

CURRICULUM VITAE  
**Neil G. MacLaren**

Bernard M. and Ruth R. Bass Center for Leadership Studies  
School of Management  
Binghamton University  
State University of New York  
PO Box 6000  
Binghamton, NY 13902-6000

neil.maclaren@binghamton.edu  
office: (607) 777-3007  
mobile: (206) 669-6187  
www.neilgmaclaren.com

**EDUCATION**

- 2021            Ph.D. in Management, Concentration in Leadership and Organizational Science.  
Binghamton University, State University of New York. Dissertation: *Speech Activity and Work Group Structure*, Francis J. Yammarino, chair.
- 2021            Advanced Graduate Certificate in Complex Systems Science and Engineering.  
Binghamton University, State University of New York.
- 2018            Master of Business Administration. Binghamton University, State University of New York.
- 2006            Bachelor of Arts in Anthropology, *magna cum laude*. University of Washington.

**PROFESSIONAL EXPERIENCE**

- 2021–present    Research Assistant Professor, School of Management, Binghamton University, State University of New York.
- 2021–present    Faculty Fellow, Bernard M. and Ruth R. Bass Center for Leadership Studies.
- 2017–2021       Research Assistant, Bernard M. and Ruth R. Bass Center for Leadership Studies. U.S. Army Research Institute for the Behavioral and Social Sciences Grant No. W911NF-17-1-0221.
- 2014–2015       Company Commander, 3rd Battalion, 1st Marine Regiment, 15th Marine Expeditionary Unit. Camp Pendleton, California, and aboard the USS Rushmore.
- 2013–2014       Assistant Operations Officer, 3rd Battalion, 1st Marine Regiment. Camp Pendleton, California, and Camp Hansen, Okinawa, Japan.
- 2010–2013       Officer Selection Officer, Recruiting Station Seattle, 12th Marine Corps Recruiting District. Seattle, Washington.
- 2009            Infantry Training Advisor, Basic Officer Training Course, Kabul Military Training Center. Kabul, Afghanistan.
- 2008            Police Transition Team Leader, Charlie Company, 1st Battalion, 9th Marine Regiment. Ramadi, Iraq.
- 2007            Weapons Platoon Commander, Charlie Company, 1st Battalion, 9th Marine Regiment. Camp Lejeune, North Carolina.
- 2007            Rifle Platoon Commander, Alpha Company, 1st Battalion, 9th Marine Regiment. Camp Lejeune, North Carolina.

## RESEARCH INTERESTS

Leadership, cooperation, social structure, communication, performance, networks, complex systems

## AWARDS

2021 Binghamton University Graduate Student Excellence Award in Research

## JOURNAL ARTICLES

### Published

- 2021 Mattison, S. M., **MacLaren, N. G.**, Liu, R., Reynolds, A. Z., Baca, G. D., Mattison, P. M., Zhang, M., Sum, C.-Y., Shenk, M. K., Blumenfield, T., von Rueden, C. R., and Wander, K. Gender differences in social networks based on prevailing kinship norms in the Mosuo of China. *Social Sciences* 10: 253. <https://doi.org/10.3390/socsci10070253>.
- 2020 **MacLaren, N. G.**, Yammarino, F. J., Dionne, S. D., Sayama, H., Mumford, M. D., Connelly, S., Martin, R. W., Mulhearn, T. J., Todd, E. M., Kulkarni, A., Cao, Y., and Ruark, G. A. Testing the babble hypothesis: Speaking time predicts leader emergence in small groups. *The Leadership Quarterly* 31(5). <https://doi.org/10.1016/j.leaqua.2020.101409>.
- 2020 Cao, S., **MacLaren, N. G.**, Cao, Y., Dong, Y., Sayama, H., Yammarino, F. J., Dionne, S. D., Mumford, M. D., Connelly, S., Martin, R. W., Standish, C. J., Newbold, T. R., England, S., and Ruark, G. A. An agent-based model of leader emergence and leadership perception in a collective. *Complexity*. Article ID 6857891. <https://doi.org/10.1155/2020/6857891>.

