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Competition in social systems: three and a half models DANIEL ABRAMS, HALEY YAPLE, Northwestern University, Department of Engineering Sciences and Applied Mathematics, RICHARD WIENER, Research Corporation for Science Advancement and Department of Physics, University of Arizona — When groups compete for members, the resulting dynamics of human social activity may be understandable with simple mathematical models. Here, we use techniques from dynamical systems and perturbation theory to analyze a theoretical framework for the growth and decline of competing social groups in three limits. We apply our analysis to an international data set tracking the growth of religious nonaffiliation, and find that data suggest a particular case of our general growth law, leading to clear predictions about possible future trends in society.

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