

Modeling Changes in a Population's Exploitative vs. Protective Behavior

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- Idea: investigate how the constraints on a society can reward or punish exploitative vs. protective behavior
- Turtles have social currency, a stand-in for wealth, status, power, etc
- Stealing without getting caught or catching a thief are rewarded
- Getting caught stealing or being nosy are punished
- Turtles above a certain currency threshold can reproduce with other turtles above that threshold

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- Parameters set by user:
 - global theft and protection likelihoods
 - likelihood of not being caught when stealing
 - mating threshold and initial social currency turtles are born with
- With most settings the model selects for protective behavior
 - Even with low global likelihood of protecting
 - Unless the probability of getting away with theft $> \sim 60\%$
- Also built a HubNet model
 - Three stages: turtles caught cheating move; then others move; then everyone selects the next action.