### Under Review

- MacLaren, N. G.**, Yammarino, F. J., Mumford, M. D., Sayama, H., Dionne, S. D., Connelly, S., Martin, R. W., Cao, Y., Standish, C. J., England, S., Newbold, T. R., Dong, Y., Cao, S., Marshall, J., Maupin, C. K., Eckardt, R., and Ruark, G. A. Interruption Networks and Leader Emergence in Informal Groups. *The Leadership Quarterly*. <https://psyarxiv.com/m8y5n>.
- Cao, S., **MacLaren, N. G.**, Cao, Y., Dong, Y., Marshall, J., Sayama, H., Yammarino, F. J., Dionne, S. D., Mumford, M. D., Connelly, S., Martin, R. W., Standish, C. J., Newbold, T. R., England, S., Marshall, J., and Ruark, G. A. Group size and group performance: An agent-based simulation model of collaborative decision-making dynamics. *IEEE Transactions on Computational Social Systems*.
- Dong Y., **MacLaren, N. G.**, Yiding Cao, Y., Francis J. Yammarino, F. J., Dionne, S. D., Mumford, M. D., Shane Connelly, S., Sayama, H., and Ruark, G. A. Utterance clustering using stereo audio channels. *Computational Intelligence and Neuroscience*.
- Maupin, C. K., **MacLaren, N. G.**, Goodwin, G. F., and Carter, D. R. Distributed spatial cognition: Improving wayfinding through spatial transactive memory systems. *Collective Spatial Cognition: A Research Agenda*.

Martin, R. W., Todd, E. M., Standish, C. J., Newbold, T. R., England, S., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Cao, S., Dong, Y., Marshall, J., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. Modeling collective leadership: Planning as a key contributor to performance. *Human Relations*.

Newbold, T. R., Martin, R. W., England, S., Standish, C. J., Todd, E. M., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Cao, S., Marshall, J., Dong, Y., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. The influence of leader and collective communication on collective performance: A cross-task examination. *Group Dynamics: Theory, Research, and Practice*.

## Working

**MacLaren, N. G.**, Yammarino, F. J., Mumford, M. D., Sayama, H., Dionne, S. D., Connelly, S., Cao, Y., Standish, C. J., England, S., Newbold, T. R., Dong, Y., Cao, S., Marshall, J., and Ruark, G. A. Towards a computational theory of speech activity in work groups.

Mattison, S. M., **MacLaren, N. G.**, Sum, C.-Y., Zhang, M., Liu, R., Reynolds, A. Z., Shenk, M. K., Blumenfield, T., and Wander, K. Gender-oriented cooperative networks among the Mosuo of China.

Eckardt, R., Dionne, S. D., **MacLaren, N. G.**, Jun, M., and Maupin, C. K. Human capital resource complementarities: an agent-based simulation study.

Cao, Y., Dong, Y., Kim, M., **MacLaren, N. G.**, Kulkarni, A., Dionne, S. D., Yammarino, F. J., and Sayama, H. Capturing the production of innovative ideas: An online social network experiment and “idea geography” visualization. <https://arxiv.org/abs/1911.06353>.

## PRESENTATIONS

### Conference Presentations

November 2021    Marshall, J. D., **MacLaren, N. G.**, Yammarino, F. J., Sayama, H., Dong, Y., Cao, S., Cao, Y., Dionne, S. D., Mumford, M. D., Connelly, S., Martin, R. W., Standish, C. J., Newbold, T. R., England, S., and Ruark, G. *Assessing group dynamics via audio analysis*. Paper accepted to the 2021 Southern Management Association Conference, New Orleans, LA.

August 2021    **MacLaren, N. G.**, Yammarino, F. J., Dionne, S. D., Sayama, H., Mumford, M. D., Connelly, S., Martin, R. W., Standish, C. J., England, S., Newbold, T. R., Cao, Y., Marshall, J., Cao, S., Dong, Y., Maupin, C. K., Eckardt, R., and Ruark, G. A. *Leaders as interrupters: An examination of simultaneous speech in informal groups*. Paper accepted to the 2021 Academy of Management Annual Meeting, Online.

July 2021    **MacLaren, N. G.**, Yammarino, F. J., Dionne, S. D., Sayama, H., Mumford, M. D., Connelly, S., Martin, R. W., Standish, C. J., England, S., Newbold, T. R., Cao, Y., Marshall, J., Cao, S., Dong, Y., Maupin, C. K., Eckardt, R., and Ruark, G. A. *Networks of Interruptions: Simultaneous Speech and Leader Emergence in Informal Groups*. Abstract accepted to Networks 2021, Online.

