



Eric Rasmusen's Recent Papers (October 2018)

Abstracts and all my published and unpublished papers are at <http://rasmusen.org/pubabs.htm> and <http://rasmusen.org/unpubabs.htm>. Erasmuse@indiana.edu. [Twitter: @erasmuse](https://twitter.com/erasmuse).

"Back to Bargaining Basics." Nash (1950) and Rubinstein (1982) give two different justifications for a 50-50 split of surplus to be the outcome of bargaining with two players. I offer a simple static theory that reaches a 50-50 split as the unique equilibrium of a game in which each player chooses a "toughness level" simultaneously, but greater toughness always generates a risk of breakdown. Introducing asymmetry, a player who is more risk averse gets a smaller share in equilibrium. If breakdown is merely delay, then the players' discount rates affect their toughness and their shares, as in Rubinstein. The model is easily extended to three or more players, unlike earlier models, and requires minimal assumptions on the functions which determine (a) breakdown probability and (b) surplus share, as functions of toughness.

"The Ted Hill Male Variability Paper that the Math Journals Suppressed." Two mathematics journals first accepted and then unaccepted Ted Hill's paper on modelling the evolutionary advantage of male variability. This essay, posted as a blog entry, tells the story, with links, and discusses motivations and ethics.

Project: How Net Neutrality Could Raise Prices for Internet Service Customers: Natural Monopoly and Double Marginalization.

Project: Mixed-Strategy Equilibria in Splitting a Pie, with Christopher Connell. We characterize the mixed-strategy equilibria in the classic bargaining game, "Splitting a Pie" and derive for the first time the symmetric equilibrium of mixing over a continuous interval of shares.

"Incomplete Information in Repeated Coordination Games," forthcoming in *Essays in Honor of Moriki Hosoe*, eds. Woohyung Lee, Tohru Naito, and Yasunori Ouchida, Springer. Asymmetric information can help achieve an efficient equilibrium in repeated coordination games. If there is a small probability that one player can play only one of a continuum of moves, that player can pretend to be of the constrained type and other players will coordinate with him. This hurts efficiency in the repeated battle of the sexes, however, by knocking out the pure-strategy equilibria.

"Concavifying the Quasi-Concave," with Christopher Connell, *Journal of Convex Analysis*, 24(4): 1239-1262 (December 2017). We show that if and only if a real-valued function f is strictly quasi-concave except possibly for a flat interval at its maximum, and furthermore belongs to an explicitly determined regularity class, does there exist a strictly monotonically increasing function g such that $g \circ f$ is concave. We prove this sharp characterization of quasi-concavity for functions whose domain is any Euclidean space or even any arbitrary geodesic metric space.

"Coarse Grades," with Rick Harbaugh, forthcoming, *American Economic Journal: Microeconomics*. Certifiers of quality often report only coarse grades to the public despite having measured quality more finely, e.g., "A" instead of "98". We show that using coarse grades can actually result in more information reaching the public, because it encourages low-quality individuals or firms to become certified. In our model the certifier aims to minimize public uncertainty over quality subject to the feasibility constraint of voluntary certification at a fixed cost.

Market Failure and Government Failure: The Regulation of Business. I have notes for an undergraduate textbook on regulation. I start with 5 chapters of theory (supply- and- demand, market failure, government failure, discounting and life valuation) and have just 1 chapter of antitrust, with 6 more chapters on other topics. My aim is to write a relatively short book (350 pages) with lots of stories. <http://rasmusen.org/g406/chapters/>.

"Law, Coercion, and Expression: A Review Essay on Frederick Schauer's *The Force of Law* and Richard McAdams's *The Expressive Powers of Law*." *Journal of Economic Literature*, 55 (3):1098-1121 (September 2017). What is law and why do people obey it? Frederick Schauer's *The Force of Law* and Richard McAdams's *The Expressive Powers of Law*, consider alternative motivations for law. While coercion, either directly or in its support of internalized norms, seems to dominate law *qua* law (and not as a mere expression of morality), a considerable portion of law serves other uses such as coordination, information provision, expression, and reduction of transaction costs.

