NATHAN L. TENHUNDFELD, Ph.D.
Interim Chair, Department of Psychology
Associate Professor
University of Alabama in Huntsville
NLT0006@uah.edu

Academic Positions

Interim Chair (2023 – Present)
　　Department of Psychology
　　University of Alabama in Huntsville
　　Huntsville, AL

Associate Professor (2023 – Present)
　　Department of Psychology
　　University of Alabama in Huntsville
　　Huntsville, AL

Assistant Professor (2019 – 2023)
　　Department of Psychology
　　University of Alabama in Huntsville
　　Huntsville, AL

Human-Machine Teaming Lead – Postdoctoral Position (2017 – 2019)
　　Warfighter Effectiveness Research Center
　　United States Air Force Academy
　　Colorado Springs, CO

Associate Investigator - Contractor (2016 - 2017)
　　Warfighter Effectiveness Research Center
　　United States Air Force Academy
　　Colorado Springs, CO

Education

Colorado State University, Ph.D. (2017)
　　Fort Collins, CO
　　Cognitive Psychology
　　Advisor: Jessica Witt
　　Dissertation Committee: Ben Clegg, Alyssa Gibbons, C.A.P. Smith, &
　　　　Chris Wickens

Colorado State University, M.S. (2015)
　　Fort Collins, CO
　　Cognitive Psychology
　　Advisor: Jessica Witt
　　Thesis Committee: Ben Clegg & C.A.P. Smith

University of Virginia, B.A. (2012)
    Charlottesville, VA
    Major: Psychology

Research Grants (Total Amount: $2,947,336)
($2,346,663 as PI/Co-PI)

Testing & Evaluation for Soldier-Device Teaming Compatibility, Vulnerability, and Durability in Emergent Situations. (Mesmer, PI; **Tenhundfeld**, Co-PI; Gholston, Co-PI; Menon, Co-PI; Weger, Co-PI). Funding by *Northeastern University.* (January 2023 – January 2024).
    Phase I (January 2022 – January 2024): $300,000
    Phase II (January 2023 – January 2024): $1,200,000

Next Generation Interoperable Data Infrastructure for Geoscience Sample Data (EarthChem, LEPR/traceDs, SESAR): IEDA Re-invented. (**Tenhundfeld** is sole PI). Funding awarded through subcontract from *Columbia University.* (August 2022 – July 2027). Total amount awarded: $47,163.

An Interactive Digital Dual-Purpose Defense Technology Optimization & Visualization Tool for Management & Maintenance Workflow Optimization and Resource Scheduling. (Sandritter, PI (Rippleworx); **Tenhundfeld,** PI (UAH); Vangsness, Lead Researcher (UAH)). *U.S. Air Force Small Business Technology Transfer Program.* (March 2022 – June 2023). Total amount awarded: $750,000 ($225,000 to UAH).

Formation, Implementation, and Verification of Requirements for Human-Autonomy Teaming. (Weger, PI; Mesmer, Co-PI; **Tenhundfeld,** Co-I; Jones, Co-I). Funding by *Naval Postgraduate School – CRUSER* (September 2021 – September 2022). Total amount awarded: $140,000.

Performance Enhancement Through HCI (Gholston, PI; Mesmer, Co-PI; **Tenhundfeld,** Lead Researcher; Weger, Lead Researcher)*.* Funding by *U.S. Army Research Laboratory*.
    Phase I (May 2020 – May 2021): $150,000
    Phase II (June 2021 – August 2022): $100,000
    Phase III (January 2022 – December 2022): $120,673

Motivating Use of Unmanned Assets in Human-Autonomy Teaming. (Mesmer, PI; Weger, Co-PI; **Tenhundfeld,** Lead Researcher). Funding by *Naval Postgraduate School – CRUSER* (January 2020 – December 2020). Total amount awarded: $90,000.

Robot Design Impacts on High Risk Environment Use. (**Tenhundfeld** is sole PI). Funding awarded by *the University of Alabama in Huntsville's New Faculty Research Program (NFR)* (January 2020 – January 2021). Total amount awarded: $10,000.

Pilot Vehicle Interface and Decision Support Application for Optimum Engagement of Manned/Unmanned Systems in a Dynamic, High Threat Environment. (**Tenhundfeld,** PI; Tossell, Co-PI). Funding by *Lockheed Martin* (July 2018 – July 2019). Total amount awarded: $39,500

Awards

Big of the Year (2023) – Big Brothers Big Sisters of the Tennessee Valley

The University of Alabama in Huntsville Undergraduate Research and Creative
Activity Mentor Award (2022)

Raja Parasuraman Award for Scientific Impact – 2nd International
Neuroergonomics Society Conference (2018)

Student Travel Award – American Psychological Association's Division 19
(2015)

