

Tianjun Sun

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EDUCATION

University of Illinois at Urbana-Champaign

Ph.D. in Industrial and Organizational Psychology

Expected: December 2020

Minor in Quantitative Psychology

Dissertation: What do you say about your personality? Examining the psychometric properties of personality insights derived with natural language processing (Chair: Prof. Fritz Drasgow)

M.S. in Applied Statistics

May 2019

M.S. in Industrial and Organizational Psychology

December 2017

B.S. in Psychology and Statistics (*Cum Laude, with Highest Distinctions*)

May 2015

RESEARCH INTERESTS

- Individual differences
- Psychometric theories and modeling
- Research methods and issues in application
- Personnel selection and assessment
- Cross-cultural psychology

REFEREED PUBLICATIONS

Sun, T., Zhang, B., Phan, J. W. M., Drasgow, F., & Roberts, B. W. (2019). "Meh!": Examining Midpoint Endorsement Habitude (MEH) in survey research. *Academy of Management Proceedings*.

*Paper won the 2019 Sage Publications/Research Methods Division Best Student Paper Award

Zhang, B., **Sun, T.**, Drasgow, F., Chernyshenko, O. S., Nye, C. D., Stark, S., & White, L. A. (2019).

Though forced, still valid: Psychometric similarities between forced choice format and single statement format. *Organizational Research Methods*.

CHAPTERS AND TECHNICAL REPORTS

Sun, T., Zhang, B., Rounds, J. (2019). Reliability, Precision, and Errors of Measurement. In *O*NET Interest Profiler Professional and Technical Manual*. National Center for O*NET Development, Raleigh, NC.

Zhang, B., **Sun, T.**, Rounds, J. (2019). Interest Profiler Link to O*NET Occupations. In *O*NET Interest Profiler Professional and Technical Manual*. National Center for O*NET Development, Raleigh, NC.

Sun, T. & Drasgow, F. (2018). Feasibility of Converting the Paper-and-Pencil ACT Tests to an Adaptive Multi-Stage Format. In *ACT Research Report Series*. ACT, Inc., Iowa City, IA.

MANUSCRIPTS UNDER REVISION AND REVIEW

Sun, T., Zhang, B., Cao, M. & Drasgow, F. (revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. *Organizational Research Methods*.

Sun, T., Fraley, R. C., & Drasgow, F. (revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. *Assessment*.

Sun, T., & Drasgow, F. (revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. *Journal of Cross-Cultural Psychology*.

- Zhang, B., **Sun, T.**, Cao, M., Roberts, B., & Drasgow, F. (revise & resubmit). TITLE REMOVED FOR BLIND REVIEW. *Organizational Research Methods*.
- Sun, T.**, Schilpzand, P., & Liu, Y. (under review). TITLE REMOVED FOR BLIND REVIEW. *Journal of Organizational Behavior*.

