Jason Paulo Tayawa

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Citizenship and Visa Status

Philippines (F-1 visa)

Education

Ph.D. Economics, The Ohio State University, 2023 (expected)
Dissertation: "Essays in Economics and Belief Formation"
Committee: Professor Yaron Azrieli (co-chair), Professor Paul J. Healy (co-chair), Professor John H. Kagel, Professor John Rehbeck
M.A. Economics, The Ohio State University, 2018
M.A. Economics, Waseda University, 2016
BSc Economics, University of the Philippines, Cum Laude, 2013

Teaching and Research Fields

Primary fields: Behavioral Economics, Experiment Economics, Information Economics
Secondary fields: Microeconomic Theory, Cooperative Game Theory

Research Papers

"To follow the herd or break away? Overconfidence and Social Learning" **(Job Market Paper)**

We study the effects of overconfidence in a sequential social learning setting. In a lab experiment, we let subjects form beliefs about their own and others' quality of information by tying the accuracy of their signal to their score on a trivia quiz. Their beliefs about the expected scores allow us to measure and study the effects of confidence on social learning. Our results show that there are two distinct effects of confidence manifesting in their behavior of breaking herds. First, subjects that exhibit more confidence about their *relative* quiz performance are more likely to follow their signal than the herd. Second, subjects that realize their *absolute* performance is better than expected are also more likely to follow their signal. The *relative overconfident* subjects are more likely to benefit from following their signals in easy quizzes, while *absolute underconfident* subjects are more likely to benefit in hard quizzes after scores are revealed. These findings can be partially explained by a model of social learning where rational agents have information structures that induce overconfidence about their relative signal accuracy.

"Anchored Belief Updating from Recommendations"

We study a belief updating behavior in a framework where information is presented as a recommendation from a menu of actions. We introduce a property on belief updating called order independence of recommendations, which is analogous to the Bayes' Rule property of path independence of signals. We show that order independence and the properties that characterize the contraction rule of Ke et al. (2021) lead to an impossibility result on the general domain of recommendations. We then show that such a rule exists if and only if the domain is substantially restricted. Lastly, we propose the anchored contraction rule, which satisfies order independence on the general domain.

"Sharing Information: Could Experts Consolidate?"

In this paper, we analyze a cooperative model of information sharing among experts under four types of information structure, three of which are standard assumptions in the literature. We construct a transferable utility game, called commission games, which captures the value of information for a coalition of experts. We find that the core is empty for commission games that have information structures that satisfy symmetric monotone likelihood ratio property, conditional independence, or perfect correlation. We find a necessary condition that a weaker form of monotone likelihood ratio property leads to indifference between sharing and no sharing if the core exists. Lastly, we give a sufficient condition on the information structure for existence of core, which imposes strong complementarity of information between experts.

"An Efficient Value on Games with Graph: Theory and Application on Disaster-Recovery Fund Allocation in the Philippines"

This paper applies cooperative game as framework for allocation problems: particularly that of the disaster-recovery fund allocation problem in the aftermath of Typhoon Haiyan in 2013. We work under the setting of cooperative game theory with graphs to describe the worth of cooperation and connectedness of affected provinces of the Philippines. We then introduce and axiomatically characterize an allocation rule that incorporates such connectedness. The proposed allocation rule is contrasted with the Shapley value (1952) and Kamijo's two-step Shapley value (2009); and we find that the proposed allocation rule provides relatively equitable distribution and gives premium to better connected provinces.

Research in Progress

"Drivers of Overprecision: Misweighting and Neglecting Correlation of Signals"

This paper investigates overprecision, a bias in processing noisy signals where the decision maker treats the signal to be more precise. We focus on two distinct biases that drive overprecision, namely, overweighting and correlation neglect. Overweighting relates to the excessive response from the accuracy of a signal while correlation neglect relates to the ignorance of the correlation of signals. The presence of both drivers leads to the formation of extreme overprecision. We propose an experiment that disentangles the two drivers in an environment with multiple signals. We debias one driver while holding the other fixed. This design allows us to determine if the drivers covary or are orthogonal to each other. Preliminary result suggests that debiasing for overweighting decreases correlation neglect. Furthermore, the debiasing method for correlation neglect is only effective after correcting for overweighting. Additional data collection is underway.

"Rational Inattention and Non-Bayesian Individuals"

We propose an experiment that tests the implications of the Rational Inattention (RI) model. In addition to observing choice data, as in previous experiments, our design also elicits subject beliefs and tracks the chosen information structure. The choice data allows us to test the theory of RI outlined in Caplin and Dean (2015), which assumes that people are Bayesian updaters. Data on beliefs and chosen information structure allows us to check if people are indeed Bayesian. If choice data satisfies RI, but people are not Bayesian, there is a misspecification issue. We aim to document the degree of misspecification and incorporate non-Bayesian updating into the RI framework. Data collection is underway.

Conference and Seminar Presentations

2022 (scheduled)	Economic Science Association, UC Santa Barbara
2022	Stony Brook Game Theory Conference
2022	Economic Science Association World Meeting, MIT
2022	Midwest Economic Association Conference, Minneapolis
2022 (scheduled)	Spring School in Behavioral Economics, Rady School UC San Diego (poster session)

2022	Summer School of Econometric Society, National University of Singapore (student presenter)
2021	Economic Science Association North American Regional Meeting
2021	Economic Science Association Global Online Around-the- Clock Meeting
2016	Graduate Summer Workshop on Game Theory, Seoul National University (student presenter)

Research Experience and Other Employment

Summer 2019	The Ohio State University, Graduate Research Assistant for Dr. John H. Kagel
Summer 2022	The Ohio State University, Graduate Research Assistant for Dr. John Rehbeck

Professional Activities

Referee for: *American Economic Review: Insights.*

Honors, Scholarships, and Fellowships

2022	Larry and Shelia Kantor Graduate Student Support Fund ($1,500) , The Ohio State University
2022	Burton Abrams Economics Scholarship ($1,300) , The Ohio State University
2022	Decision Science Collaborative Research Grant ($3,000) , The Ohio State University
2021	L. Edwin Smart Graduate Associate Teaching Award, The Ohio State University
2021	Decision Science Collaborative Research Grant ($2,925) , The Ohio State University
2021	JMCB Grant for Graduate Student Research ($2,500) , The Ohio State University
2017-2018	Department of Economics Fellowship, The Ohio State University
2016	Monbukagakusho JASSO Honors Scholarship Recipient, Waseda University
2016	Dean's Academic Prize for Best Graduate Thesis, Waseda University
2014-2016	Monbukagakusho MEXT-SGU Scholarship Recipient, Waseda University
2013-2014	Health Policy Development Scholarship Recipient, University of the Philippines
2013	Dean's Medal, University of the Philippines

Teaching Experience

Au 2021, 2022	Microeconomic Theory (G), The Ohio State University, teaching assistant for Professor John Rehbeck
Sp 2021, 2022	Game Theory (G), The Ohio State University, teaching assistant for Professor Lixin Ye
Sp Au 2019, Sp 2020	Principles of Macroeconomics (U), The Ohio State University, teaching assistant for Dr. Darcy Hartman
Au 2016	Cooperative Game Theory (G), Waseda University, teaching assistant for Professor Yukihiko Funaki
Au 2016	Mathematics for Economics: Optimization Theory (G), Waseda University, teaching assistant for Professor Hisatoshi Tanaka

References

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