

d. Quantal response equilibrium

*Richard McKelvey and Thomas Palfrey, “Quantal Response Equilibria for Normal-Form Games,” *Games and Economic Behavior* 10 (1995), 6-38; [doi:10.1006/game.1995.1023](https://doi.org/10.1006/game.1995.1023)

Philip Haile, Ali Hortaçsu, and Grigory Kosenok, “On the Empirical Content of Quantal Response Equilibrium,” *American Economic Review* 98 (2008), 180-200; <http://www.aeaweb.org/articles.php?doi=10.1257/aer.98.1.180> or <http://www.econ.yale.edu/~pah29/qre.pdf>

Richard McKelvey and Thomas Palfrey, “Quantal Response Equilibria for Extensive-Form Games,” *Experimental Economics* 1 (1998), 9-41; [doi:10.1007/BF01426213](https://doi.org/10.1007/BF01426213)

e. Level- k models

*Miguel Costa-Gomes, Vincent Crawford, and Nagore Iriberry, “Comparing Models of Strategic Thinking in Van Huyck, Battalio, and Beil’s Coordination Games,” *Journal of the European Economic Association* 7 (2009), in press: 5-6 (in manuscript); <http://dss.ucsd.edu/~vcrawfor/CGCIJEEA17Oct08.pdf>

f. Cognitive hierarchy models

*Colin Camerer, Teck-Hua Ho, and Juin Kuan Chong, “A Cognitive Hierarchy Model of Games,” *Quarterly Journal of Economics* 119 (2004), 861-898: Sections I-III; <http://www.mitpressjournals.org/doi/abs/10.1162/0033553041502225> or <http://www.hss.caltech.edu/~camerer/qjefinal6.pdf>

g. Noisy introspection

Goeree, Jacob, and Charles Holt (2004), “A Model of Noisy Introspection,” *Games and Economic Behavior* 46, 365–382; [doi:10.1016/S0899-8256\(03\)00145-3](https://doi.org/10.1016/S0899-8256(03)00145-3)

A3. Experimental Evidence on Initial Responses to Games

a. Normal-form games

*CC, Chapters 5, “Dominance-Solvable Games”; and 7, “Coordination”

*VC, Chapters 4, “Dominance and Iterated Dominance”; and 5, “Simultaneous Coordination”

*Colin Camerer, Teck-Hua Ho, and Juin Kuan Chong, “A Cognitive Hierarchy Model of Games,” *Quarterly Journal of Economics* 119 (2004), 861-898: Section IV; <http://www.mitpressjournals.org/doi/abs/10.1162/0033553041502225> or <http://www.hss.caltech.edu/~camerer/qjefinal6.pdf>

*Miguel Costa-Gomes and Vincent Crawford, “Cognition and Behavior in Two-Person Guessing Games: An Experimental Study,” *American Economic Review* 96 (2006), 1737-1768: Section II.D reviews the evidence, the rest reports new evidence; [DOI:10.1257/aer.96.5.1737](https://doi.org/10.1257/aer.96.5.1737) or <http://dss.ucsd.edu/~vcrawfor/CGCAER06.pdf>; instructions, data, and slides at <http://dss.ucsd.edu/~vcrawfor/#Guess>

Dale Stahl and Paul Wilson, “On Players’ Models of Other Players: Theory and Experimental Evidence,” *Games and Economic Behavior* 10 (1995), 218-254; [doi:10.1006/game.1995.1031](https://doi.org/10.1006/game.1995.1031)

Rosemarie Nagel, “Unraveling in Guessing Games: An Experimental Study,” *American Economic Review* 85 (1995), 1313-1326; <http://www.jstor.org/stable/2950991>

Teck-Hua Ho, Colin Camerer, and Keith Weigelt, “Iterated Dominance and Iterated Best Response in Experimental ‘ p -Beauty Contests’,” *American Economic Review*, 88 (1998), 947-969; <http://www.jstor.org/stable/117013>

Miguel Costa-Gomes, Vincent Crawford, and Bruno Broseta, “Cognition and Behavior in Normal-Form Games: an Experimental Study,” *Econometrica* 69 (2001), 1193-1235; <http://www.jstor.org/stable/2692219> or <http://dss.ucsd.edu/~vcrawfor/CGCrBr01EMT.pdf>.

