

# XIAORAN SUN

Postdoctoral Scholar

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## EDUCATIONAL HISTORY

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| 08/2019 | Ph.D., Human Development and Family Studies, the Pennsylvania State University<br>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  |

## RESEARCH INTERESTS

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1. Computational social science, with a focus on utilizing large-scale and big data and machine learning methods to inform developmental and family research.
2. The interplay between family systems processes and youth positive development, especially adolescents' and young adults' educational achievement and career/vocational development, among families from different sociocultural backgrounds.
3. Methodological approaches to analyzing individual development and family systems, such as growth curve analysis and dyadic data analysis.

## SCHOLARLY PUBLICATIONS

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### *Manuscripts Published (5 first-authored, 3 co-authored)*

- Sun, X., McHale, S. M., & Crouter, A. C. (2019). Perceived underemployment and couple relationships among African American parents: A dyadic approach. Manuscript in press by *Cultural Diversity and Ethnic Minority Psychology*. [online release] doi:10.1037/cdp0000285
- 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.
- Skinner, O. D., Sun, X., & McHale, S. M. (2019). Longitudinal linkages between expressivity and parent-youth relationships in African American families: A dyadic approach. *Journal of Child and Family Studies*. Manuscript in press.
- Jenkins, A. I. C., Fredman, S. J., Le, Y., Sun, X., Brick, T. R., Skinner, O. D., & McHale, S. M. (2019). Prospective associations between depressive symptoms and marital satisfaction in Black couples. *Journal of Family Psychology*. [online release] doi:10.1037/fam0000573
- 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., Ram, N., & McHale, S. M. (under review). *Adolescent family experiences predict young adult educational attainment: A data-based cross-study synthesis with machine learning*. Manuscript invited revised and resubmitted.
- Sun, X., McHale, S. M., & Updegraff, K. A. (under review). *Career adaptivity mediates longitudinal links between parent-adolescent relationships and young adult occupational attainment*. Manuscript under review.
- Sun, X., McHale, S. M., Updegraff, K. A., & Umaña-Taylor, A. J. (under review). *Implications of Mexican-origin youth's work experiences for relationships with fathers*. Manuscript under review.

#### **PRESENTATIONS AT SCHOLARLY MEETINGS**

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##### **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.

##### **Conference Symposia**

- 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 on 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 on Adolescence, Minneapolis, MN

##### **Paper Presentations**

- 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 Biennial Meeting of Society for Research on 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 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 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 on 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 on 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 Final Presentation Symposium for UCLA Cross-disciplinary Scholars for Science and Technology, Los Angeles, CA.

## RESEARCH EXPERIENCE (SELECTED)

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- 09/2019 – **The Screenomics Lab**, Stanford University (PIs: Byron B. Reeves, Ph.D., Thomas N. Robinson, MD, MPH, Nilam Ram, Ph.D.)  
present  
Project and data management (Google Cloud Platform; Stanford Nero Cluster)  
Analyses of high-intensity screenshots data (5-second interval over weeks and months)  
Grant submissions
- 09/2019 – **The Solutions Science Lab**, Stanford School of Medicine (PI: Thomas N. Robinson, MD, MPH.)  
present  
Analyze longitudinal data for family media environments and youth health outcomes
- 08/2018 – **Innovative Family Prevention with Latino Siblings in Disadvantaged Settings**, funded by  
08/2019 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)  
Data management and analyses of daily diary data
- 08/2017 – **Mining Sibling Interactions on Twitter**, The Pennsylvania State University, Integrative  
08/2019 Graduate Education and Research Training – Big Data Social Science (BDSS-IGERT)  
Training Program (Mentor: Guangqing Chi, Ph.D.; Co-Mentor: Susan M. McHale, Ph.D., The Pennsylvania State University)  
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  
08/2019 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)  
Analyze longitudinal data for family dynamics and youth development  
Data management  
Consult on statistical analyses
- 06/2014 – **Culture and Minority Mental Health Lab**, UCLA, Department of Psychology (PI: Anna S.  
09/2014 Lau, Ph.D.)  
Examined the associations between Chinese mothers' and children's  
implicit theories of intelligence (TOI) and how mother-child  
(dis)agreement on TOI relates to child adjustment  
Conducted experiments on emotion reactions and measured participants'  
skin conductance, heart rate, and blood pressure  
Learned Facial Action Coding System (FACS)  
Implemented online survey on SurveyMonkey

## TEACHING EXPERIENCE

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*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) Molly Countermeine, Ph.D.  
Spring 2017 HDFS 249: Adult Development and Aging  
(60 students) Alyssa Gamaldo, Ph.D.

## HONORS AND AWARDS

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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 (Around \$1500/year)  
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

## SKILLS

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Proficient in R, Python, SAS, Linux, SPSS, and Mplus  
Proficient in Structural Equation Modeling, Multilevel Modeling, Mixture Models, Text Analysis (‘nlTK’), and Machine Learning Methods (Python Scikit-Learn, TensorFlow)  
Proficient with text mining using Twitter Application-Programming Interface  
Proficient with MS Office and Adobe Premiere  
Proficient in structured interviews, behavioral experiments, and observational coding

## OTHER ACADEMIC EXPERIENCE

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Ad Hoc Reviewer, for *Developmental Psychology* (2019)  
Ad Hoc Reviewer, for *Journal of Child and Family Studies* (2019)  
Ad Hoc Reviewer, for *Journal of Family Psychology* (2017)  
Co-reviewer, with Susan M. McHale, Ph.D., for *Journal of Family Psychology* (2019)  
Co-reviewer, with Susan M. McHale, Ph.D., for *Journal of Marriage and Family* (2017)

## NON-ACADEMIC PUBLICATIONS AND TALKS

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- 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.

## DEPARTMENT SERVICE

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| 08/2018 – | <b>Graduate Student Representative to Faculty Meetings</b> , Department of Human |
| 05/2019   | Development and Family Studies, the Pennsylvania State University                |
| 08/2017 – | <b>Student Advisor</b> , Department of Human Development and Family Studies, the |
| 05/2018   | Pennsylvania State University  |

## OTHER WORK EXPERIENCE

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| Fall 2014   | <b>Counseling Practicum</b> , Hangzhou No. 7 People's [Psychiatric] Hospital, Hangzhou, China<br>(Supervisor: Yan Yin, Ph.D.)<br>Interviewed patients with obsessive-compulsive disorder, generalized anxiety disorder, bipolar disorder, and schizophrenia                |
| 2012 – 2015 | <b>Morningside Cultural China Scholars Program</b> , Zhejiang University<br>Organized Cultural China Annual Forum<br>Interviewed world-renowned leaders in politics, business, and humanities<br>Studied Chinese classical literature on history, Confucianism, and Taoism |