

# John J. McArdle - March 2013

## 1. Personal Information

Work: Department of Psychology, 711 Seely G. Mudd Building, University of Southern California, Los Angeles, CA 90089. Electronic mail: JMCARDLE@USC.EDU

## 2. Formal Education

Post-Doctoral Training, 1981 (Summer): Dept. Econometrics, Univ. Geneva, Switzerland (with H.O.A. Wold); *Partial Least Squares Soft Modeling*.

Post-Doctoral Training, 1977-1980: Univ. Denver, Denver, CO (with J.L. Horn);  
Post-Doc Research: *Structural modeling of adult development of intellectual abilities*.

Ph.D., June 1977, Hofstra University, Hempstead, N.Y. (advisor P.H. Ramsey);  
Dissertation: *A simulation study of univariate and multivariate repeated measures models*.

M.A., June 1975, Hofstra University, Hempstead, N.Y. (advisor W. Metlay);  
Thesis: *A path analysis of freshman attrition*.

B.A., June 1973, Franklin & Marshall College, Lancaster, PA. (advisor R.S. Lehman);  
Senior Honors: *A simulation model of a college student*.

## 3. Professional Positions

2005-present: Senior Professor, Department of Psychology, University of Southern California  
1983-2005: Assistant to Associate to Full Professor, Dept. of Psychology, Univ. of Virginia.  
1981-1983: Assistant Research Professor, Dept. Psychology, University of Denver.  
2000-2010: Adjunct Clinical Faculty, Department of Psychiatry, University of Hawaii  
1999-present: Visiting Scholar, Institute of Human Development, Univ. California at Berkeley  
1986, 1988, 1991, 2000, 2007, 2012: Visiting Scientist, Max Planck Institute, Berlin.  
1988, 1993-1999: Visiting Professor, Department of Psychology, University of Hawaii.  
1986: Visiting Professor, Dept. of Psychology, University of Sydney, Australia.  
1977: Biostatistician, Long Island Jewish Hospital, Hillside, New York.  
1975-1977: Statistical Data Analyst, Academic Computing, Hofstra University  
1974-1975: Research Analyst, Center for the Study of Higher Education, Hofstra University

## 4. Professional Honors & Elected Memberships

*Fellow, American Association for the Advancement of Sciences (AAAS), December 2012.*

*NIH-MERIT award, National Institute on Aging, October 2005-present.*

*Visiting Fellow, Harris-Mansfield College, Oxford University, England, July 2004*

*Jacob Cohen Lecture for Distinguished Multivariate Research, Columbia University, N.Y., 2003*

*NCAA Award for Educational Research, National Collegiate Athletic Association (NCAA), Indianapolis, IN, January 2003*

*Lansdowne Professor for Distinguished Research, University of Victoria, Victoria, B.C., 2002*

*Lifetime Structural Equation Modeling Award, Mexican Congress of Psychology, Sonora, 2001*

*R.B. Cattell Award for Distinguished Multivariate Research, Society of Multivariate Experimental Psychology (SMEP), November 1987*

*Elected, Secretary, Council of Scientific Society Presidents, 2000-2001.*

*Elected, President, Federation of Behavioral, Psychological & Cognitive Sciences (BPCS), 1996-1999*

*Elected, President, Society of Multivariate Experimental Psychology (SMEP), 1992-1993*

*Elected, Secretary-Treasurer, Federation of Beh., Psych. & Cognitive Sciences (BPCS), 1990-1992*

*Elected, Secretary-Treasurer, Society of Multivariate Experimental Psychology (SMEP), 1986-1991*

*Chair, Human Research Committee, Federation of BPCS, 2002-2004.*

*Chair, Editorial Advisor Board, Multivariate Behavioral Research, 2000-2002*

*Chair, Ethics in Science Committee, Council of Scientific Society Presidents, 1998-2000*

*Chair, Forum on Research Management, Federation of BPCS, 1996-1997*

*Member, Data Analysis Research Network, National Collegiate Athletic Association, 1994-present*

*Chair, Data Analysis Working Group, National Collegiate Athletic Association, 1989-1994*

*Member, Council, Federation of BPCS, 1985-1990, 1993-present*

*Co-Editor, Quantitative Issue, Experimental Aging Research, 1986-1992*

*Computer Software Editor, Multivariate Behavioral Research, 1986-1989*

*Member, Forum on Research Management, Federation of BPCS, 1992-present*

*Associate Editor, Multivariate Behavioral Research, 1985-1987*

*Member, Society of Multivariate Experimental Psychology, 1983-present*

*Member, Society for Research Synthesis Methodology, 2009-present*

*Member, Panel on Human Capabilities, National Academy of Sciences, 2012-present.*

*Co-PI, Health and Retirement Study (HRS-AHEAD), University of Michigan, 2004-present.*

*Member, Study Section on Behavioral Aging and Genetics, NIA, 2004-present*

*Chair, Measurement and Statistics Study Section Panel, NIMH, 2003-present.*

*Advisory Board, Health and Retirement Study (HRS-AHEAD), NIA, 2001-2004*

*Member, Panel on Institutional Review Boards, National Academy of Sciences, 2001-2003.*

*Member, NIH-NIA-NICHD Ad-Hoc Study Sections, 1983-present*

*Board Member, ACTIVE Collaborative Trials, National Institute on Aging, 1996-2002*

*Board, National Archive for Computerized Databases in Aging, NACDA-NIA, 1996-present*

## 5. Research Grant Support

*Assessing and Improving Cognitive Measures in the HRS.* Funded by the National Institute on Aging (NIA No.AG-07137-17); September 2006-present (\$5,900,000 direct costs).

*Dynamic Growth and Change in Adult Intellectual Abilities.* Funded by the National Institute on Aging (NIA No.AG-07137) June 2001 to June 2006 (\$750,000 direct); June 1995 to May 2000, (\$736,000 direct+\$50,000 supplement); June 1992 to May 1995 (\$299,000), June 1987 to May 1992 (325,000 direct).

*Advanced Training Institute in Longitudinal Research Methods.* Funded by the American Psychological Association, Feb. 2001-July 2013 (\$30,000 annual direct).

*Advanced Training Institute in Exploratory Data Mining.* Funded by the American Psychological Association, Feb. 2009-July 2013 (\$30,000 annual direct).

*Advanced Modeling of Educational Research Data.* Co-PI with Karen Schmidt; Funded by the American Psychological Association, Feb. 2001-Sept 2002 (\$10,000 annual direct).

*Longitudinal Research on Student-Athletes.* Co-PI with John R. Nesselroade; Funded by the National Collegiate Athletic Association, June 1992 to May 2002 (\$17,000 annual direct).

*Mega-Analyses of the WAIS: Dynamic and Structural Equation Models of Adult Abilities.* With co-PI J.L. Horn, funded by the National Institute on Aging (NIA No.AG04704); Dec. 1983 to Nov. 1985 (\$185,000 direct).

*Cumulative Validation by Systems Modeling for Adult Development of WAIS Abilities.* With co-PI J.L. Horn, funded by the National Institute on Aging (NIA No.AG02695); Dec. 1981 to Nov. 1983 (\$238,000 direct).

## 6. Books (Published and Under Contract)

B1: McArdle, J.J. & Boker, S. M. (1990). *RAMpath: A Computer Program for Automatic Path Diagrams.* Hillsdale, NJ: Lawrence Erlbaum Publishers.

B2: McArdle, J.J. & Woodcock, R.W. (Eds., 1998). *Human Abilities in Theory and Practice.* Mahwah, NJ: Erlbaum.

