

Dorothy R. Carter
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EDUCATION

M.S., Psychology, Georgia Institute of Technology (2013)

Concentration: Industrial/Organizational Psychology

Thesis: *Leadership for multiteam innovation: A network approach*

Committee: Leslie DeChurch (Chair), Ruth Kanfer, Stephen Zaccaro

B.S., Psychology, Wright State University (2009)

Minor: Business Management

RESEARCH FOCUS

Complex Collaboration, Teams, Leadership, Innovation, Social Network Analysis

REFEREED PUBLICATIONS

Murase, T., **Carter, D.R.**, DeChurch, L.A., & Marks, M.A. (2014). Mind the gap: The effect of leadership on collective cognition in multiteam systems. *The Leadership Quarterly*.
Published ahead of print online first.

Carter, D.R., & DeChurch, L.A. (2012). Networks: The way forward for collectivistic leadership research. *Industrial and Organizational Psychology: Perspectives on Science and Practice*, 5, 412-415.

Asencio, R., **Carter, D.R.**, DeChurch, L.A., Zaccaro, S.J., & Fiore, S.M. (2012). Charting a course for collaboration: A multiteam perspective. *Translational Behavioral Medicine*, 2, 487-494.

Contractor, N.S., DeChurch, L.A., Carson, J., **Carter, D.R.**, & Keegan, B. (2012). The topology of collective leadership. *The Leadership Quarterly*, 23, 994-1011.

REVISE AND RESUBMIT STATUS PUBLICATIONS

Carter, D.R., DeChurch, L.A., Braun, M. & Contractor, N. (Revise and resubmit). Social network approaches to leadership: An integrative conceptual review. *Journal of Applied Psychology*.

Carter, N.T. **Carter, D.R.**, & DeChurch, L.A. (Revise and resubmit). Nascent team measurement error and the emergence of team processes and properties. *Journal of Management*.

REFEREED CONFERNECE PROCEEDINGS

Carter, D.R., DeChurch, L.A., & Zaccaro, S.J. (August, 2014). Impact of leadership network structure on the creative output of multiteam systems. *Paper Proceedings of the 74th*

Annual Meeting of the Academy of Management. (Best paper award Organizational Behavior Division of the Academy of Management)

DeChurch, L.A., **Carter, D.R.**, & Zaccaro, S.J. (April, 2014). Leadership governance approaches. *Paper Proceedings of the North Atlantic Treaty Organization (NATO) Human Factors and Medicine Panel.*

CHAPTERS IN EDITED VOLUMES

Carter, D.R., & DeChurch, L.A. (2014). Leadership in Multiteam Systems: A network perspective. In D.V. Day (Ed.), *Oxford Handbook of Leadership* (pp. 483-505), Oxford University Press.

Montoya, A.*, **Carter, D.R.**, DeChurch, L.A., & Martin, J. (in press). The process of team planning: Where we've been and where we need to go. In M. Frese & M. Mumford (Eds.), *Organization Planning: The Psychology of Performance*. Organization and Management Series: Taylor & Francis.

* *Denotes undergraduate student mentee*

Carter, D.R., DeChurch, L.A., Seely, P.W., & Zaccaro, S.J. (in press). Leading virtual teams: Leadership functions, phases, and forms. In R. Griffith & J. L. Wildman (Eds.), *Leading Global Teams*.

Contractor, N. DeChurch, L.A., Asencio, R., & **Carter, D.R.** (forthcoming). Little teams, "big data": Understanding teams using digital traces. In S. Tonidandel, E. King, & J. Cortina (Eds.), *Big data at work: The data science revolution and organizational psychology*. Routledge: KY.

SELECTED IN-PROGRESS PUBLICATIONS

Carter, D.R., DeChurch, L.A., Zaccaro, S.J. (in preparation). Leadership network self-organization and effectiveness for multiteam innovation.

Carter, D.R., Gibson, Z., DeChurch, L.A., & Contractor, N. (in preparation). Using semantic analysis to understand leadership emergence and effectiveness in virtually-connected multiteam systems.

Carter, D.R., Asencio, R., DeChurch, L.A., & Zaccaro, S.J. (in preparation). Science teams in and out of context: The impact of multiteam membership on science team processes and performance.

Carter, D.R., Cullen, K., & Maupin, C. (in preparation). Leadership development "in" and "as" a social network.

Lungeanu, A., **Carter, D.R.**, Contractor, N., & DeChurch, L.A. (in preparation). A hypergraph approach to understanding the assembly of scientific research teams.