Advised Student Awards

3rd Place 2023 UAH Graduate Student Poster Session – Andrew Atchley

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Invited Colloquia

HFES Human-AI-Robot Teaming Technical Group (2023)
Raytheon Technologies (2022)
Wichita State University (2022)
Arizona State University (2020)
Applied Human Factors and Ergonomics Workshop on Human-Machine Teaming
(2019)
Lockheed Martin Autonomy Executive Steering Committee Meeting (2019)
University of Colorado, Boulder (2018)
Robotics Science and Systems Workshop in Adversarial Robotics (2018)
University of Colorado, Boulder (2016)

Journal Publications (♦denotes graduate student, * denotes undergraduate)

Tenhundfeld, N.L., Forsyth, J., Sprague, N.R., El-Tawab, S., Vangsness, L. & Cotter♦,
J.E. (2023). *In the rough: Evaluation of convergence across trust assessment
techniques using an autonomous golf cart.* Manuscript submitted.

de Visser, E.J., Phillips, E., **Tenhundfeld, N.L.,** Donadio, B., Barentine, C., Kim,
B., Madison, A., Ries, A., & Tossell, C.C. (2023). Trust in Imperfect Automated
Parking Systems: A Real-World Evaluation and an Owner's Survey.
Transportation Research Part F: Traffic Psychology and Behavior. 96, 185-199

Atchley♦, A., Barr♦, H.M., O'Hear*, E., Weger, K., Mesmer, B., Gholston, S., &
Tenhundfeld, N.L. (2023). Trust in Systems: Identification of 17 Unresolved
Research Questions and the Highlighting of Inconsistencies. *Theoretical Issues in
Ergonomics Science.*

Tenhundfeld, N.L., Demir, M., & de Visser, E.J. (2022). Assessment of Trust
in Automation in the 'Real World': Requirements for New Trust in Automation
Measurement Techniques for Use by Practitioners. *Journal of Cognitive
Engineering and Decision Making.* 1-18.

Tenhundfeld, N.L., Barr*, H.M., O'Hear*, E.H., & Weger, K., (2022). Is My Siri

the Same as Your Siri? An Exploration of Users' Mental Model of Virtual Personal Assistants, Implications for Trust. *IEEE Transactions on Human-Machine Systems, 52(3), 512-521.*

Witt, J.K., Parnes♦, J.E., & **Tenhundfeld, N.L.,** (2020). Wielding a gun increases judgments of others as holding guns: a randomized controlled trial. *Cognitive Research: Principles and Implications*, *5*(58)*,* 1 – 17.

Tenhundfeld, N.L. & Witt, J.K. (2020). Human and Machine: Evaluating whether action automation influences visual perception. *Attention, Perception, & Psychophysics*, *82(6),* 3234-3249.

Tenhundfeld, N.L., de Visser, E.J., Ries, A.J., Finomore, V.S., & Tossell, C.C. (2020). Trust and distrust of automated parking in a Tesla Model X. *Human Factors, 62*(2), 194 – 210.

Tenhundfeld, N.L., Parnes♦, J., Conner, B.T., & Witt, J.K. (2020). Development of a psychometrically valid gun attitude scale. *Current Psychology, 39*(1), 279 - 286.

Tenhundfeld, N.L., de Visser, E.J., Haring, K.S., Ries, A.J., Finomore, V.S., & Tossell, C.C. (2019). Calibrating trust in automation through familiarity with the autoparking feature of a Tesla Model X. *Journal of Cognitive Engineering and Decision Making, 13(4),* 279 – 294.

Laitin♦, E., Tymoski♦, M.J., **Tenhundfeld, N.L.,** & Witt, J.K. (2019). The Uphill Battle for Action-Specific Perception. *Attention, Perception, & Psychophysics, 81*(3), 778 – 793.

Witt, J.K., **Tenhundfeld, N.L.,** & Tymoski♦, M.R. (2018). Is there a chastity belt on perception? *Psychological Science, 29*(1), 139-146.

Tenhundfeld, N.L., & Witt, J.K. (2017). Distances on hills look farther than distances on flat ground: Evidence from converging measures. *Attention, Perception, & Psychophysics, 79*(4), 1165-1181.

King♦, Z.R., **Tenhundfeld, N.L.,** & Witt, J.K. (2017). What you see and what you are told: Evidence for a genuinely perceptual action-specific effect. *Psychological Research,* 1-13.

Witt, J.K., **Tenhundfeld, N.L.,** & Bielak, A.M. (2016). Dissociating perception from judgment in the action-specific effect of blocking ease on perceived speed. *Attention, Perception, & Psychophysics, 79*(1), 283-297.

Witt, J.K., Sugovic, M., **Tenhundfeld, N.L.,** & King♦, Z.R. (2016). An action-specific effect on perception that survives all pitfalls. *Behavioral and Brain Sciences, 39.*

Tenhundfeld, N. L. & Witt, J.K. (2015). The effects of interoceptive attunement on action-specific perception. *Visual Cognition*, *23*(7), 837-840.

