

# Research Statement Giovanni Burro

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I have worked on behavioural economics since my MSc dissertation. Back then, I had the opportunity to analyze data on choices under risk gathered from a group of healthy subjects and people suffering from Obsessive Compulsive Disorders (OCD). Subjects had to make a series of choices under risk, in an experimental framework. We compared the choices of those individuals with choices made by healthy subjects. That dissertation evolved into a paper: “Neurocognitive Assessment in Obsessive Compulsive Disorder Patients: Adherence to Behavioural Decision Models” (Cillo et al., 2019). We find that OCD subjects are more likely to follow Expected Value evaluations when choosing among risky gambles while choices of healthy controls are better described by Multiple Reference Point model (described in a similar way by Delquié and Cillo, 2006; Kőszegi and Rabin, 2006, 2007).

Since the early stage of my PhD I have worked on the analysis of individual financial decisions. My main source of inspiration is a theoretical and experimental work by Strack and Viefers (2013) “Too Proud to Stop: Regret in Dynamic Decision”. They carry on an experimental test of Regret Theory (Loomes and Sugden, 1982) on optimal stopping decisions of agents in a stock market like environment. What they observe is that investors do not have a constant reservation level (which means always stopping the process at the same point) and do not follow a threshold strategy (which means not stopping at a level of the price process where you previously decided to continue). On top of that, they are more likely to stop the higher is the level of the price process and, for a given level of the price process, they are less likely to stop the further they are from running maximum of the price process.

In my PhD project, I am investigating those predictions on field data. In particular, I am using the LDB dataset of Odean (1998). In “Make hay while the sun shines: an empirical study of maximum price, regret and trading decisions” (joint work with Julia Brettschneider and Vicky Henderson). What we observe is that most of the investors are not likely to follow a threshold strategy. A threshold strategy better describes behaviour regarding gain realization than behaviour regarding loss realization. We look for heterogeneity among investors in threshold consistency, as well. The main focus of our work is the impact that maximum

running price (maximum price observed since a stock is bought) has on the propensity to realize gains. Fitting a semi-parametric survival analysis model to our data, we are able to identify the following pattern: investors are less likely to sell a stock the further in time the maximum realized. We find that investors are more likely to sell the closer they are to the maximum but the likelihood of selling is highest when the stock is close in time but relatively far in price from running maximum. We attribute it to a panic effect.

In another project, we investigate the disposition effect from a wide framing perspective, considering the most active traders in the LDB dataset. The disposition effect varies as the composition of the portfolio changes. We also investigate how it changes when the investor realizes more than one position simultaneously. We find that the disposition effect decreases as the percentage of positions trading at a gain increases. The propensity to realize gains varies more than the propensity to realize losses, as the percentage of positions at a gain changes. When investors sell a loss (gain) they are much more likely to realize another loss (gain). It is one of the first to state that the disposition effect can vary at the individual level and not only from one individual to the other. In the near future, I will investigate the idea that Disposition Effect can be explained through reference-point updating. Several theoretical models tried to incorporate this idea with contrasting conclusions (Barberis and Xiong, 2009; Henderson, 2012; Shi, Cui, Yao, and Li, 2015; Meng and Weng, 2018).

Finally, I am working with Daniel Read and Rebecca McDonald on a project related to intertemporal choices and their variability at the world level. We analyse data collected from 65 countries, where respondents were asked to answer a question on intertemporal choices along the other questions asked in the Gallup End of Year survey (framed in relative terms with respect to the income of each individual). We find an interesting pattern: wealthier individuals become more patient with age while poor individuals get more impatient with age. On top of that, we get a summary measure of patience at country level, which correlates well with the one in Wang, Rieger, and Hens (2016) and the one in Falk et al. (2018). Our results are robust to several robustness checks. This is a breakthrough in the literature on heterogeneity of preferences around the world. A familiar critique of Judgement and Decision Making research is that it focuses on a relatively small part of the human universe or what is commonly referred to as WEIRD (Western Educated Industrialized Rich and Democratic) world (Henrich, Heine, and Norenzayan, 2010). Researchers have responded to this critique by seeking to generalise findings beyond this group, and to investigate how factors which differ between the WEIRD world and the rest of the world matter. The importance of understanding individual and national differences and how they contribute to economic outcomes for individuals and nations can hardly be overstated. In this paper we contribute to this project by investigating intertemporal choices in a large sample of people

all over the world, varying in age, education, income, religion and the nature of their national politics.

Finally, at Warwick Business School, we collected data on individual attitude towards climate change around the world, trying to frame those choices as choices about intertemporal preferences and social preferences (joint collaboration with a big number of collaborators from the UK). We produced a large-scale survey, which was distributed around 16 countries. We would like to model knowledge and preferences of people about climate change and environmental issues. We included in the survey almost 50 questions and we will be able to access several descriptive covariates on our sample of individuals. We chose Gallup to collect data for us and we expect data to be a representative sample of the countries. We have a question requiring an effort from the respondent and we would like to link the effort of respondents to their characteristics. Some questions are framed in terms of intertemporal choices and altruistic preferences.

In the near future, I would like to keep doing research on experimental and field data, investigating patterns in individuals' decision making. For example, I might run some experiments looking at the propensity of individuals to realize positions based on simulated portfolios. I would like to elicit the reference point in stock trading decisions, based on the composition of the portfolio. Moreover, I think it would be very interesting testing the predictions of Henderson, Hobson, and Tse (2018). They hypothesize that, under Prospect Theory preferences, the optimal stopping strategy for an investor is a stop-loss threshold and it assumes the form of a distribution over gains (skewed with a long right tail).

More on the Behavioural Economics side, I am really interested in the research on cheating and dishonesty and the research on economic wellbeing. I would like to study the divide in social preferences between North and Southern Italy (Bigoni, Bortolotti, Casari, Gambetta, and Pancotto, 2016). On top of that, I came up with some ideas on experimental verification of dishonesty and effort. In particular, checking if dishonesty in favour of family members is higher in some areas with respect to others.

Following my work on intertemporal choices, I realized it would be interesting investigating the link between happiness and patience from an experimental point of view. I believe there is a causal effect from happiness to patience. Hence, I would like to carry on experiments where I vary the level of happiness of individuals exogenously or where I exploit the variation in their level of happiness due to external events and subsequently elicit their level of patience. I believe the research can be expanded to attitudes towards risk and ambiguity. In one case, I would like to follow the methodology of Oswald, Proto, and SgROI (2015). I would ask participants to watch a funny video. Afterwards, I could elicit preferences about patience, risk and ambiguity. In another experiment, I would like to exploit an external

event. In a major Italian university, every year many students apply to take part in an exchange program, which allows them to visit a foreign department for one term. They can express 6 preferences. I would perform the experiment on participants on the day they receive the outcome. In this way, I would also have a potentially objective measure of happiness given by the university to which they were accepted (first choice, very happy; sixth choice, very unhappy). It would be a unique opportunity for me to link my old passion for decisions and my recent passion for wellbeing and happiness.

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