Braun, M. DeChurch, L.A. & **Carter, D.R.** (in preparation). The ties that lead teams: Social network metrics of collective leadership.

Shum, C., Zhou, L. & **Carter, D.R.** (in preparation). Influence of subordinates' and supervisors' network positions on the effect of abusive supervision.

NATIONAL CONFERENCE PRESENTATIONS AND PANEL DISCUSSIONS

Carter, D.R., DeChurch, L.A., & Zaccaro, S.J. (August, 2014). Impact of leadership network structure on the creative output of multiteam systems*. Paper presentation at the Academy of Management Annual Meeting: Philadelphia, PA.

* *Winner of the Organizational Behavior Division Best Paper Award*

Shum, C., Zhou, L. **Carter, D.R.**, (August, 2014). Influence of subordinates' and supervisors' network positions on the effect of abusive supervision. Paper presentation at the Academy of Management Annual Meeting: Philadelphia, PA.

Carter, D.R., (*panelist*) Caligiuri, P., Dickson, M. W., Griffith, R. L., & Steelman, L.A. (May, 2014). In J. Wildman (Chair). *Leading global teams: Translating science into practice*. Panel discussion at the annual Society for Industrial and Organizational Psychology Conference: Honolulu, HI.

Carter, D.R., Asencio, R. Gibson, Z., DeChurch, L.A., & Zaccaro, S.J. (May, 2014). Science teams in context: Countervailing forces in translational multiteam systems. In J. Mathieu & M. Lucianco (Co-chairs). *Ordering the complexity: Establishing key differences in multiteam systems*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: Honolulu, HI.

Medvin, E.S., Pacic, E., Zaccaro, S.J., DeChurch, L.A., **Carter, D.R.**, & Chen, T.R. (May, 2014). An integrated approach to the leadership and innovation relationship. In E.S. Medvin, E. Pacic, & S.J. Zaccaro (Co-Chairs). *Leading for Creativity and Innovation*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: Honolulu, HI.

Braun, M., DeChurch, L.A., & **Carter, D.R.** (May, 2014). Measuring shared leadership: A computational modeling study. In J.A. Grand & G.T. Chao (Co-Chairs). *Computational modeling: Advancing research on team dynamics*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: Honolulu, HI.

Contractor, N., DeChurch, L.A., Asencio, R., & **Carter, D.R.** (May, 2014). Big data: Motivating theories and methods to understand teams. In L.A. DeChurch & R. Asencio (Co-Chairs). *Little teams, big data: Understanding teams using digital traces*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: Honolulu, HI.

Gibson, Z., **Carter, D.R.**, Braun, M., Montoya, A. & DeChurch, L.A., (Nov. 2013) Using machine learning techniques to understand team processes. Paper presentation at the Computational Social Science Conference, Emory University, Atlanta, GA.

Lungeanu, A., Contractor, N., **Carter, D.R.**, & DeChurch, L.A. (July, 2013). A hypergraph approach to understanding the assembly of scientific research teams. In **D.R. Carter** (Chair) *Teams on the hyperedge: Using hypergraph network methodology to understand teams*. Symposium at the Interdisciplinary Network of Groups Research (INGRoup) Conference: Atlanta, GA.

Braun, M.T., DeChurch, L.A., **Carter, D.R.** (2013, May). *The ties that lead teams: Social network metrics of collective leadership*. Paper presented at the International Network for Social Network Analysis Annual Meeting (Sunbelt), Hamburg, Germany

