

## Unit 4: Cooperation

### READINGS AND RESOURCES

- Axelrod R, Hamilton WD (1981) The evolution of cooperation. *Science* 211: 1390-1396. <https://doi.org/10.1126/science.7466396>
- Nowak MA (2006) Five rules for the evolution of cooperation. *Science* 314: 1560-1563. <https://doi.org/10.1126/science.1133755>
- Cronk L (2015) Human cooperation: Evolutionary approaches to a complex phenomenon. *Handbook on evolution and society: Toward an evolutionary social science*, 441-459.  
<http://www.humangenerosity.org/wp-content/uploads/2015/02/Human-Cooperation.pdf>

### Further directions

- Diving deeper.
  - o Trivers RL (1971) The evolution of reciprocal altruism. *The Quarterly Review of Biology* 46: 35-57.  
<https://doi.org/10.1086/406755>
  - o Axelrod R (1997) *The complexity of cooperation: Agent-based models of competition and collaboration*. Princeton University Press.  
<https://press.princeton.edu/books/paperback/9780691015675/the-complexity-of-cooperation>
  - o Nowak MA, Sigmund K (2005) Evolution of indirect reciprocity. *Nature* 437: 1291-1298.  
<https://www.nature.com/articles/nature04131>
  - o Smaldino PE, Schank JC, McElreath R (2013) Increased costs of cooperation help cooperators in the long run. *American Naturalist* 181: 451-463. <https://doi.org/10.1086/669615>
- Cooperation in larger groups.
  - o Simon HA (1990) A mechanism for social selection and successful altruism. *Science* 250: 1665-1668.  
<https://doi.org/10.1126/science.2270480>
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  - o Henrich J, Boyd R (2001) Why people punish defectors: Weak conformist transmission can stabilize costly enforcement of norms in cooperative dilemmas. *Journal of Theoretical Biology* 208: 79-89. <https://doi.org/10.1006/jtbi.2000.2202>
  - o Hooper PL, Kaplan HS, Boone JL (2010) A theory of leadership in human cooperative groups. *Journal of Theoretical Biology* 265: 633-646. <https://doi.org/10.1016/j.jtbi.2010.05.034>

- o Smaldino PE, Lubell M (2014) Institutions and cooperation in an ecology of games. *Artificial Life* 20: 207–221.  
[https://doi.org/10.1162/ARTL\\_a\\_00126](https://doi.org/10.1162/ARTL_a_00126)
- Cooperation and competition.
  - o Hammond RA, Axelrod R (2006) The evolution of ethnocentrism. *Journal of Conflict Resolution* 50: 926–936.  
<https://doi.org/10.1177%2F0022002706293470>
  - o Choi J-K, Bowles S (2007) The coevolution of parochial altruism and war. *Science* 318: 636.  
<https://doi.org/10.1126/science.1144237>
  - o Makowsky MD, Smaldino PE (2016) The evolution of power and the divergence of cooperative norms. *Journal of Economic Behavior & Organization* 126: 75–88.  
<https://doi.org/10.1016/j.jebo.2015.09.002>
  - o Waring TM, Goff SH, Smaldino PE (2017) The coevolution of economic institutions and sustainable consumption via cultural group selection. *Ecological Economics* 131: 524–532.  
<https://doi.org/10.1016/j.ecolecon.2016.09.022>