B3: Maydeau, A. & McArdle, J.J. (Eds., 2005). *Contemporary Advances in Psychometrics.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

B4: McArdle, J.J. & Horn, J.L. (2004). *A Mega Analysis of the WAIS: Adult Intelligence Across the Life-Span.* Mahwah, NJ: Lawrence Erlbaum Associates, Inc. (under contract).

B5: McArdle, J.J & Nesselroade, J.R. (2013). *A Theory of Longitudinal Structural Equation Modeling*. Washington, DC: APA Books (under contract).

B5: McArdle, J.J & Nesselroade, J.R. (2013). *Examples of Longitudinal Structural Equation Modeling*. Washington, DC: APA Books (under contract).

B5: McArdle, J.J & Hamagami, F. (2013). *Advances in Longitudinal Structural Equation Modeling*.

B6: McArdle, J.J & Ritschard, G. (Eds., 2013). *Contemporary Issues in Exploratory Data Mining*. New York: Taylor & Frances (under contract).

B7: McArdle, J.J. & Bradway, K.P. (2013). *A long-term life-span longitudinal study of cognition*.

B8: McArdle, J.J. Hamagami, F. (2013). *Extensions of Longitudinal Structural Equation Models*.

B9: McArdle, J.J. & Petr, T. (2013). *A long-term look at research on college student-athletes*.

## **7. Articles (in Peer-Reviewed Journals)**

A1: McArdle, J.J. (1980). Causal modeling applied to psychonomic systems simulation. *Behavior Research Methods & Instrumentation*, 12, 193-209.

A2: Horn, J.L., McArdle, J.J. & Mason, R. (1983). When is invariance not invariant: A practical scientist's view of the ethereal concept of factorial invariance. *The Southern Psychologist*, 1, 179-188.

A3: McArdle, J.J. & McDonald, R.P. (1984). Some algebraic properties of the Reticular Action Model for moment structures. *The British Journal of Mathematical and Statistical Psychology*, 37, 234-251.

A4: McArdle, J.J. (1984). On the madness in his method: R. B. Cattell's contributions to structural equation modeling. *Multivariate Behavioral Research*, 19, 245-267.

A5: Nesselroade, J.R. & McArdle, J.J. (1986). Multivariable causal modeling in alcohol use research. *Social Biology*, 32 (4), 272-296. (Also reprinted in a book by J. Wilson (Ed.)).

A6: McArdle, J.J. (1986). Latent variable growth within behavior genetic models. *Behavior Genetics*, 16 (1), 163-200.

A7: McArdle, J.J. & Epstein, D.B. (1987). Latent growth curves within developmental structural

equation models. *Child Development*, 58 (1), 110-133.

A8: McArdle, J.J. & Hamagami, F. (1989). A review of Hayduk's "Structural Equation Modeling with LISREL: Essentials and Advances." *Applied Psychological Measurement*, 13 (1), 107-112.

A9: McArdle, J.J. & Goldsmith, H.H. (1990). Alternative common factor models for multivariate biometric analyses. *Behavior Genetics*, 20 (5), 569-608.

A10: Neale, M.C. & McArdle, J.J. (1990). The analysis of assortative mating: A LISREL model. *Behavioral Genetics*, 20 (2), 287-296.

A11: McArdle, J.J., Hamagami, F. Elias, M.F. & Robbins, M. (1991). Structural modeling of mixed longitudinal and cross-sectional data. *Experimental Aging Research*, 17 (1), 29-52.

A12: McArdle, J.J. (1991). Structural models of developmental theory in psychology. In P. Van Geert & L.P. Mos (Eds.), *Annals of Theoretical Psychology, Volume VII*, 139-160.

A13: Parry, C. & McArdle, J.J. (1991). An applied comparison of methods for least squares factor analysis of dichotomous variables. *Applied Psychological Measurement*, 15 (1), 35-46.

A14: McArdle, J.J. & Prescott, C.A. (1992). Age-based construct validation using structural equation modeling. *Experimental Aging Research*, 18 (3), 87-115.

A15: McArdle, J.J. & Hamagami, E. (1992). Modeling incomplete longitudinal and cross-sectional data using latent growth structural models. *Experimental Aging Research*, 18 (3), 145-166.

A16: Horn, J.L. & McArdle, J.J. (1992). A practical guide to measurement invariance in aging research. *Experimental Aging Research*, 18 (3), 117-144.

A17: McArdle, J.J. & Cattell, R.B. (1994). Structural equation models of factorial invariance in parallel proportional profiles and oblique confactor problems. *Multivariate Behavioral Research*, 29 (1), 63-113.

A18: McArdle, J.J. & Hamagami, F. (1994). Logit and multilevel logit modeling studies of college graduation for 1984-85 freshman student-athletes. *The Journal of the American Statistical Association*, 89 (427), 1107-1123.

A19: McArdle, J.J. (1994). Structural factor analysis experiments with incomplete data. *Multivariate Behavioral Research*, 29 (4), 409-454.

A20: Boker, S.M. & McArdle, J.J. (1995). Statistical vector field analysis applied to mixed cross-sectional and longitudinal data. *Experimental Aging Research*, 21, 77-93.

A21: McArdle, J.J. (1996). Current directions in structural factor analysis. *Current Directions in*

*Psychological Science*, 5 (1), 11-18.

A22: McArdle, J.J. & Woodcock, J.R. (1997). Expanding test-rest designs to include developmental time-lag components. *Psychological Methods*, 2 (4), 403-435.

A23: McArdle, J.J., Prescott, C.A., Hamagami, F. & Horn, J.L. (1998) A contemporary method for developmental-genetic analyses of age changes in intellectual abilities. *Developmental Neuropsychology*, 14 (1), 69-114.

A24: Prescott, C.A., McArdle, J.J., Hishinuma, E.S. Johnson, J.C., Miyamoto, R.H., Andrade, N. N., Edman, J.L., Makini, G.K., Nahulu, L.B., Yuen, N.Y.C., & Carlton, B.S. (1998). Prediction of major depression and dysthymia from CES-D scores among ethnic minority adolescents. *J. Amer. Acad. Chil Adolesc. Psychiatry*, 37 (5), 495-503.

A25: Edman, J.L., Danko, G.P., Andrade, N., McArdle, J.J., Foster, J. & Gilpa, J. (1998). Factor structure of the CES-D (Center for Epidemiologic Studies Depression Scale) among Filipino-American adolescents. *Soc. Psychiatry & Psychiatric Epidemiology*, 34, 211-215.

A26: Prescott, C.A., Johnson, R.C., and McArdle, J.J. (1999). Chorion type as a possible influence on the results and interpretation of twin study data. *Twin Research*, 2, 244-249.

A27: Cohen, P., Chen, H., Hamagami, F., Gordon, K. & McArdle, J.J. (2000). Multilevel analyses for predicting sequence effects of financial and employment problems on the probability of arrest. *Journal of Quantitative Criminology*, 16 (2), 223-235.

A28: Hishinuma, E.S., Andrade, N.N., Johnson, R.C., McArdle, J.J. (2000). Psychometric properties of the Hawaiian culture scale – Adolescent version. *Psychological Assessment*, 12 (2), 140-157.

A29: Neale, M.C. & McArdle, J.J. (2000). Structured latent growth curves for twin data. *Twin Research*, 3, 1-13.

A30: McArdle, J.J., Hamagami, F., Meredith, W., & Bradway, K.P. (2000). Modeling the dynamic hypotheses of Gf-Gc theory using longitudinal life-span data. *Learning and Individual Differences*, 12 (2000), 53-79.

