



4th LJUBLJANA DOCTORAL SUMMER SCHOOL
3 - 21 July 2017

17 - 21 July 2017, from 9.00 to 13.00

Course title:

THEORY DEVELOPMENT

ECTS credits: 6

Lecturer: Professor Arun Rai, Georgia State University, Robinson College of Business, USA

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AIMS OF THE COURSE:

Students develop an understanding about developing theory and about its critical role in surfacing a theoretical contribution. They understand the distinction between identifying a business problem and a scientific problem, and the approaches to achieve rigor and relevance. They learn about the key elements of a theory and the approaches to build a theory. They understand the distinctions between process and variance models, how to achieve alignment between theoretical arguments and specifications of variance models, how to leverage context in the theory building process, and about the roles of multi-dimensional constructs and multi-level models in theory development. Cumulatively, they develop the skills and understanding to formulate a research question, synthesize the relevant literatures, build a theory, and specify a model and to achieve correspondence between these essential elements.



COURSE SYLLABUS:

TENTATIVE SCHEDULE

Modules	Topics	Reading Assignments (Recommended articles do not need to be read prior to the class; all other articles are required readings prior to the class.)	Work to be Done Before Class (Students will be called upon to lead article discussions and also to present their synthesis of the articles.)
Session 1	Foundations of theory building What theory is (and is not)	<ul style="list-style-type: none"> • Whetten, 1989, AMR • Sutton & Staw, 1995, ASQ • Weick, 1995, ASQ • DiMaggio, 1995, ASQ • Suddaby, 2010, AMR • <i>Recommended:</i> Bacharach, 1989, AMR • <i>Recommended:</i> Suddaby, R., 2010, AMR • <i>Recommended:</i> Feldman, 2004c, J Mgmt 	<p>5 slides synthesizing the key ideas of these <u>short</u> articles.</p> <p>There is no assigned structure for the synthesis slides. Students are encouraged to approach the development of the synthesis slides in a creative way.</p>
Session 1	Strategies to Make Contributions (I): Selecting and Framing the Problem, Phenomenon and Conversations	<ul style="list-style-type: none"> • Rynes, 2002, AMJ • Barley, 2006, AMJ • Bergh, 2003, AMJ • Weber, 2003, MISQ • <i>Recommended:</i> Lee, 1999, MISQ • <i>Recommended:</i> Simon, Essay, 1980 	<p>5 slides synthesizing the key ideas of these <u>short</u> articles</p>
Session 2	Strategies to Make Contributions (II): The Role of Context, Maturity of Area, Research Questions through Problematization, and Empirical Materials	<ul style="list-style-type: none"> • Johns, 2006, AMR • Hong et al. 2013, ISR • Alvesson & Sandberg, 2011, AMR • <i>Recommended:</i> Edmondson and McManus, 2007 • <i>Recommended:</i> Alvesson & Karreman, 2007, AMR • <i>Recommended:</i> Klein & Rai, 2009, MISQ 	<p>10 slides synthesizing the key ideas of the Johns and Hong et al. articles.</p>
Session 3	<p>Principles of variance models</p> <p>Achieving correspondence of theoretical arguments and the specification of variance models <i>Alternative forms of fit</i></p> <p>In-class practicum on variance models</p>	<ul style="list-style-type: none"> • Venkatraman, 1989, AMR • Overby, 2008, OrgSci (Illustration of moderation) • Klein and Rai, 2009, MISQ (Illustration of mediation) 	<p>5 slides on the key points of the Venkatraman article.</p> <p>Review Overby and Klein and Rai as illustrations of how to theorize moderations and mediations (and not for content and empirical testing)</p>

