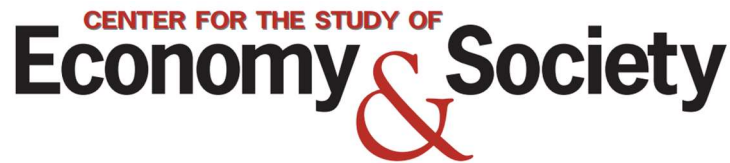


Conference Program
5th Future of the Social Science Conference

Sponsored by



Convened at the NYC Cornell Club
February 25, 2023

8:25 – 8:30 **Opening and welcome**, Victor Nee, Cornell University

8:30 – 9:50 **Humanities and Social Science Exchange on the Mind and AI**

Chair: Brett de Bary, Cornell University

Presenter: Laurent Dubreuil, Cornell University
“Cognition, Language and the ‘Three Cultures:’ A Trans-Disciplinary Exploration of Poetry and Artificial Intelligence,” in part co-authored with Morten Christiansen.

Abstract: This oral talk will briefly make a few epistemological points about transdisciplinary research, and especially if conducted across what C.P. Snow called the three (and not only two) “cultures.” From there, the bulk of our time will be devoted to the presentation of the ongoing experiment on Artificial Intelligence (namely the instruct version of GPT3) and poetry (in English) co-led by Laurent Dubreuil and Morten Christiansen.

Chair: Laurent Dubreuil, Cornell University

Presenter: John Padgett, University of Chicago
“Faulkner’s Assembly of Memories into History: Narrative Networks in Multiple Times”

Abstract: In *Absalom, Absalom!* William Faulkner develops a processual model for how multivocal narrative history and time can emerge from conversation among heterogeneous subjective voices, both living and dead. Four social processes of memory assembly are involved: individual memories, changing perspectives, symmetry, and resonance. Iterated stories about characters in the past construct layered identities for narrators in the present by synchronizing them into multiple time registers: phenomenological time, episodic time,

narrative time, epistemological time, projective time, and historical time. Different selves within the same person, Faulkner implies, emerge from these six ways of remembering, which brains and conversations throw up.

9:50 – 10:00 *Refreshment break*

10:00 – 10:40 **Mining Text for Social Patterns**

Chair: Paul DiMaggio, New York University

Presenter: David Strang, Cornell University
“An evolving elite: *New York Times* obituaries from 1851 to today,” co-authored with Alec McGail and Reid Ralston.

Abstract: We present preliminary findings from an ongoing investigation of obituaries published in *The New York Times*. These accounts provide insight into social understandings of worth and achievement. Whose lives does *The Times* publicly celebrate, and what do its choices tell us about a changing society and culture? The project draws on recent advances in automated textual analysis to examine some 60000 obituaries appearing in the last 40 years as well as a random sample of 6000 obituaries published over the paper’s history. Results center on trends in the background and achievements of the obituarized, and on the structure of the social network resulting from their appearance in each other’s life stories.

10:40 – 11:00 *Refreshment break*

11:00 - 11:40 **Theory and Prediction of the Middle Range**

Chair: Arnout van de Rijt, European University Institute

Presenter: Victor Nee, Cornell University
“Theory of Emergence: Knowledge Spillover, Rewiring and Innovation,” co-authored with Sirui Wang and Michael Macy.

Abstract: Why do social interactions linked to sharing knowledge drive the emergence of a regional technology economy? We proffer a positive theory and explanation-sketch identifying mechanisms and initial conditions in an explanation of emergence of a knowledge economy. We trace the emergence of a knowledge economy, from a small group of founding members to a regional technology economy. With the rapid influx of new people, knowledge spillover motivates technologists and entrepreneurs to reach out beyond existing contacts to explore the expanding knowledge economy and interact with new acquaintances in the search for novelty. In the course of network rewiring in knowledge clusters, individuals share knowledge and cooperate in innovation, and move to more central positions when they interact. Mirroring the trends of increased knowledge

exploration and innovative activity at the individual level, new startup firms founded during this time period come to span a greater number of industry groups. Endogenous dynamics of overlapping knowledge networks lie behind the rapid morphogenesis of new regional technology economies in New York City and Los Angeles.

11:40 – 12:00 **Novel Methods in Tracing Dynamics of Social Behavior**

Chair: John Padgett, University of Chicago

Presenter: Sirui Wang, University of Pennsylvania and McKinsey Consulting
“Methods of quantifying knowledge spillover and network rewiring,” co-authored with Michael Macy and Victor Nee.

Abstract: Technological innovations are a major driver of economic development that depend on the exchange of knowledge and ideas among those with unique but complementary specialized knowledge and knowhow. However, measurement of specialized knowledge embedded in technologists, scientists and entrepreneurs in the knowledge economy presents an empirical challenge as both the exchange of knowledge and knowledge itself remain difficult to observe. We develop novel measures of specialized knowledge using a unique dataset of longitudinal records of participation at technology-focused meetup events in two regional knowledge economies. Our measures of specialized knowledge can be further used to quantify the extent of knowledge spillover and network rewiring and uncover underlying social mechanisms that contribute to the development of increasingly complex and differentiated networks in maturing knowledge economies. We apply these methods in the context of the rapid morphogenesis of emerging regional technology economies in New York City and Los Angeles.

12:00 - 1:30 **Lunch**

1:30 – 2:10 **Behavioral Experiments in the Social Science**

Chair: Duncan Watts, University of Pennsylvania

Presenter: Delia Baldassarri, New York University
“Everyday Discrimination in Public Spaces: A Field Experiment in the Milan Metro,” co-authored with Nan Zhang and Johanna Gereke.