A31: McArdle, J.J., Johnson, R.C., Hishinuma, E.S., Myamoto, R.H., & Andrade, N. (2001). Structural equation modeling of group differences in CES-D ratings of native Hawaiian and non-native Hawaiian high school students. *Journal of Adolescent Research*, 16 (2), 108-149.

A32: Ghisletta, P. & McArdle, J.J. (2001). Latent growth curve analyses of the development of height. *Structural equation modeling*, 8 (4), 531-555.

A33: McArdle, J.J., Ferrer-Caja, E., Hamagami, F. & Woodcock, R.W. (2002). Comparative longitudinal multilevel structural analyses of the growth and decline of multiple intellectual

abilities over the life-span. *Developmental Psychology*, 38 (1) 115-142.

A34: Boker, S.B., Neale, M.S. & McArdle, J.J. (2002). An algorithm for the hierarchical organization of path diagrams and calculation of components of expected covariance. *Structural Equation Modeling*, 9 (2), 174-194.

A35: McArdle, J.J. & Hamagami, F. (2003). Structural equation models for evaluating dynamic concepts within longitudinal twin analyses. *Behavior Genetics*, 33 (2), 137-159.

A36: Ferrer-Caja, E. & McArdle, J.J. (2003). Alternative structural models for multivariate longitudinal data analysis. *Structural Equation Modeling*. 10 (4), 493-524.

A37: Finkel, D., Reynolds, C.A., McArdle, J.J., Gatz, M., & Pedersen, N.L. (2003). Latent growth curve analyses of accelerating decline in cognitive abilities in late adulthood. *Developmental Psychology*, 39 (3), 535-550.

A38: Ferrer, E., Hamagami, F., & McArdle, J.J. (2004). Modeling latent growth curves with incomplete data using different types of structural equation modeling and multilevel software. *Structural Equation Modeling*, 11 (3), 452-483.

A39: Smyth, F. L., & McArdle, J. J. (2004). Ethnic and gender differences in science graduation at selective colleges with implications for admission policy and college choice. *Research in Higher Education*, 45 (4), 353-381.

A40: McArdle, J.J., Hamagami, F., Jones, K., Jolesz, F., Kikinis, R., Spiro, A. & Albert, M.S. (2004). Structural modeling of dynamic changes in memory and brain structure using longitudinal data from the normative aging study. *Journal of Gerontology: Psychological Sciences*, 59B(6), P294-P304.

A41: Chow, S., Nesselroade, J. R., Shifren, K., & McArdle, J. J. (2004). Dynamic structure of emotions among individuals with Parkinson's disease. *Structural Equation Modeling*, 11, 560-582.

A42: Ferrer, E. & McArdle, J.J. (2004). An Experimental Analysis of Dynamic Hypotheses about Cognitive Abilities and Achievement from Childhood to Early Adulthood. *Developmental Psychology*, 40 (6), 935-952.

A43: Reynolds, C. A., Finkel, D., McArdle, J. J., Gatz, M., Berg, S., & Pedersen, N. L. (2005). Quantitative genetic analysis of latent growth curve models of cognitive abilities in adulthood. *Developmental Psychology*, 41(1), 3-16.

A44: Bowles, R. P., Grimm, K. J., & McArdle, J. J. (2005). A structural factor analysis of vocabulary knowledge and relations to age. *Gerontology: Psychological Sciences*, 60B, P234-P241

- A45: McArdle, J.J. & Prescott, C.A. (2005). Mixed-effects variance components models for biometric family analyses. *Behavior Genetics*, 35 (5), 631-652.
- A46: Finkel, D., Reynolds, C. A., McArdle, J. J., & Pedersen, N. L. (2005). The longitudinal relationship between processing speed and cognitive ability: Genetic and environmental influences. *Behavior Genetics*, 35 (5), 535-549.
- A47: Ferrer, E., Salthouse, T.A., McArdle, J.J., Stewart, W.F., & Schwartz, B. (2005). Multivariate modeling of age and retest effects in longitudinal studies of cognitive abilities. *Psychology and Aging*, 20 (3), 412-42.
- A48: McArdle, J. J., Small, B.J., Backman, L. & Fratiglioni, L. (2005). Longitudinal models of growth and survival applied to the early detection of Alzheimer's Disease. *Journal of Geriatric Psychiatry and Neurology*, 18 (4), 234-241.
- A49: Andrade, N.N., Hishinuma, E.S., McDermott, J.F., Johnson, R.C., Goebert, D.A., Makini, G.K., Nahulu, L.B., Yuen, N.Y.C., McArdle, J.J., Bell, C.K., Carlton, B.S., Miyamoto, R.H., Nishimura, S.T., Else, I.R.N., Guerrero, A.P.S., Darnal, A., Yates, A., & Waldron, J.A. (2006). The National Center on Indigenous Hawaiian Behavioral Health Study of Prevalence of Psychiatric Disorders in Native Hawaiian Adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 45(1): 26-36.
- A50: McArdle, J.J. (2006). Latent curve analyses of longitudinal twin data using a mixed-effects biometric approach. *Twin Research and Human Genetics*, 9 (3), 343-359.
- A51: Ghisletta, P., McArdle J. J., & Lindenberger, U. (2006). Longitudinal cognition-survival relations in old and very old age: 13-Year Data from the Berlin Aging Study. *European Psychologist*, 11(3), 204-223.
- A52: McArdle, J.J., Fisher, G.G. & Kadlec, K.M. (2007). Latent Variable Analysis of Age Trends in Tests of Cognitive Ability in the Health and Retirement Survey, 1992-2004. *Psychology and Aging*, 22 (3), 525-545.
- A53: Ferrer, E., McArdle, J. J., Shaywitz, B. A., Holahan, J. M., Marchione, K., & Shaywitz, S. E. (2007). Longitudinal models of developmental dynamics between reading and cognition from childhood to adolescence. *Developmental Psychology*, 43, 1460-1473.
- A54: Finkel, D., Reynolds, C.A., McArdle, J.J. & Pedersen, N. (2007). Age changes in processing speed as a leading indicator of cognitive aging. *Psychology & Aging*, 22 (3) 558-568.
- A55: Sneed, J.R., Hamagami, F., McArdle, J.J., Cohen, P. & Chen, H. (2007). The Dynamic Interdependence of Developmental Domains Across Emerging Adulthood. *Journal of Youth Adolescence*, 36: 351-362.
- A56: Jarvik, L., LaRue, A., Blacker, D., Gatz, M., Kawas, C., McArdle, J.J., Morris, J.C.,



