

Proposal for a Minciencias scholarship (Ministry of Science Technology and Innovation, Colombia)

Project: Evolution of risk and social preferences

Many economic models assume that preferences are immutable. However, they evolve over time by various mechanisms: genetically, culturally, and by learning. In this project we analyse how the environment and preferences mutually influence each other. We attempt to answer questions like: “Why do we show different risk attitudes in positive and in negative domains?”, “Why are women and men different in their preferences for risk, equality and competition?” and “How do changes in our interaction structures affect social preferences?”

We use the indirect evolutionary approach, which allows a rather broad view on evolution and gives much freedom to model the evolving agents. The resulting evolutionary models will become complex. Therefore, next to a few theoretical results, our results will mainly rely on carefully designed simulations.

The project is fundamental in its nature and primarily curiosity driven. The description above gives a rough direction. We will work in a small team (~ 3 members). In agreement with the supervisor the candidate can shape the project along his/her interests.

Keywords: endogenous preferences, evolution, interaction structure, simulation

Principal investigator: Martin Strobel (Department of Microeconomics and Public Economics, School of Business and Economics, Maastricht University, <http://Martin.Strobel.net>)

Candidate's profile:

The candidate should have:

- a Master's degree (or comparable background) in Economics, Mathematics, Physics or Data Science,
- proficiency in English,
- proficiency in at least one object-oriented programming language (preferably Python3, but any other object-oriented language is fine too),
- an analytical approach to problem-solving,
- some creativity,
- the ability to work in a small team.