Peer-Reviewed Conference Proceedings (♦denotes graduate student, * denotes undergraduate)

Schwalb♦, J., Sung♦, E., Menon, V., Weger, K., **Tenhundfeld, N.L.,** Mesmer, B., Gholston, S., & Davis, T. (2023). *An Investigation of Human Behaviors within Human-AI Teams Using Virtual Environments.* Manuscript submitted.

Tenhundfeld, N.L., & ChatGPT (2023). Two Birds With One Stone: Writing a Paper Entitled "ChatGPT as a Tool for Studying Human-AI Interaction in the Wild" with ChatGPT. In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

Cotter♦, J.E., **Tenhundfeld, N.L.**, Barr♦, H.M., Atchley♦, A., Mesmer, B., Weger, K.,

Menon, V., & Gholston, S. (2023). A New Framework for an Old Idea: Overhauling Reliability to Meet Current and Future Needs. In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

Atchley♦, A., O'Hear♦, E.H., Barr♦, H.M., Cotter♦, J.E., Hamblin*, B., Oswald*, G., Mesmer, B., Weger, K., Gholston, S., Menon, V., Demir, M., & **Tenhundfeld, N.L.** (2023). How Do Blame Attributions Impact Trust in Complex Environments? In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

Bright*, A., Cotter♦, J., & **Tenhundfeld, N.L.** (2023). Degradations of Trust in Automation Associated with Repeated Monitoring Checks. In *Proceedings of the Annual Systems and Information Engineering Design Symposium (SIEDS).*

Cotter♦, J.E., **Tenhundfeld, N.L.**, Barr♦, H.M., Atchley♦, A., Mesmer, B., Weger, K., Menon, V., & Gholston, S. (2023). Preliminary Investigation Evaluating Whether Discrepancies Exist Between Governmental Agencies Regarding the Definition of Reliability. In *Proceedings of the Annual Joint Army Navy NASA Air Force (JANNAF) Conference.*

Couch♦, A., Loyd, N., & **Tenhundfeld, N.L.** (2023). A Case on Integrating Industry 4.0 and Human Factors Engineering. In *Proceedings of the IISE Annual Conference & Expo.*

Schwalb♦, J., Menon, V., **Tenhundfeld, N.L.,** Weger, K., Mesmer, B., & Gholston, S. (2022). A Study of Drone-based Explainable AI for Enhanced Human-AI Trust and Informed Decision Making in Human-AI Interactive Virtual Environments. In *Proceedings of the IEEE International Conference on Human-Machine Systems (ICHMS).*

Pham♦, P., Menon, V., **Tenhundfeld, N.L.,** Weger, K., Mesmer, B., Gholston, S., & Davis, T. (2022). A Case Study of Human-AI Interactions Using Transparent AI-Driven Autonomous Systems for Improved Human-AI Trust Factors. In *Proceedings of the IEEE International Conference on Human-Machine Systems (ICHMS).*

Schwalb♦, J., Menon, V., **Tenhundfeld, N.L.,** Weger, K., Mesmer, B., & Gholston, S. (2022). Cooperative Objective Control: Examining Human-AI Teaming Interactions and Their Impact on the Adoption of AI Systems. In *Proceedings of the 11th Southeast Symposium on Contemporary Engineering Topics (SSCET)*.

Pham♦, P., Menon, V., **Tenhundfeld, N.L.,** Weger, K., Mesmer, B., & Gholston, S (2022). Feasibility of AI-Driven Autonomous Systems for Target Detection in Operational Environment in Army Missions. In *Proceedings of the 11th Southeast Symposium on Contemporary Engineering Topics (SSCET)*.

Barr♦, H.M., Cotter♦, J.E., O'Hear♦, E., Gray♦, C., Chesser♦, A., Atchley♦, A., Smitherman*, R.C., & **Tenhundfeld, N.L.** (2022). Individual Differences in Misremembering Fake News on Social Media. In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

Tenhundfeld, N.L., Davis, J., & Hubler, M. (2022). Success by Undesirable Means: Differences in Trust Following Successful (Yet Deviant) Flight Path Adherence. In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

Atchley♦, A., Barr♦, H.M., O'Hear♦, E., Gray♦, C., Chesser♦, A., Jones, N., & **Tenhundfeld, N.L.** (2022). Does My Driver Share My Moral View? Effects of Humanlikeness and Morality in an Adapted Trolley Problem. In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

O'Hear♦, E., Atchley♦, A., Gholston, S., Weger, K., Mesmer, B., & **Tenhundfeld, N.L.** (2022). System-Wide Trust: The Impact of an Error in a Multi-component System. In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

Weger, K., Easley♦, T., Branham♦, N., **Tenhundfeld, N.L.,** & Mesmer, B. (2022). Individual Differences in the Acceptance and Adoption of AI-enabled Autonomous Systems. In *Proceedings of the Annual Human Factors and Ergonomics Society Conference.*

