

Honour, shame and climate change — Lessons from public goods experiments

Christoph Hauert^{*}

christoph.hauert@math.ubc.ca

WEB: www.math.ubc.ca/~hauert/

In view of dwindling global resources, increased pressures on our social welfare states and the threat of climate change, the sustainable management of public goods becomes increasingly important and presents formidable challenges to human societies. In this talk I review two recent behavioural experiments on public goods interactions and the closely related collective risk dilemma. In both cases individuals are asked to contribute funds to a common pool, which benefits everyone but the share of benefits that return to the actor based on his or her contribution is insufficient to outweigh the costs of contributing. This generates a social dilemma where rational individuals withhold their contributions in an attempt to free-ride on benefits generated by others — to the detriment of all. In the first set of experiments we show that revealing the identities of the two individuals that contributed least (shame), or that contributed most (honour), towards the end of repeated public goods interactions, both result in a significant increase of cooperation as compared to a fully anonymous setting (control). This setup reflects practices implemented, for example, by the state of California who mandates that restaurants display the results of their most recent health inspection and lists the top 250 tax delinquents with outstanding state taxes that exceed \$100k. The former has led to a significant decrease in hospitalizations based on food poisoning and the latter has generated millions in tax income. Interestingly, however, our experiments suggest that similar effects could be achieved by the socially more acceptable form of honouring compliant behaviour — and even have a more lasting impact. In the context of climate change, the problem of cooperation is significantly harder because the benefits of not contributing are immediate, whereas the rewards for successfully mitigating climate change are delayed by decades. Future rewards are naturally discounted due to the risk that the rewards may not get realized or the beneficiary may not live to enjoy them. In the second set of experiments we consider a collective risk

^{*}Department of Mathematics, The University of British Columbia, 1984 Mathematics Road, Vancouver, BC V6T 1Z2, CANADA.

dilemma framed around climate change where a group of participants has to raise a certain amount to avert dangerous climate change - if they succeed, the benefits of achieving the goal are paid out either the next day, seven weeks later, or, invested into planting oak trees. In all treatments, participants could keep the capital that they did not invest. The tree treatments compare inter- and intra-generational discounting and the results reveal a sobering trend: the longer the delay the fewer groups reach the target — and, in fact, all eleven groups failed to reach the target in the third and most realistic setting. Our results experimentally confirm that international negotiations to mitigate climate change are unlikely to succeed if individual countries' short-term gains can arise only from defection.