# BRYAN ACTON, PH.D.

I am fascinated by adopting cutting-edge statistical techniques for studying the **multi-level dynamics of leadership** in teams. This includes designing simulations using agent-based models to study the process of leadership emergence, and using machine learning to improve the quality of items used to measure leadership.





This CV was made by using Nick Strayer's datadrivencv R package, and built in R blogdown

Use the HTML version of my CV or view this CV online to see interactive visualizations with links at bpacton.com/cv/cv.html

## **CONTACT**

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## RESEARCH AREAS



## RESEARCH EXPERIENCE

Current | 2020

#### **Postdoctoral Research Associate**

Durham University Business School (Centre for Leadership & Followership)

Ourham, UK

- Working on multiple projects including a co-lead on a project investigating identity invention dynamics in college students in the UK. Developed entire script in R for measuring identity dynamics using dynamical systems perspective developed by Dr. Steven Boker and colleagues.
- Taught multiple R workshops to faculty and staff across multiple subjects such as text transcription and basic data wrangling.
- Have multiple publications and book chapters under review, or with submission in the coming months. Also working on putting together new funding proposal for Army Research Institute with Dr. Robert Lord and colleagues on using predictive modeling to assess memory processing in items used in leadership scales.

2019 | 2016

#### Lab Coordinator and Graduate Research Assistant

Interface of Leadership and Teams Lab (PI: Dr. Roseanne Foti)

**♀** Virginia Tech

- Worked with team of faculty, as only Graduate Assistant for Army Research Institute Basic Research Grant titled: Episodic and Semantic Memory Effects on Leadership Measurement and Prediction of Leadership Outcomes. Also was ILT lab coordinator for two years.
- Led data collection across three different studies, two using larger online sampling, and one in-lab study with Virginia Tech corps of cadets.
- Designed multiple tools for both data collection and data analysis, including a python
  program to code linguistic features of leadership items, random forest models (using R)
  for predicting memory processing of leadership judgements, and an experimental
  procedure using PsychoPy.

# ■ PUBLICATIONS

Acton, B. P., Braun, M. T., & Foti, R. J. (2020). Built for unity: assessing the impact of team composition on team cohesion trajectories. *Journal of Business and Psychology*, *35*(6), 751–766. https://doi.org/10.1007/s10869 019 09654 7

Acton, B. P., Foti, R. J., Lord, R. G., & Gladfelter, J. A. (2019). Putting emergence back in leadership emergence: A dynamic, multilevel, process-oriented framework. *The Leadership Quarterly*, *30*(1), 145–164. https://doi.org/10.1016/j.leaqua.2018.07.002

Hansbrough, T. K., Lord, R. G., Schyns, B., Foti, R. J., Liden, R. C., & Acton, B. P. (2020). Do you remember? Rater memory systems and leadership measurement. *The Leadership Quarterly*, 101455. https://doi.org/10.1016/j.leaqua.2020.101455

As a part of my role as lab coordinator for two years in the ILT lab, I directly mentored nine undergraduates. I am excited to share that five of these students continued on to masters programs, and two continued on to doctoral programs.

Acton, Braun, & Foti (2020) was awarded an annual "Editors Commendation" award for notable papers of the year at the Journal of Business & Psychology.

## **BOOK CHAPTERS** Implicit Leadership and Followership Theories: From the leader/follower Forthcoming • within to leaders/followers in plural and in flux Susanne Braun, Karolina W. Nieberle, Bryan P. Acton SAGE Handbook of Leadership (2nd ed.) Leadership identity at a crossroads: New ways of theorizing measuring and Forthcoming • modeling dynamic states Olga Epitropaki, Bryan P. Acton, Karolina W. Nieberle Oxford Handbook of Leadership, Followership and Identity **♣** TEACHING EXPERIENCE 2021 **Leadership Module (Power and Status- PSYC 42115)** Ourham, UK Durham University, Psychology Masters Program 2021 • Taught two separate 3-hour lectures. The first was an Introduction to leadership lecture and the second was an inclusive leadership lecture. **Guest Lectures** 2020 Palacksburg, VA Virginia Tech 2016 • I taught guest lectures in topics such as leadership, teams, and organizational psychology/behavior. Social Psychology (PSYC 2048) 2017 Palacksburg, VA Virginia Tech, Psychology Department 2016 • Instructor of record across 4 separate classes. • Consistently above both college and departmental averages in ratings of teaching

effectiveness.

to psychology.