Cotter♦, J.E., O'Hear*, E., Smitherman*, R.C., Bright*, A., Forsyth, J., Sprague, N.R., El-Tawab, S. & **Tenhundfeld, N.L.** (2022). Convergence Across Behavioral and Self-Report Measures Evaluating Individuals' Trust in an Autonomous Golf Cart. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Barr♦, H.M., Smitherman*, R.C., Weger, K., Mesmer, B.L., Menon, V., Semmens, R., Van Bossuyt, D. & **Tenhundfeld, N.L.** (2022). Use, Acceptance, and Adoption of Automated Systems with Intrinsic and Extrinsic Motivation Based Incentive Mechanisms. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Chesser*, A., Bramlett*, K.M., Atchley♦, A., Gray♦, C.E., & **Tenhundfeld, N.L.** (2022). Virtual Personal Assistant Design Effects on Memory Encoding. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Gray♦, C., Chesser*, A., Atchley♦, A., Smitherman*, R.C. & **Tenhundfeld, N.L.** (2022). Humanlikeness and Aesthetic Customization Implications for Affect, Attachment, Trust, and Performance. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Tenhundfeld, N.L., Barr♦, H.M., O'Hear*, E., Atchley*, A., & Cotter♦, J.E. (2021). Effects of Human-Likeness on Robot Use in High-Risk Environments. In *Proceedings of the Human Factors and Ergonomics Society Conference.*

Arestides*, A., Gurchiek*, T., Harold*, S., Chang*, K., Madison, A., Ries, A.J., **Tenhundfeld, N.L.,** Phillips, E., de Visser, E.J., & Tossell, C.C. (2021). The Design and Integration of a Comprehensive Measurement System to Evaluate Trust in Automated Vehicle Features. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Flynn♦, M., Smitherman*, H.M., Weger, K., Mesmer, B., Semmens, R., Van Bossuyt, D., & **Tenhundfeld, N.L.** (2021). Incentive Mechanisms for Acceptance and Adoption of Automated Systems. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Cotter♦, J., Atchley*, A., Banz, B.C., & **Tenhundfeld, N.L.** (2021). Is my User Impaired? Designing Adaptive Automation that Monitors the User's State. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Matsuyama♦, L., Zimmerman*, R., Eaton♦, C., Weger, K., Mesmer, B., **Tenhundfeld, N.L.,** Van Bossuyt, D., & Semmens, R. (2021). Determinants that are believed to influence the acceptance and adoption of mission critical autonomous systems. In *Proceedings of the AIAA SciTech Forum.*

Gillmore, S. & **Tenhundfeld, N.L.** (2021). The Good, The Bad, and The Ugly: Evaluating Tesla's Human Factors in the Wild West of Self-Driving Cars. In *Proceedings of the Human Factors and Ergonomics Society Conference.*

Tenhundfeld, N.L., Phillips, E.K., & ♦Davis, J.R. (2021). Robot Career Fair: An Exploratory Evaluation of Anthropomorphic Robots in Various Career Categories. In *Proceedings of the Human Factors and Ergonomics Society Conference.*

Simon*, H.M., Smitherman*, H.M., Atchley*, A., Davis♦, J.R., & **Tenhundfeld, N.L.** (2020). Nuts and Bolts About You: Finding the Right Match for Gendered Robots. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Davis♦, J.R., Atchley*, A., Smitherman*, H.M., Simon*, H.M., & **Tenhundfeld, N.L.** (2020). Measuring Automation Bias and Complacency in an X-Ray Screening Task. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Haring, K.S., Tobias*, J., Waligora*, J., Phillips, E., **Tenhundfeld, N.L.,** Lucas, G., de Visser, E.J., Gratch, J., & Tossell, C.C. (2019). Conflict mediation in human-machine teaming: Using a virtual agent to support mission planning and debriefing. In *Proceedings of the 28th IEEE International Conference on Robot and Human Interactive Communication (Ro-Man 2019).*

Tossell, C.C., Donadio, B.T., Stewart, A., **Tenhundfeld, N.L.,** Phillips, E., Driggs, J., Haring, K.S., & de Visser, E.J. (2019). Human Factors Capstone Research at the United States Air Force Academy. In *Proceedings of the Human Factors and Ergonomics Society Conference.*

Alexander*, S., Rozo*, J., Donadio, B.T., **Tenhundfeld, N.L.,** de Visser, E.J., & Tossell, C.C. (2019). Transforming the Air Force mission planning process with virtual and augmented reality. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Lorenz*, G.T., Ehrenstrom*, J.S., Ullman*, T.B., Palmer*, R.C., **Tenhundfeld, N.L.,** de Visser, E.J., Donadio, B.T., & Tossell, C.C. (2019). Assessing control devices for the supervisory control of autonomous wingmen. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Tomczak*, K., Pelter*, A., Gutierrez*, C., Stretch*, T., Hilf*, D., Donadio, B.T., **Tenhundfeld, N.L.,** de Visser, E.J., & Tossell, C.C. (2019). Let Tesla park your Tesla: Driver trust in a semi-automated car. In *Proceedings of the annual Systems and Information Engineering Design Symposium (SIEDS) Conference.*

Tenhundfeld, N.L., de Visser, E.J., Tossell, C.C., & Finomore, V.S. (2018). Evaluating and Modeling Human-Machine Teaming and Trust in Automation while on the Road. In *Proceedings of the 2nd International Neuroergonomics Conference.*

Haring, K. S., Finomore, V., Muramato*, D., **Tenhundfeld, N. L.,** Redd, M., Wen, J., & Tidball, B. (2018). Analysis of Using Virtual Reality (VR) for Command and Control Applications of Multi-Robot Systems. In *Proceedings of the 1st International Workshop on Virtual, Augmented, and Mixed Reality for HRI (VAM-HRI).*

Books

Burpee, J. & **Tenhundfeld, N.L.** (2023). *Usability Evaluations and Usability Laboratories.* In preparation.

