

# XIAORAN SUN

Department of Human Development and Family Studies

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## EDUCATIONAL HISTORY

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08/2015 –	Doctoral Student, Human Development and Family Studies & Graduate Minor in
06/2019 (expected)	Social Data Analytics, The Pennsylvania State University, University Park, PA
12/2016	M.S., Human Development and Family Studies, The Pennsylvania State University, University Park, PA
2015	B.S., Psychology, Zhejiang University, Hangzhou, China
2013 – 2014	Visiting Student, Department of Psychology, University of Hong Kong, Pokfulam, Hong Kong

## RESEARCH INTERESTS

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I am interested in adolescents' and young adults' educational achievement and career/vocational development, with a specific focus on the role of gender and family dynamics in youth development and achievement among families from different sociocultural backgrounds. I am also interested in methodological approaches to analyzing individual development and family systems, such as growth curve analysis and dyadic/multi-member data analysis. Finally, my interests extend to computational social science, with a focus on utilizing large-scale and big data and machine learning methods to inform developmental and family research.

## SCHOLARLY PUBLICATIONS

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### *Manuscripts Published*

Sun, X., McHale, S. M., & Updegraff, K. A. (2018). Sibling experiences in middle childhood predict sibling differences in college graduation. *Child Development*. [online release] doi:

10.1111/cdev.13047. (Media mentions: [NICHHD](#), [ScienceDaily](#), [Penn State News](#), [The University Network](#), [MedicalResearch](#), [ZhiShiFenZi](#) [in Chinese])

Lawson, K. M., Sun, X., & McHale, S. M. (in press). *Family-friendly for her, longer hours for him: Actor-partner model linking work-family environment to work-family interference* Manuscript in press by *Journal of Family Psychology*.

**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*, 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., & Crouter, A. C. (under review). *Perceived underemployment and couple relationships among African American parents: A dyadic approach*. Manuscript submitted for publication.

**Sun, X.,** McHale, S. M., & Updegraff, K. A. (under review). *Sibling dynamics in adolescence predict young adult orientations to couple relationships: A dyadic approach*. Manuscript invited to submission.

Jenkins, A. I. C., Fredman, S. J., Le, Y., **Sun, X.,** Skinner, O. D., & McHale, S. M. (2018). *Prospective associations between depressive symptoms and marital satisfaction in Black couples*. Manuscript in revision for publication.

#### **Manuscripts in Preparation**

**Sun, X.,** Chi, G., Yin, J., & McHale, S. M. (in preparation). *Sibling interactions and shared interests on Twitter: Analyses of a selected sibling sample based on archived Twitter data*. Manuscript in preparation.

Padilla, J., **Sun, X.,** & McHale., S. M. (in preparation). *Links between siblings' gender-typed characteristics and sibling relationship qualities*. Manuscript in preparation.

Skinner, O. D., **Sun, X.,** & McHale., S. M. (in preparation). *Expressivity and parent-child relationships in African American families*. Manuscript in preparation.

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

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##### **Talks**

**Sun, X.** (2019, February). *Family Experiences in Adolescence Predict Young Adult Educational Attainment: A Machine Learning Approach*. Invited talk at Penn State QuantDev Brown Bag. University Park, PA.

- 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, March). *Leveraging Machine Learning Methods for Research on Child Development in the Big Data Era*. Symposium to be 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., & Ram, N.** (2019, March). *Family Experiences in Adolescence Predict Young Adult Educational Attainment: A Machine Learning Approach*. Paper to be 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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| 08/2018 –<br>present | <b>Innovative Family Prevention with Latino Siblings in Disadvantaged Settings</b> , 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)<br><br>Data management and analyses of daily diary data |
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- 08/2017 – **Mining Sibling Interactions on Twitter**, The Pennsylvania State University, Integrative  
present 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](#))
- 04/2017 – **The Juntos Project**, funded by the Eunice Kennedy Shriver National Institute of Child  
present Health and Human Development (PIs: Kimberly A. Updegraff, Ph.D. & Adriana J.  
Umaña-Taylor, Ph.D.; Co-Is: Susan M. McHale, Ph.D. & Ann C. Crouter, Ph.D.,  
Arizona State University & The Pennsylvania State University)
- Analyze longitudinal data for family dynamics and youth development in a Mexican-  
American sample
- 08/2015 – **Family Relationships Project**, funded by the Eunice Kennedy Shriver National Institute  
present 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)
- Analyze longitudinal data for family dynamics among European- and African  
American samples  
Data management  
Consult on statistical analyses
- 09/2014 – **Self-Development Research Group**, Zhejiang University (Advisor: Qinmei Xu, Ph.D.)
- 07/2015 Bachelor's Thesis: Early corporal punishment experiences as predictors of  
emotion recognition and empathy among Chinese college students  
Independently collected data from college students ( $N = 332$ ) on their early  
corporal punishment experiences, emotion recognition, and empathy
- 06/2014 – **Culture and Minority Mental Health Lab**, UCLA, Department of Psychology (PI:  
09/2014 Anna S. 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

### 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 Countermine, 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 – 2018	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, SPSS, and Mplus

Proficient in Structural Equation Modeling, Multilevel Modeling, Mixture Models, Text Analysis, and Machine Learning Methods (Linear Methods for Classification, Support Vector Machine, Clustering using K-Means, KNN, and K-Center, Decision Tree and Ensemble Methods)

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 *Journal of Family Psychology* (2017)

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 (Supervisor: Yan Yin, Ph.D.)
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Interviewed patients with obsessive-compulsive disorder, generalized anxiety disorder, bipolar disorder, and schizophrenia

2012 – 2015     **Morningside Cultural China Scholars Program**, Zhejiang University

Organized Cultural China Annual Forum

Interviewed world-renowned leaders in politics, business, and humanities

Studied Chinese classical literature on history, Confucianism, and Taoism