- April 2021 Martin, R. W., Standish, C. J., England, S., Newbold, T., Todd, E. M., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Cao, S., Dong, Y., Marshall, J., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. Collective leadership: The manifestation of leader and collective performance over time. Paper accepted to the 2021 Society for Industrial and Organizational Psychology Conference, New Orleans, LA.
- April 2021 England, S., Martin, R. W., Standish, C. J., Newbold, T., Todd, E. M., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Cao, S., Dong, Y., Marshall, J., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. (2021). Planning and collective leadership: Performance on a business simulation. Paper accepted to the 2021 Society for Industrial and Organizational Psychology Conference, New Orleans, LA.
- April 2021 Newbold, T., Martin, R. W., Standish, C. J., England, S., Todd, E. M., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Cao, S., Dong, Y., Marshall, J., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. (2021). The effects of network communication on collective performance: A replication. Paper accepted to the 2021 Society for Industrial and Organizational Psychology Conference, New Orleans, LA.
- April 2021 Todd, E. M., Martin, R. W., England, S., Standish, C., Newbold, T. R., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Dong, Y., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. The importance of planning for collective leadership. In C. Maupin (Chair), *The Successes and Pitfalls of Shared Leadership*. Symposium accepted to the 2021 Society for Industrial and Organizational Psychology Conference, New Orleans, LA.
- December 2020 **MacLaren, N. G.**, Yammarino, F. J., Mumford, M. D., Sayama, H., Dionne, S. D., Connelly, S., Martin, R. W., Cao, Y., Standish, C. J., England, S., Newbold, T. R., Dong, Y., Cao, S., Marshall, J., Maupin, C. K., Eckardt, R., and Ruark, G. A. *Leader identification through networks of conversational interruptions*. Paper presented at the Conference on Complex Systems 2020, Online. <https://psyarxiv.com/m8y5n>
- September 2020 Cao, Y., Dong, Y., Kim, M., **MacLaren, N. G.**, Dionne, S. D., Yammarino, F. J., and Sayama H. *Background Diversity and Network Structure in Collective Design and Innovation: Perspectives with Online Social Network Experiments*. Paper presented at NetSci 2020, Rome, Italy.
- April 2020 **MacLaren, N. G.**, Yammarino, F. J., Dionne, S. D., Sayama, H., Mumford, M. D., Connelly, S., Martin, R. W., Standish, C. J., Newbold, T. R., England, S., Marshall, J., Cao, Y., Dong, Y., Cao, S., and Ruark, G. A. *Interruption networks as a model of small group sociometric structure*. Paper presented at the 2020 Northeast Regional Conference on Complex Systems, Buffalo, New York.
- April 2020 Martin, R., Todd, E. M., Standish, C., England, S., Newbold, T., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Dong, Y., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. *Performance on a military simulation: Integrating models of collective leadership and planning*. Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, Austin, TX, April, 2020.
- April 2020 Standish, C., Martin, R., Todd, E. M., England, S., Newbold, T., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Cao, Y., Dong, Y., Yammarino, F. J., Dionne, S. D., Sayama, H., and Ruark, G. A. *The influence of environmental ambiguity, volatility, and risk on collective processes and performance*. Paper presented at the annual meeting of the Society for Industrial and Organizational Psychology, Austin, TX, April, 2020.

