

XIAORAN SUN

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ACADEMIC POSITIONS

09/2019 – present Postdoctoral Scholar, Departments of Pediatrics & Communication, Stanford University
01/2020 – present Postdoctoral Scholar, Stanford Data Science

EDUCATION

08/2019 Ph.D., Human Development and Family Studies, the Pennsylvania State University
Graduate Minor in Social Data Analytics
12/2016 M.S., Human Development and Family Studies, the Pennsylvania State University
07/2015 B.S., Psychology, Zhejiang University, Hangzhou, China

HONORS AND AWARDS

2020 – 2021 Scholarship, Stanford Data Science Scholars Program
2017 – 2018 Traineeship, Integrative Graduate Education and Research Training – Big Data Social Science (BDSS-IGERT) Training Program, National Science Foundation (Grant DGE-1144860)
2015 – 2016 University Graduate Fellowship, The Pennsylvania State University
2015 – 2019 Morningside Cultural China Scholarship for Alumni Studying Abroad, Zhejiang University
2015 Outstanding Graduate of Zhejiang Province (3.5% of 284,307 college graduates), Ministry of Education of Zhejiang Province, China
2014 Li & Fung Scholarship, University of Hong Kong
2013 Outstanding Undergraduate Scholarship (First-class), Zhejiang University
2012 National Academic Scholarship, Ministry of Education of P. R. China

RESEARCH GRANT

2021/01- **Postdoctoral Support Grant**, Maternal and Child Health Research Institute, School of
2021/12 Medicine, Stanford University
PI: **Xiaoran Sun, Ph.D.**
Title: “Examining implications of parent-adolescent digital communication for their relationship quality and adolescent mental health” (The Family Screenome Project)

RESEARCH INTERESTS

Adolescent and young adult development towards educational and career achievement;
Family systems processes across sociocultural contexts; Families, adolescents, and technology;
Innovative statistical and computational methods for studying families and youth achievement

SCHOLARLY PUBLICATIONS

Manuscripts Published & in Press

Skinner, O. D., Sun, X., & McHale, S. M. (in press). Marital relationships and parent-child relationship quality in African American families: A dyadic approach. Manuscript in press, *Journal of Family Psychology*.
Sun, X., McHale, S. M., & Updegraff, K. A. (2020). Career adaptivity mediates longitudinal links between parent-adolescent relationships and young adult occupational attainment. *Developmental Psychology*, 56, 2309-2321.
Sun, X., Ram, N., & McHale, S. M. (2020). Adolescent family experiences predict young adult educational attainment: A data-based cross-study synthesis with machine learning. *Journal of Child and Family Studies*, 29, 2770-2785.

- Sun, X., McHale, S. M., & Crouter, A. C. (2020). Perceived underemployment and couple relationships among African American parents: A dyadic approach. *Cultural Diversity and Ethnic Minority Psychology*, 26, 82-92. (Media mentions: [APA spotlight](#), [Penn State News](#))
- Skinner, O. D., Sun, X., & McHale, S. M. (2020). Longitudinal links between expressivity and African American parent-adolescent relationships: A dyadic approach. *Journal of Child and Family Studies*, 29, 442-454.
- Jenkins, A. I. C., Fredman, S. J., Le, Y., Sun, X., Brick, T. R., Skinner, O. D., & McHale, S. M. (2020). Prospective associations between depressive symptoms and marital satisfaction in Black couples. *Journal of Family Psychology*, 34, 12-23.
- Sun, X., McHale, S. M., & Updegraff, K. A. (2019). Sibling experiences in middle childhood predict sibling differences in college graduation. *Child Development*, 90, 25-34. (Media mentions: [NICHD](#), [ScienceDaily](#), [Penn State News](#), [The University Network](#), [MedicalResearch](#), [知识分子](#))
- Sun, X., McHale, S. M., & Updegraff, K. A. (2019). Sibling dynamics in adolescence predict young adult orientations to couple relationships: A dyadic approach. *Journal of Adolescence*, 77, 129-138.
- Lawson, K. M., Sun, X., & McHale, S. M. (2019). Family-friendly for her, longer hours for him: Actor-partner model linking work-family environment to work-family interference. *Journal of Family Psychology*, 33, 444-452.
- Sun, X., McHale, S. M., Crouter, A. C., & Jones, D. E. (2017). Longitudinal links between work experiences and marital satisfaction in African American dual-earner couples. *Journal of Family Psychology*, 31 (Special Issue: *Advances in Methods and Measurement in Family Psychology*), 1029-1039.
- Sun, X., McHale, S. M., & Updegraff, K. A. (2017). Maternal and paternal resources across childhood and adolescence as predictors of young adult achievement. *Journal of Vocational Behavior*, 100, 111-123.