SELECTED WORKS IN PROGRESS

- Sun, T.**, Zhang, B., Phan, J. W. M., Roberts, B., & Drasgow, F. (in progress). Examining midpoint endorsement in survey research. [Editing Stage] Target: *Journal of Social and Personality Psychology*.
- Sun, T.**, Zhang, B., Cao, M., & Drasgow, F. (in progress). Reducing response distortions in interest measures with forced choice. [Editing Stage] Target: *Personnel Psychology*.
- Sun, T.** & Drasgow, F. (in progress). Feasibility of converting passage-based paper-and-pencil tests to adaptive multi-stage tests. [Editing Stage] Target: *Educational and Psychological Measurement*.
- Guan, L., **Sun, T.**, Carter, N. T., Conway, J. S., Boyce, A. S., & Mead, A. D. (in progress) Muppscore: An R program for Expected A Posteriori scoring of multidimensional pairwise preference items. [Editing Stage] Target: *Applied Psychological Measurement*.
- Guo, F., **Sun, T.**, Min, H., & Gallagher, C. M. (in progress) Applications of natural language processing in human resource management. [Editing Stage] Target: *Human Resource Management Journal*.
- Kern, J., Zhang, S., **Sun, T.**, Zhang, B., Hanna, A., Amrhein, R., & Lee, A. (in progress). Innovating personality assessment: New approaches to computerized adaptive tests. [Editing Stage] Target: *Educational and Psychological Measurement*.
- Zhang, B., Luo, J., **Sun, T.**, & Drasgow, F. (in progress). Using bifactor models to examine the predictive validity of hierarchical constructs: Augmented Bayesian structural equation modeling wins. [Editing Stage] Target: *Organizational Research Methods*.
- Sun, T.**, Song, Q. C., Wee, J. M. C., Amrhein, R., Lee, A., & Rounds, J. (in progress). Contextualizing interest items. [Writing Stage] Target: *Journal of Applied Psychology*.
- Liu, M., **Sun, T.**, & Oswald, F. (in progress). How to train your machine learning model (and be able to explain it). [Writing Stage] Target: *Organizational Research Methods*.
- Zhang, B., Anderson, C. J., Angrave, L., **Sun, T.**, & Drasgow, F. (in progress). Modeling applicant faking: A Bayesian approach to the Retrieve-Edit-Select Model. [Writing Stage] Target: *Journal of Applied Psychology*.
- Sun, T.**, Zhang, B., Roberts, B., & Drasgow, F. (in progress). A measurement focused approach on examining the general factor of personality. [Data Analyzed] Target: *Journal of Personality*.

GRANTS

- Robert P. Larson Grant for Research in Career Development**, University of Illinois, 2016.
Amount: \$1440. *Topic: Development of a Vocational Interest Forced Choice Measure.*
- James Scholar Preble Research Support**, University of Illinois, 2014.
Amount: \$350. *Topic: Forced Choice for Cross-cultural Response Style Bias.*

AWARDS AND HONORS

- Graduate College Dissertation Travel Award**, University of Illinois, 2019
- Psychology Alumni Board Travel Award**, University of Illinois, 2018
- Graduate Student Travel Award**, University of Illinois, 2017
- Charles L. Hulin Fellowship**, University of Illinois, 2015-2016
- Class of 2015 Senior 100 Honorary**, University of Illinois, 2015
- Edmund J. James Scholar**, University of Illinois, 2011-2015
- James E. Spoor Award**, University of Illinois, 2014

Preble Research Award, University of Illinois, 2014
Conference Travel Award, University of Illinois, 2014