"Understanding Shrinkage Estimators: From Zero to Oracle to James-Stein." Constructing an estimator by shrinking the sample mean results in a biased estimator, with an expected value less than the population mean. On the other hand, shrinkage reduces the estimator's variance and mean squared error. This paper tries to explain how that works. I start with estimating a single mean using the zero estimator and the oracle estimator, and continue with the unrelated-average estimator and the James-Stein estimator.

"Voter Ideology: Regression Measurement of Position on the Left-Right Spectrum," (with J. Mark Ramseyer). For scholars who need a measure of political preferences, a person's position on the ideological spectrum provides a good start. Typically, scholars identify that position through factor analysis on survey questions. In contrast to factor analysis, the regression approach assigns proper priority to self-identified ideology; it lets us test whether voters identify their own ideology through identity-group variables; it avoids the bias introduced in choosing the issue variables to include in the factor analysis; and it identifies the issues that the average voter thinks best define "liberal" and "conservative."

"Identity Politics and Organized Crime in Japan: The Effect of Special Subsidies for Burakumin Communities," (with J. Mark Ramseyer), forthcoming, *Journal of Empirical Legal Studies*. In 1969 the Japanese government launched a subsidy program targeted at the burakumin outcasts. The subsidies attracted organized crime, who diverted them for private gain. Although the program improved infrastructure, it also lowered the cost to the public of identifying burakumin neighborhoods. We use municipality data and a 1936 census of burakumin to show that after the program ended in 2002, outmigration from municipalities with more burakumin increased and real estate prices rose.

"A Model of Trust in Quality and North-South Trade," *Research in Economics*, 71: 159–70(2017). Some countries produce higher quality than others because of self-perpetuating reputations. A Klein-Leffler reputation model embedded in a general equilibrium model of trade explain why countries might trade even if their technologies and endowments are identical, why firms could profit from exports even if the foreign price is no higher than domestic, and why governments like to have "high-value" sectors.

"Leveraging of Reputation through Umbrella Branding: The Implications for Market Structure," *Journal of Economics and Management Strategy*, 25(2): 261-73 (Summer 2016). Klein-Leffler explains how fear of reputation loss induces firms to produce high-quality goods. This paper shows that reputation can be leveraged across products, but only by a firm with a monopoly on at least one product. Such a firm, may be able to capture a market by umbrella branding making high quality credible at lower than the market price. The expanding monopolist can do this without bundling, and if potential monopolists compete, consumers are left better off, possibly even though the price rises.

Project: **Niccolò Machiavelli: The Han Fei of Italy?** (with Dan Zhao) Machiavelli and Han Fei are similar in their innovations, style, and influence, except for Han Fei's lack of scholarly followers.

"Conventional Artillery and Nuclear Missiles in North Korea," *RealClearDefense* (May 12, 2017). Korea analysts have paid too little attention to the credibility of threats. A danger of North Korean nuclear missiles is that they make credible the threat to use conventional artillery to shell Seoul if ransom is not paid.

"The Concealment Argument: Why No Proof for God's Existence Will Be Found". Logic and Biblical evidence suggest that God wishes that some but not all humans become convinced of His existence and desires. If so, this suggests that attempts to either prove or disprove such things as God's existence, past miracles, or present supernatural intervention are doomed to failure, because God could and would take care to evade any such efforts.

"A New Cost of Monopoly: Hold-Up of Perfectly Competitive Retailers and Complement Sellers." If a monopolist cannot commit to a wholesale price in advance, even competitive retailers will be reluctant to enter the market, knowing that once they have entered, the monopolist has incentive to choose a higher price and reduce their quasi-rents. I call this inefficiently high price "competitive hold-up". Competitive hold-up arises from upstream opportunism, not downstream market power, and so is distinct from two problems that look superficially similar, double marginalization and the two- monopoly complements externality.

Project: **A New Occasion for Bayesian Persuasion** with Rick Harbaugh. Two occasions, actually: patent races and entry deterrence.