



Department of Psychology  
The University of Hong Kong

香港大學心理學系

## Departmental Seminar

# Metacognitive Moral Learning and Decision Making in Realistic Moral Dilemmas

12:30 p.m. – 2:00 p.m. | September 13, 2024 (Friday)

Rm 813, 8/F, The Jockey Club Tower | Centennial Campus | The University of Hong Kong



**Ms. Vanessa Cheung**  
PhD Student  
(Experimental Psychology)  
University College London



**Mr. Maximilian Maier**  
PhD Student  
(Experimental Psychology)  
University College London

### Abstract

Many controversies arise from disagreements about which decision-making strategies to use in which situations (e.g., following rules or reliance on cost-benefit reasoning). In this talk, we propose a new theory of moral decision-making based on strategy selection that explains how these differences arise. Using a new paradigm with realistic moral dilemmas (across four experiments, total N=2328), we show how moral strategy selection learning (i.e., metacognitive learning) from the consequences of previous moral decisions can influence people's reliance on different decision-making strategies. Using computational modeling, we showed that many participants learned about decision strategies in general (metacognitive learning) rather than specific actions. Their learning transferred to incentive-compatible donation decisions and moral convictions beyond the experiment. Further, we use the new scenarios to compare large language model (LLM) and human moral decision-making, finding that human decisions are consistent with the strategy-selection account but not LLM decisions. LLMs show stronger omission bias and an additional type of “yes-no” bias not shared by humans. We conclude that strategy selection is an important mechanism of human moral decision-making and discuss the implications of this account.

Maier, M.\*, Cheung, V.\*, & Lieder, F. (2023). Metacognitive Learning from Consequences of Past Choices Shapes Moral Decision-Making. <https://doi.org/10.31234/osf.io/gjf3h>

Cheung, V.\*, Maier, M.\*, & Lieder, F. (2024). Large Language Models Amplify Human Biases in Moral Decision-Making. <https://doi.org/10.31234/osf.io/aj46b>

### About the Speaker

Vanessa Cheung is a PhD student in Experimental Psychology at University College London supervised by Prof. David Lagnado. Her research focuses on moral judgment and decision-making, including how people reason about blame and the mechanisms that explain people's moral decisions.

Maximilian Maier is a PhD student in Experimental Psychology at University College London. His research focuses on the cognitive science of altruism, where he uses both mathematical modelling and experimental research to understand how people make altruistic and moral decisions. In addition, he is interested in applied statistics and developed new statistical techniques to analyze psychological data.

### Zoom Meeting (For participants who couldn't attend the Seminar in person)

<https://hku.zoom.us/j/6985555998?pwd=V05yTGJWNTIzazd2OFZ0Q3FRReHVkdz09>

Meeting ID: 698 555 5998 | Password: Psyc

~All are Welcome~

Enquiry: [gfeldman@hku.hk](mailto:gfeldman@hku.hk)