- Mortimer, J.A., Ringman, J.M., Ercoli, L., Freimer, N., Gokhman, I., Manly, J.J., Plassman, B.L., Rasgon, N., Roberts, J.S., Sunderland, T., Swan, G.E., Wolf, P. & Zonderman, A.B. (2007). Children of Persons with Alzheimer's Disease: What Does the Future Hold? *Alzheimer Disease & Associated Disorders*, 22, 6-20.
- A57: Hershey, D.A., Jacobs-Lawson, J.M., McArdle, J.J., & Hamagami, F. (2007). Psychological foundations of financial planning. *Journal of Adult Development*, 14, 26-36.
- A58: Albert M., Blacker D., Moss M.B., Tanzi, R., McArdle J.J. (2007). Longitudinal change in cognitive performance among individuals with mild cognitive impairment. *Neuropsychology*: 21(2), 158-169.
- A59: Wang, L., & McArdle, J. J. (2008). A simulation study comparison of Bayesian estimation with conventional methods for estimating unknown change points. *Structural Equation Modeling*, 15(1), 52-74.
- A60: Wang, L., Zhang, Z., McArdle, J. J. & Salthouse, T.A. (2008). Investigating ceiling effects in longitudinal data analysis. *Multivariate Behavioral Research*, 43: 3, 476-496.
- A61: Zhang, Z., McArdle, J.J., Wang, L. and Hamagami, F. (2008). A SAS Interface for Bayesian Analysis with WinBUGS. *Structural Equation Modeling: A Multidisciplinary Journal*, 15 (4), 705-728.
- A62: McArdle, J.J. & Prindle, J.J. (2008). A latent change score analysis of a randomized clinical trial in reasoning training. *Psychology and Aging*, 23(4), 702-719.
- A63: Plassman, B.L., Langa, K.M., Fisher, G.G., Heeringa, S.G., Weir, D.R., Ofstedal, M.B., Burke, J.R., Hurd, M.D., Potter, G.G., Rodgers, W.L., Steffens, D.C., McArdle, J.J., Willis, R.J. & Wallace, R.B. (2008). Prevalence of Cognitive Impairment without Dementia in the United States. *Annals of Internal Medicine*, 148, 427-434.
- A64: McArdle, J.J. (2009). Latent variable modeling of longitudinal data. *Annual Review of Psychology*, 60, 577-605.
- A65: McArdle, J.J. & Plassman, B. (2009). A Biometric Latent Curve Analysis of Memory Decline in Older Men of the NAS-NRC Twin Registry. *Behavior Genetics*, 39, 472-495.
- A66. McArdle, J.J., Smith, J.P. & Willis, R. J. (2009). *Cognition and economic outcomes in the Health and Retirement Study*. Working Paper 15266, Cambridge, MA: National Bureau of Economic Research. (Reprinted in *The Economic Journal*, 2010).
- A67. McArdle, J.J., Grimm, K., Hamagami, F., Bowles, R., & Meredith, W. (2009). Modeling Life-Span Growth Curves of Cognition Using Longitudinal Data With Multiple Samples and Changing Scales of Measurement. *Psychological Methods*, 14 (2), 126 -149.

- A68: King, D.W, King, L.A., McArdle, J.J., Shalev, A.Y., Doron-LaMarca, S. (2009). Sequential Temporal Dependencies in Associations Between Symptoms of Depression and Posttraumatic Stress Disorder: An Application of Bivariate Latent Difference Score Structural Equation Modeling. *Multivariate Behavioral Research*, 44 (4), 437-464.
- A69: Rogers, Mary A.M., Plassman, Brenda L., Kabeto, Mohammed, Fisher, Gwenith G., McArdle, John J., Llewellyn, David J., Potter, Guy G., Langa, Kenneth M. (2009). Parental Education and Late-life Dementia in the United States. *Journal of Geriatric Psychiatry and Neurology*. 22:1 p.71-80.
- A70. Gerstorff, D., Hoppmann, C. A., Kadlec, K. M., & McArdle, J. J. (2009). Memory and depressive symptoms are dynamically linked among married couples: Longitudinal evidence from the AHEAD Study. *Developmental Psychology*, 45, 1595-1610.
- A71: Ferrer, E. & McArdle, J.J. (2010). Longitudinal Modeling of Developmental Changes in Psychological Research. *Current Directions in Psychological Science*, 19(3) 149-154.
- A72: McArdle, J.J. & Prescott, C.A. (2010). Contemporary modeling of Gene-by-Environment effects in randomized multivariate longitudinal studies. *Perspectives on Psychological Science*, 5, 606-621.
- A73: Lei, X., Hu, Y., McArdle, J.J., Smith, J.P. & Zhao, Y. (2011). *Gender Differences in Cognition among Older Adults in China*. RAND Working Paper, Santa Monica, CA: Rand Corp. (WR-881)
- A74: McArdle, J.J. (2011). Longitudinal Panel Analysis of the HRS Cognitive Data. *Advances in Statistical Analyses*, 95 (4), 453-480.
- A75: Small, B. J., Dixon, R. A., McArdle, J. J., & Grimm, K. J. (in press, 2011). Do changes in lifestyle engagement moderate cognitive decline in normal aging? Evidence from the Victoria Longitudinal Study. *Neuropsychology*.
- A76: Grimm, K. J., An, Y., McArdle, J. J., Zonderman, A. B., & Resnick, S. M. (2012). Recent changes leading to subsequent changes: Extensions of multivariate latent difference score models. *Structural Equation Modeling*, 19(2), 268-292.
- A77: Ghisletta, P. & McArdle, J.J. (2012). Latent Curve Models and Latent Change Score Models Estimated in R. *Structural Equation Modeling*, 19, 651-682.
- A78: Hishinuma, E., Chang, J., McArdle, J.J., & Hamagami, A. (2012). Potential causal relationship between depressive symptoms and academic achievement in the Hawaiian High Schools Health Survey using contemporary longitudinal latent variable change models. *Developmental Psychology*, 48 (5), 1327-1342.
- A79: Prindle, J. J. & McArdle, J.J. (2012). An Examination of Statistical Power in Multigroup

Dynamic Structural Equation Models. *Structural Equation Modeling*, 19 (3) 351-372.

A80: Dixon-Román, E.J., Everson, H.T., & McArdle, J.J. (2013). Race, Poverty and SAT Scores: Modeling the Influences of Family Income on Black and White High School Students' SAT Performance. *Teachers College Record*, 115-124.

A81: McArdle, J.J. (2013). Testing the Idea of General Intelligence. *F&M Scientist*, 1, 27-66.

A82: McArdle, J.J., Paskus, T.S. & Boker, S.M. (2013; in press). A multilevel multivariate analysis of academic success in college based on NCAA student-athletes. *Multivariate Behavioral Research*.

A83: McArdle, J.J., Hishinuma, E., Chang, J., & Hamagami, A. (2013; in press). Longitudinal Analyses of the Dynamic Relationships Among Depression and Academic Achievement from the Hawaiian High Schools Health Survey. *Structural Equation Modeling*.

## 8. Chapters in Books

C1: Horn, J.L. & McArdle, J.J. (1980). Perspectives on Mathematical and Statistical Model Building (MASMOB) in Research on Aging. In L. Poon (Ed.), *Aging in the 1980's: Psychological Issues*. Washington, D. C.: American Psychological Association, 503-541.

C2: Short, R., Horn, J.L., & McArdle, J.J. (1984) Mathematical-statistical model building in analysis of developmental data. In R. N. Emde & R. J. Harmon (Eds.), *Continuities and Discontinuities in Development*. New York: Wiley, 371-401.

C3: McArdle, J.J. (1988). Dynamic but structural equation modeling of repeated measures data. In J.R. Nesselrode & R.B. Cattell (Eds.), *The Handbook of Multivariate Experimental Psychology, Volume 2*. New York, Plenum Press, 561-614.

C4: McArdle, J.J. (1989). Structural modeling experiments using multiple growth functions. In P. Ackerman, R. Kanfer & R. Cudeck (Eds.), *Learning and Individual Differences: Abilities, Motivation, and Methodology*. Hillsdale, NJ: Erlbaum, 71-117.

C5: McArdle, J.J. & Aber, M.S. (1990). Patterns of change within latent variable structural equation modeling. In A. von Eye (Eds.), *New Statistical Methods in Developmental Research*, New York: Academic Press, 151-224.