2015

2014

**Intro to Psychology Recitation** 

Virginia Tech, Psychology Department

methods, and core content areas of psychology.

• Taught lectures to class of 20+ students that accompanied main lecture for introduction

• Lectured and helped students during office hours with subjects such as research

I received the "Favorite Faculty Award", awarded by the student services department at Virginia Tech.

Palacksburg, VA

## SELECTED CURRENT PROJECTS

Current | 2020

### Capturing identity invention with a system dynamics approach

Drs. Karolina Nieberle, Susanne Braun, Robert Lord (Durham University)

- Purpose of the project is to model the process of how first year students in university invent their initial leader and follower identities. We studied identity fluctuations at the daily-level across three different contexts across a year.
- Working paper reviewed by many colleagues including Dr. Steven Boker (UVA). Paper presented at AOM 2021. Paper also presented at JAP paper development workshop.
   Paper was revised with plans to submit to JAP in coming weeks.
- In addition to central paper, I am working on developing a Shiny application to easily visualize system dynamics with Dr. Steven Boker.

Current | 2020

# Using supervised learning to classify leadership scale items in terms of memory processing

Drs. Robert Lord (Durham University), Tiffany Keller Hansbrough (Farleigh Dickinson), Janey Zheng (Durtham University), Paul Hanges (Maryland)

- Purpose of this project is to use our multiple samples of past leadership ratings (N > 30000), to train a classification model to identify the role of item characteristics in memory processing for leadership judgements.
- We are working on a grant submission for funding from the US Army Research Institute to fund additional data collection and other resources.
- Ultimate goal will be to create a shiny application that can serve as an instrument development tool, so that people can input items they are working on and identify the type of memory processing people would use for that item.

Current | 2019

#### Race, identity, & leadership emergence

Drs. Tyree Mitchell (LSU), Patrick Coyle (La Salle University)

- Purpose of this project is to test our theory about the complicated role of identity
  expression in organizations. We utilize a sample of student teams working over time. The
  paper originally received a revision, but we are now working on an agent-based model to
  test the temporal implications of race on leadership over time, with plans of resubmitting
  the paper.
- I am leading the development of the agent-based model where we simulate teams with different combinations of the core study variables. We will next manipulate some of the assumptions about diversity and teams.
- I am using this paper to prepare a paper on using agent-based models to study team dynamics with a walk-through tutorial.

Current | 2021

### Modeling the power of affect in leadership judgments

Drs. Tiffany Keller Hansbrough (Fairleigh Dickinson), Paul Hanges (University Maryland), Roseanne Foti (Virginia Tech), Robert Lord (Durham University)

- We have designed two experiments where we test the role of affect on accuracy in leadership judgements. I am using causal random forest analysis to assess what factors lead to the largest treatment effect.
- Initial paper proposal received inivitation for full paper at Leadership Quarterly, but was pulled because of timeline constraints. Plans for data collection still on going.

## Current 2020

## Using Episodic Processing to Lower the Influence of Liking on Leadership **Judgments**

Drs. Tiffany Keller Hansbrough (Fairleigh Dickinson), Roseanne Foti (Virginia Tech), Robert Lord (Durham University)

- Based on our grant funded by the Army Research Institute, we have three studies illustrating that when individuals use more episodic processing when making leadership judgments, they are less influenced by how much they like their supervisor.
- I am lead author on the paper related to this project. Initial paper presented at SIOP 2021. Full paper submission planned in the next month.



## ■ BLOGS WRITTEN (ABOUT)

## Current 2020

Currently writing posts on data analysis tutorials using R, improving the process of team science, and other topics.

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## INDUSTRY EXPERIENCE

## Current

2021

### **Advisor on Implementation Science Committee**

Promote Care Prevent Harm

• https://promotecarepreventharm.org/advisors

• Lead developer on Shiny application used to collect data and assess development of selfregulation in schools.

