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**Fields of Concentration:**

Macroeconomics  
Labor Economics  
International Economics

**Desired Teaching:**

Macroeconomics  
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International Economics

**Comprehensive Examinations Completed:**

May 2004 (Oral) Macroeconomics, International Economics (*both with distinction*)  
May 2003 (Written) Macroeconomics, Microeconomics

**Dissertation Title:** *Learning Your Comparative Advantages*

**Committee:**

Professor Giuseppe Moscarini  
Professor Joseph G. Altonji  
Professor Björn Brügemann

**Expected Completion Date:** May 2008

**Degrees:**

Ph.D., Economics, Yale University, (expected May 2008)  
M.Phil., Economics, Yale University, May 2005  
M.A., Economics, Yale University, May 2004  
B.A., Economics, (equiv. to *summa cum laude*), University of Athens, Greece, June 2002  
Exchange Student, Université de la Méditerranée, Aix-Marseille II, France, 2000

**Fellowships, Honors and Awards:**

Carl Arvid Anderson Prize, Cowles Foundation, Yale University, 2007-2008  
Dissertation Fellowship, Yale University, 2008  
Overbrook Fellowship, Yale University, 2004-2006  
Onassis Foundation Graduate Studies Fellowship, 2002-2006  
Cowles Foundation Prize, Yale University, 2005  
Gerondelis Foundation Scholarship, 2005-2006  
Stavros S. Niarchos Research Fellowship, The MacMillan Center, Yale University, 2005  
Yale University Doctoral Fellowship, 2002-2006  
Yale University Summer Fellowship, 2003, 2004, 2006  
Award for graduating with highest GPA (out of an entering class of 568), Economics Department, University of Athens, 2002  
Award for highest annual GPA, Greek State Scholarship Foundation (IKY), 1998, 1999, 2000, 2002  
Undergraduate Scholarship, Greek State Scholarship Foundation (IKY), 1998-2002  
Antonios Papadakis Foundation Scholarship, University of Athens, 1999-2002  
Ranked first in National Examinations for admission to Economics Department of the University of Athens, June 1998

**Teaching Experience:**

Raymond Powell Teaching Prize, Yale University, 2006  
*Teaching Assistant:*  
Introductory Macroeconomics, Spring 2006, Spring 2007  
Macroeconomic Theory and History, Fall 2006  
Macroeconomic Theory (Honors), Spring 2005  
Graduate Macroeconomics (First Year PhD), Fall 2004

**Research Experience:**

Assistant to the Editors of the *Brookings Papers on Economic Activity*, Brookings Institution, Washington D.C., 2004-2007  
Research Assistant to Professors John Geanakoplos and Stephen P. Zeldes on the project "Reforming Social Security with Progressive Personal Accounts," Summer 2005

**Papers:**

"Learning Your Comparative Advantages," *mimeo*, 2007 (First Job Market Paper)  
"Reinterpreting the Returns to Labor Market Experience," *mimeo*, 2007 (Second Job Market Paper)  
"Estimating the Impact of Common Currencies on Foreign Direct Investment: Evidence from the EMU," *mimeo*, 2005  
"Wage Inequality and Technical Change," *in progress*  
"Product Quality and Firm Selection into Exporting" (with Costas Arkolakis), *in progress*

**Conference/Workshop Presentations:**

Brown University, Department of Economics, scheduled December 2007

La Pietra-Mondragone Workshop in Economics, Florence, Italy, July 2007

6<sup>th</sup> Conference on Research on Economic Theory and Econometrics (CRETE), Naxos, Greece, July 2007

8<sup>th</sup> Society for the Advancement of Economic Theory (SAET) Conference, Kos, Greece, June 2007

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**References:**

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**Dissertation Abstract**

Learning, in its various forms, is an important part of a person's working experience. This dissertation focuses on the problem of workers learning to know who they are. I introduce a framework where different workers are born with different sets of abilities and talents, but do not perfectly observe them. While engaged in a productive activity (occupation), workers observe their own performance and make inferences about their unobserved aptitudes. Because workers are learning about themselves, their output informs them not only about their productivity in their current occupation, but about their likely productivity in other occupations as well. For instance, a worker employed as a sales associate might realize that she possesses good communication skills and might be particularly suited to a career in advertising.

Within this new paradigm, I revisit some facts that are central to labor markets and I provide a unified answer for some important questions. I demonstrate that this form of learning can explain the observed dispersion of wages, gross worker flows across occupations, the employment shares of occupations, and the upward sloping age-wage profile. The quantitative performance of the model is evaluated through a structural estimation of its deep parameters. This exploits the analytically tractable solution of the steady-state equilibrium, particularly of the wage distribution and of worker flows. Finally, armed with the estimated model, I quantify the extent to which increased unemployment affects the output of employed workers, and the extent to which technological change affects wage inequality.

