nagoya, Japan.

- 11 Toh, H.*, Sommers, N.M.*, **Ayala, N.T.**, Ying, R.C., Smith, A. M., & Wells, G.L. (April, 2023). Recording-in-progress: Capturing multiple eyewitness lineup behaviors to gauge suspect guilt. Poster presented at the Midwestern Psychological Association Conference, Chicago, Illinois, USA.
- 10 **Ayala, N.T.**, Smith, A. M., & Wells, G.L. (April, 2023). Confidence, decision speed, and language distinguish accurate from inaccurate eyewitnesses. In Lampinen, J.M. (Chair), *New Ideas in Eyewitness Research*. Symposium presented at the Midwestern Psychological Association Conference, Chicago, Illinois, USA.
- 9 Smith, A. M., **Ayala, N. T.**, & Ying, R. C. (March, 2023). A signal-detection-informed approach to the collection of eyewitness identification evidence. In Eisen, M. (Chair), *New Discoveries in Eyewitness Memory Research*. Symposium presented at the American Psychology-Law Society, Philadelphia, Pennsylvania, USA.
- 8 **Ayala, N.T.**, & Smith, A.M. (March, 2023). The role of selective attention at encoding on later recognition of a getaway vehicle. Paper presented at the American Psychology-Law Society, Philadelphia, Pennsylvania, United States.
- 7 **Ayala, N. T.**, Smith, A. M., & Wells, G.L. (November, 2022). Using confidence, decision time, and decision justifications to sort between the presence and absence of the culprit in simultaneous and sequential lineups. Poster presented at the Psychonomic Society conference, Boston, Massachusetts, United States.
- 6 Smith, A. M., **Ayala, N. T.**, & Ying, R. C. (November, 2022). The rule out procedure: A signal-detection-informed approach to the collection of eyewitness identification evidence. Paper presented at the Psychonomic Society conference (presented virtually).
- 5 **Ayala, N. T.**, Smith, A. M., & Wells, G. L. (March, 2022). Extracting eyewitness behaviors from lineup videos to postdict suspect guilt. Data blitz paper presented at the American Psychology-Law Society, Denver, Colorado, United States.
- 4 Smith, A. M., **Ayala, N. T.**, & Ying, R. C. (March, 2022). The rule out procedure: Increasing the capacity for police investigators to detect suspect innocent. Paper presented at the American Psychology-Law Society, Denver, Colorado, USA.
- 3 **Ayala, N. T.**, Smith, A. M., & Wells, G. L. (November, 2021). Using eyewitness behaviors extracted from lineup videos to postdict suspect

guilt. Poster presented at the Psychonomic Society conference (virtual).

- 2 **Ayala, N. T.**, Smith, A. M., & Wells, G. L. (July, 2021). Beyond confidence and decision time: using eyewitness behaviors extracted from video-recorded lineups to predict suspect guilt. Paper presented at the Society for Applied Research in Memory and Cognition (virtual).
- 1 **Ayala, N. T.**, Smith, A. M., & Wells, G. L. (March, 2021). Beyond confidence and decision time: using eyewitness behaviors extracted from video-recorded lineups to predict suspect guilt. Poster presented at the American Psychology-Law Society (virtual).

In the Media *River to River, Iowa Public Radio.* (February, 2023). Iowa State University researchers are working to improve accuracy in criminal eyewitness lineups.

Outreach Presentations **Ayala, N. T.**, Burd, K., Ditchfield, R., & Rothweiler, J. (December, 2019). Psychology in Everyday Life: Psychology and Law. Talk presented at the Ames Public Library for the general public, Ames, Iowa.

Invited Talks **Ayala, N.T.** (Fall, 2025). An evidence-based imperative to videorecord eyewitness lineups. Presented at the University of Virginia.

Teaching Experience **Instructor**
September 2024 – Present, Washington & Lee University, Lexington, VA
 Psychology and Law (CBSC 295G)
 Intro to Cognition (CBSC 112)
 Memory in Everyday Life (CBSC 349)

January 2023 – May 2023, Iowa State University, Ames, IA
 Psychology and Law (PSYCH 383)
 Enrollment: 80 + students

Guest Lectures
March 2022, Iowa State University, Ames, IA
 History of Psychology (PSYCH 505)- “Titchener’s Structuralism”

Honors, Awards, and Fellowships **Stavish Graduate Fellowship**
August, 2021 – May, 2024, Iowa State University, Psychology-Law Area
 Fully supported by The Stavish Fund for Excellence in Psychology and Law

Lloyd Avant Scholars Award
April 2024, Department of Psychology, Iowa State University
 Awarded to the top graduating student in the Cognitive Psychology area.
 Amount: \$300

Student Caucus Research Grant

August, 2023, Society for Applied Research in Memory and Cognition (SARMAC)

Awarded to cover the costs of travel to Japan to present a paper presentation titled “Witnesses can forecast their accuracy on a vehicle lineup.”

Amount: \$2,000

Campbell-Borgen Travel Award

April, 2023, Iowa State University, Psychology Department

Awarded Amount: \$3,135

Accepted Amount: \$1,135

Research Excellence Award

May, 2023, Iowa State University, Graduate College

Awarded for a strong publication record as reflected by the number of publications, the number of first author publications, journal prestige, and quality of the published work.

Amount: \$100

Stavish Award: Best Paper in Psychology and Law

May 2022, Iowa State University, Psychology-Law Area

Awarded for the paper titled “The rule out procedure: Increasing the potential for police investigators to detect suspect innocence from eyewitness lineup procedures.” Published at JARMAC in 2022.

Amount: \$500

Outstanding Paper Award

May 2022, Iowa State University, Department of Psychology

Awarded for the paper titled “The rule out procedure: Increasing the potential for police investigators to detect suspect innocence from eyewitness lineup procedures.” Published at JARMAC in 2022.

Outstanding Conference Presentation Award

May 2021, Iowa State University, Department of Psychology

Awarded for the poster titled “Beyond confidence and decision time: using eyewitness behaviors extracted from video-recorded lineups to predict suspect guilt” Poster presented at AP-LS in 2021 (virtual).

Candidate for Ryerson’s Gold Medal Award

April 2014, Toronto Metropolitan University, Department of Psychology

Graduated in the top six students in the program.

Professional Services

Ad-hoc Reviewer

Law and Human Behavior

Journal of Applied Research in Memory and Cognition

Cognitive Research: Principles and Implications

Journal of Experimental Psychology: Learning, Memory, and Cognition

Departmental Services

Faculty Mentor

Washington and Lee's Chapter for the Association of Latino Professionals in Finance and Accounting (ALPFA)

Historian/Webmaster (2020–2022)

Graduate Students of Psychology (GSP), Iowa State University

Cognitive Area Representative (2020–2021)

Graduate Students of Psychology (GSP), Iowa State University