Modules	Topics	Reading Assignments (Recommended articles <u>do not</u> need to be read prior to the class; all other articles <u>are required</u> readings prior to the class.)	Work to be Done <u>Before</u> Class (Students will be called upon to lead article discussions and also to present their synthesis of the articles.)
Session 4	Principles of process models In-class practicum on process models	<ul style="list-style-type: none"> • Pentland, 2003, Org. Science • Sabherwal and Robey, 1993, Org. Sci • <i>Recommended</i> Poole and Van de Ven, 1989, AMR 	10 slides summarizing the Pentland and Sabherwal and Robey articles
	Synthesizing the literature	<ul style="list-style-type: none"> • Techniques to synthesize the literature (handouts from Indiana University and North Carolina State University) • LePine and King, AMR, 2010 • Webster and Watson, MISQ, 2002 • <i>Recommended:</i> Bem, 1995, Psyc Bull • <i>Recommended:</i> Feldman, 2004a, J Mgmt • <i>Recommended:</i> Feldman, 2004b, J Mgmt 	
	Writing Empirical Articles	<ul style="list-style-type: none"> • Bem (2003, book chapter) 	
Session 5	Developing multilevel theories In-class practicum on multilevel models	<ul style="list-style-type: none"> • Mathieu and Chen, Journal of Management, 2011 • Rousseau, Journal of Management, 2011 • Klein and Kozlowski, Org. Research Methods, 2000, p. 211-221. • <i>Recommended:</i> Chan, 1998, JAP • <i>Recommended :</i> Klein, Dansereau, & Hall, 1994, AMR • <i>Recommended :</i> Rai et al., 2009, MISQ (Illustration) • <i>Recommended:</i> Morgeson & Hofmann, 1999, AMR • <i>Recommended:</i> Burton-Jones & Gallivan, 2007, MISQ (Illustration) 	10 slides on the key points of the following articles: Mathieu and Chen; Rousseu; and Klein and Kozlowski.
Additional resources	Design theories Specifying multidimensional constructs Role of time	<ul style="list-style-type: none"> • Gregor, MISQ, 2006 • Wong et al., Journal of Management, 2008 • Law, Chi-Sum, & Mobley, 1998, AMR • Jarvis, Mackenzie, Podsakoff, Mick, & Bearden, 2003, JCR • Petter, Straub, & Rai, 2007, MISQ • Mitchell & James, 2001, AMR • Ancona et al., 2001, AMR 	These topics and articles will not be covered in the course. The articles are useful resources for students interested in these topics.

LIST OF READINGS:

- Alvesson, M., & Sandberg, J. (2011). Generating research questions through problematization. *Academy of Management Review*, 36(2), 247–271.
- Alvesson, M., & Karreman, D. A. N. 2007. Constructing Mystery: Empirical Matters In Theory Development. *Academy of Management Review*, 32(4): 1265-1281.
- Bacharach, S. B. 1989. Organizational Theories: Some Criteria for Evaluation. *Academy of Management Review*, 14(4): 496-515.
- Barley, S. R. 2006. When I Write My Masterpiece: Thoughts On What Makes A Paper Interesting. *Academy of Management Journal*, 49(1): 16-20.
- Bem, D. J. 1995. Writing a review article for Psychological Bulletin. *Psychological Bulletin*, 118(2): 172-177.
- Bem, D., 2003. Writing the Empirical Journal Article, Book Chapter.
- Bergh, D. D. 2003. From the Editors Thinking Strategically about Contribution. *Academy of Management Journal*, 46(2): 135-136.
- Burton-Jones, A., & Gallivan, M. J. 2007. Toward A Deeper Understanding Of System Usage In Organizations: A Multilevel Perspective. *MIS Quarterly*, 31(4): 657-679.
- Chan, D. 1998. Functional relations among constructs in the same content domain at different levels of analysis: A typology of composition models. *Journal of Applied Psychology*, 83(2): 234-246.
- DiMaggio, P. J. 1995. Comments on "What Theory is Not", *Administrative Science Quarterly*, 40 ed.: 391-397.
- Edmondson, A. C. and S. E. McManus. 2007. Methodological Fit in Management Field Research. *Academy of Management Review* 32(4): 1155-1179.
- Feldman, D. C. 2004a. Being A Developmental Reviewer: Easier Said Than Done, *Journal of Management*, 30 ed.: 161.
- Feldman, D. C. 2004b. The Devil is in the Details: Converting Good Research into Publishable Articles. *Journal of Management*: 1.
- Feldman, D. C. 2004c. What are We Talking About When We Talk About Theory?, *Journal of Management*, 30 ed.: 565-567.
- Gregor, S. 2006. The Nature Of Theory In Information Systems. *MIS Quarterly*, 30(3): 611-642.
- Hong, W., Chan, F. K. Y., Thong, J. Y. L., Chasalow, L. C., & Dhillon, G. (2013). A Framework and Guidelines for Context-Specific Theorizing in Information Systems Research. *Information Systems Research*, 25(1), 111–136. doi:10.1287/isre.2013.0501
- Jarvis, C. B., Mackenzie, S. B., Podsakoff, P. M., Mick, D. G., & Bearden, W. O. 2003. A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research. *Journal of Consumer Research*, 30(2): 199-218.
- Johns, G. 2006. The Essential Impact Of Context On Organizational Behavior. *Academy of Management Review*, 31(2): 386-408.
- Klein, K. J., Dansereau, F., & Hall, R. I. 1994. Levels Issues In Theory Development, Data Collection, And Analysis. *Academy of Management Review*, 19(2): 195-229.
- Klein, K. J., & Kozlowski, S. W. J. (2000). From Micro to Meso: Critical Steps in Conceptualizing and Conducting Multilevel Research. *Organizational Research Methods*, 3(3), 211–236. doi:10.1177/109442810033001
- Klein, R., & Rai, A. 2009. Interfirm Strategic Information Flows In Logistics Supply Chain Relationships. *MIS Quarterly*, 33(2009).