- October 2019 Cao, Y., Dong, Y., Kim, M., **MacLaren, N. G.**, Kulkarni, A., Dionne, S. D., Yammarino, F. J., and Sayama, H. *Capturing the Production of Innovative Ideas: An Online Social Network Experiment and "Idea Geography" Visualization*. Paper presented at The Computational Social Science Society of the Americas International Conference, Santa Fe, New Mexico.
- October 2019 Cao, Y., Dong, Y., Kim, M., **MacLaren, N. G.**, Kulkarni, A., Dionne, S. D., Yammarino, F. J., and Sayama, H. *Examining the Effects of Expertise Diversity on Collective Design and Innovation Using an Online Social Network Experiment and "Idea Geography" Visualization: A Secondary Report*. Paper presented at CCS2019, the Conference on Complex Systems, Singapore.
- May 2019 Cao, Y., Dong, Y., Kim, M., **MacLaren, N. G.**, Kulkarni, A., Dionne, S. D., Yammarino, F. J., and Sayama, H. *Examining the Effects of Expertise Diversity on Collective Design and Innovation Using an Online Social Network Experiment and "Idea Geography" Visualization: An Initial Report*. Paper presented at NetSci 2019, Burlington, Vermont.
- April 2019 Cao, Y., Dong, Y., Kim, M., **MacLaren, N. G.**, Kulkarni, A., Dionne, S. D., Yammarino, F. J., and Sayama, H. *Examining the Effects of Expertise Diversity on Collective Design and Innovation Using an Online Social Network Experiment and "Idea Geography" Visualization: An Initial Report*. Paper presented at the 2019 Northeast Regional Conference on Complex Systems, Binghamton, New York.
- April 2019 Marshall, J., **MacLaren, N. G.**, Topaloglu, E., and Tetteh-Nartey, S. *A network analysis of information diffusion*. Paper presented at the 2019 Northeast Regional Conference on Complex Systems, Binghamton, New York.
- April 2019 **MacLaren, N. G.**, Kulkarni, A., Cao, Y., Yammarino, F. J., Dionne, S. D., Sayama, H., Martin, R. W., Todd, E. M., Standish, C. J., Mulhearn, T. J., Mumford, M. D., and Connelly, S. *Speaking time and leader emergence in initially leaderless groups*. Poster presented at the annual meeting of the Society for Industrial and Organizational Psychology, Washington, D. C., April 2019.
- April 2019 Todd, E. M., Martin, R. W., Standish, C. J., Mulhearn, T. J., Connelly, S., Mumford, M. D., Kulkarni, A., **MacLaren, N. G.**, Cao, Y., Yammarino, F. J., Dionne, S. D., and Sayama, H. *Planning as a predictor of effective collective leadership*. Poster presented at the annual meeting of the Society for Industrial and Organizational Psychology, Washington, D. C., April 2019.
- April 2019 Martin, R. W., Todd, E. M., Standish, C. J., Mulhearn, T. J., Mumford, M. D., Connelly, S., **MacLaren, N. G.**, Kulkarni, A., Cao, Y., Yammarino, F. J., Dionne, S. D., and Sayama, H. *Network communication as a predictor for collective leadership*. Poster presented at the annual meeting of the Society for Industrial and Organizational Psychology, Washington, D. C., April 2019.
- November 2018 Kim, J., Park, J. W., Guo, J., **MacLaren, N. G.**, Kulkarni, A., and Dionne, S. D. Managing negative collective emotions through leadership. In J. Gooty (Chair), *Exploration of emotions and leadership in organizations at multiple levels of analysis*. Symposium conducted at the annual meeting of the Southern Management Society, Lexington, Kentucky.
- October 2018 Mumford, M. D., Yammarino, F. J., Connelly, S., Mulhearn, T. J., Martin, R. W., Todd, E. M., Durban, C. J., Dionne, S. D., Sayama, H., **MacLaren, N.G.**, Cao, Y., and Kulkarni, A. *Collective planning in military organizations: Initial findings*. Paper to be

presented at the annual meeting of the Society for Organizational Behavior, Durham, North Carolina.

- September 2018 Sayama, H., Dionne, S. D., Yammarino, F. J., Cao, Y., Kim, M., **MacLaren, N. G.**, and Kulkarni, A. *Effects of organizational network structure and task-related diversity on collective design and innovation: An agent-based modeling study*. Paper presented at the Conference on Complex Systems, Thessaloniki, Greece.
- August 2018 Yammarino, F. J., Mumford, M. D., Dionne, S. D., Sayama, H., Connelly, S., **MacLaren, N. G.**, Mulhearn, T. J., Cao, Y., Kulkarni, A., Martin, R. W., and Todd, E. M. Collective leadership and planning: Assessments via experiments and computational models. In R.T. Gottfredson (Chair), *Progressing the science of leadership through novel and innovative questions and assessments*. Symposium conducted at the annual meeting of the Academy of Management, Chicago, Illinois.
- April 2018 **MacLaren, N. G.**, Cao, Y., Kulkarni, A., Yammarino, F. J., Mumford, M. D., Dionne, S. D., Sayama, H., Connelly, S., Mulhearn, T. J., Martin, R. W., Todd, E. M., and Bosco, F. A. *Agent-based model parameter estimation and variable reduction using metaBUS: An application to a collective leadership model*. Poster presented at the Northeast Regional Conference on Complex Systems, Binghamton, New York, April 2018.