Georg Weizsäcker, "Ignoring the Rationality of Others: Evidence from Experimental Normal-Form Games," *Games and Economic Behavior* 44 (2003), 145-171; [doi:10.1016/S0899-8256\(03\)00017-4](https://doi.org/10.1016/S0899-8256(03)00017-4)

Miguel Costa-Gomes and Georg Weizsäcker, "Stated Beliefs and Play in Normal-Form Games," *Review of Economic Studies*, 75 (2008), 729-762; <http://www3.interscience.wiley.com/cgi-bin/fulltext/120084319/PDFSTART> or (in manuscript) http://personal.lse.ac.uk/weizsack/Costa-Gomes_Weizsacker-27-04-06.pdf.

Vincent Crawford, "Look-ups as the Windows of the Strategic Soul: Studying Cognition via Information Search in Game Experiments," in Andrew Caplin and Andrew Schotter, editors, *Perspectives on the Future of Economics: Positive and Normative Foundations*, Volume 1, *Handbooks of Economic Methodologies*, Oxford University Press, 2008; (in manuscript) <http://dss.ucsd.edu/~vcrawfor/12Jan07NYUCognitionSearchMain.pdf>

b. Extensive-form games

*CC, Chapters 4.2, "Structured Bargaining"; 4.3, "Bargaining with Incomplete Information"; 4.4, "Conclusion": and 7.2, "Asymmetric Players: Battle of the Sexes"

*VC, Sections 4.2, "Ultimatum and alternating-offers bargaining"; and 5.1, "Signaling games"

T. Randolph Beard and Richard Beil, "Do People Rely on the Self-interested Maximization of Others? An Experimental Test," *Management Science* 40 (1994), 252-262; <http://www.jstor.org/stable/2632764>

Richard McKelvey and Thomas Palfrey, "An Experimental Study of the Centipede Game," *Econometrica* 60 (1992), 803-836; <http://www.jstor.org/stable/2951567>

Toshiji Kawagoe and Hirokazu Takizawa, "Level-k Analysis of Experimental Centipede Games," 2008; http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1289514

David Cooper and John Van Huyck, "Evidence on the Equivalence of the Strategic and Extensive Form Representation of Games," *Journal of Economic Theory* 110 (2003), 290-308; [doi:10.1016/S0022-0531\(03\)00040-1](https://doi.org/10.1016/S0022-0531(03)00040-1)

Vincent Crawford, "Introduction to Experimental Game Theory," *Journal of Economic Theory* 104 (2002), 1-15: Section 2, "Backward Induction, Social Preferences, Implementation, and Preplay Communication in Extensive-Form Games" introduces next two papers; [doi:10.1006/jeth.2001.2909](https://doi.org/10.1006/jeth.2001.2909)

Eric Johnson, Colin Camerer, Sankar Sen, and Talia Rymon, "Detecting Failures of Backward Induction: Monitoring Information Search in Sequential Bargaining," *Journal of Economic Theory* 104 (2002), 16-47; [doi:10.1006/jeth.2001.2850](https://doi.org/10.1006/jeth.2001.2850)

Ken Binmore, John McCarthy, Giovanni Ponti, Larry Samuelson, and Avner Shaked, "A Backward Induction Experiment," *Journal of Economic Theory* 104 (2002), 48-88; [doi:10.1006/jeth.2001.2910](https://doi.org/10.1006/jeth.2001.2910)

Teck-Hua Ho and Keith Weigelt, "Task Complexity, Equilibrium Selection, and Learning: An Experimental Study," *Management Science* 42 (1996), 659-679; <http://www.jstor.org/stable/2634458>

Colin Camerer and Eric Johnson, "Thinking About Attention in Games: Backward and Forward Induction," in Isabel Brocas and Juan Carrillo (editors), *The Psychology of Economic Decisions, Volume Two: Reasons and Choices*, Oxford, 2004; linked in manuscript at (<http://www.hss.caltech.edu/~camerer/ericchap5.pdf>)

Vincent Crawford, "A Survey of Experiments on Communication via Cheap Talk," *Journal of Economic Theory* 78 (1998), 286-298; [doi:10.1006/jeth.1997.2359](https://doi.org/10.1006/jeth.1997.2359)