C6: McArdle, J.J. & Anderson, E. (1990). Latent variable growth models for research on aging. In J.E. Birren & K.W. Schaie (Eds.), *The Handbook of the Psychology of Aging*, New York: Plenum Press, 21-43.

C7: McArdle, J.J. & Hamagami, F. (1991). Modeling incomplete longitudinal and cross-sectional data using latent growth structural models. In L. Collins & J.L. Horn (Eds.), *Best*

*Methods for the Analysis of Change*. Washington, D.C.: APA Press, 276-304.

C8: McArdle, J.J. (1991). Comments on “latent variable models for studying difference and changes.” In L. Collins & J.L. Horn (Eds.), *Best Methods for the Analysis of Change*. Washington, D.C.: APA Press, 164-169.

C9: Aber, M.S. & McArdle, J.J. (1991). Latent growth curve approaches to modeling the development of competence. In M. Chandler & M. Chapman (Eds.), *Criteria for Competence: Controversies in Conceptualization and Assessment of Children's Abilities*, Hillsdale, NJ: Erlbaum, 231-258.

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C16: Nesselroade, J.J. & McArdle, J.J. (1996). On the mismatching of levels of abstraction in mathematical-statistical model fitting. In M.D. Franzen & Reese, H.W. (Eds.), *Life-Span Developmental Psychology: Biological and Neuropsychological Mechanisms*. N.J.: Erlbaum.

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- C23: McArdle, J.J. (2001). A latent difference score approach to longitudinal dynamic structural analysis. In R. Cudeck, S. du Toit, & D. Sorbom (Eds.). *Structural Equation Modeling: Present and future*. Lincolnwood, IL: Scientific Software International (pp. 342-380).
- C24: McArdle, J.J. & Hamagami, F. (2001). Linear dynamic analyses of incomplete longitudinal data. In L. Collins & A. Sayer (Eds.). *Methods for the Analysis of Change*. (pp. 137-176). Washington, DC: APA Press.
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- C26: McArdle, J.J. & Nesselroade, J.R. (2003). Growth curve analyses in contemporary psychological research. In J. Schinka & W. Velicer (Editors), *Comprehensive Handbook of Psychology, Volume Two: Research Methods in Psychology*. (pp. 447-480). NY: Pergamon Press.
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- C29: McArdle, J.J. (2005). The development of RAM rules for latent variable structural equation modeling. In A. Madeau & J.J. McArdle, (Eds.). *Contemporary Advances in Psychometrics*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc. (pp. 225-273)
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- C35: Horn, J. L. & McArdle, J.J. (2007). Understanding human intelligence since Spearman. In R. Cudeck & R. MacCallum, (Eds.). *Factor Analysis at 100 years* (pp. 205-247). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
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- C39: McArdle, J.J. (2008). The effects of initial eligibility rules for NCAA student-athletes. In P. Kyllonen, R. Roberts & L. Stankov (Eds.), *Extending Intelligence: Enhancement and New Constructs* (pp. 133-156). Mahwah, NJ: Lawrence Erlbaum Associates, Inc.
- C40: McArdle, J. J. & Wang, L. (2008). Modeling Age-Based Turning Points in Longitudinal Life-Span Growth Curves of Cognition (pp. 105-127). In P. Cohen (Ed.), *Applied data analytic techniques for turning points research, Multivariate applications series*. Mahwah, Erlbaum.
- C41: McArdle, J.J. & Grimm, K.J. (2010). Five steps in latent curve and latent change score modeling with longitudinal data. In K. van Montfort, J. Oud, A. Satorra (Eds.), *Longitudinal Research with Latent Variables* (pp. 245-274). New York: Springer.
- C42: McArdle, J.J. & Grimm, K.J. (2010). An empirical example of change analysis by linking longitudinal item response data from multiple tests. In A.A. von Davier (ed.), *Statistical Models for Test Equating, Scaling, and Linking, Statistics for Social and Behavioral Sciences* (pp. 71-88). New York, Springer (Book is 2013 winner of the Division D Significant Contribution to Educational Measurement and Research Methodology award).
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- C44: McArdle, J.J. (2010). What Life-Span Data Do We Really Need? In W. F. Overton (Ed.), *Biology, cognition and methods across the life-span*. Volume 1 of R. Lerner (Ed.) *The Handbook of Life-Span Development* (pp. 36-55). Hoboken, NJ: Wiley.
- C45: Grimm, K. J., McArdle, J. J., & Widaman, K. F. (2010). Family-level variance in verbal ability change. In K. Trzesniewski, M. B. Donnellan, & R. E. Lucas (Eds.), *Secondary data analysis: An introduction for psychologists* (pp. 209-229). Washington, DC: American Psychological Association.
- C46: McArdle, J.J. (2011). Some Ethical Issues in Factor Analysis. In A. Panter & S. Sterber (Eds.) *Quantitative Methodology Viewed through an Ethical Lens*. Washington, DC: American Psychological Association Press (pp. 313-339).
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- C49. McArdle, J.J. (2011). Latent Curve Modeling. In R. Hoyle (Ed). *Handbook of Structural Equation Modeling*. NY: Oxford.

C50: McArdle, J.J. & Kadlec, K.M. (2013). Structural Equation Modeling (pp. 295-337). In T. Little (Ed.) *Oxford Handbook of Quantitative Methods*. NY: Oxford.

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## 9. Published Reviews and Commentaries

R1: McArdle, J.J. (1981). A review of Kenny's "Correlation & Causality." *Applied Psychological Measurement*, 5 (2), 275-280.

R2: McArdle, J.J. (1987). Mixtures of behavioral genetics and developmental psychology. A review of Plomin's "Development, Genetics, and Psychology". *Contemporary Psychology*, 32 (5), 433-435.

R3: McArdle, J.J. & Gottesman, I.I. (1987). Some models where independent  $\neq$  different: A response to Plomin & Daniels. *Behavioral and Brain Sciences*, 10 (1), 31-32.

R4: McArdle, J.J. (1988). Multivariate Behavioral Research computer software section: Guidelines for submission. *Multivariate Behavioral Research*, 23 (1), 121-124.

R5: McArdle, J.J. (1991). Principles versus principals of structural factor analysis. *Multivariate Behavioral Research*, 25 (1), 81-87.

R6: McArdle, J.J. (1991). Comments on "Latent variable models for studying differences and change" by William Meredith. In L. Collins & J.L. Horn (Eds.), *Best Methods for the Analysis of Change*. Washington, D.C.: APA Press, 164-169.

R7: McArdle, J.J. & Cohen, S.A. (1991). Editors introduction to "Quantitative Topics in Research on Aging." *Experimental Aging Research*, 17 (1), 3-5.

R8: McArdle, J. J. (1994). Appropriate questions about causal inference from "Direction of Causation" analyses. *Genetic Epidemiology*, 11, 477-482.



