## Nathan Hancart

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Current	PhD Candidate in Economics	, University College London	2018 – present
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Position Expected Completion: 2023

Fields Primary: Microeconomic Theory

Secondary: Information Economics, Behavioural Economics

Supervisors Prof. Ran Spiegler Prof. Vasiliki Skreta

Prior MRes in Economics, University College London 2018

Education MSc in Economics, University College London 2017

BSc in Business Engineering, Université Libre de Bruxelles 2016

Job Market Paper

## **Optimal Menus of Tests**

I study the optimal design of menus of tests. Prior to taking a binary decision, accept or reject a privately informed agent, a decision-maker (DM) can perform one test from a restricted set. For example, the restriction can come from information processing or technological constraints. The DM wants to accept a subset of types whereas the agent always wants to be accepted. Instead of choosing the test himself, the DM let the agent choose a test from a menu. The choice itself then serves as an additional dimension for information revelation. I characterise when a menu is optimal and show that the DM does not benefit from committing to an action. Using this result, I characterise the optimal menu when the DM has a most informative test. I give conditions on the DM's preferences under which the DM wants or does not want to include a less informative test in the menu. I also characterise the optimal menu when types are multidimensional or when tests vary in their difficulty.

Working Paper

## Managing the Expectations of Buyers with Reference-dependent Preferences

R&R at Journal of Economic Theory

I consider a model of monopoly pricing where a risk-neutral firm makes an offer to a buyer with reference-dependent preferences. The reference point is the ex-ante probability of trade and the buyer exhibits an attachment effect: the higher his expectations to buy, the higher his willingness-to-pay. When the buyer's valuation is private information, a unique equilibrium exists where the firm plays a mixed strategy and its profits are the same as in the reference-independent benchmark. The equilibrium always entails inefficiencies: even as the firm's information converges to complete information, it mixes on a non-vanishing support and the probability of no trade is greater than zero. Finally, I show that when the firm can obtain costless signals on the buyer's valuation, it can do strictly better than in the reference-independent benchmark by leveraging the uncertainty generated by a noisy learning strategy. However, this advantage vanishes as the attachment effect grows large.

## The (No) Value of Commitment

I provide a sufficient condition under which a principal does not benefit from commitment in general economic problems. I then apply this condition in a mechanism design setting. A designer does not benefit from being able to contract over actions when his preferences are partially aligned with the agent's. Verifying the condition does not necessitate verifying explicitly that the strategy under commitment is a best-response to the information revealed in the economic problem.

Teaching	Microeconomics (MRes, UCL)	2018 – present
	Advanced Microeconomic Theory (MSc, UCL)	2018 - 2020
	Economics of Information (BSc, UCL)	2017 - 2019
Honors &	Award for host Teaching Assistant on an MPos module LICI	lun 2022

Awards Award for best Teaching Assistant on an MRes module, UCL Jun 2022

Awards Nominated for Inspiring Teaching Delivery, Student Choice Award, UCL Jun 2020

Referee Theoretical Economics Service Professional Research assistant for Prof. Ran Spiegler Apr 2018 - 2022 Experience Research assistant for Prof. Vasiliki Skreta 2019 - 2022 Student Representative for PhD students at the Economics Department 2017 - 2022 Presentations Asian School in Economic Theory (National University of Singapore/Econometric Society, 2022), International Conference on Game Theory (Stony Brook, 2022), Brown-bag theory seminar (UCL, 2022/2021), World Congress Game Theory Society (Budapest, 2021), Applied Theory Workshop (Toulouse School of Economics, 2020) Languages French (Native), English (Fluent), Dutch (Basic), Hebrew (Basic)

Software Skills Mathematica, Matlab