

Supplementary Material

Formalising theories of human decision-making for agent-based modelling of social-ecological systems: practical lessons learned and ways forward

Table S1: Overview of the (meta-) theories mentioned in the text but not used in the showcase models.

Theory	Main assumptions	Key references
Case-based reasoning	Decision problems are solved based on experience with similar problems.	Aamodt and Plaza (1994)
Consumat approach	Combines habits, imitation, social comparison and optimisation processes. Depending on the satisfaction and uncertainty of an agent it will select one of the four processes.	Jager et al. (2000)
Goal framing theory	Three goals frame how information is processed and acted on: the hedonic goal, the gain goal and the normative goal.	Lindenberg and Steg (2007)
Prospect theory	Actors bias decisions towards avoiding loss over chancing a gain.	Kahnemann and Tversky (1979)
Protection motivation theory	Attitudes and intentions towards protection (originally in the context of health) are influenced by the severity of the event, its probability, the efficacy of a coping response and self-efficacy.	Maddux and Rogers (1983)