- R9: McArdle, J.J. (1994). Factor Analysis. In Sternberg, R.J. (Ed.). *The Encyclopedia of Intelligence*. New York: Macmillian Press, 422-430.
- R10: McArdle, J.J. (1996). A workshop on contemporary behavioral genetic models and methods. *Contemporary Psychology*, 41 (9), 886-887.
- R11: McArdle, J.J. (1996). Preface to Franklin & Gorman (p.vii-ix). In Franklin, R.D. Allison, D.B. & Gorman, B.S. (Eds), *Design and Analysis of Single-Case Research*. Erlbaum, Mahwah, NJ.
- R12: McArdle, J.J. & Ghisletta, P. (2000) The future of latent variable modeling with interactions and nonlinearity. *Contemporary Psychology*, 45(1), 91-95.
- R13: King, D. W., King, L.A., Bachrach, P.S. & McArdle, J.J. (2001). Contemporary approaches to missing data: The glass is really half full. *PTSD Quarterly*, 12 (2), 1-7.
- R14: McArdle, J.J. (2001). Growth curve analysis. In N.J. Smelser & P.B. Baltes (Editors), *The International Encyclopedia of the Behavioral and Social Science*. New York: Pergamon Press.
- R15: McArdle, J.J. & Allison, D.B. (2001). Methodology in genetics and behavioral genetics. In N.J. Smelser & P.B. Baltes (Editors), *Inter. Encycl. Behav. Social Science*. New York: Pergamon Press.
- R16: McArdle, J.J. (2002). Obituary for Richard Q. Bell (1919-2001). *American Psychologist*, 57 (6).
- R17: McArdle, J.J. (2004). A Review of “Structural Equation Modeling: Applications in Ecological and Evolutionary Biology, edited by B. H Pugesek, A. Tomer, & A. von Eye.” *The Quarterly Review of Biology*.
- R18: McArdle, J.J. (2005). Latent variable structural equation modeling in developmental research, In B. Hopkins (Ed.) *The Cambridge Encyclopedia of Child Development*. Cambridge, England: Cambridge University Press.
- R19: Boker, S. & McArdle, J.J. (2005). Vector field plots. In P. Armitage & P. Colton (Eds). *Encyclopedia of Biostatistics, Second Edition* (8). 5700-5704, Chichester, England: John Wiley.
- R20: McArdle, J.J. (2007). Obituary for John L. Horn (1928-2006). *American Psychologist*, 62 (6), 596-597 (Reprinted in *Intelligence*, 2008, and in Kyllonen, Roberts & Stankov (2008), pps. 219-222.
- R21: McArdle, J.J. (2007). When You’re 64... *Psychology Science Agenda*, 21 (3), March.  
→<http://www.apa.org/science/psa/mcardle.html>

R22: Zhou, Y. & McArdle, J. J. (2009). A Biometric Latent Curve Analysis of Visual Memory Development Using Data from the Colorado Adoption Project. *Multivariate Behavioral Research*, 44 (6), 857-858.

## 10. Under Editorial Review

E1: McArdle, J.J., Hamagami, F., Bautista, R, Onoye, J., Hishinuma, E., Prescott, C.A., Takeshita, J., Zonderman, A. & Johnson, R.C. (2011). Multilevel Factor Analyses of Family Data from the Hawai'i Family Study of Cognition. *Educational & Psychological Measurement*. (Expected 2013).

E2: McArdle, J.J., Koontz, J., Langa, K.M. & Plassman, B. (2011). Mixed Effects Modeling of the Early Prediction of Dementia using Longitudinal Data from the HRS and ADAMS. *Journal of Gerontology: Psychological Sciences*.(Expected 2012).

E3: McArdle, J.J., & Hofer, S.M. (2012). Fighting for Intelligence: A Review of the Academic Research of John L. Horn. *Multivariate Behavioral Research*. (Expected 2013).

E4: McArdle, J.J. & Prindle, J.P. (2012). Basic Issues in the Measurement of Change. Prepared for K. Geisenger (Ed.) *APA Handbook of Testing and Assessment in Psychology*. Washington, DC: APA Books. (Expected 2013).

E5: Brandmaier, A.M., von Oertzen, T., McArdle, J.J. & Lindenberger, U. (2011). SEM-Trees - Recursive Partitioning with Structural Equation Models. *Structural Equation Modeling* (Expected 2012).

E6: Evans, J. & McArdle, J. J. (2011). Why We Disagree with Eckard's (2010) Approach to Comparing NCAA Student-Athlete and Student Body Graduation Rates. *Journal of Sports Management*. (Expected 2013).

E7: McArdle, J.J. (2013). Exploratory Data Mining Using Decision Trees in the Behavioral Sciences. In McArdle, J.J & Ritschard, G. (Eds.). *Contemporary Issues in Exploratory Data Mining*. New York: Taylor & Frances.

E8: McArdle, J.J. (2013). Adaptive Testing of the Number Series Test Using Standard Approaches and a New Decision Tree Analysis Approach. In McArdle, J.J & Ritschard, G. (Eds.). *Contemporary Issues in Exploratory Data Mining*. New York: Taylor & Frances.

E9: McArdle, J.J. (2013). Dealing With Longitudinal Attrition Using Logistic Regression and Decision Tree Analyses. In McArdle, J.J & Ritschard, G. (Eds.). *Contemporary Issues in Exploratory Data Mining*. New York: Taylor & Frances.

## 11. Classroom Teaching

Advanced Issues in Psychological Measurement, 2007- 2013.  
Structural Equation Modeling in Developmental Psychology, 2005-2013.  
Advanced Regression Analyses, 2006-2009.  
Statistical Research Methods in Real-Life, 2001, 2003, 2004, 2009.  
Structural Equation Modeling in Psychology, 2002- 2006.  
Advanced Computer Applications in Psychology: 1997, 2003  
Applied Multivariate Analysis: 1983-1985, 1988-1991, 2002, 2010-2013.  
Advanced Correlational Analyses: 1984-1990, 1999-2002  
Quantitative Methods I, Design & Analyses: 2001  
Quantitative Methods II, Regression & Correlation: 1986, 1990-1995, 2001-2003  
Design and Data Analysis Seminars: 1985, '88-'94, Spring '86-'03  
Measurement of Individual Differences: University of Hawaii, Summer 1988  
Research Methods in Developmental Psychology: Penn State Univ., Spring 1988  
Correlation & Regression: Denver Univ., 1980 (with J.L. Horn)  
Analysis of Variance and Covariance: Denver Univ., 1978 (with H. Gollob)  
Computerized Research and Data Analysis: Hofstra Univ., 1975-1976  
Introduction to Multivariate Statistics: Hofstra Univ., 1975-1976

## **12. Workshop Teaching**

American Psychological Association Advanced Training Institute in “Longitudinal Methods, Modeling and Measurement,” June 2001-2013 (with J. Nesselrode, K. Grimm & E. Ferrer)  
American Psychological Association Advanced Training Institute in “Exploratory Data Mining in Psychological Research,” June 2009-2013 (with G. Ritschard & G. Marcoulides)  
University of Michigan, Advanced Training Institute in “Longitudinal Methods, Modeling and Measurement,” Summer 2004 (with J. Nesselrode)  
University of Michigan, Institute for Social Research (NACDA): Summer 1996-1999, 2003  
University of Hawaii: Summer 1988, 1993-2010.  
University of Southern California: Summer 1987, 1988, 1993-1998, 2005- 2007.  
Max Planck Institute, Berlin: Summer 1988 (with J. Nesselrode), 1997, 2002  
University of Sydney: Fall 1986  
University of Denver: Winter, 1979, Summer, 1982-1983, Spring 1982  
University of Alberta: January 1980, June 1982  
University of Geneva: Summer 1981 (with H. Wold)

## **13. Journal Reviewer & Editorial Boards**

Applied Psychological Measurement, American Educational Research Journal, Behavioral & Brain Sciences, Behavioral Genetics, Child Development, Developmental Psychology, Experimental Aging Research, Intelligence, Journal of Abnormal Psychology, Journal of Educational Statistics, Journal of Gerontology, Life-Span Developmental Psychology, Multivariate Behavioral Research, Personality Assessment System Journal, Psychological Bulletin, Psychological Review, Psychometrika, Science.

