When do we cooperate and why? This question concerns one of the most persistent divides between "theory and practice", between predictions from game theory and results from experimental studies. For about 15 years, theoretical analyses predict completely-mixed "behavior" strategies, i.e. strategic randomization rendering "when" and "why" questions largely moot, while experimental analyses seem to consistently identify pure strategies, suggesting long-run interactions are deterministic. Reanalyzing 145,000 decisions from infinitely repeated prisoner's dilemma experiments, and using data-mining techniques giving pure strategies the best possible chance, we conclude that subjects play semi-grim behavior strategies similar to those predicted by theory.

(with Theresa Backhaus)