Lina Andersson

PhD Candidate

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Department of Economics
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Citizenship: Swedish
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Marital status: Married, three children (2013, 2014, 2018)

Fields of Concentration: Behavioral Economics, Game Theory, Microeconomic Theory.
Desired Teaching: Microeconomic Theory, Game Theory, Behavioral Economics.

Graduate Studies

PhD Economics, University of Gothenburg, 2016 to May 2022 (expected)
Advisors: Professor Martin Dufwenberg, Professor Mikael Lindahl,
Professor Emeritus Jörgen Weibull
Dissertation title: Emotions in Game Theory: Fear, friendliness, and hostility.

Visiting researcher, Barnard College, Columbia University, fall 2020 (cancelled due to pandemic)

Undergraduate Studies

BSc Economics, University of Gothenburg, 2015
MSc Computer Science and Engineering, Chalmers University of Technology, 2010
BSc Computer Science and Engineering, Chalmers University of Technology, 2008

Publications

"Cooperation Between Emotional Players" *Games* **2020**, 11, 45.

Working Papers

"Fear and Economic Behavior" **[Job Market Paper]**
"Seller Reputation and Buyer Information Sharing"

Work in Progress

"Cognitive Dissonance: Theory and evidence from the Covid-19 pandemic"
"Fear: What can it tell us about bank runs?"
"Repeated Prisoner's Dilemma: Do emotions favor commonly played strategy profiles?"

Referee

Journal of Economic Behavior & Organization

Professional Experience

Full time Software Engineer, 2010-2015
R&D Department, IFS World Operations AB, Gothenburg.
I developed business intelligence solutions for the ERP system IFS Applications.
Skills: C#, Java, SQL, XML, Agile, Scrum

Fellowships, Honors and Awards

Svensk-Danska Kulturfonden, Scholarship, 2020
Sweden-America Foundation Scholarship, 2020
IRIS Scholarship, 2020
Wallenberg's Travel Grant, 2019
Helge Ax:son Johnson Travel Grant, 2019
Donationsnämnden Travel Grant, 2019
Svensk-Finska Kulturfonden Travel Grant 2019
Herbert och Karin Jacobsson Travel Grant, 2018, 2019
SABE Scholarship 2018
Otto Hedströms Scholarship 2018
Siamon Stiftelsen Travel Grant, 2018
Adlerbert Travel Grant, 2017
Letterstedtska Travel Grant, 2017
Fredrika Bremer Scholarship, 2015
Bröderna Molanders Scholarship, 2010

Teaching Experience

Applied Economics (bachelor), Teaching Assistant 2020
Macroeconomic Theory (bachelor), Teaching Assistant 2020, 2021
Microeconomic Theory (bachelor), Teaching Assistant 2019
Advanced Microeconomic Theory (master), Teaching Assistant, 2019
Intermediate Statistics II (bachelor), Teaching Assistant, 2018, 2019
Mathematical Methods for Economic Analysis (bachelor), Teaching Assistant, 2018, 2020

Presentations and Summer Schools

Uppsala University, 2021
Stockholm School of Economics (brown bag), 2021
3rd QMUL Economics and Finance Workshop for PhD & Post-doctoral Students, 2021
1st GATE-Gothenburg-MPI Workshop on Behavioral Economics, 2021
University of Arizona (brown bag), 2021
15th European Meeting on Game Theory, 2019
4th Workshop on Psychological Game Theory (poster), 2019
Econometric Society European Meeting, 2018, 2021
Summer School in Psychological Game Theory, Soleto Italy, 2018
Summer School in Learning, Evolution and Games, Lund University, 2018
Workshop on Behavioral Economics, University of Gothenburg, 2018
PhD Conference, Department of Economics, University of Gothenburg, 2018, 2019, 2021
Summer School in Behavioral Industrial Organization, SSE, 2017
Summer School in Incorporating more realistic psychology into economic analysis, NHH, 2017