CONFERENCE PRESENTATIONS

- Sun, T.**, Zhang, B., Phan, W. M. J., Roberts, B. W., & Drasgow, F. (August, 2019). “Meh!?”: Examining Midpoint Endorsement Habitude (MEH) in survey research. In **T. Sun** (Chair), Challenges and Applications of Survey-Based Research. *Paper presented at the 79th Annual Meeting of the Academy of Management*, Boston, MA.
- Sun, T.**, Zhang, B., & Drasgow, F. (April, 2019). Much ado about everything: Consequences of measurement model misspecification. In **T. Sun** & F. Drasgow (Co-chairs), Item Response Theory II: New Developments in Research and Applications. *Symposium presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology*, Washington, DC.
- Sun, T.**, Zhang, B., Liu, Y., Sun, Y., & Oh, K-J. (April, 2019). Spilling the tea: Motives and consequences of workplace gossip. In **T. Sun** & Y. Liu (Co-chairs), Letting You in on a Secret: New Perspectives of Workplace Gossip. *Symposium presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology*, Washington, DC.
- Sun, T.**, Zhang, B., Hanna, A., Kern, J., Zhang, S., Amrhein, R., & Lee, A. (April, 2019). Innovating personality assessment: New approaches to computerized adaptive tests. In S. Morris (Chair), Advances in Computer Adaptive Testing. *Symposium presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology*, Washington, DC.
- Chen, Y., **Sun, T.**, Zhang, B., Roberts, B. W., & Drasgow, F. (April 2019). Anchoring vignette application on cross-cultural personality assessment. In D. S. Ones & B. K. Mercado (Co-chairs), Cross-Cultural and Criterion-Related Validity of New Generation Personality Measures. *Symposium presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology*, Washington, DC.
- Zhang, B., **Sun, T.**, Drasgow, F., Chernyshenko, O. S., Nye, C., Stark, S., & White, L. A. (April 2019). Though forced, still valid: Equivalence between FC format and single statement scale. In P. Lee (Chair), Examining the Effectiveness of MFC Personality Assessments from Diverse Perspectives. *Symposium presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology*, Washington, DC.
- Zhang, B., **Sun, T.**, & Drasgow, F. (April 2019). Improving the performance of bifactor predictive model: One more item suffices. *Poster presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology*, Washington, DC.
- Chen, Y., Zhang, B., **Sun, T.**, & Drasgow, F. (April 2019). Negative wording effect through the lens of local structural equation modeling. *Poster presented at the 34th Annual Conference of the Society for Industrial and Organizational Psychology*, Washington, DC.
- Sun, T.**, Zhang, B., Cao, M., & Drasgow, F. (April 2018). Faking classification accuracy improved: adopting the tree-process model. *Poster presented at the 33rd Annual Conference of the Society for Industrial and Organizational Psychology*, Chicago, IL.
- Zhang, B., **Sun, T.**, Cao, M., & Drasgow, F. (April 2018). Enhancing predictive validity of multidimensional measures: a bifactor perspective. *Poster presented at the 33rd Annual Conference of the Society for Industrial and Organizational Psychology*, Chicago, IL.
- Zhang, B., **Sun, T.**, Drasgow, F., Chernyshenko, O. S., Nye, C., Stark, S., & White, L. A. (April 2018). Reliability of unfolding rating scales and multidimensional forced choice measures. In J. A. DeSimone (Chair), What Should We Do about Alpha II: Alternatives to Alpha? *Symposium presented at the 33rd Annual Conference of the Society for Industrial and Organizational Psychology*, Chicago, IL.
- Sun, T.**, Zhang, B., Stark, S., & Drasgow, F. (April, 2017). Do questionnaire formats and scoring models change the construct measured? In H. Min & M. Zickar (Co-chairs), Item Response Theory: New

Directions for Research and Practice. *Symposium presented at the 32nd Annual Conference of the Society for Industrial and Organizational Psychology*, Orlando, FL.

Sun, T., & Drasgow, F. (April, 2017). Cross-cultural response style bias is real: Adapting the Tree-Process Model. *Poster presented at the 32nd Annual Conference of the Society for Industrial and Organizational Psychology*, Orlando, FL.

Sun, T., Cao, M., & Drasgow, F. (April, 2016). Overcoming cross-cultural response style bias: forcing improved measurement. *Poster presented at the 31st Annual Conference of the Society for Industrial and Organizational Psychology*, Anaheim, CA.

PROFESSIONAL EXPERIENCE

Amazon.com Services, Inc. Seattle, WA
Research Scientist Intern, Talent Assessment May 2019 - August 2019

- Leveraged assessment data and machine learning to optimally score multiple criteria
- Identified key assessment components and improved test efficiency for various functions
- Facilitated content development and validation for several personnel and selection assessments

JD.com, Inc. Champaign-Urbana, IL
Personnel Assessment Consultant December 2018 - May 2019

- Designed tailored scales for assessing various skills and traits to for hiring and promotion
- Analyzed selection and performance data to identify problems in current evaluation system
- Assisted on development for company-wide 360-degree feedback and performance review

University of Illinois Leadership Center Champaign-Urbana, IL
Statistical Consultant January 2019 - May 2019