Book Chapters (♦denotes graduate student, * denotes undergraduate)

Tenhundfeld, N.L., Rowe, J., & Franco-Zamudio, J. L. (2014). Achievement. In *Encyclopedia of Critical Psychology*. (pp. 18-20). Springer New York.

Gonzalez*, V., **Tenhundfeld, N.L.**, Dominguez*, C., & Franco-Zamudio, J. L. (2014). Collaboration. In *Encyclopedia of Critical Psychology* (pp. 254-256). Springer New York.

Shevlin*, A., **Tenhundfeld, N.L.**, Gonzalez*, V., & Franco-Zamudio, J. L. (2014). Domestic Violence, Overview. In *Encyclopedia of Critical Psychology* (pp. 484-487). Springer New York.

Zeringue*, M., Cline*, K., **Tenhundfeld, N.L.**, & Franco-Zamudio, J. L. (2014). Coping, Overview. In *Encyclopedia of Critical Psychology* (pp. 322-324). Springer New York.

Peltier*, C., Wilson*, C., Williford*, W., **Tenhundfeld, N.L.**, & Franco-Zamudio, J. L. (2014). Volunteerism. In *Encyclopedia of Critical Psychology* (pp. 2068-2072). Springer New York.

Other Invited Scholarly Activities

Tenhundfeld, N.L. & Demir, M. (2020). *Do you trust your parachute? A call to study human-machine teaming in uncontrolled environments.* Invited submission for the U.S. Navy Aerospace Experimental Psychology Society's Call Signs.

Conference Presentations (♦denotes graduate student, * denotes undergraduate)

♦Atchley, J.A., ♦O'Hear, E., ♦Barr, H., ♦Cotter, J., *Hamblin, B., *Oswald, G., Mesmer, B., Weger, K., Gholston, S., Menon, V., & **Tenhundfeld, N.L.** (2023). *General Loss of Trust in Complex Environments*. Poster presented at the UAH Graduate Poster Session, Huntsville, AL.

♦Cotter, J.E., ♦Barr., H., ♦Atchley, J., Weger, K., Mesmer, B., Menon, V., Gholston, S., & **Tenhundfeld, N.L.** (2023). *A New Framework for an Old Idea: Overhauling Reliability to Meet Current and Future Needs.* Poster presented at the UAH Graduate Poster Session, Huntsville, AL.

♦Cotter, J.E., ♦Barr., H., ♦Atchley, J., Weger, K., Menon, V., Mesmer, B., Gholston, S., & **Tenhundfeld, N.L.** (2022). *Assessment of Reliability in Autonomous Systems from Multiple Disciplines.* Talk given at the Reliability and Maintainability (RAM) Training Summit, hosted by Huntsville chapter of Society of Reliability Engineers, Huntsville, AL.

Loyd, N., Menon, V., **Tenhundfeld, N.L.,** Weger, K., Mesmer, B., & Gholston, S. (2021). *Data reliability using a Baldridge Performance Excellence Approach.* Talk given at the Reliability and Maintainability (RAM) Training Summit, hosted by Huntsville chapter of Society of Reliability Engineers, Huntsville, AL.

Menon, V., **Tenhundfeld, N.L.,** Weger, K., Mesmer, B., & Gholston, S. (2021). *Comprehensive Study on the Use of AI-Driven Autonomous Systems in Dynamic Environments for Military Applications.* Talk given at the Reliability and Maintainability (RAM) Training Summit, hosted by Huntsville chapter of Society of Reliability Engineers, Huntsville, AL.

Weger, K., **Tenhundfeld, N.L.**, Menon, V., Mesmer, B., & Gholston, S. (2021). *Insight into the Acceptance and Adoption of Autonomous Systems by Military Personnel*. Talk given at the Reliability and Maintainability (RAM) Training Summit, hosted by Huntsville chapter of Society of Reliability Engineers, Huntsville, AL.

Tenhundfeld, N.L., Weger, K., Menon, V., Mesmer, B., & Gholston, S. (2021). *Teaming and Trust: Influences of Design on Operator Cognition.* Talk given at the Reliability and Maintainability (RAM) Training Summit, hosted by Huntsville chapter of Society of Reliability Engineers, Huntsville, AL.

