

## **Curriculum Vitae** **Guangjian Zhang**

### **Personal Information**

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Updated: January 16, 2008

### **Academic Appointment**

Assistant Professor University of Notre Dame, 2007-  
Department of Psychology, Quantitative Psychology

### **Education**

Postdoctoral fellow, University of Notre Dame, 2006-2007  
Quantitative Psychology

Ph.D. in Psychology, the Ohio State University, 2006  
Dissertation: Bootstrap procedures for dynamic factor analysis  
Advisor: Michael Browne  
Major: Quantitative Psychology  
Minor: Social Psychology

M.S. in Statistics, the Ohio State University, 2004

M.Ed. in Psychology, Beijing University, 1999  
Major: Counseling Psychology

B. M. in Medicine, Tianjin Medical University, 1994  
Major: Clinical Medicine

### **Publications**

Zhang, G. & Browne, M. W. (2006) Bootstrap fit testing, confidence intervals, and standard error estimation in the factor analysis of polychoric correlation matrices. *Behaviormetrika*, 33, 61-74.

Zhang, G. & Browne, M. W. (2007) Design and Analysis of incomplete Multitrait-Multimethod Studies from the Multiplicative Perspective. *Pschometrik*, 72, 361-375.

Browne, M. W. & Zhang, G. (2007). Repeated Time series Models for learning data. In S. M. Boker & Wenger, M. J. (Eds), *Data Analytic Techniques for Dynamical Systems in the Social and Behavioral Sciences*. Mahwah, NJ: Lawrence Erlbaum Associates.

Browne, M. W. & Zhang, G. (2007). Developments in the Factor Analysis of Individual Time Series. In R. C. MacCallum & R. Cudeck (Eds.), *Factor Analysis at 100: Historical Developments and Future Directions* (pp. 265-291). Mahwah, NJ: Lawrence Erlbaum Associates.

Chow, S., & Zhang, G. *Continuous time modeling of irregularly spaced panel data using a cubic spline model*. (Accepted, Statistica Neerlandica)

Luo, S., Chen, H., Yue, G., Zhang, G., Xu, D., & Zhaoyang, R. (Accepted). Predicting marital satisfaction from self, partner, and couple characteristics: Is it me, you, or us? *Journal of Personality*.

### **Manuscripts under Review**

Ferrer, E. & Zhang, G. Time series models for examining psychological processes: applications and new developments.

### **Manuscripts under Preparation**

Zhang, G. & Browne, M. W. Standard error estimation in dynamic factor analysis: the bootstrap approach.

Zhang, G. & Browne, M. W. Dynamic factor analysis with ordinal variables.

### **Ongoing projects**

Zhang, G. & Browne, M. W. Comparing dynamic factor analysis models using the bootstrap.

Lubke, G. & Zhang, G. Model estimation and item selection in mixture models.

Luo, S. & Zhang, G. Use of SEM in examining the relationship between attraction and perception bias in dating couples.

Zhang, G. Estimation of exploratory factor analysis models: least squares versus maximum likelihood.

### **Presentations**

Zhang (2007, August). *New developments in dynamic factor analysis*. Invited talk, the annual meeting of the American Psychological Association. San Francisco, California.

Zhang (2007, July). *Comparing dynamic factor models using the bootstrap*. Paper presentation, the annual meeting of the Psychometric Society. Tokyo, Japan.

Zhang (2007, May). Dynamic factor analysis in psychological research. Invited talk, Notre Dame Series on Quantitative Methodologies (NDSQM). Notre Dame, Indiana.

Zhang, G., & Browne, M. W. (2006, June). *Dynamic Factor Analysis of Polychoric Autocorrelation Matrices*. Paper presentation, the annual meeting of the Psychometric Society. Montreal, Canada.

Browne, M. W., & Zhang, G. (2006, June). *Rotation in Dynamic Factor Analysis*. Paper presentation, the annual meeting of the Psychometric Society. Montreal, Canada.

Browne, M. W., & Zhang, G. (2004, October). *DyFA: A computer program for the factor analysis of individual time series*. Paper presentation, the annual SMEP conference. Fort Myers, FL.

Zhang, G. (2004, June). *Bootstrapping dynamic factor analysis*. Paper presentation, the annual meeting of the Psychometric Society. Monterey, CA.

Browne, M. W., & Zhang, G. (2004, June). *Exploratory factor analysis of lagged correlation matrices*. Paper presentation, the annual meeting of the Psychometric Society. Monterey, CA.

Browne, M.W., & Zhang, G. (2004, May). *Developments in the factor analysis of single time series*. Invited talk, the Factor Analysis at 100 Conference. Chapel Hill, NC.

Zhang, G. (2003, September). *Bootstrapping multivariate time series analysis*. Paper Presentation, the 1st SMEP graduate student preconference. Keystone, CO.

Browne, M.W., & Zhang, G. (2003, September). *Fitting the factor analysis model to lagged correlation matrices: the P-technique*. Paper presentation, the annual SMEP conference. Keystone, CO.

Browne, M. W., & Zhang, G. (2002, October). *Estimation of the direct product model with incomplete Multitrait-multimethod data*. Paper Presentation, the annual SMEP conference. Charlottesville, VA.

## **Courses Taught**

Time Series, Multivariate Analysis, Theoretical Foundations of Factor Analysis, and Statistical Inference.

### **Mentoring and Advising**

Member, Master thesis committee  
Ji-yun Zu  
Danielle Cisler  
Mashu Yang

Member, Ph.D. dissertation committee  
Chrystyna Kouros  
Pascal Deboeck

### **Computing Skills**

Programming language: FORTRAN  
SEM package: LISREL, RAMONA  
Data analysis package: R, SAS, SPSS, SYSTAT  
Scientific word processors: EXP, LaTeX

### **Statistical Consulting Experiences**

*Statistical Consultant*, Spring 2004 to Spring 2005. Advised topics include factor analysis, structural equation modeling, random coefficient models, structured latent curve analysis, regression and correlation, ANOVA, nonparametric analysis, graphing techniques, and data manipulation. In addition to data analysis, I also helped my clients with their research design, proposal writing, and manuscript revision.

### **Fellowships and Awards**

American Psychological Association Division 5 Dissertation Award (2007)

SMEP Dissertation Support Awards (\$1,000), 2005

Competitive Travel Award (\$500), Factor analysis at 100, 2004

Competitive Travel Award (\$750), SMEP, 2003

University Fellowship, The Ohio State University, 1999, one Academic year

Department Fellowship, Psychology department at OSU, 1999, four Academic years

Guanghua Fellowship in recognition of excellent achievement in course work and research, Beijing University, 1997

### **Professional Affiliation**

Psychometric Society

American Psychological Association Division 5: Evaluation, Measurement, and Statistics

American Statistical Association

### **Professional Services**

*Ad-hoc Reviewer*, Psychological Methods, Psychometrika, The Journal of Early Adolescence

*Reader*, Society of Multivariate Experimental Psychology student conference, 2004

*Student Coordinator*, Quantitative Psychology Colloquium Series at OSU, 2004-2005

## **References**

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Columbus, Ohio 43210  
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