Technical Skills

C, C#, Haskell, Java, LaTeX, Matlab, Python, R, Stata, SQL, Vittle, Z-Tree

Languages

Swedish (native), English (fluent)

References

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Dissertation Abstract

In my dissertation I use game theory to study the strategic role of emotions. I start from the observation that emotions drive human behavior and that their emotional state can change rapidly during the course of an interaction. I develop a game theoretic framework in which players can transition between emotional states of mind. The emotional state of mind determines the players' utility function. In this framework, players rationally anticipates how own and others' state of mind determines their utility function. In my applications I consider three emotional states of mind: fear, friendliness, and hostility. A player in a fearful state of mind becomes more risk averse, a player in a friendly state becomes more altruistic, and a player in a hostile state becomes more spiteful. Players who can transition to the fearful state of mind may overreact to bad news. Other players may have an incentive to make them transition to the fearful state of mind to benefit from their fear. Players who can transition between a friendly and a hostile state of mind can cooperate more easily than standard players do. Friendliness and hostility can also induce consumers to share information when information sharing is costly. My current work in progress includes experimental designs to test hypotheses from the papers in my dissertation.

In Chapter One, **Fear and Economic Behavior** (job market paper), I propose a model of strategic interactions between players who can become fearful. Players form beliefs over the probability and cost of perilous outcomes at the beginning of each game. The two main assumptions are that (i) a fearful player is more concerned with risk and that (ii) fear is triggered after a sufficient increase in a player's expected cost of negative outcomes. I demonstrate the consequences of fear in three applications: a robbery game, a bank run game, and a public health intervention. The robbery game shows how a player can use fear strategically to bring about a desired outcome when incentives are misaligned. The bank run game shows how fear can affect the outcome when the players' incentives are aligned. The public health intervention highlights how fear tends to strengthen a player's response to a change in the expected cost of negative outcomes.

In Chapter Two, **Cooperation between Emotional Players**, I use the framework of stochastic games to propose a model of emotions in repeated interactions. An emotional player can be in either

a friendly, neutral, or hostile state of mind. The player transitions between the states of mind as a response to observed actions taken by the other player. The state of mind determines the player's psychological payoff, which together with a material payoff, constitutes the player's utility. In the friendly (hostile) state of mind the player has a positive (negative) concern for other players' material payoffs. This chapter shows how emotions can both facilitate and obstruct cooperation in a repeated prisoners' dilemma game. In finitely repeated games a player who cares only for their own material payoffs can have an incentive to manipulate an emotional player into the friendly state of mind. In infinitely repeated games with two emotional players less patience is required to sustain cooperation. However, emotions can also obstruct cooperation if they make the players unwilling to punish each other, or if the players become hostile when punished.

In Chapter Three, **Seller Reputation and Buyer Information Sharing**, I study a simple model of an interaction between a seller and two buyers. The buyers can write a review to inform the other buyer about product characteristics if they buy the product. The seller decides on a price (high or low) for two identical products. The seller privately knows the quality of the product (high or low). The buyers decides whether to buy one unit of the product at the posted price. If buyer 1 buys the product, then he or she can write a review that buyer 2 observes before his or her purchasing decision. Writing a review poses a cost for buyer 1. The interaction between the seller and each buyer is a one-shot interaction. A buyer who only cares for own material payoff has no incentive to write a review. However, I assume that buyer 1 may be emotional. An emotional buyer can transition between two emotional states of mind: a neutral and a hostile. In the neutral state of mind, the buyer only cares for own material payoff. In the hostile state of mind, the buyer cares for own material payoff but also cares negatively for the seller's profits. A hostile buyer may have an incentive to write a review if the review can harm the seller financially. The presence of emotional buyers increases buyers' surplus as it deters seller's from choosing a high price for a low quality product. When the presence of emotional buyers leads to an increase in the probability of trade, it can also increase seller's profits.