Sullivan♦, J., **Tenhundfeld, N.L.,** & Torres, A. (2021). *Effects of Time Pressure, Cognitive Anchoring, and Social Priming on Trust Towards Computers in an Online Investment Game Paradigm.* Talk given at the annual American Psychological Society meeting, Online.

Matsuyama♦, L., Weger, K., Mesmer, B., **Tenhundfeld, N.L.,** Van Bossuyt, D., & Semmens, R. (2020). *Autonomous Systems Adoption Challenges and Requirements Management Solutions.* Presentation given at JIFX 20-4 Technology Expo, Online.

Davis♦, J.R., Smitherman*, H., & **Tenhundfeld, N.L.** (2020). *Effects of Robotic Anthropomorphic Design on Industry Category Fit.* Poster presented at *UX Rising*, Huntsville, AL.

Katrein, S. P., Driggs, J.B., Phillips, E.K., Ries, A.J., Haring, K.S., Seech, T.R., **Tenhundfeld, N.L.,** de Visser, E.J., & Tossell, C.C. (2019). *Human factors research in USAFA's Warfighter Effectiveness Research Center.* Poster presented at the annual meeting of the *Human Factors Engineering Technical Advisory Group (HFE TAG),* Aberdeen Proving Ground, MD.

Lorenz*, G.T., Ehrenstrom*, J.S., Ullman*, T.B., **Tenhundfeld, N.L.,** Neigel, A.R., de Visser, E.J., Donadio, B.T., & Tossell, C.C. (2019). *Autonomous Wingman: Examining Workload Differences Between Control Devices in the Supervisory Control of Unmanned Aerial Systems.* Poster presented at the annual meeting of *The Rocky Mountain Psychological Association*, Denver, CO.

Titus*, C., Hammond*, P., **Tenhundfeld, N.L.,** Tossell, C.C. (2019). *Optimizing airman running performance and cognition using real-time feedback from wearable sensors.* Poster presented at the annual meeting of the *Rocky Mountain Psychological Association*, Denver, CO.

Lorenz*, G.T., Ehrenstrom*, J.S., Ullman*, T.B., **Tenhundfeld, N.L.,** Neigel, A.R., de Visser, E.J., Donadio, B.T., & Tossell, C.C. (2019). *Autonomous Wingman: Examining Workload Differences Between Control Devices in the Supervisory Control of Unmanned Aerial Systems.* Poster presented at the annual meeting of *Human Factors and Applied Psychology*, Orlando, FL.

Tenhundfeld, N.L., Haring, K.S., Wen, J., Finomore, V., & Tossell, C. C. (2018). *Integration of Muse Headband EEG System to Detect Workload and G-Force Induced Loss of Consciousness (GLOC).* Poster presented at the annual meeting of *Applied Human Factors and Ergonomics,* Orlando, FL.

Moorehead*, N.R., Getlinger*, M., Strang, A., **Tenhundfeld, N.L.,** Finomore, V.S., & Tossell, C.C. (2018). *Augmenting Airmen Endurance Performance Using Real-Time Physio-behavioral Feedback*. Poster Presented at the annual meeting of *Human Factors Engineering Technical Advisory Group (HFE TAG),* Hurlburt Field, FL.

Laitin♦, E.L., Tymoski♦, M.J., **Tenhundfeld, N.L.**, & Witt, J.K. (2018).

Distances Appear Farther on Hills: Evidence for Top-Down Effects. Poster presented at the annual meeting of the *Vision Science Society*, St. Pete Beach, FL.

Fitzgerald*, N.J., **Tenhundfeld, N.L.**, & Witt, J.K. (2018). *Failure is Not an Option: Testing the Effects of Automation Failure on the Perceptual System*. Poster presented at the annual meeting of the *Vision Science Society*, St. Pete Beach, FL.

Elliot*, A., Finomore, V.S., Tripp, L., **Tenhundfeld, N.L.**, & Tossell, C.C. (2018). *Comparison of the Heart Rate Capabilities of the Jabra Sport Plus Special Edition Headphones with Valencell Heart Rate Headphones.* Poster presented at the annual meeting of the *Rocky Mountain Psychological Association*, Denver, CO.

Moorehead*, N.R., Strang, A., **Tenhundfeld, N.L.**, Finomore, V.S., & Tossell, C.C. (2018). *Augmenting Human Endurance Performance Using Real-Time Feedback*. Poster presented at the annual meeting of the *Rocky Mountain Psychological Association*, Denver, CO.

Tenhundfeld, N.L., Crandell*, A., McClernon, C., & Finomore, V. (2017). *Motion seat use in flight simulators for new pilots*. Poster presented at the annual meeting of the *International Symposium on Aviation Psychology*, Dayton, OH.

Tenhundfeld, N.L. & Witt, J.K. (2017). *An uphill battle: Distances are reported as farther on a hill even when immediate feedback about estimation accuracy is provided.* Poster presented at the annual meeting of the *Vision Science Society*, St. Pete Beach, FL.