Chapter Published

- Sun, X.* & McMillan, C.* (2018). The interplay between families and technology: Directions for future investigation. In J. Van Hook, S. McHale, & V. King (Eds). *Families and technology*, New York: Springer. (*Equal contributions)

Manuscripts Under Review

- Sun, X., McHale, S. M., Updegraff, K. A., & Umaña-Taylor, A. J. *Implications of Mexican-origin youth's work experiences for relationships with fathers*. Revise and resubmit, *Cultural Diversity and Ethnic Minority Psychology*.
- Sun, X.,* Updegraff, K. A.,* McHale, S. M., Hochgraf, A. K., Gallagher, A. M., & Umaña-Taylor, A. J. *Implications of COVID-19 school closures for sibling dynamics among Latinx children in the U.S.: A prospective, daily diary study*. Minor revision, *Developmental Psychology*. (*Equal contributions)
- Padilla, J., Sun, X., McHale, S. M., & Updegraff, K. A. *Longitudinal links between adolescent siblings' gender-typed characteristics and sibling relationship quality: A dyadic approach*. Under review.

Manuscripts in Progress

- Sun, X., Haydel, K. F., Matheson, D., Desai, M., & Robinson, T. N. "When should I give my children their first phone?" *A pre-registered, prospective study of mobile phone ownership and well-being among Latinx youth*. Pre-registered on Open Science Framework.
- Sun, X., Ram, N., Reeves, B., Cho, M. J., Fitzgerald, A., & Robinson, T. N., *Young Adults' communication with parents in the digital context: A screenomics paradigm*.

PRESENTATIONS AT SCHOLARLY MEETINGS

Conference Symposia & Workshop

- Sun, X. (2020, November). *Introduction to Machine Learning for Family Research: Basic Concepts, Common Algorithms, and Application Examples*. Workshop chaired at the National Council on Family Relations, virtual conference. (137 registered attendees)

- Sun, X.** (2020, November). *Family Dynamics in the Digital World: Qualitative and Quantitative Analyses of Data From Interviews, Social Media, and Smartphones*. Symposium chaired at the National Council on Family Relations, virtual conference.
- Sun, X.** (2019, November). *How Families Help Youth to Flourish: The Role of Family Dynamics in Adolescent and Young Adult Positive Well-Being*. Symposium chaired at the National Council on Family Relations, Fort Worth, TX.
- Sun, X.** (2019, March). *Leveraging Machine Learning Methods for Research on Child Development in the Big Data Era*. Symposium chaired at the Biennial Meeting of Society for Research in Child Development, Baltimore, MD.
- Sun, X.** (2018, June). *Sociocultural Contexts of the Work-Family Interface: A Call to Identify Resiliency Factors*. Symposium chaired at the Biennial Meeting of Work and Family Researchers Network, Washington, D.C.
- Sun, X.** (2018, April). *The Role of Family in Adolescent and Young Adult Romantic and Sexual Relationships: A Call for Systems Research*. Symposium chaired at the Biennial Meeting of Society for Research on Adolescence, Minneapolis, MN