- Carter, D.R.**, DeChurch, L.A., Contractor, N., & Carson, J. (April, 2013). A framework for understanding collective leadership through network analysis. In L.A. DeChurch & **D.R. Carter** (Co-Chairs). *Leading the way: Incorporating network analysis into leadership research*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: Houston, TX.
- Carter, D.R.** & DeChurch, L.A. (Co-Chairs), (April, 2013) *Leading the way: Incorporating network analysis into leadership research*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: Houston, TX.
- Carter, D.R.**, DeChurch, L.A., & Zaccaro, S. (October, 2012). *Leading innovation in multiteam systems*. Presentation at the European Association of Work and Organizational Psychology small group meeting on multiteam systems, Varenna, Italy.
- Carter, N.T., **Carter, D.R.**, & DeChurch, L. (August, 2012). IRT-based evidence of team construct measurement quality and emergence. In N.T. Carter & **D.R. Carter** (Co-Chairs), *Aligning team measurement practice with theory through novel analytic applications*. Symposium at the Academy of Management annual meeting, Boston, MA.
- Carter, D.R.** & Carter, N.T. (Co-Chairs), (August, 2012) *Aligning team measurement practice with theory through novel analytic applications*. Symposium at the Academy of Management Annual Meeting: Boston, MA.
- Carter, D.R.**, DeChurch, L.A., & Zaccaro, S.J. (August, 2012). Emergent leadership network structures in global virtual teams: Impact on Innovation. In E. Campbell-Bush & K. Bartol (Co-Chairs), *Advances in highly virtual teams: Key composition, leadership, and shared process components*. Symposium at the Academy of Management annual meeting, Boston, MA—This paper was accepted by three divisions of the Academy of Management and featured as part of a showcase symposium.
- Kalinowski, Z., Steele-Johnson, D., Clark, P., & **Carter, D.R.** (August, 2012). *Proactive personality scale: Assessing factor structure and equivalence across groups*. Poster at the American Psychological Association Conference: Orlando, FL.
- DeChurch, L.A., Zaccaro, S.J., **Carter, D.R.**, Asencio, R., Seely, P., Wax, A., Chen, T., & McCausland, T. (August, 2012). *Innovating within and across teams, through time and space: A multiteam-network perspective*. Paper presented at the American Psychological Science Conference: Chicago, IL.
- Carter, D.R.**, & DeChurch, L.A. (April, 2012) MTS leadership from a network perspective. In **D.R. Carter**, & L.A. DeChurch (Co-Chairs), *The power of Collaboration: Investigations of Multiteam Systems*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: San Diego, CA.
- Carter, D.R.**, & DeChurch, L.A. (Co-chairs), (April, 2012) *The power of collaboration: Investigations of multiteam systems*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: San Diego, CA.
- DeChurch, L.A., Zaccaro, S.J., **Carter, D.R.**, Asencio, R., Seely, P., Wax, A., Chen, T., & McCausland, T. (April, 2012). Development of coordination norms in globally distributed multiteam systems. In **D.R. Carter**, & L.A. DeChurch (Co-Chairs), *The*

- Power of Collaboration: Investigations of Multiteam Systems*. Symposium at the annual Society for Industrial and Organizational Psychology Conference: San Diego, CA.
- DeChurch, L.A., **Carter, D.R.**, Zaccaro, S.J., Chollet, B., McCausland, T., & Holland, S. (March 2012). *Innovate against time: Leadership structures in multiteam systems*. Presentation at the International Sunbelt Social Network Conference XXXII: Redondo Beach: CA.
- Lungeanu, A., Murase, T., **Carter, D.R.**, & Contractor, N. (March 2012). *A hypergraph approach to understanding the assembly of scientific research teams*. Presentation at the International Sunbelt Social Network Conference XXXII: Redondo Beach: CA.
- Chollet, B., DeChurch, L., **Carter, D.R.**, Asencio-Hodge, R., & Zaccaro, S. (March, 2012). *Networking the competition: How inter-project networks improve innovation performance*. Presentation at the International Sunbelt Social Network Conference XXXII: Redondo Beach: CA.
- DeChurch, L.A., McCausland, T., Wax, A., **Carter, D.R.**, Holland, S., Chollet, B., & Zaccaro, S.J., (Feb, 2012). *Network formation and change in global multiteam systems*. Poster presented at the Organizational Science Winter Conference XVIII: Colorado Springs, CO.
- Carter, D.**, Bedwell, W., Sierra, M.J., & Smith-Jentsch, K.A. (July, 2011). *Organizational analysis for long-duration spaceflight teams: A fresh MTS perspective*. Poster presented at the 6th Annual Interdisciplinary Network for Group Research (INGroup) Conference: Minneapolis, MN.
- Carter, D.**, Smith-Jentsch, K.A., Sierra, M.J., Bedwell, W.L., Weaver, S.J., Dietz, A. S., Oglesby, J., Fiore, S., & Salas, E. (2011, May). *Long duration space flight work characteristics: A team task analysis*. Poster presented at the 16th International Symposium on Aviation Psychology: Dayton, OH.
- Sierra, M.J., **Carter, D.**, & Smith-Jentsch, K.A. (May, 2011). *Meeting the needs of long-duration spaceflight crews through guided team self-correction*. Presentation at the 16th International Symposium on Aviation Psychology: Dayton, OH.
- Sierra, M.J., **Carter, D.**, Smith-Jentsch, K.A., & Salas, E. (April, 2011). *The Application of guided team self-correction in long-duration spaceflight*. Poster presentation at the 18th Annual IAA Humans in Space Symposium: Houston, TX,
- Sierra, M.J., Smith-Jentsch, K.A., **Carter, D.**, Weaver, S.J., & Bedwell, W.L. (April, 2011.). *Disentangling the unique effects of Team Dimensional Training's design elements*. Poster presentation at the 26th annual conference of the Society for Industrial-Organizational Psychology: Chicago, IL.
- Kalinoski, Z., Steele-Johnson, D., **Carter, D.**, & Leas, K. (April, 2010) *Personality, self-efficacy, and planning effects on performance: A process model*. Poster presented at the annual Society for Industrial and Organizational Psychology Conference: Atlanta, GA.
- Kalinoski, Z., Steele-Johnson, D., Claflin, D., & **Carter, D.** (May, 2010) *Are all errors created equal? Effects of errors on performance*. Proposal presented at the 22nd Annual Convention of the Association for Psychological Science: Boston, MA.

