



# Hamilton Institute

## **The Impact of Observation and Action Errors on Informational Cascades**

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**Abstract:** In models of observational learning among Bayesian agents, informational cascades can result, in which agents ignore their private information and blindly follow the actions of other agents. In this talk we consider the impact of two types of errors in such models: action errors, where agents occasionally choose sub-optimal actions and observation errors, where agents observe the action of another agent incorrectly. We investigate and compare the impact of these two types of errors on the agents' welfare and the probability of an incorrect cascade. Using a Markov chain model, we derive the net payoff of each agent as a function of his private signal quality and the error rates. A main result of this analysis is that in certain cases, increasing the observation error rate can lead to higher welfare for all but a finite number of agents. We then contrast the gains with the guinea pig approach where an initial few users are forced to use their private information alone while choosing their actions.

**Venue:** Seminar Room, Maynooth University Hamilton Institute

**Time:** 2.00pm - 3.00pm

Travel directions are available at [www.hamilton.ie](http://www.hamilton.ie)



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