Paper Presentations

- Sun, X.,** Haydel, K. F., Matheson, D., Desai, M., & Robinson, T. N. (2021, April). *Prospective study of mobile phone acquisition and ownership and well-being among Latinx children*. Paper to be presented at the 2021 SRCD Virtual Biennial Meeting.
- Sun, X.,** Updegraff, K. A., McHale, S. M., Hochgraf, A. K., Gallagher, A. M., & Umaña-Taylor, A. J. (2021, April). *Implications of COVID-19 school closures for sibling dynamics among Latinx children: A daily diary study*. Paper to be presented at the 2021 SRCD Virtual Biennial Meeting.
- Sun, X.,** Reeves, B., Ram, N., Cho, M. J., Fitzgerald, A., & Robinson, T. N. (2020, November). *Pulling closer or pushing away? Ambivalence in the dynamics between young adults and parents in the digital context*. Paper presented at the National Council on Family Relations, virtual conference.
- Sun, X.,** Robinson, T. N., Ram, N., Reeves, B., Cho, M. J., Chiatti, A., Lee, J., Roehrick, K., Yang, X., & Fitzgerald, A. (2020, July). *Parent-young adult communication in the digital world: A Screenomics paradigm*. Paper presented at 6th International Conference on Computational Social Science (IC2S2), virtual conference.
- Sun, X.,** McHale, S. M., & Updegraff, K. A. (2019, November). *Career adaptivity mediates longitudinal links between parent-adolescent relationships and young adult occupational attainment*. Paper presented at the National Council on Family Relations, Fort Worth, TX.
- Sun, X.,** McHale, S. M., Updegraff, K. A., & Umaña-Taylor, A. J. (2019, November). *Implications of Mexican-origin youth's work experiences for relationships with fathers*. Paper presented at the National Council on Family Relations, Fort Worth, TX.
- Sun, X.,** & Ram, N. (2019, March). *Family experiences in adolescence predict young adult educational attainment: A machine learning approach*. Paper presented at the Biennial Meeting of Society for Research in Child Development, Baltimore, MD.
- Sun, X.,** Chi, G., Yin, J., & McHale, S. M. (2018, October). *Sibling interactions and shared interests on Twitter: Analyses of a selected sibling sample based on archived Twitter data*. Paper presented at SRCD Special Topics: Conference on the Use of Secondary and Open Source Data in Developmental Science, Phoenix, AZ.
- Sun, X.,** McHale, S. M., & Crouter, A. C. (2018, June). *Perceived underemployment among African American spouses: Implications for couple relationships*. Paper presented at the Biennial Meeting of Work and Family Researchers Network, Washington, D.C.
- Lawson, K. M., **Sun, X.,** & McHale, S. M. (2018, June). *The associations between wives' and husbands' work-family environment and work-family spillover: Actor-Partner Interdependence Models*. Paper presented at the Biennial Meeting of Work and Family Researchers Network, Washington, D.C.
- Sun, X.,** & McHale, S. M. (2018, April). *Sibling dynamics in adolescence predict young adult orientations to couple relationships: A dyadic approach*. Paper presented at the Biennial Meeting of Society for Research on Adolescence, Minneapolis, MN

- Sun, X.,** McHale, S. M., Crouter, A. C., & Jones, D. E. (2017, November). *Longitudinal links between work experiences and marital satisfaction among African American dual-earner couples*. Paper presented at the National Council on Family Relations. Orlando, FL.
- Sun, X.,** McHale, S. M., & Updegraff, K. A. (2017, November). *Early parental resources predict young adult achievement*. Paper presented at the National Council on Family Relations. Orlando, FL.
- Padilla, J. & **Sun, X.** (2017, November). *Links between siblings' gender-typed characteristics and sibling relationship qualities*. Paper presented at the National Council on Family Relations. Orlando, FL.
- Sun, X.,** McHale, S. M., Updegraff, K. A., & Umaña-Taylor, A. J. (2017, May). *Sleep duration predicts time spent on homework among Mexican American adolescents: A daily diary study*. Paper presented at the Pennsylvania State University Mini-Conference on Multivariate/Longitudinal Methods. University Park, PA.