Carter, D., & Steele-Johnson, D. (May, 2009). *Effects of systematic exploration and proactive personality on performance*. Poster presented at the annual Midwestern Psychological Association Conference: Chicago. IL.

Carter, D., Steele-Johnson, D. & Claflin, D. (May, 2008). *Exploring learning strategies during training on a truck-dispatcher task*. Poster presented at the annual Midwestern Psychological Association Conference: Chicago, IL.

INVITED PRESENTATIONS

Carter, D.R. (2013). *Collective leadership structure emergence and affordances*. Invited presentation at University of Florida Warrington College of Business, Department of Management, Gainesville, FL (Host: Mo Wang).

Carter, D.R., & DeChurch, L.A. (2013). *Understanding the emergence and consequences of leadership networks*. Invited presentation at a small group workshop on open-source software collaboration in conjunction with the *LinuxCon* annual conference: New Orleans, LA.

HONORS AND AWARDS

- 2014 Academy of Management Organizational Behavior Division “Best Paper” Award for 1st authored paper titled “Impact of leadership network structure on the creative output of multiteam systems.”
- 2013 Digital Societies and Social Technologies Summer Institute, College Park, MD (Award: \$1000 travel stipend)
- 2013 Organizational Communication and Information Systems Doctoral Consortium at the Annual Academy of Management (AOM) Conference, Orlando, FL (Award: \$600 travel stipend)
- 2013 Doctoral Consortium at the Interdisciplinary Network of Group Research (INGRoup) conference, Atlanta, GA (Award: \$500 travel stipend)
- 2010 Provost’s Graduate Student Fellowship, University of Central Florida, Orlando, FL (Award: \$15,701.44)
- 2009 Distinguished Senior Award, Wright State University, Dayton, OH (Award: \$4000)
- 2009 Psychology Honors Award, Wright State University, Dayton, OH (Award: \$2000)
- 2008 Women in Science Award, Wright State University, Dayton, OH (Award: \$1000)
- 2008 Research Award, Midwestern Psychological Association, Chicago IL (Award: \$300)