The first chapter, “**Learning Your Comparative Advantages**” (first job market paper), introduces a labor market model where workers gradually learn about their unobserved production abilities. As workers acquire more information, they self-select into the occupations in which they expect to perform best, and their wages increase. Expected productivity and the rate of information acquisition (speed of learning) are important determinants of workers' occupational choice. Stochastic retirement shocks prevent workers from perfectly learning who they are. I derive workers' optimal behavior and fully characterize the distribution of workers by expected productivity.

Unlike in the standard labor market learning model (Jovanovic (1979)), where workers learn about the underlying quality of their occupational match, in the present setup they learn about themselves. Therefore the most important determinant of wage formation is total labor market experience rather than firm or occupational tenure. Returns to experience here capture improved job selection by workers as they sort through occupations and learn about their productive abilities, rather than human capital accumulation or learning-by-doing. Occupational choice is no longer random, since previous work experience reveals information about the worker's fit in other occupations as well. Moreover, workers are willing to accept wage cuts upon switching occupations, as long as they are compensated by a corresponding increase in the speed of learning. This framework can also account for the fall in the occupational switching rate as workers get older: younger workers are less likely to find themselves in the occupation that best matches their particular talents, and therefore are more likely to switch.

The model is partly motivated by the observation that *bidirectional* worker flows between occupations are very large, a fact that is clearly at odds with an occupation-wide demand shocks explanation. In this new setup at any one time workers are exiting a given occupation because they realize they will be more productive elsewhere, while simultaneously other workers are entering that occupation because they have come to believe it may be a good fit for them.

I use this setup to investigate how increased unemployment can affect labor productivity. Using values generated by the structural estimation of the model (described in the second chapter), I simulate an increase in the unemployment rate similar to that experienced by most European countries in the early 1970s. In the new steady state, workers spend more time unemployed and therefore learn less about their talents. As a result, they are now more likely, once employed, to find themselves in an occupation that does not match their aptitudes. This increase in the unemployment rate reduces the flow of output per worker by 1% in the steady state. Put differently, employed workers in this economy are now producing 1% less on average every year than they would had they been employed longer and had more time to acquire information about their aptitudes. If the hypothesized increase in the unemployment rate disproportionately affects the young, then this estimate is a lower bound on the true cost.

The second chapter of the dissertation, “**Reinterpreting the Returns to Labor Market Experience**” (second job market paper), demonstrates that a setup where workers learn about their unobserved skills can accurately replicate a number of labor market facts. Using data from the 1996 panel of the Survey of Income and Program Participation (SIPP), I perform a structural estimation of the model introduced in the first chapter, by partitioning occupations into blue-collar and white-collar. The model provides closed-form expressions for worker flows across occupations and the cross-sectional distribution of all workers, which I match to their empirical counterparts.

Although the only driving force is the desire to learn about one's unobserved abilities, the above setup can correctly predict the employment shares of occupations and accurately reproduce the

shape of the corresponding within-occupation wage distributions. Furthermore, it captures the occupational choices of young workers and the decline in the occupational switching probability with age that we observe in the data: younger workers are more likely to switch occupations than older workers. Even though the estimation does not use any information on wage dynamics, our estimated framework is capable of explaining a sizeable part of the increase in wages as workers grow older.

My estimates indicate that learning is particularly important for young workers, since they are the most uncertain about their talents; in fact, they may often choose to pursue a career in an occupation that does not offer them the highest possible wage, but does provide a high rate of information acquisition about their talents. The value of learning to these workers can amount to a sizeable fraction of their wage.

Moreover, the results of the estimation reject the hierarchical model of ability, in which some workers perform better in all occupations. A setup where each worker-type is the most productive in his or her occupation fits the data better.

The third chapter of the dissertation, “**Wage Inequality and Technological Change**” (in progress), uses the model introduced in the first chapter and the estimation results of the second chapter to investigate the impact that a technological change in one occupation can have on wage inequality. Unlike other studies, here I do not assume that workers can perfectly observe *ex ante* their productivities in each occupation. The increase in productivity due to the technological change creates additional incentives for workers to learn about their aptitudes. Since expected output is now higher, workers are more willing on average to be employed in the occupation that has experienced technological change. Employment in that occupation increases, but so does the percentage of workers whose true, but unobserved skills do not match the occupation's requirements. As a result, wage inequality both within the occupation and between occupations increases.