

## Pietro Ortoleva

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 Nationality: Italian

Placement Director: Efe Ok  
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Graduate Coordinator: Marjories Lesser  
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### EDUCATION

Ph.D, Department of Economics, New York University	2004 - <i>today</i>
Expected Completion: Spring 2009	
Laurea (BA) in Economics, Summa cum Laude, University of Turin,	1999 - 2004

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### REFERENCES

#### Professor Efe Ok (Chair)

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### RESEARCH INTERESTS

Decision Theory, Game Theory, Experimental Economics

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### TEACHING EXPERIENCE

Teaching Assistant, Economic Principles II, New York University	2007
Teaching Assistant, Economic Principles I, New York University	2006
Teaching Assistant, Microeconomics II (PhD, Professor David Pearce and Alessandro Lizzeri), New York University	2006
Instructor, European Business School, Milan (Italy)	2004

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### SELECTED AWARDS AND FELLOWSHIPS

Dean Dissertation Fellowship, New York University	2008
Best Third Year Paper Prize, New York University	2007
Gold Medal for the best Thesis in Economics at the University of Turin	2005
McCracken Fellowship, New York University	2004 - 2008
Mauro Gasbarri scholarship (2004), Mauro Gasbarri Foundation, Milan, Italy	2004 - 2005

## PROFESSIONAL ACTIVITIES

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### Presentations:

Risk, Uncertainty and Decisions (RUD) 2007, Tel Aviv University	2007
The 18th International Conference on Game Theory at Stony Brook University	2007
Brown University	2008
SED 2008 5th Conference on Economic Design	2008

### Refereeing:

Econometrica, American Economic Review, Journal of Economic Theory

## WORKING PAPERS

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### [1] **The Price of Flexibility: Towards a Theory of Thinking Aversion**

JOB MARKET PAPER

**Abstract.** The goal of this paper is to model an agent who dislikes large choice sets because of the “cost of thinking” involved in choosing from them. We take as a primitive a preference relation over lotteries of menus and impose novel axioms that allow us to separately identify the genuine preference over the content of menus, and the cost of choosing from them. Using this, we formally define the notion of *thinking aversion*, much in line with the definitions of risk or ambiguity aversion. We represent such preference as the difference between a monotone and affine evaluation of the content of the set and an anticipated thinking cost function that assigns to each set a thinking cost. We further extend this characterization to the case of monotonicity of the genuine rank and introduce a measure of comparative thinking aversion. Finally, we propose behavioral axioms that guarantee that the cost of thinking can be represented as the sum of the cost to *find* the optimal choice in a set and the cost to find out *which* is the optimal choice.

### [2] **Incomplete Preferences under Uncertainty: Indecisiveness in Beliefs vs. Tastes**

(with Efe Ok and Gil Riella, Revise and Resubmit, *Econometrica*)

**Abstract.** We investigate the classical Anscombe-Aumann model of decision-making under uncertainty without assuming the completeness axiom. We deduce the exact nature of preferences in this setup, and give a simple example that shows why one cannot use state-independent utility functions to represent such preferences (even for those that are separable and monotonic). In turn, we distinguish between the dual traits of indecisiveness in beliefs and indecisiveness in tastes. The former is captured by the Knightian Uncertainty model and the latter by the single-prior expected multi-utility model. We show how these dual models would jointly obtain on the basis of an ambiguity aversion property, and then show how each model may be deduced from this result in isolation. As an application, we provide a new characterization of the Anscombe-Aumann representation of a preference relation in which we obtain the completeness and monotonicity hypotheses as consequences of a standard ambiguity aversion axiom and completeness of risk preferences alone.

### [3] **Revealed (P)Reference Theory**

(with Efe Ok and Gil Riella)

**Abstract.** The goal of this paper is to develop, axiomatically, a reference-dependent choice model. Our model is formulated under the premises of revealed preference theory, and hence it does not take the “reference” for an agent as exogenously given in the description of a choice problem. Instead, by suitably relaxing the Weak Axiom of Revealed Preference, we *derive* the existence of reference alternatives, and the structure of choice behavior conditioned on those alternatives. The model is first developed in the (nonlinear) context of choice under certainty, and then it is given a tighter structure in the (linear) context of choice under uncertainty.

- [4] **Status Quo Bias, Multiple Priors and Uncertainty Aversion**  
(September 2008, *under review*).

**Abstract.** Motivated by the extensive evidence about the relevance of status quo bias both in experiments and in real markets, we study this phenomenon from a decision-theoretic perspective, focusing on the case of preferences under uncertainty. We develop an axiomatic framework that takes as a primitive the preferences of the agent for each possible status quo option, and provide a characterization according to which the agent prefers her status quo act if nothing better is feasible for a given set of possible priors. We then show that, in this framework, the very presence of a status quo induces the agent to be more uncertainty averse than she would be without a status quo option. Finally, we apply the model to a financial choice problem and show that the presence of status quo bias as modeled here might induce the presence of a risk premium even with risk neutral agents.

- [5] **Theory of Product differentiation in the Presence of the Attraction Effect**  
(with Efe Ok and Gil Riella)

**Abstract.** We apply the theoretical model developed in Ok, Ortoleva and Riella (2008) to the theory of product differentiation. We analyze the standard problem of a monopolist who offers a menu of alternatives to consumers of different types, but we allow for agents to exhibit a form of endogenous reference dependence like the attraction effect. We show that the presence of such biases might lead the economy back to an efficient equilibrium in which the monopolist extracts all the surplus, and that, when this bias is small, its presence increases not only the profits of the monopolist and the total welfare, but also the consumer surplus.

- [6] **Thinking Aversion and Portfolio Choice**

**Abstract.** This paper analyzes the investment decision of an agent who has to figure out the correct model to use in order to evaluate all available assets. This is a costly process. She can choose either to endure this cost, or to simplify her choice by looking only at a subset of the available assets. We show that such an agent tends to participate less in the market, to under-diversify her portfolio, or to diversify it naïvely, by investing equal amounts in a selection of assets. These predictions qualitatively match the empirical observations of the investments of households, both in general investment situations and in the choice of 401(k) plans. Moreover, in a partial equilibrium setting, if agents are not aware that others bear the cost of discovering which model to use, then even a small cost can induce a sizable effect on the equilibrium prices. This is due to a phenomenon similar to a multiplier: agents observe prices that are different than expected, and in turn modify expectations, which affect prices, which in turn affect expectations, and so on.

## WORK IN PROGRESS

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- [7] **Uncertain Probability vs. Uncertain Prize: An Experimental Study of Attitudes Towards Ambiguity**  
(with Kfir Eliaz)