

## THOMAS BRYAN SMITH

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Postdoctoral Associate  
Bureau of Economic and Business Research

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July 2021

### *Education*

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- Ph.D UNIVERSITY OF FLORIDA (2015-2020)  
*Department of Sociology and Criminology & Law*
- M.S. UNIVERSITY OF PENNSYLVANIA (2014-2015)  
*Department of Criminology*
- B.A. UNIVERSITY OF BIRMINGHAM (2011-2014)  
*Department of Political Science and International Studies*

### *Research and Teaching Interests*

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- ❖ Machine Learning and Natural Language Processing
- ❖ Criminal, Social, and Behavioural Networks
- ❖ Biosocial Criminology
- ❖ Data Science and Quantitative Methods

### *Dissertation*

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“A Theory of Biosocial Support: An Integration of Social Support Theory and Behavioural Genetics”  
Committee: Chris L. Gibson, chair; Marvin Krohn, Abigail A. Fagan, and Gregory Webster.

### *Publications*

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#### Peer Reviewed

**Smith, Thomas Bryan**, Till Krenz, Raffaele Vacca, & Christopher McCarty (2021). Great minds think alike, or do they often differ? Research topic overlap and the formation of scientific teams. *Journal of Informetrics*, 15(1): 101104. DOI: 10.1016/j.joi.2020.101104

**Smith, Thomas Bryan** (2021). Gang crackdowns and offender centrality in a countywide co-offending network: A networked evaluation of Operation Triple Beam. *Journal of Criminal Justice*, 73: 101755. DOI: 10.1016/j.jcrimjus.2020.101755

**Thomas Bryan Smith** & Chris L. Gibson (2020). Marital Strain, Support, and Alcohol Use: Results from a Twin Design Statistically Controlling for Genetic Confounding. *Substance Use & Misuse*, 55(3): 429-440. DOI: 10.1080/10826084.2019.1683202

### **Under Review**

**Smith, Thomas Bryan**, Raffaele Vacca, & Ilaria Capua (2020) Natural language processing and network analysis provide novel insights on policy and scientific discourse around Sustainable Development Goals. *Scientific Reports*.

### **In Preparation**

**Smith, Thomas Bryan**, Ruijie Mao, Stan Korotchenko, & Marv Krohn (2021) Partners in Criminology: leveraging machine learning and network science to study criminological topics and collaboration.

**Smith, Thomas Bryan** & Yanick Charette (2021) Friends for a reason, or co-offenders for a season? Examining variation in and predictors of co-offending relationship duration.

Canarte, David, Raffaele Vacca, & **Thomas Bryan Smith** (2021) Systematic Review of Social Support and Health in Migrants.

### **Selected Other Publications**

**Smith, Thomas Bryan** & Raffaele Vacca (2018) “Creative solutions to elusive data: web-scraping online police reports to map co-offending networks in US cities”. Bureau of Economic and Business Research, University of Florida. Available at: <https://www.bebr.ufl.edu/networks/website-article/creative-solutions-elusive-data-web-scraping-online-police-reports-map-co>

### ***Professional Presentations and Talks***

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#### **Conference Presentations**

##### *Upcoming*

**Smith, Thomas Bryan**, Ruijie Mao, Stan Korotchenko, & Marv Krohn (2021) “Partners in criminology: leveraging machine learning and network science to study criminological topics and collaboration”. Paper Presentation at American Society of Criminology. Chicago, IL.

**Smith, Thomas Bryan** & Yanick Charette (2021) “Friends for a reason, or co-offenders for a season? Examining variation in and predictors of co-offending relationship duration”. Paper Presentation at American Society of Criminology. Chicago, IL.

##### *Completed*

**Smith, Thomas Bryan** & Raffaele Vacca (2021) “Evaluating the impact of Clinical and Translational Science Awards on scientific collaboration, consensus, and innovation in research on underserved and vulnerable populations”. Paper Presentation at Networks 2021. Virtual Delivery.

- Smith, Thomas Bryan, Raffaele Vacca, & Ilaria Capua** (2020) “Mapping interdependencies among the UN’s Sustainable Development Goals via semantic overlap in stated targets and current progress”. Paper Presentation at International Network for Social Network Analysis, Sunbelt 2020. Paris, France. Virtual Delivery.
- Smith, Thomas Bryan** (2019) “Crackdowns and Co-offending: Examining the impact of “Operation Triple Beam” on county-wide co-offending network structure and centrality”. Paper Presentation at American Society of Criminology. San Francisco, CA.
- Smith, Thomas Bryan, Till Krenz, Raffaele Vacca, & Christopher McCarty** (2019) “Assembling the Academic Team: analysing semantic similarity between researchers to map research topic networks”. Paper Presentation at International Network for Social Network Analysis, Sunbelt 2019. Montreal, Canada.
- McCarty, Christopher, Giuseppe Labianca, Raffaele Vacca, **Thomas Bryan Smith** (2019) “Cross-University Network intervention using a Targeted Topic Model”. Paper Presentation at International Network for Social Network Analysis, Sunbelt 2019. Montreal, Canada.
- Smith, Thomas Bryan & Lindsay Leban** (2018) “Motivated Offenders or Unconventional Guardians? Using a decade of web scraped incident data to examine the association between co-offending network centrality and victimization”. Paper Presentation at American Society of Criminology. Atlanta, GA
- Smith, Thomas Bryan & Daniel Acton** (2017) “Network Centrality of Hot Spots: Generating Arrest Location Networks with the Police 2 Citizen Bulletin Data”. Paper Presentation at American Society of Criminology. Philadelphia, PA.
- Smith, Thomas Bryan** (2016) “Siblings, Sweethearts and Scotch: Controlling for Heritability in the Association between Marital Quality and Alcohol Problems”. Paper Presentation at American Society of Criminology. New Orleans, LA.