- Analyzed data on multi-institutional leadership studies and solved problems on measurement
- Examined patterns on campus leadership and commitment development over past 10 years
- Made recommendations for future leadership assessment procedures and instruments

Human Resources Research Organization (HumRRO) Champaign-Urbana, IL
Research Associate (Contractor) October 2018 - March 2019

- Analyzed data on various forms of interest profiler to examine their psychometric properties
- Linked existing forms of interest profilers to O*NET occupations
- Participated in writing technical reports and book chapters for the O*NET Interest Profiler

The Organization for Economic Co-operation and Development (OECD) Champaign-Urbana, IL
Research Assistant February 2018 - August 2018

- Designed scales for socioemotional skills to be administered on teenagers around the globe
- Analyzed item trials data to evaluate scale performance and global applicability
- Assisted on the initial phase of the large project effort

American College Testing (ACT) Inc. Champaign-Urbana, IL
Research Assistant January 2017 - February 2018

- Investigated latent structure of mixed format tests
- Analyzed dimensionality of passage and item based tests
- Designed and applied methods of multistage adaptive testing

Anheuser Busch InBev Champaign, IL
People Analytics Intern October 2014 - August 2016

- Researched and designed personnel excellence assessment instruments as performance indicators
- Analyzed internal metrics, trends and causes to create solutions balancing risks and management
- Conducted analyses to support business decisions, make predictions, and assess practicality

TEACHING EXPERIENCE

Online Course Developer, Intro to Industrial and Organizational Psychology Fall 2018 - Summer 2019
Instructor, Intro to I/O Psychology, *Excellence rating: 4.8/5.0 (25 students)* Summer 2018

*Recognized among *Teachers Ranked as Excellent*

Teaching Assistant, Intro to I/O Psychology (*155 students*) Spring 2018
Teaching Assistant, Social Cognition (*150 students*) Fall 2016
Instructor, Freshman Seminar, *Excellence rating: 4.4/5.0 (24 students)* Fall 2013
Discussion Leader, Social Issues Group Dialogues, *Excellence rating: 4.3/5.0 (20 students)* Fall 2012

SKILLS

Language: English (fluent), Mandarin Chinese (fluent)
IRT Software: GGUM2004, GGUM MCMC, flexMIRT, BILOG, MULTLOG, PARSCALE, TESTFACT, IRTPRO, Winsteps, MCMC GGUM, MCMC ZG
Statistical and Programming Tools: R, Python, Mplus, SPSS, SAS, Mathematica, SQL, VBA, LaTeX
Certification: SAS Advanced Programmer, SAS Base Programmer, NREMT-B, PADI AOW, USPA A

SERVICES

Ad Hoc Reviewer, Society for Industrial and Organizational Psychology Annual Meeting 2019 - present
Ad Hoc Reviewer, Academy of Management Annual Meeting 2019 - present

SELECTED COURSEWORK

- Organizational Psychology
- Personnel Psychology
- Foundations of Organizational Behavior
- Measurement and Test Development
- Item Response Theory
- Computerized Adaptive Testing
- Multivariate Statistics
- Categorical Data Analysis
- Covariance Structure and Factor Modeling (SEM)
- Advanced Structural Equation Modeling
- Hierarchical Linear Modeling
- Multilevel Modeling and Network Analysis
- Social Research Methods
- Bayesian Research Methods
- Bayesian Statistical Inference and Modeling
- Data Science Foundations
- Advanced Data Science
- Statistical Learning
- Mathematical Statistics
- Applied Regression and Design
- Methods of Applied Statistics
- Statistical Data Management
- Advanced Data Analysis
- Survival Analysis
- Real Analysis

PROFESSIONAL AFFILIATION

Society for Industrial and Organizational Psychology, *Student Affiliate*
Academy of Management, *Student Member*
Association for Psychological Science, *Graduate Student Affiliate*
American Psychological Association, *Graduate Affiliate*
American Statistical Association, *Student Member*