Russell Cooper, Douglas DeJong, Robert Forsythe, and Thomas Ross, "Alternative Institutions for Resolving Coordination Problems: Experimental Evidence on Forward Induction and Preplay Communication," 129-146 in James Friedman (ed.), *Problems of Coordination in Economic Activity*, Boston: Kluwer, 1994

c. Unstructured bargaining games

*CC, Chapter 4.1, "Unstructured Bargaining"

*VC, Chapter 5.3, "Unstructured Bargaining"

Alvin Roth, "Bargaining Phenomena and Bargaining Theory," Chapter 2 in Roth (ed.), *Laboratory Experimentation in Economics: Six Points of View*, Cambridge, 1987

Alvin Roth, "Toward a Focal-Point Theory of Bargaining," Chapter 12 in Roth, (ed.), *Game-Theoretic Models of Bargaining*, Cambridge, 1985

B. Applications

B1. Coordination via Symmetry-Breaking in Market-Entry and Battle of the Sexes Games

*Colin Camerer, Teck-Hua Ho, and Juin Kuan Chong, "A Cognitive Hierarchy Model of Games," *Quarterly Journal of Economics*, 119 (2004), 861-898: Section III.C, "Market Entry Games"; <http://www.mitpressjournals.org/doi/abs/10.1162/0033553041502225> or (in manuscript form) <http://www.hss.caltech.edu/~camerer/qjefinal6.pdf>

Kahneman, Daniel, "Experimental Economics: A Psychological Perspective," in R. Tietz, W. Albers, and R. Selten, editors, *Bounded Rational Behavior in Experimental Games and Markets*. New York: Springer-Verlag, 1988: 11-18.

Rapoport, Amnon, and Darryl A. Seale, "Coordination Success in Noncooperative Large Group Market Entry Games." In Rami Zwick and Amnon Rapoport, editors, *Experimental Business Research*. Dordrecht, The Netherlands: Kluwer Academic, 2002.

*Vincent Crawford, "Let's Talk It Over: Coordination via Preplay Communication with Level-*k* Thinking," manuscript of paper presented as Keynote address, Arne Ryde Symposium on Communication in Games and Experiments, Lund University, August 2007: Section I, "A Level-*k* Model of Tacit Coordination"; <http://dss.ucsd.edu/~vcrawfor/LetsTalk13Aug07.pdf>

Roger Myerson, "Ware Medical Corporation," case linked at (<http://www.kellogg.northwestern.edu/faculty/weber/DECS-452/index.htm>)

Timothy Bresnahan and Peter Reiss, "Econometric Models of Discrete Games," *Journal of Econometrics*, 48 (1991), 57-81; [doi:10.1016/0304-4076\(91\)90032-9](https://doi.org/10.1016/0304-4076(91)90032-9)

Avi Goldfarb and Botao Yang, "Are All Managers Created Equal?," *Journal of Marketing Research* XLVI (2009), in press; <http://www.marketingpower.com/ResourceLibrary/Documents/JMRForthcoming/Are%20All%20Managers.pdf>

Andres Aradillas-Lopez and Elie Tamer, "The Identification Power of Equilibrium in Simple Games," *Journal of Business & Economic Statistics* 26 (2008), 261-283; <http://dx.doi.org/10.1198/073500108000000105>

B2. Outguessing in Zero-Sum Games with Non-neutrally Framed Locations

*Vincent Crawford and Nagore Iriberry, "Fatal Attraction: Saliency, Naivete, and Sophistication in Experimental Hide-and-Seek Games," *American Economic Review* 97 (2007), 1731-1750; <http://dss.ucsd.edu/~vcrawfor/#Hide> or <http://www.e-jel.org/atypon/connect.php?doi=10.1257/aer.97.5.1731&journal=AER&mode=member>

Robert Östling, Joseph Tao-Yi Wang, Eileen Chou, and Colin Camerer, "Strategic Thinking and Learning in the Field and the Lab: Evidence from Poisson LUPU Lottery Games," 2008;

<http://swopec.hhs.se/hastef/papers/hastef0671.pdf> or
http://www.hss.caltech.edu/~camerer/web_material/Limbo17.pdf

Chivers, C. J., “A Dinner in Ukraine Made for Agatha Christie,” *The New York Times*, December 20, 2004, A1.

