

Lorenzo Stanca

Last updated 15th November, 2021

Northwestern
Kellogg

Placement Director: Professor Alessandro Pavan 847-491-8266 alepavan@northwestern.edu
Placement Administrator: Alison Stoute 847-491-5694 econjobmarket@northwestern.edu

Contact Information

Department of Managerial Economics and Decision Sciences
Northwestern University
2211 Campus Drive
Evanston, IL 60208
Mobile: 773-290-4906
lorenzo.stanca@kellogg.northwestern.edu
<https://sites.northwestern.edu/lms597/>
Citizenship: Italian

Fields

Research: Microeconomic Theory, Decision Theory.

Education

Ph.D., Managerial Economics and Strategy, Northwestern University (anticipated) 2022
Dissertation: *Essays on Decision Theory*
Committee: Peter Klibanoff (Co-Chair), Marciano Siniscalchi (Co-Chair), Nabil Al-Najjar.
M.S., Managerial Economics, and Strategy, Northwestern University 2017
M.S., Economics, Bocconi University, 2016
B.A., Economics, Bocconi University, 2014.

Teaching Experience

Teaching Assistant, Northwestern University year 2017–today
MECS 560-2, Dynamic Optimization in Economics.
DECS 430-0, Business Analytics.
DECS 452-0, Game Theory and Strategic Decision Making.

Refereeing

Journal of Economic Theory, Economic Theory.

Job Market Paper

“Recursive Preferences, Correlation Aversion, and the Temporal Resolution of Uncertainty.”

Abstract: Models of recursive utility are commonly associated with a preference for early resolution of uncertainty, often regarded as an important economic channel in applications. This paper provides a different understanding of recursive preferences based on attitudes toward correlation, and in particular aversion to intertemporally correlated risks. I formalize and investigate such a property. I show that an increase in correlation makes a decision maker that prefers early resolution worse off even when increasing correlation also provides non-instrumental information about future consumption. Relatedly, I show that one can separate risk aversion from intertemporal substitution by considering a domain of choice in which pure preferences for early resolution of uncertainty play no role. Finally, I apply the insights of this paper to better understand the features possessed by existing models of recursive utility. I argue that attitudes toward correlation are the key behavioral feature driving the results of consumption-based asset pricing models.

Publications

“Smooth aggregation of Bayesian experts”

Journal of Economic Theory, Volume 196, September 2021.

Brief abstract: I study the ex-ante aggregation of preferences of Bayesian agents in a purely subjective framework. I relax the assumption of a Bayesian social preference while keeping the Pareto condition. Under a simple axiom that relates society’s preference to those of the agents, I obtain an additively separable representation of society’s preference. Adding an ambiguity aversion axiom I obtain a representation that resembles the Smooth Ambiguity Criterion of Klibanoff et al. (2005). I then briefly consider applications of this framework to inequality and treatment choice under ambiguity.

“Foundations of ambiguity models under symmetry: α -MEU and smooth ambiguity” with Peter Klibanoff, Sujoy Mukerji and Kyoungwon Seo.

Journal of Economic Theory, Forthcoming on the Special issue on Ambiguity and Robustness.

Brief abstract: The α -MEU model and the smooth ambiguity model are two popular models in decision making under ambiguity. However, the axiomatic foundations of these two models are not completely understood. We provide axiomatic foundations of these models in a symmetric setting with a product state space S^∞ . This setting allows marginals over S to be linked behaviorally with (limiting frequency) events. Bets on such events are shown to reveal the i.i.d. measures that are relevant for the decision maker's preferences and appear in the representations. By characterizing both models within a common framework, it becomes possible to better compare and relate them.

“A simplified approach to subjective expected utility.”

Journal of Mathematical Economics, Volume 87, March 2020, Pages 151-160.

Brief abstract: I provide a novel simplified approach to Savage's theory of subjective expected utility. Such an approach is based on abstract integral representation theorems in the space of measurable functions. The advantage of such an approach is that these results can be used to easily obtain variations on Savage's theorem, such as representations with state-dependent utility or probability measures that can have atoms. Finally, I discuss how such an approach can be used in other settings such as decision making under ambiguity.

Working papers

“Robust Bayesian Choice”

Brief abstract: A major concern with the Bayesian approach is the use of a unique probability measure to quantify all relevant uncertainty. Specifying a unique probability with extreme precision when only vague or fragmentary information is available may not be feasible. This would be less of a concern under a form of prior robustness, i.e. when a minor variation in the prior would lead to decisions with similar value. This paper studies prior robustness as a form of continuity of the value of a decision problem under uncertainty. I show that this notion of robustness can be characterized by a form of stable choice over a sequence of perturbed decision problems, i.e. decision problems in which the available acts are perturbed in a precise fashion. I then study a measure of prior robustness that captures the sensitivity of the value under perturbations of the prior. Finally, I consider applications to portfolio choice and a consumption-savings problem.

Preliminary work

“A model of smooth discounting.”

Brief abstract: Discounted expected utility is the standard model of decision making under uncertainty. However, it has several shortcomings, both at the experimental and theoretical level. For example, it conflates attitudes toward risk with intertemporal substitution; it takes the rate of time preference as “given” or exogenous; it implies risk-seeking attitudes over prospects that contain uncertainty only over the date of payment. We propose, in an axiomatic framework, a new model of multiple discount factors that addresses such shortcomings while maintaining dynamic consistency. We illustrate important implications of this model for the theory of asset pricing.

“Deliberate randomization and preference for correlation” with Xiaoyu Cheng.

Extended abstract: We revisit the literature on stochastic choice based on an observation from the existing experimental evidence: A decision-maker (DM) often chooses differently from the same set of alternatives when asked to choose multiple times. The existing literature offers an interpretation that the DM has a convex preference over lotteries, i.e., strictly prefers a non-degenerate probability distribution over the alternatives to any degenerate ones. Because the experiments are often conducted in a dynamic setting, we observe that the subjects' choices also exhibit a form of negative correlation: if an alternative was chosen in the past, it is less likely that it will be chosen today. In other words, it shows a form of intertemporal preference for variety. In order to capture such a preference, we translate the convex preference over lotteries to a convex preference in an intertemporal setting. Specifically, we introduce a dynamic extension of the Cautious Expected Utility model and show that it can generate this pattern of choice. In addition, we aim to show that

the converse is true, i.e., any stochastic choice function that exhibits negative correlation over time is the product of the optimization of some dynamic convex preference.

“Understanding contagion dynamics when new infections are partially identified”

Brief abstract: As a consequence of missing data on tests and their inaccuracy, the number of new COVID-19 cases is not measured correctly, hampering the estimation of parameters that are used by policy makers to understand the spread of the pandemic. Following the literature on partial identification, I show how one can obtain bounds of the number of new infections. I then present a Poisson auto-regressive model which can be employed to understand the contagion dynamics of COVID-19 when one observes an interval valued process given by the bounds obtained on the number of new infections. I show that the effective reproduction R_t is substantially underestimated in phases of growth of the epidemic and discuss the policy implications of this fact.

Languages

Italian (native), English (fluent), Spanish (intermediate).

References

Professor Peter Klibanoff
MEDS
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847-491-5153
peterk@kellogg.northwestern.edu

Professor Marciano Siniscalchi
Department of Economics
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847-491-5398
marciano@northwestern.edu

Professor Nabil Al-Najjar
MEDS
Northwestern University
2211 Campus Drive
Evanston, IL 60208
847-491-5426
al-najjar@kellogg.northwestern.edu