## 14. Professional Memberships

American Association for the Advancement of Sciences (AAAS), American Psychological Association (APA), American Statistical Association (ASA), American Educational Research Association (AERA), Association of Scientific Psychology (APS), Behavioral Genetic Association (BGA), Society for Research in Child Development (SRCD), International Society for the Study of Behavioral Development (ISSBD), Federation of Behavioral, Psychological and Cognitive Sciences (FBPCS), Society of Multivariate Experimental Psychology (SMEP), Psychometric Society.

## 15. Recent Presentations

McArdle, J.J. & Borhnsteadt, G. (2012). Multilevel Measurement of Cognition in Project TALENT research Annual meeting of the *Society of Multivariate Experimental Psychology*, Vancouver, BC, October 2012.

[Invited Lecture] McArdle, J.J. (2012). Adult cognition and Measurement in the HRS. Invited Lecture, Presented at the *Cognitive Aging Conference*, Atlanta, GA, April, 2012.

[Invited Lecture] McArdle, J.J. (2012). Latent Change Score Analyses. Invited Lecture, Presented at the *Society for Research in Child Development*, Tampa, FL, February, 2012.

[Invited Lecture] McArdle, J.J. (2011). Multilevel Measurement of Cognition in Project TALENT research. *Gerontological Society of America Annual Meeting*, Boston, November 2011.

McArdle, J.J. & Nesselroade, J.R. (2011). A Latent Class Approach to Idiographic Factor Analysis. Annual meeting of the *Society of Multivariate Experimental Psychology*, Norman, OK, October 2011.

[Keynote] McArdle, J.J. (2011). The 2010 SCORE Longitudinal Study of College Student Athletes, *National Collegiate Athletics Association Annual Meeting*, San Antonio, TX, January 2011.

McArdle, J.J. (2010). Measurement of cognition in Project TALENT research. *Gerontological Society of America Annual Meeting*, New Orleans, LA, November 2010.

[Invited] McArdle, J.J. (2010). Ethical issues in data analysis. *American Psychological Association Annual Meeting*, San Diego, CA, August, 2010.

McArdle, J.J. (2010). Factorial Invariance in Cognitive Research. *Society of Multivariate Analysts of Behavior Biannual Meeting*, Potsdam, Germany, July 2010.

[Keynote] McArdle, J.J. (2010). Exploratory Analysis in Psychological Research. *Conference on Data Mining Techniques*, Chateau Le Bretesche, Missillac, France, July 2010.

[Invited Lecture] McArdle, J.J. (2010). Structural Equation Modeling in Longitudinal Research. Invited

Lecture, *LIFE University Lecture Series*, Berlin, Germany, July 2010.

[Invited Lecture] McArdle, J.J. (2010). Structural Equation Modeling in Longitudinal Research. Invited Lecture, *LIFE University Lecture Series*, Charlottesville, VA, May 2010.

[Invited Lecture] McArdle, J.J. (2010). Adult cognition and the HRS. *HRS-DMG Meeting*, San Francisco, CA, May, 2010.

[Invited Lecture] McArdle, J.J. (2010). Adult cognition and the HRS. *Stanford University Lecture Series*, Palo Alto, CA, May, 2010.

[Invited Lecture] McArdle, J.J. (2010). Structural Equation Modeling in Longitudinal HRS Research. Invited Lecture, *University of Bielefeld Lecture Series*, Bielefeld, Germany, April 2010.

[Invited Lecture] McArdle, J.J. (2010). Structural Equation Modeling in Experimental Research. *University of Marburg Lecture Series*, Marburg, Germany, April 2010.

[Invited Lecture] McArdle, J.J. (2010). Structural Equation Modeling in Longitudinal Research. *Jacobs University Lecture Series*, Bremen, Germany, April 2010.

[Invited Lecture] McArdle, J.J. (2009). Adult cognition and dynamic analysis of ACTIVE data. *Stanford Center for Longevity*, Palo Alto, CA, November, 2009.

McArdle, J.J. & Nesselroade, J.R. (2009). On the Uniqueness of the Society of Multivariate Experimental Psychology. Annual meeting of the *Society of Multivariate Experimental Psychology*, Salishan, OR, October 2009.

[Invited Lecture] McArdle, J.J. (2009). Adult cognition and dynamic analysis of ACTIVE data. *ACTIVE Meeting*, Boston, MA, August, 2009.

[Invited Lecture] McArdle, J.J. (2009). Adult cognition and the HRS-GWAS. *HRS -GWAS Meeting*, Washington, DC, April, 2009.

McArdle, J.J. (2009). Longitudinal studies of student-athletes. *American Educational Research Association Annual Meeting*, San Diego, CA, April, 2009.

[Keynote] McArdle, J.J. (2008). Beyond the NCAA: Reflections on Twenty Years of Academic Research on College Athletes. Invited Lecture, *University of Oklahoma Presidential Lecture Series*. Norman, OK, October 2008.

[Invited Lecture] McArdle, J.J. (2008). Contemporary issues in the measurement of adult cognition. Invited Lecture, *Banbury Center Meeting on "How to Improve Our Brains?"* Cold Spring Harbor, NY, September 2008.

[Invited Lecture] McArdle, J.J. (2008). Contemporary issues in the measurement of adult cognition. Invited Lecture, *HRS Cognitive Economics Meeting*. Jackson Hole, WY, September 2008.

McArdle, J.J. (2008). Ethical Issues in Factor Analysis. *American Psychological Association*, Boston, MA, August 2008.

- McArdle, J.J. (2008). Longitudinal prediction of the academic progress of college student athletes. *American Psychological Association*, Boston, MA, August 2008.
- [Invited Lecture] McArdle, J.J. (2008). Contemporary issues in the measurement of adult cognition. Invited Lecture, *HRS Annual Meeting*, Napa, CA, March 2008.
- [Invited Lecture] McArdle, J.J. (2008). Adult cognition and dynamic analysis of ACTIVE data. Invited Lecture, *Stanford Center for Longevity*, Palo Alto, CA, April, 2008.
- [Invited Lecture] McArdle, J.J. (2008). Methodological issues in longitudinal studies of cognitive aging. Invited lecture, *NIA Pre-session to American Psychological Society Annual Meetings*, Chicago, IL, April 2008.
- [Invited Lecture] McArdle, J.J. (2008). Primary analyses of secondary data in longitudinal studies of cognitive aging. Invited lecture, *NIA Pre-session to American Psychological Society Annual Meetings*, Chicago, IL, April 2008.
- [Invited Lecture] McArdle, J.J. (2008). Contemporary issues in the measurement of adult cognition. Invited Lecture, *USC Gerontology Retreat*. San Diego, CA, April 2008.
- [Invited Lecture] McArdle, J.J. (2008). Beyond the NCAA: Reflections on Twenty Years of Academic Research on College Athletes. Invited Lecture, *USC Gerontology Retreat*. San Diego, CA, April 2008.
- [Keynote] McArdle, J.J. (2008). The 2007 SCORE Longitudinal Study of College Student Athletes, *National Collegiate Athletics Association Annual Meeting*, Nashville, TN, January 2008.
- [Invited Lecture] McArdle, J.J. (2007). Methodological issues in longitudinal studies of cognitive aging. *NIH Cognitive Aging Summit*, Washington, D.C., October 2007.
- McArdle, J.J. & Hamagami, F. (2007). Dealing with death in longitudinal studies of aging. Annual meeting of the *Society of Multivariate Experimental Psychology*, University of North Carolina, Chapel Hill, October 2007.
- [Keynote] McArdle, J.J. (2007). Contemporary statistical models for longitudinal family studies. *Family Research Center*, University of North Carolina, Greensboro, October 2007.
- [Invited Lecture] McArdle, J.J. (2007). Methodological issues in longitudinal studies of cognitive aging. *NIH Cognitive Aging Summit*, Washington, D.C., October 2007.
- McArdle, J.J. & Hamagami, F. (2007). Shared Growth-Survival Models in Longitudinal Growth and Change Analyses. Annual meeting of the *Society of Multivariate Experimental Psychology*, Chapel Hill, NC, October 2007.
- McArdle, J.J. (2006). John L. Horn's contributions to Multivariate Psychology. Annual meeting of the *Society of Multivariate Experimental Psychology*, Lawrence, Kansas, October 2006.
- [Invited Lecture] McArdle, J.J. (2006). The longitudinal prediction of cognition of adults over 75-years from several infant behaviors. Presented at the Annual Meeting *International Society of Infant Studies*,

Kyoto, Japan, July 2006.