- Langley, A. 1999. Strategies For Theorizing From Process Data. *Academy of Management Review*, 24(4): 691-710.
- Law, K. S., Chi-Sum, W., & Mobley, W. M. 1998. Toward A Taxonomy Of Multidimensional Constructs. *Academy of Management Review*, 23(4): 741-755.
- Lee, A. 1999. Strategizing for Compelling and Significant Research. *MIS Quarterly*, 23(2): 145-145.
- LePine, & King, A. W. (2010). Editors' Comments: Developing Novel Theoretical Insight From Reviews Of Existing Theory And Research. *Academy of Management Review*, 35(4), 506–509.
- Morgeson, F. P., & Hofmann, D. A. 1999. The Structure And Function Of Collective Constructs: Implications For Multilevel Research And Theory Development. *Academy of Management Review*, 24(2): 249-265.
- Overby, E. 2008. Process Virtualization Theory and the Impact of Information Technology. *Organization Science*, 19(2): 277-291.
- Pentland, B. T. (2003). Sequential variety in work processes. *Organization Science*, 528–540.
- Petter, S., Straub, D., & Rai, A. 2007. Specifying Formative Constructs In Information Systems Research. *MIS Quarterly*, 31(4): 623-656.
- Poole, M.S., and van de Ven, A., 1989. Using Paradox to Build Management and Organization Theories. *Academy of Management Review*, 14 (4): 562-578
- Rai, A., Maruping, L. M., & Venkatesh, V. 2009. Offshore Information Systems Project Success: The Role Of Social Embeddedness And Cultural Characteristics. *MIS Quarterly*, 33(3): 617-A617.
- Rousseau, D. M. (2011). Reinforcing the Micro/Macro Bridge: Organizational Thinking and Pluralistic Vehicles. *Journal of Management*, 37(2), 429–442. doi:10.1177/0149206310372414
- Rynes, S. 2002. From the Editors. *Academy of Management Journal*, 311-313.
- Sabherwal, R., and Robey, D., 1993. An Empirical Taxonomy of Implementation Processes Based on Sequences of Events in Information System Development. *Organization Science*, 4 (4): 548-576
- Simon, H. 1980. Random Thoughts About Methods of Research. Pittsburgh, *Unpublished Manuscript*, Carnegie Mellon University: 1-10.
- Suddaby, R., Editor's comments: Construct Clarity in Theories of Management and Organization. *The Academy of Management Review*, 2010.
- Sutton, R. I., & Staw, B. M. 1995. What Theory is Not. *Administrative Science Quarterly*, 40(3): 371-384.
- Venkatraman, N. 1989. The Concept of Fit in Strategy Research: Toward Verbal and Statistical Correspondence. *Academy of Management Review*, 14(3): 423-444.
- Weber, R. 2003. The Problem of the Problem. *MIS Quarterly*, 27(1): 1-1.
- Weick, K. E. 1995. What Theory Is Not, Theorizing Is. *Administrative Science Quarterly*, 40(3): 385-390.
- Whetten, D. A. 1989. What Constitutes a Theoretical Contribution? *Academy of Management Review*, 14(4): 490-495.
- Webster, J., & Watson, R. (2002). Analyzing the Past to Prepare for the Future: Writing a Literature Review. *MIS Quarterly*, 26(2), xiii–xxiii.
- Wong, C.S., Law, K.H., and Huang, C.H. (2008) On the Importance of Conducting Construct-level Analysis for Multidimensional Constructs in Theory Development and Testing. *Journal of Management*.