Poster Presentations

- Sun, X.,** McHale, S. M., Updegraff, K. A., & Umaña-Taylor, A. J. (2018, April). *Time spent on homework among Mexican American adolescents: Contextual correlates and implications for achievement*. Poster presented at the Biennial Meeting of Society for Research on Adolescence, Minneapolis, MN
- Sun, X.,** McHale, S. M., & Updegraff, K. A. (2017, April). *Sibling experiences in middle childhood: Implications for sibling differences in college graduation*. Poster presented at the Biennial Meeting of Society for Research in Child Development, Austin, TX.
- Mayfield, K., **Sun, X.,** & McHale, S. M. (2016, October). *Correlates of fathers' and mothers' coparenting in African American families*. Poster presented at the special topics meeting, Babies, Boys, and Men of Color, Society for Research in Child Development, Tampa, FL.
- Sun, X.,** Kim, J. J., Fung, J. J., Park, H. & Lau, A. S. (2014, September). *Mothers' and children's implicit theories of intelligence: Implications for child mental health in Hong Kong families*. Poster presented at the Symposium for UCLA Cross-disciplinary Scholars for Science and Technology, Los Angeles, CA.

Talk

- Sun, X.** (2018, December). *Sibling Dynamics on Social Media: Applying Big Data to Family Studies*. Invited talk at College of Education, Zhejiang University, Hangzhou, China.

RESEARCH EXPERIENCE (SELECTED)

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| 09/2019 – present | <p>The Human Screenome Project, Stanford University (PIs: Byron B. Reeves, Ph.D., Thomas N. Robinson, MD, MPH, Nilam Ram, Ph.D.)</p> <p>Mentor undergraduate research assistants and post-baccalaureate research coordinator</p> <p>Project and data management (Google Cloud Platform; Stanford Nero Cluster)</p> <p>Analyses of high-intensity screenshots data (5-second interval over weeks and months)</p> <p>Grant submissions; IRB management</p> |
| 09/2019 – present | <p>The Solutions Science Lab, Stanford School of Medicine (PI: Thomas N. Robinson, MD, MPH)</p> <p>Analyses of longitudinal data from the Stanford GOALS Study for family media environments and youth health outcomes</p> |
| 08/2018 – 08/2019 | <p>Innovative Family Prevention with Latino Siblings in Disadvantaged Settings, funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (PIs: Kimberly A. Updegraff, Ph.D. & Adriana J. Umaña-Taylor, Ph.D.; Co-Is: Susan M. McHale, Ph.D., & Mark E. Feinberg, Ph.D., Arizona State University & The Pennsylvania State University)</p> <p>Project Site Coordinator; Data management and analyses of daily diary data</p> |
| 08/2017 – 08/2019 | <p>Mining Sibling Interactions on Twitter, The Pennsylvania State University, Integrative Graduate Education and Research Training – Big Data Social Science (BDSS-IGERT) Training Program (Mentor: Guangqing Chi, Ph.D.)</p> |

Analyze longitudinal data extracted from Twitter on sibling users' interactions

Mentor undergraduate research assistants

Identify siblings on Twitter using tweets about the national siblings day ([GitHub repository](#))

- 08/2015 – **Family Relationships Project**, funded by the Eunice Kennedy Shriver National Institute of Child Health and Human Development (PIs: Susan M. McHale, Ph.D. & Ann C. Crouter, Ph.D.; Co-Is: Kimberly A. Updegraff, Ph.D. & Adriana J. Umaña-Taylor, Ph.D., The Pennsylvania State University & Arizona State University)
08/2019
Analyze longitudinal data for family dynamics and youth development
Data management; Consult on statistical analyses
- 06/2014 – **Culture and Minority Mental Health Lab**, UCLA (PI: Anna S. Lau, Ph.D.)
09/2014 Research assistant

TEACHING EXPERIENCE

The Pennsylvania State University, Department of Human Development and Family Studies

Instructor

Summer 2019 HDFS 129: Introduction to Human Development and Family Studies (24 students)

Guest Lecturer

Spring 2017 HDFS 433: Developmental Transition to Adulthood
“Family as a context of young adult career development”

Teaching Assistant

Spring 2019 HDFS 129: Introduction to Human Development and Family Studies (657 students)
Spring 2017 HDFS 249: Adult Development and Aging (60 students)

SKILLS

Proficient in R, Python, SAS, Linux, SPSS, and Mplus

Proficient in machine learning methods (Python Scikit-Learn, TensorFlow), structural equation modeling, multilevel modeling, and mixture models

Proficient with web scraping, text analysis, image processing

Proficient with High Performance Computing Clusters (e.g., Penn State HPC, Stanford Nero, Google Cloud Platform)