## 2017 2017

#### **Summer Graduate Assistant**

Office of the Provost

Virginia Tech

- Assisted in creating evaluation tool for University's "new faculty grant".
- Co Authored article published in issue of journal of Society of Women Engineers magazine.

## 2016 2015

## **Professional Graduate Assistant**

University Office of Professional Development (UOPD)

Virginia Tech

- Designed/distributed questionnaires for UOPD's professional development programs using Qualtrics.
- Shadowed/assisted various speakers during UOPD's organizational development workshops.

# R WORKSHOPS TAUGHT

### 8/2021 • Transcribing text and initial text analysis using R

Durham University Centre for Leadership & Followership

- Taught 2-hour long workshop to smaller group of faculty and graduate students.
- Covered how to use "TranscribeR" package and "tidytext" package in R to analyze text

### 2/2021 • Introduction to the Tidyverse and data analysis in R

Virginia Tech ILT Lab

12/2020

2021

2020

2020

• Taught 1.5 hour long workshop to a small group of PhD students and undergraduates.

# I have my data. Now what? A tutorial on data cleaning, wrangling, and initial analysis via R

**Durham University PhD Students** 

• Taught 2-hour long workshop which served as an introduction to R for social scientists to a group of 15+ PhD Students.

## **E** CONFERENCE PRESENTATIONS

An application and tutorial for creating within-person memory-sourced leadership scales

Speaker & Lead Author • Academy of Management Annual Conference

• Authored with Drs. Robert Lord, Tiffany Keller Hansbrough and Roseanne Foti

More than liking: the role of memory systems and language in leadership ratings

Lead author on Poster

Society of Industrial Organizational Psychology Annual Conference

• Authored with Drs. Robert Lord, Tiffany Keller Hansbrough and Roseanne Foti

Assessing the impact of self-identity on organizational outcomes using an implicit measure

Speaker & Lead Author • Academy of Management Annual Conference

• Authored with Drs. Robert Lord, Tiffany Keller Hansbrough and Roseanne Foti

Explaining how and when race related to leadership emergence

co-Author on Poster Society of Industrial Organizational Psychology Annual Conference

• Authored with Dr. Tyree Mitchell, Dr. Pat Coyle, Gavin Williamson, Victoria Ricedorf

• Capturing the process of cohesion emergence using continuous rating assessments.

Author, Speaker & Organized Symposium

Society of Industrial Organizational Psychology Annual Conference

• Authored with Dr. Charles Calderwood and Zach Mastrich

2019	•	Ready & willing: assessing profiles of leader/follower self-schemas.  Author & Speaker    ◆ Society of Industrial Organizational Psychology Annual Conference  • Authored with Dr. Roseanne Foti
2019		Agent-based modeling: current and future directions in organizational psychology.  co-Author on Poster ♥ Society of Industrial Organizational Psychology Annual Conference  • Authored with Dr. Trevin Glasgow & Dr. Roseanne Foti
2018		An examination of psychological collectivism using item response theory.  co-Author on Poster ♥ Society of Industrial Organizational Psychology Annual Conference  • Authored with C. Du & Dr. Roseanne Foti
2017	•	Putting two-and-two together: using sociometric measures to capture cohesion emergence  Speaker & Lead Author  ◆ Society of Industrial Organizational Psychology Annual Conference  • Authored with Dr. Michael Braun
2017		Increasing the power to detect adverse impact in small selection contexts.  co-Author on Poster    Society of Industrial Organizational Psychology Annual Conference  Authored with Dr. Maureen McCusker, Derek Burns, Nathan Wycoff, & Dr. Neil Hauenstein
2017		The role of the "mere presence effect" in the development of intra-group cohesion.  Lead author on Poster

• Authored with Drs. Yashna Shah, Danny Axsom, & Roseanne Foti

annual conference for The Society for the Improvement of Psychological Science (SIPS). From this and other experiences, I developed a passion for improving science through improved research methodology. If you are

interested in an expanded list of presentations, please email me.

I received a travel award to attend the