Abstract: A large scholarship documents discrimination against immigrants and ethnic minorities in institutional settings such as labour and housing markets in Europe. We know less, however, about discrimination in informal and unstructured everyday encounters. To address this gap, we report results from a large-scale field experiment examining the physical avoidance of immigrants as an unobtrusive yet important measure of everyday discrimination in a multiethnic European metropolis. In addition to varying confederates’ migration background and race, we also vary signals of status (business versus casual attire) in order to shed light on the mechanisms underlying discriminatory patterns. We find that natives are averse to contact with Nigerian confederates, but do not discriminate

against Chinese confederates. Furthermore, manipulating confederates' attire has little effect on natives' behaviour. Overall, our results highlight the everyday burdens borne particularly by individuals of African descent in commonplace, 'street-level' encounters.

2:10 – 2:50 **Integrative Experiment Design in the Social and Behavioral Science**

Chair: Filiz Garip, Princeton University

Presenter: Duncan Watts, University of Pennsylvania
"Beyond Playing 20 Questions with Nature," co-authored with Abdullah Almaatouq, Thomas Griffiths, Jordan Suchow, Mark Whiting and James Evans

Abstract: The dominant paradigm of experiments in the social and behavioral sciences, which Alan Newell once characterized as "playing twenty questions with nature," assumes that theory is advanced one experiment at a time. In this article, we revive Newell's critique that experiments in this "one-at-a-time tradition" are fundamentally incommensurable; hence, the knowledge they generate cannot be easily integrated across experiments conducted under different conditions. We then describe an alternative approach, integrative experiment design, which we argue is better suited for generating cumulative empirical and theoretical knowledge.

2:50 – 3:00 *Refreshment break*

3:00 – 3:40 **Matthews Effect and Cumulative Advantage**

Chair: Cristobal Young, Cornell University

Presenter: Arnout van de Rijt, European University Institute
"Cumulative advantage is not about inequality but about mobility," co-authored with Lucas Sage.

Abstract: That success breeds success is intuitively a near-universal feature of social systems, as there are myriad mechanisms that may theoretically drive it. And yet the cumulative advantage hypothesis is regularly rejected in longitudinal records of success. We argue that this puzzling situation can be explained by the continued use of increasing inequality as a tell-tale sign of cumulative advantage. Formal models of cumulative advantage do not imply that inequality in a cohort grows with time nor do they imply that gaps between advantaged and disadvantaged groups widen (Allison et al. 1982; DiPrete & Eirich 2006). We argue that both on technical grounds as well as on substantive grounds decreasing mobility rather than increasing inequality should be the focus of empirical investigation. The technical grounds are that in models of cumulative advantage mobility declines, so mobility trends can serve to falsify the cumulative advantage hypothesis. The substantive grounds are that unless mobility decreases, it is not the rich who get richer but those who were previously poor. We reanalyze three datasets used in previous research to study cumulative advantage, and show that while inequality trends vary, in each mobility monotonically declines.

3:40 – 3:50 *Refreshment Break*

3:50 – 4:30 **Climate Change and International Migration**

Chair: Delia Baldassarri, New York University

Presenter: Filiz Garip, Princeton University
“Climate Change, Migration and Inequality,” accompanied by the article “Weather deviations in Mexico linked to undocumented U.S. migration and its duration,” co-authored with Julia Zhu, Nancy Chau, and Amanda Rodewald.

Abstract: As of 2017, there are about five million undocumented Mexican migrants in the United States; majority had been in the country for 10 years or longer (1). Our paper connects extreme weather conditions in Mexico to undocumented migration to the United States and its typical duration. Our analysis uses data from 210,435 individuals observed between 1991 and 2016 in 38 Mexican communities that depend on rain for corn cultivation. For each community-year, we compute precipitation and temperature deviations from the historical normal during the corn growing season (May to August). We use statistical models to relate lagged weather deviations to individuals’ decisions to migrate to the United States without documents, and to migrants’ decision to eventually return to Mexico, while controlling for regional and temporal confounding factors. We find higher likelihood of undocumented migration in areas experiencing lower-than-average rainfall. We also show that, in any given year, undocumented migrants in the United States are less likely to return to communities experiencing extreme weather. These findings establish the role of weather shocks in undocumented Mexican migration to, and eventual settlement in, the United States. The findings also suggest that extreme weather conditions, which are likely to increase with anthropogenic climate change, can lead to clandestine mobility across borders in other regions of the world, potentially exposing migrants to risks from traveling dangerous terrains and relying on smugglers.

4:30 – 5:10 **Multiple Data Sets and Triangulation in the Behavioral Science**

Chair: Barnaby Marsh, Institute for Advanced Study, Princeton University

Presenter: Cristobal Young, Cornell University
“Inequality in Social Capital: Evidence from Many Independent Data Sets,” co-authored with Barum Park, Nan Feng, and Ben Cornwell.

Abstract: What is the relationship between inequality and social capital? Do the dynamics of social ties, trust, and interaction provide pathways for the disadvantaged to find social mobility? Or do social connections mostly create closure and opportunity-hoarding at the top? We advance two core empirical questions. First, what is the Gini coefficient for social capital, and how does it compare to income inequality? Is social capital broadly shared in society, or is it concentrated in some individuals but not others? Second, how much is social capital tied to other inequalities? Does social capital offset differences in material

wealth, or does it compound inequality as yet another asset that the rich have more of? To answer these dual questions, we build ‘big data’ from hundreds of thousands of respondents from 25 independent datasets collected in the U.S., abstracting from the possible flaws in any given data set. We include many measures of social capital and pool together a quarter-century of U.S. social survey data. We find a striking range of results. In some areas, important stylized facts about inequality readily emerge. In other areas, the evidence is inconsistent across data sets, challenging any simple narrative about who most benefits from social capital.

5:10 - 5:45 **Open Discussion and Closing**

Chair: David Strang, Cornell University