GRANT EXPERIENCE

- Lead Graduate Research Assistant (Aug 2011 to present): *CAREER: Leadership for virtual organizational effectiveness*. National Science Foundation (NSF) Early Career Award. DeChurch, L.A. (PI). Award: \$425,006, Start Date: September 1, 2011.
- Research Collaborator (Jan 2014 to present): *Earthcube Stakeholder Alignment*. Large-scale collaborative research effort supported by National Science Foundation (NSF) Awards: NSF-VOSS EAGER 0956472 “Stakeholder alignment in socio-technical systems,” NSF OCI RAPID 122928 “Stakeholder alignment for EarthCube,” NSF GEO-SciSIP-STIS-OCI-INSPIRE 1249607 “Enabling transformation in the social sciences, geosciences, and cyberinfrastructure”, and NSF I-CORPS 13113562 “Stakeholder alignment for public-private partnerships.”
- Graduate Research Assistant (Aug 2013 to present): *Planning knowledge networks for scaling up impact*. This is a Bill and Melinda Gates Foundation grant to use social networks and social influence to expedite the scale up of family health innovation designed to reduce neonatal mortality and improve maternal health in Bihar, India. Award: \$1,000,000, Start Date: August 2013.
- Lead Graduate Research Assistant (Dec 2012 to June 2013), Graduate Research Assistant (Aug 2011 to Dec 2012): *Innovate against time: Drivers and mechanisms of knowledge innovation*. National Science Foundation (NSF) Award Number: 1063901. DeChurch, L.A. (PI), Zaccaro, S.J. (Co-PI), & Fiore, S.J. (Co-PI). Award: \$499,093, Start Date: October 1, 2011.
- Made substantial contributions to the authorship of funded proposal: *Collaborative research: Multiteam system design for maximizing scientific, technological, and policy innovation*. National Science Foundation (NSF) Award Number: 1262474. DeChurch, L.A. (PI), Kanfer, R. (Co-PI). Award: \$383,999, Start Date: July 15, 2013.
- Made substantial contributions to authorship of funded proposal and to associated event planning/coordination: *Collaborative research: SCC-SBE: Research coordination network (RCN) on leveraging computational social science for understanding virtual organizations*. National Science Foundation (NSF) Award Number: 1244737. DeChurch, L.A. (PI), Walker, B. (Co-PI), Tofighi, D. (Co-PI), & Contractor, N. (Co-PI). Award: \$324,024, Start Date: January 1, 2013.
- Made substantial contributions to authorship of funded proposal and to conference planning and coordination: *Bridging the great divide: Advancing the science of multiteam systems through international collaboration* (EAWOP) Small group conference grant to host an international conference on Multiteam systems. October, 2012 in Bellagio, Italy. Organizing committee: Dr. Leslie DeChurch, Dr. Peter Essens (The Netherlands) Dr. Ramon Rico Ph.D. (Spain), Dorothy Carter, Raquel Asencio. Award 3500 Euros. Co-sponsored by the National Science Foundation (NSF), \$6000.
- Graduate Research Assistant: *Optimizing Crew Performance in Long Duration Space Exploration: Best Practices for Team Training and Cohesion Management*. National Aeronautic Space Administration (NASA). Salas, E (PI), Smith-Jentsch, K. A. (Co-PI), & Fiore, S. M. (Co-PI). \$1,200,000, Start Date: August 15, 2009.

CONFERENCE AND EVENT PLANNING EXPERIENCE

Conference co-coordinator—*Bridging the Great Divide: Advancing the science of multiteam systems through international collaboration* (Lake Como, Italy, October 2012). Small group meeting on the topic of multiteam systems. Co-sponsored by: The European Association of Work and Organizational Psychology (EAWOP), NSF, and INGRoup.

Conference website: <http://www.delta.gatech.edu/EAWOP.php>

Assisted with planning and coordination of the following event funded through NSF Research Coordination Network (RCN) Award (# 1244737): “INGRoup doctoral consortium” (Atlanta, GA, July 2013).

Event website: <http://www.delta.gatech.edu/INGRoup.php>

Assisted with planning and coordination of the following event funded through NSF Research Coordination Network (RCN) Award (# 1244737): “5th International Workshop on Network Theory: Network Science Meets the Science of Teams” (Kellogg School of Management, Chicago, IL, October, 2013).

Event website: <http://sonic.northwestern.edu/news/events/ann-sonic/>

TEACHING EXPERIENCE

Spring (2013) Teaching assistant/“multiteam system class project” coordinator for a 2nd year master’s level business innovation management course at The Grenoble Ecole de Management, Grenoble, France

Instructor: Dr. Barthelemy Chollet, barthelemy.chollet@grenoble-em.com

RESEARCH ASSISTANTSHIPS

Graduate research assistant working with Dr. Leslie DeChurch (2010 to present), Developing Effective Leaders, Teams, and Alliances (DELTA) Laboratory

<http://www.delta.gatech.edu/index.php>

- Managed personnel and resources for large-scale grant-funded research projects
- Designed and coordinated team and multiteam system laboratory and field studies
- Co-authored manuscripts, book chapters, commentaries, and tech reports
- Presented research at national and international conferences
- Assisted with authorship of multiple funded grant proposals
- Assisted in conference planning for national and international conferences
- Developed and coordinated undergraduate and master’s level research assistants

Undergraduate honors student/research assistant working with Dr. Debra Steele-Johnson (2007 to 2009), Motivation and Training Laboratory

- Designed and administered experimental research,
- Presented empirical findings at national conferences,
- Completed honors thesis requirements

Undergraduate research assistant working with Dr. Herbert A. Colle (2007) Mental Workload and Attention Laboratory.

- Conducted literature searches,
- administered experiments, scored and entered data

SOFTWARE PACKAGES

R (e.g., SNA, statnet, rsiena, ERGM, lme4, car, Rmediation packages)
UCINet
SPSS
SAS

AFFILIATIONS

The Society for Industrial Organizational Psychology (SIOP)
The Academy of Management, Organizational Behavior and Research Methods Divisions
Interdisciplinary Network for Group Research (INGRoup)
Human Resource Management (SHRM), Psi Chi National Psychology Honors Society

REFERENCES

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