TEACHING METHODS:

The teaching method will involve a combination of lecture, discussions, student presentations, and in-class group exercises. Students will be called upon to lead

discussions and all students are expected to participate actively in the discussions. Students are expected to thoroughly read the assigned readings prior to class and to prepare the synthesis of articles as noted in the schedule.

Lecturer's Biographical Note:

Arun Rai co-founded the Robinson College of Business' Center for Process Innovation, an interdisciplinary research center on digital innovation that promotes industry-university partnerships. He has served as the Doctoral Director for CEPRIN's interdisciplinary PhD program since its inception in 2000. He is currently serving a third three-year term as Chair of the Robinson College of Business Promotion and Tenure Committee.

Dr. Rai is a three-time recipient of the Robinson College of Business Faculty Recognition Award for Research, has received the Robinson College of Business Faculty Recognition Awards for Teaching and for Service, and was appointed Regents' Professor in 2006 by the Board of Regents of the University System of Georgia in recognition for outstanding contributions in research, teaching and service. He was named Fellow of the Association for Information Systems in 2010 in recognition of his outstanding contributions in research, teaching, and service to the Information Systems discipline, and received the INFORMS Information Systems Society Distinguished Fellow Award in 2014 for outstanding intellectual contributions to the Information Systems discipline.

For over 25 years, Dr. Rai's research has examined how organizations can leverage information technologies in their strategies, inter-organizational relationships, and processes, and how systems can be successfully developed, implemented, and utilized to address business and societal problems. His studies have been sponsored by major organizations across sectors (e.g., IT, healthcare, automotives, transportation, manufacturing, financial services, government) as well as by thought leadership forums and government agencies, and he has received about \$2.5 million in external funding. Dr. Rai has over 200 peer-reviewed publications including 98 peer-reviewed journal articles and is ranked among the top scholars for publications in the Information Systems discipline's most prestigious journals. His work has been extensively cited in the Information Systems discipline and also in the top journals of other disciplines including Accounting, Computer Science, Education, Healthcare, Marketing, Operations Management, Strategic Management, and Psychology. He has also given over 100 invited talks and keynotes to both academic and industry audiences. Dr. Rai has chaired 29 doctoral dissertations and served as committee member on another thirty. He has developed and taught courses at the master's and doctoral levels related to IT and strategy, supply chain management, technology and innovation, theory development and research methods. He has also developed and delivered executive education programs for major organizations and has consulted with C-level executives in various sectors on digital innovation at their organizations. He has been involved in the research community in a variety of service roles, including Senior Editor and Associate Editor for several leading journals such as Information Systems Research, MIS Quarterly, and Management Science, and as a panelist for the National Science Foundation.

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