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## DANIEL JOSEPH MARTIN

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19 West 4<sup>th</sup> Street, 6<sup>th</sup> Floor  
New York, NY 10012

### EDUCATION

**Current:** New York University, Ph.D Program in Economics, beginning August 2007  
New York University, M.A. in Economics, May 2007  
Vanderbilt University, B.A. in Economics, *magna cum laude*, May 1998

### HONORS AND AWARDS

GSAS Student Travel Grant, 2009  
Scholarship for Urrutia Elejalde Summer School, San Sebastián, 2009  
C.V. Starr Center Travel Grant, 2008, 2009  
Center for Experimental Social Science Travel Grant, 2008  
Henry MacCracken Fellow, 2007-2010  
Sartain Lanier Scholar, 1994-1998

### RESEARCH INTERESTS

Primary: Revealed Preference, Experimental Economics  
Secondary: Social Networks, Labor Markets, School Choice

### WORKING PAPERS

“Search and Satisficing” (Joint with Andrew Caplin and Mark Dean)

Decision makers often have imperfect information. We develop a choice theoretic experiment to explore choice mistakes that result from incomplete search. Our choice process methodology generates data on how choices change with contemplation time, thereby illuminating the search process. We demonstrate that most subjects behave in line with a reservation-based model of sequential search, altering their reservation utilities in response to the size of the choice set and the complexity of the environment. These findings support Simon's model of satisficing behavior and suggest simple measures of contextual effects on the quality of decisions.

### CURRENT RESEARCH

“Gender and Job Choices”

Disparity in pay and promotion between men and women is a persistent labor market phenomenon. Recent papers (Niederle and Vesterlund 2006, Dohmen and Falk 2006) have used laboratory experiments to support the claim that women tend to be less competitive than men in mixed gender environments, which could explain some of the inequality in labor market outcomes. This paper shows that observed differences in competitiveness depend crucially on the way in which tasks are assigned to subjects. I find that in cases where individuals are free to select the task in which to compete, women are equally as competitive as men. However, in cases where tasks are exogenously assigned, men are more competitive than women – regardless of the task. In addition to exposing an important limitation to previous experimental findings, this result also suggests a new way to test whether differences in competitiveness are behind gender inequality in the workplace. Controlling for other factors, I expect the gap in pay and promotion to be larger in cases where women are more restricted in their job choices.

“A Window into Incompleteness” (Joint with Hiroki Nishimura)

We use the choice theoretic experimental methodology introduced by Caplin, Dean, and Martin (2009) to reveal indecisiveness, as evidenced by wavering between selecting one of two or more choice objects. Although missing from the standard revealed preference approach, indecision is prevalent in choice settings with novel, complex, or risky options and has long been attributed to incomplete preferences (von Neumann and Morgenstern 1944, Aumann 1962). Thus, our choice data can be used to test a model of sequential search that includes incomplete preferences. Further, since indecision can be resolved, we consider a dynamic framework in which preferences evolve by becoming more complete over time.

“How Rational are your Choice Data?” (Joint with Mark Dean)

This paper describes a fast and exact method for computing the Houtman-Maks (HM) Index - the largest subset of a choice data set that is consistent with acyclicity. This measure provides a metric for determining how close a set of choice data are to ‘rationality’, in the sense that they can be modeled as having been derived from the maximization of a complete preference relation. We show that the problem of finding the maximal acyclic subset is isomorphic to a well-studied problem within computer science: the Minimum Set Covering Problem (MSCP). While the MSCP is NP-hard in the strong sense, there is a wide variety of algorithms built to solve this problem quickly and exactly for reasonably-sized data sets. This paper describes some of these algorithms and presents simulation results to demonstrate that our approach can be used to calculate the HM Index in under a second for cases that have previously been found insoluble.

**RESEARCH EXPERIENCE**

Research Assistant, Professor Andrew Caplin, Summer 2008  
Research Scientist, Ovation Research Group, 2002-2005  
Economist, Research Triangle Institute, 1998-2000

**TEACHING EXPERIENCE**

Department of Economics, Faculty of Arts and Science, New York University  
Teaching Assistant, Microeconomics Principles, Spring 2010  
Teaching Assistant, Macroeconomics Principles, Spring 2009, Fall 2009  
Teaching Assistant, Intermediate Microeconomics, Professor Christopher Flinn, Fall 2008  
  
Department of Economics, Stern School of Business, New York University  
Teaching Assistant, Microeconomics, Spring 2007

**PROFESSIONAL ACTIVITIES**

Presentations  
North American ESA Conference, Tucson, Arizona, 2009  
International Congress on Modelling and Simulation, Cairns, Australia, 2009  
International ESA Conference, Pasadena, California, 2008

Organizations  
President, Graduate Economics Association, New York University, 2008-2009  
Graduate Student Council Representative, New York University, 2008-2009

**OTHER**

Founder, WorkSmart, Inc.  
Inc. 5000 Fastest Growing Private Companies in America, 2007-2009