Witt, J.K., **Tenhundfeld, N.L.**, Janzen♦, M.R., Tymoski♦, M.T., & Wilmer, J. (2017). *Action-specific effects in perception and their mechanisms.* Poster presented at the annual meeting of the *Vision Science Society*, St. Pete Beach, FL.

Tymoski♦, M.T., **Tenhundfeld, N.L.**, Janzen♦, M.R., & Witt, J.K. (2017). *I cannot afford both: Walk-through-ability affordance judgments do not correlate to the distance-on-hill effect.* Poster presented at the annual meeting of the *Vision Science Society*, St. Pete Beach, FL.

Janzen♦, M.R., **Tenhundfeld, N.L.**, Tymoski♦, M.T., & Witt, J.K. (2017). *Distance on hill overestimation is not influenced by hiking experience.* Poster presented at the annual meeting of the *Vision Science Society*, St. Pete Beach, FL.

Tenhundfeld, N.L. & Witt, J.K. (2016). *Three's company: Energetics' effect on perception as shown with blindwalking, Visual Matching, and Verbal Estimates.* Poster presented at the annual meeting of the *Vision Sciences Society*, St. Pete Beach, FL.

Janzen♦, M., **Tenhundfeld, N.L.**, & Witt, J.K. (2016). *That's so far! Experienced hikers also overestimate distances on a hill.* Poster presented at the annual meeting of the *Vision Sciences Society*, St. Pete Beach, FL.

Witt, J.K., King♦, Z.R., & **Tenhundfeld, N.L.** (2015). *Losing control in action-specific effects: Evidence for Bayesian integration*. Talk presented at Psychonomic Society Annual Meeting, Chicago, IL.

Tenhundfeld, N.L., & Witt, J.K. (2015) The effects of interoceptive attunement on action-specific perception. Talk presented at Object Perception, Attention, and Memory Conference, Chicago, IL.

King♦, Z.R., **Tenhundfeld, N.L.**, & Witt, J.K. (2015). *An action-specific perception effect that withstands feedback.* Poster presented at the Object Perception, Attention and Memory Conference, Chicago, IL.

Tenhundfeld, N.L. & Witt, J.K. (2015). *Perceptual distortions of distances on a*

hill depend on interoceptive awareness. Poster presented at the annual meeting of the *Vision Sciences Society*, St. Pete Beach, FL.

King♦, Z.R., **Tenhundfeld, N.L.,** & Witt, J.K. (2015). *An action-specific perception effect that withstands feedback.* Poster presented at the annual meeting of the *Vision Sciences Society*, St. Pete Beach, FL.

Witt, J.K., Conner, B.T., **Tenhundfeld, N.L.,** & Parnes♦, J.E. (2015). *Gun-embodiment biases on object perception are affected by prior experience.* Poster presented at the annual meeting of the *Vision Sciences Society*, St. Pete Beach, FL.

Tenhundfeld, N. L. & Witt, J. K., (2014). *Informed perception: Catching ability changes perceived size of ball.* Poster presented at the annual meeting of the *Vision Sciences Society*, St. Pete Beach, FL.

Tenhundfeld, N.L., LaChute*, C., Martin*, E., Iglesias*, D. J., Cline*, K., Shevlin*, A., Babbington*, A., Himmel*, A., & Franco-Zamudio, J. L. (2013). *Identifying sources of academic self-efficacy among underrepresented undergraduates in the sciences*. Poster presented at the *Georgia Undergraduate Research in Psychology Conference*, Kennesaw, GA.

Media Appearances

Why Some Americans Buy Guns (June 23, 2023) *The New York Times.*
Link

Ep. 3: Nate Tenhundfeld (September 20, 2021) *Many Things in Why Podcast*.
Link

Here's Where AI Has Taken Over the Clinic – Automation is now used in everyday healthcare tasks, but it's not as Sci-Fi as one might image (December 15, 2020). *MedPage Today*.
Link

Trust in Automation (March 22, 2020). *The Measure of Everyday Life* on WNCU.
Link

How Your Body Changes Your Visual Perception as You Walk (June 15, 2017). *Psychology Today*.
Link

Sole Instructor Teaching Experience (* denotes online/hybrid)

Human Factors -- University of Alabama in Huntsville
Course Evaluation – Fall 2022: 4.97 (University average: 4.41)
Course Evaluation – Fall 2021: 4.56 (University average: 4.40)
Course Evaluation – Fall 2020: 4.72 (University average: 4.35)*
Course Evaluation – Fall 2019: 4.74 (University average: 4.42)
Human-AI Interaction -- University of Alabama in Huntsville
Course Evaluation – Spring 2022: Evaluation Unavailable (not enough responses)

        Course Evaluation – Spring 2021: 4.69 (University average: 4.32)*

Human-Machine Teaming Design -- University of Alabama in Huntsville
        Course Evaluation – Fall 2021: 4.79 (University average: 4.40)
        Course Evaluation – Spring 2023: Evaluation Unavailable (not enough
            responses)