[Invited Lecture] McArdle, J.J. (2005). *Testing developmental hypotheses using dynamic longitudinal models*. Invited Speaker at the Annual Meetings of the Gerontological Society of America, Orlando, FL, November 2005.

McArdle, J.J. (2005). An Experiment in Measuring Fluid Intelligence over the Telephone in the Health and Retirement Study (HRS). Annual meeting of the *Society of Multivariate Experimental Psychology*, Lake Tahoe, CA, October 2005.

[Keynote] McArdle, J.J. (2005). *An Introduction to Structural Factor Analysis Methods*. SMEP Minority Student Conference, Washington, D.C., August 2005.

[Keynote] McArdle, J.J. (2005). *Testing developmental hypotheses using dynamic longitudinal models*. Invited Speaker at the Biennial Meetings of the *Society of Research in Child Development*, Atlanta, GA, May 2005.

McArdle, J.J. & Johnson, R.C. (2004). Modeling multivariate family data from the Hawaii Family Study of Cognition. Annual meeting of the *Society of Multivariate Experimental Psychology*, Naples, Florida, October 2004.

McArdle, J.J. & Hamagami, F. (2004). Combining growth and survival/frailty models in longitudinal twin studies of cognition. Annual meeting of the *Behavioral Genetics Association*, Aix en Provence, France, July 2004.

[Invited Lecture] McArdle, J.J. (2004). *Advanced Training Institute in Longitudinal Research Methods*. American Psychological Association, June 2004.

McArdle, J.J. (2003). Modeling multivariate family data. Annual meeting of the *Society of Multivariate Experimental Psychology*, Denver, CO, September 2003.

McArdle, J.J., Grimm, K., Hamagami, F., Bowles, R., & Meredith, W. (2002). A dynamic structural equation analysis of vocabulary abilities over the life-span. Presented at the Annual meeting of the *Society of Multivariate Experimental Psychologists*, Charlottesville, VA, October 2002; Also presented at the 75<sup>th</sup> Anniversary of the *Institute of Human Development*, University of California, Berkeley, CA, May 2003.

McArdle, J.J. & Horn, J.L. (2002). The benefits and limitations of mega-analysis with illustrations for the WAIS. *International meeting of CODATA*. Montreal, QE: October, 2002.

McArdle, J.J. & Horn, J.L. (2002). The benefits and limitations of sharing research data in psychology. *International meeting of CODATA*. Montreal, QE: October, 2002.

McArdle, J.J. (2002). Modeling the dynamic hypotheses of Gf-Gc theory using longitudinal life-span data. *Meeting of the Society of Multivariate Analysis of Behaviors*. Tilburg, The Netherlands, July, 2002.

McArdle, J.J. (2002). Current research on the growth and changes in multiple intellectual abilities across the life-span. *The Lansdowne Lecture in Psychology*. University of Victoria, BC, May 2002.

McArdle, J.J. (2001). A dynamic structural equation analysis of brain-behavior relationships. Annual

meeting of the *Austrasian Mathematical Society*, University of Newcastle, NSW Australia, December 2001.

McArdle, J.J. (2001). The effects of initial eligibility rules for NCAA student-athletes. *Third annual International Spearman Seminar*, University of Sydney, NSW Australia December 2001.

McArdle, J.J. (2001). A dynamic structural equation analysis of brain-behavior relationships. Annual meeting of the *Society of Multivariate Experimental Psychology*, Monterey, CA, October 2001.

McArdle, J.J. (2001). The benefits and limitations of sharing research data in psychology. *Annual meeting of the American Psychological Association*. San Francisco, CA: August 24, 2001.

McArdle, J.J., Hamagami, F., Meredith, W., & Bradway, K.P. (2001). Modeling the dynamic hypotheses of Gf-Gc theory using longitudinal life-span data. *Annual Meeting of the International Society for the Study of Individual Differences*. Edinburgh Scotland, July 2001.

McArdle, J.J. (2001). Current research on the growth and changes in multiple intellectual abilities across the life-span. *The 25<sup>th</sup> Mexican Congress of Psychology*. Sonora, April 2001.

McArdle, J.J. & Woodcock, R.W. (2000). Evaluating the kinematic trend hypotheses about Gf-Gc theory using multilevel analyses of test-retest data. *Annual meeting of the Society of Multivariate Experimental Psychology*, Purchase NY, October 2000.

McArdle, J.J. (2000). Test bias examined using data from NCAA student-athletes. *Annual meeting of the American Sociological Association*. Washington, DC: August 2000.

## **16. Recent University Service**

USC Psychology Department Chair Selection Committee: 2006-2007, 2009-2010

USC Psychology Department Tenure Review Committee, 2008-2010

USC Psychology Department Faculty Load Committee: 2007-2010

USC Psychology Department Executive Committee: 2007- 2010

USC College Promotion and Tenure Committee (Science & Mathematics): 2008-2011

USC College Research Committee (Co-Chair): 2009-2010

USC College Research Committee (Member): 2010-2011

USC Sabbatical Leave: Fall 2011- Fall 2012.

## **17. Recent Graduate Student Committees**

Yan Zhou, USC Psychology (Chair, PhD Committee, 2009-2011)

John J. Prindle, USC Psychology (Chair, PhD Committee, 2009-2012)

Kevin T. Petway, II, USC Psychology (Chair, PhD Committee, 2011-2013)



Pan Wang, USC Psychology (Member, PhD Committee, 2011-2012)

Kevin T. Petway, II, USC Psychology (Chair, MA Committee, 2009-2012)

Erin Shelton, USC Psychology (Chair, MA Committee, 2009-2010)

Ricardo Reyes, USC Psychology (Chair, MA Committee, 2008-2010)

Leslie Owen, USC Psychology (Chair, MA Committee, 2009-2010)

Randy Bautista, USC Psychology (Chair, MA Committee, 2012-2013)

Shoshana Hinden, USC Gerontology (Member of PhD Committee, 2010-2012)

Emily Schoenhofen Sharp, USC Psychology (Member of PhD Committee, 2009-2011)

Laura Angelescu, USC Economics (Member of PhD Committee, 2009-2010)

Fei Du, USC Business School (Member of PhD Committee, 2009-2010)

Melissa Edmondson, USC School of Social Work (Member of PhD Committee, 2009-2012)

Rong Xiao, USC School of Social Work (Member of PhD Committee, 2009-2012)

Jennifer Koontz, UC Riverside Psychology (Member of PhD Committee, 2008-2010)