OTHER ACADEMIC EXPERIENCE

- 2021 Consulting Editor, *Cultural Diversity and Ethnic Minority Psychology*
- 2020 Ad Hoc Reviewer, *Journal of Adolescence*, *Youth & Society*, *Personal Relationships*, *Applied Psychology: An International Review*
Panel Reviewer, *Society of Research on Adolescence*, *National Council on Family Relations*, *Society for Research on Child Development*
- 2019 Ad Hoc Reviewer, *Journal of Child and Family Studies*, *Developmental Psychology*, *Journal of Family Studies*
Panel Reviewer, *National Council on Family Relations*
Co-reviewer, with Susan M. McHale, Ph.D., *Journal of Family Psychology*
- 2017 Ad Hoc Reviewer, *Journal of Family Psychology*
Co-reviewer, with Susan M. McHale, Ph.D., *Journal of Marriage and Family*

NON-ACADEMIC PUBLICATIONS AND TALKS

Sun, X. (2020, September). Sexual objectification of women: Are “compliments” on the body harmless? [in Chinese; 女性物化: “你的身材真好”, 是一种无害的夸奖吗?] *Ms. Muses*, WeChat, 3282 views.

- Sun, X.** (2020, February). “Why is he not texting me back?” How smartphones influence intimate relationships. [in Chinese; “他为什么总不回我信息?” 手机如何影响亲密关系] *Ms. Muses, WeChat*, 2593 views.
- Sun, X.** (2018, December). Growing up in the same family, why siblings can become so different? [in Chinese; “同一屋檐下，兄弟姐妹为何成为不同的人”] *Ms. Muses, WeChat*, 2178 views.
- Sun, X.** (2017, December). “How to improve your children’s academic performances? Perspectives from developmental psychology.” [in Chinese] Invited online parenting workshop by UltraBear Education, Inc., 3031 views.
- Padilla, J., & **Sun, X.** (2017, April). “Sibling Relationships in Childhood and Adolescence” The 93rd Annual Pennsylvania Association of Family and Consumer Sciences (PAFCS) Conference, State College, PA.
- Sun, X.** (2017, February). Is a “Churning” Relationship True Love? [in Chinese; “分分合合”的感情才是真爱吗?] *Ms. Muses, WeChat*. 2916 views.

COMMUNITY SERVICE

Stanford University, Data Science Scholars Program

06/2020 – present **Project Member, Agnostic Implementation of Model Specification (AIMS)**

Collaborate with other data science scholars on standardizing model specification in research and data science across disciplines

The Pennsylvania State University, Department of Human Development and Family Studies

06/2019 **Attendee, Summer Event Hosted by Assistant Dean of Diversity & Inclusion**

Share with SROP (Summer Research Opportunity Program) students and Penn State McNair Scholars for how to navigate graduate school

08/2018 – 05/2019 **Graduate Student Representative to Faculty Meetings**

Attend the department’s monthly faculty meetings

08/2017 – 05/2018 **Student Advisor**

Coordinate the student buddy program for first-year graduate students
Compile a handbook for international students’ transition into graduate school
Organize student panel meetings for the graduate program’s milestones

REFERENCES

Thomas N. Robinson, MD, MPH (Postdoctoral advisor)

Irving Schulman, MD Endowed Professor in Child Health

Professor of Pediatrics and of Medicine and, by courtesy, of Epidemiology and Population Health

Divisions of General Pediatrics and the Stanford Prevention Research Center

Stanford University and Lucile Packard Children’s Hospital Stanford

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Nilam Ram, Ph.D. (Postdoctoral advisor)

Professor, Departments of Psychology and Communication

Stanford University

nilamram@stanford.edu

Susan M. McHale, Ph.D. (Doctoral advisor)

Distinguished Professor of Human Development and Family Studies and Professor of Demography

Director, Social Science Research Institute

Associate Director, Penn State Clinical and Translational Science Institute

The Pennsylvania State University

x2u@psu.edu

Kimberly A. Updegraff, Ph.D. (Collaborator)

Cowden Distinguished Professor

Barrett Honors Faculty

T. Denny Sanford School of Social and Family Dynamics

Arizona State University

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