### Other Presentations

- Raffaele Vacca, Tang, Kevin, Till Krenz, & **Thomas Bryan Smith** (2020) COVID SEED Awardees Series: accelerator of science – Evidence from convergence in collaboration and language. University of Florida, FL.
- Tang, Kevin, Raffaele Vacca, Till Krenz, & **Thomas Bryan Smith** (2020) College of Liberal Arts and Sciences AI Workshop: Natural Language Processing. University of Florida, FL.

### *Research Appointments*

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#### Postdoctoral Associate (*Summer 2020 - Present*)

The primary duties and responsibilities of this position include, but are not limited to: (1) conducting analysis of data on scientific research and collaboration as part of research projects with the BEBR/CTSI Network Science Program and the UF IFAS One Health Center; (2) participating in the preparation and submission of peer-reviewed articles and conference presentations from this research; (3) participating in the preparation of proposals for extramural research funding that is relevant to the mission and goals of the BEBR/CTSI

Network Science Program; (4) contributing to other research, teaching or service activities that are relevant to the Program, such as seminar series, guest lectures, evaluation panels, etc.

*Clinical and Translational Science Institute Network Science Program and Bureau of Economic and Business Research (BEBR), University of Florida*

Research Assistant (*Fall 2018 – Spring 2020*)

Responsibilities include or have included the development of topic modelling functions and tools within R Statistical Computing Software which can be used to identify pairs or groups of researchers whose interests are in alignment, or identify potential candidates for grants based upon topical overlap with grant solicitations.

*Clinical and Translational Science Institute Network Science Program and Bureau of Economic and Business Research (BEBR), University of Florida*

### ***Research Support***

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2019-2020. A Biosocially Informed Theory of Social Support (Co-PI)

*Informatics Institute, University of Florida. \$10,452.*

2019-2020. The One Health Nexus: Mapping the evolution of scientific collaborations and research topics around UF One Health (Research Assistant; PI: Raffaele Vacca)

*One Health Center of Excellence, University of Florida. \$20,201.*

2015-2018. University of Florida Graduate School Fellowship

*Graduate School, University of Florida.*

### ***Teaching***

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#### ***University Courses***

Research Methods in Criminology (CCJ 3701) (*Spring 2018*)

*Lab Instructor/Teaching Assistant*

Research Methods in Criminology (CCJ 3701) (*Fall 2017*)

*Lab Instructor/Teaching Assistant*

Research Methods in Criminology (CCJ 3701) (*Spring 2017*)

*Instructor*

Research Methods in Criminology (CCJ 3701) (*Fall 2016*)

*Lab Instructor/Teaching Assistant*

#### ***Summer Schools and Short Courses***

Theory, Methods and Applications of Personal Networks (*July 2019*)

*Summer School at the Department of Social and Cultural Anthropology, Autonomous University of Barcelona, Spain.*

Introduction to R for the Social Sciences (*Fall 2017; Fall 2018; Fall 2019*)

*University of Florida Department of Sociology and Criminology & Law and Informatics Institute.*

### ***Conference Workshops***

Workshop Session H: R Statistical Software (Fall 2016)  
*The Florida Society of the Social Sciences 11<sup>th</sup> Annual Conference*  
*Instructed on behalf of the Criminology, Law and Society Syndicate*

### ***Professional Service***

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#### ***Conferences***

2018. Conference Paper Reviewer.  
*International Conference on Advances in Social Networks and Mining*

#### ***University of Florida***

2017-present. Teaching member of the UF R Social Sciences Interest Group (RSSIG).  
2017-2018. Treasurer, Criminology, Law and Society Syndicate.  
*Department of Sociology and Criminology & Law*  
2016-2017. President, Criminology, Law and Society Syndicate.  
*Department of Sociology and Criminology & Law*

### ***Honors and Awards***

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2020. Ronald L. Akers Graduate Student Paper Award  
*Department of Sociology and Criminology & Law, University of Florida*  
2017. Gorman Award for Excellence in Quantitative Research  
*Department of Sociology and Criminology & Law, University of Florida*

### ***References***

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#### **Raffaele Vacca**

Assistant Professor of Sociology  
Department of Sociology and Criminology & Law  
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