### Invited Presentations

- March 2020 “The Interruption Network as a Model of Small Group Structure”. CoCo Seminar Series, Center for Collective Dynamics of Complex Systems at Binghamton University.

### DATA

- 2020 **MacLaren, N. G.**, Yammarino, F. J., Dionne, S. D., Sayama, H., Mumford, M. D.; Connelly, S., Martin, R. W., Mulhearn, T. J., Todd, E. M., Kulkarni, A., Cao, Y., and Ruark, G. A. “Testing the Babble Hypothesis: Speaking Time Predicts Leader Emergence in Small Groups”. *Management and Accounting Faculty Scholarship*. 2. [https://orb.binghamton.edu/management\\_fac/2](https://orb.binghamton.edu/management_fac/2).

### CODE

Interruption Networks: <https://github.com/ngmaclaren/interruption-networks>.  
Mosuo Friendship Networks: <https://github.com/smattison/Social-Sciences-Data>.  
Speech Activity Agent-Based Model: <https://github.com/ngmaclaren/interruption-abm>.

### MEDIA

#### Coverage

- August 2021 “Is Leadership Skewed Towards People Who ‘Talk More’?” *Qrius*. <https://qrius.com/is-leadership-skewed-towards-people-who-talk-more/>.
- August 2021 “People who speak more are more likely to be considered leaders.” *World Economic Forum*. <https://www.weforum.org/agenda/2021/08/leaders-talk-more-babble-hypothesis/>.

- July 2021 “¿Tiene las cualidades para ser líder o simplemente habla mucho?” *Psyciencia*.  
<https://www.psyciencia.com/cualidades-para-ser-lider-o-simplemente-habla-mucho/>.
- July 2021 “Babble hypothesis shows key factor to becoming a leader.” *Big Think*.  
<https://bigthink.com/surprising-science/babble-hypothesis-leader>.
- July 2021 “Why office babblers tend to be leaders.” *Ladders News*.  
<https://www.theladders.com/career-advice/why-office-babblers-tend-to-be-leaders>.
- July 2021 “New study finds people who speak more are more likely to be viewed as leaders.”  
*PsyPost*. <https://www.psypost.org/2021/07/new-study-finds-people-who-speak-more-are-more-likely-to-be-viewed-as-leaders-61540>.

## Posts

- February 2021 “Speaking Time and Leadership.” *Lead Read Today*.  
<https://fisher.osu.edu/blogs/leadreadtoday/speaking-time-and-leadership>.

## TEACHING

- Leadership *Team Leadership*: large MBA elective, hybrid instruction.
- Analytics *Advanced Business Statistics*, a core course for analytics-track MBA and first-year PhD students; *Statistical Analysis for Management* (MBA) and *Statistics for Management* (undergraduate), Fall 2021.

## SERVICE

### Presentations

- 2018–2019 Veterans Day Assembly, Vestal Hills Elementary School, Vestal, NY.
- 2017 Veterans Panel Discussion on Civic Engagement, Binghamton University.

### Review

- <https://publons.com/researcher/3256508/neil-g-maclaren/>
- Journal The Leadership Quarterly
- Conference Academy of Management, Research Methods and Organizational Behavior divisions.

### Community

- 2016–2019 President, Board of Directors, Campus Pre-School and ECC, Inc., Binghamton, New York

## AFFILIATIONS

- 2020–Present Complex Systems Society
- 2019–Present Society for Industrial and Organizational Psychology
- 2018–Present Academy of Management

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|--------------|-------------------------------------------------------------------------------------------------------------------|
| 2017–Present | Bernard M. and Ruth R. Bass Center for Leadership Studies, Binghamton University,<br>State University of New York |
| 2016–Present | Veterans of Foreign Wars                                                                                          |