Statistics -- University of Alabama in Huntsville
        Course Evaluation – Fall 2022: 4.67 (University average: 4.41)
        Course Evaluations – Spring 2022: 4.79 (University average: 4.43)
        Course Evaluations – Fall 2021: 4.57 (University average: 4.40)
        Course Evaluations – Fall 2020: 4.77 (University average: 4.35)*
        Course Evaluations – Fall 2019: 4.59 (University average: 4.42)

Introduction to Psychology -- University of Alabama in Huntsville
        Course Evaluation – Spring 2020: 4.71 (University average: 4.41)

Perception -- University of Alabama in Huntsville
        Course Evaluation – Spring 2023: 4.53 (University average: 4.42)
        Course Evaluation – Spring 2022: 4.84 (University average: 4.43)
        Course Evaluation – Spring 2021: 4.71 (University average: 4.32)*
        Course Evaluation – Spring 2020: 4.85 (University average: 4.41)

Applications of Psychology -- University of Alabama in Huntsville
        Course Evaluation – Summer 2021: 4.44 (University average: 4.51)*
        Course Evaluation – Spring 2021: 4.41 (University average: 4.32)*
        Course Evaluation – Fall 2020: 4.54 (University average: 4.35)*
        Course Evaluation – Summer 2020: 4.27 (University average: 4.55)*
        Course Evaluation – Spring 2020: 4.67 (University average: 4.41)

Human Research I -- University of Alabama in Huntsville
        Course Evaluation – Fall 2019: 5.00 (University average: 4.42)

Introduction to Behavioral Science -- US Air Force Academy
        Course evaluations unavailable

Systems Engineering Capstone -- US Air Force Academy
        Course evaluations unavailable

Behavioral Science Capstone -- US Air Force Academy
        Course evaluations unavailable

Sensation & Perception -- Colorado State University
        Course evaluations unavailable

Cognitive Psychology Lab -- Colorado State University
        Course evaluations unavailable

Sensation & Perception Lab -- Colorado State University
        Course evaluations unavailable

Ad Hoc Manuscript Reviewing Activity

Acta Psychologica; Ergonomics; Human Factors; Human Factors and Ergonomics in Manufacturing & Service Industries; Human Factors and Ergonomics Society Proceedings; Human-Robot Interaction; IEEE International Conference on Human-Machine Systems; IEEE Transactions on Human Machine Systems; International Journal of Human-Computer Interaction; Journal of Cognitive Engineering and Decision Making; Journal of Experimental Psychology: Applied; Journal of Experimental Psychology: General; Psychonomic Bulletin & Review; Social Science Journal

Ad Hoc Grant Reviewing Activity

Air Force Office of Scientific Research
Austrian Science Fund

Professional Service and Outreach

Editorial Board
      Journal of Cognitive Engineering and Decision Making (2023 – 2025)
Heterodox Academy – University of Alabama in Huntsville Chapter
      Co-Chair (2023 – 2026)
Human Factors and Ergonomics Society (HFES) – Tennessee Valley Chapter
      President (2021 – 2022)
      Vice President (2019 – 2021)
gener8tor (Startup Accelerator)
      Mentor (2021 – Present)
PSI CHI Faculty Advisor (2019 – 2021)
APA Division 19 (Society for Military Psychology)
      Student Affairs Committee (2016 – 2019)
            Chair-Select (2016 – 2017)
            Chair (2017 – 2018)
            Past-Chair (2018 – 2019)
      Regional Student Representative for the Western U.S. (2014 – 2015)

Graduate Students Advised

Current PhD Students
      Andrew Atchley
      Tia Larsen-Calcano
      Ginger Sullivan

Current Masters Students
      Emily Bishop
      Jenna Cotter
      Bryanna Hamblin
      Tiana Soloman

Prior Students
      Carly Gray (M.A., 2023)
      Emily H. O'Hear (M.A., 2023) – Human Factors Engineer at SAIC
      Hannah M. Barr (M.A., 2023)
      Jake Davis (M.A., 2020) – UX Researcher at Tektonux

Additional PhD Committees

Warren de Witt (University of Alabama in Huntsville – Computer Science)
Tauseef Ibne Mamun (Michigan Technological University – Cognitive and

learning Sciences)
Jaymen Elliott (University of Technology Sydney -- Psychology)

Additional Masters Committees

Amber Chesser (University of Alabama in Huntsville – Psychology)
Jonathan Sullivan (University of Alabama in Huntsville -- Psychology)
Christina Cabanas (University of Alabama in Huntsville -- Psychology)
Logan "Forest" Williamson (University of Alabama in Huntsville -- Psychology)

Additional Comprehensive Exam Committees

Sheri Leder (University of Alabama in Huntsville -- Psychology)
Michael Flynn (University of Alabama in Huntsville -- Psychology)
Tamar Davis (University of Alabama in Huntsville -- Psychology)
Raeshaun Jones (University of Alabama in Huntsville -- Psychology)
Jake Theut (University of Alabama in Huntsville -- Psychology)