Attali, Yigal, and Maya Bar-Hillel, “Guess Where: The Position of Correct Answers in Multiple-Choice Test Items as a Psychometric Variable,” *Journal of Educational Measurement*, 40 (2003), 109-128.

Keillor, Garrison, *Wobegon Boy*. New York: Penguin, 1997.

B3. Coordination via Structure and Framing in Bargaining and Coordination Games

Thomas Schelling, *The Strategy of Conflict*, Oxford 1960 or Harvard 1980: Chapter 3, “Bargaining, Communication, and Limited War”, and Appendix C

Judith Mehta, Chris Starmer, and Robert Sugden, “The Nature of Salience: An Experimental Investigation of Pure Coordination Games,” *American Economic Review* 84 (1994), 658-674; <http://www.jstor.org/stable/2118074>

Vincent Crawford, Uri Gneezy, and Yuval Rottenstreich, “The Power of Focal Points is Limited: Even Minute Payoff Asymmetry May Yield Large Coordination Failures,” *American Economic Review* 98 (2008), 1443–1458;

<http://www.aeaweb.org/articles.php?doi=10.1257/aer.98.4.1443> or
<http://dss.ucsd.edu/~vcrawfor/CrawfordGneezyRottenstreichAER08.pdf>

B4. Coordination via Structure in Symmetric Coordination Games with Pareto-ranked Equilibria

*VC, Chapter 6.3, “Simultaneous coordination revisited”

Vincent Crawford, “Adaptive Dynamics in Coordination Games,” *Econometrica* 63 (1995), 103-143: Section 2 (pp. 106-109, especially footnote 8); <http://www.jstor.org/stable/2951699> or
<http://dss.ucsd.edu/~vcrawfor/Crawford95EMT.pdf>)

*Miguel Costa-Gomes, Vincent Crawford, and Nagore Iriberry, “Comparing Models of Strategic Thinking in Van Huyck, Battalio, and Beil’s Coordination Games,” *Journal of the European Economic Association* 7 (April-May 2009), in press: Section 3, “Van Huyck, Battalio, and Beil’s (1990, 1991) coordination games”; <http://dss.ucsd.edu/~vcrawfor/CGCIJEEA17Oct08.pdf>

Summers, Lawrence, “International Financial Crises: Causes, Prevention, and Cures,” *American Economic Review* 90 (2000), 1-16 (especially 7); <http://www.jstor.org/stable/117183>

Morris, Stephen, and Shin, Hyun Song, “Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks,” *American Economic Review* 88 (1998), 587-97; <http://www.jstor.org/stable/116850>

Hans Carlsson and Mattias Ganslandt, “Noisy Equilibrium Selection in Coordination Games,” *Economics Letters* 60 (1998), 23–34; [doi:10.1016/S0165-1765\(98\)00076-7](https://doi.org/10.1016/S0165-1765(98)00076-7)

Komunjer, Ivana, and Federico Echenique, “Testing Models with Multiple Equilibria by Quantile Methods,” *Econometrica* (forthcoming)

B5. Money Illusion

- *Colin Camerer, Teck-Hua Ho, and Juin Kuan Chong, "A Cognitive Hierarchy Model of Games," *Quarterly Journal of Economics* 119 (2004), 861-898: Section VI.B, "Money Illusion"; <http://www.mitpressjournals.org/doi/abs/10.1162/0033553041502225> or (in manuscript form) <http://www.hss.caltech.edu/~camerer/qjefinal6.pdf>
- Ernst Fehr and Jean-Robert Tyran, "Individual Irrationality and Aggregate Outcomes," *Journal of Economic Perspectives* 19 (2005), 43–66; <http://www.jstor.org/stable/4134954>
- Ernst Fehr and Jean-Robert Tyran, "Money Illusion and Coordination Failure," *Games and Economic Behavior* 58 (2007), 246-268; [doi:10.1016/j.geb.2006.04.005](https://doi.org/10.1016/j.geb.2006.04.005)
- Ernst Fehr and Jean-Robert Tyran, "Limited Rationality and Strategic Interaction. The Impact of the Strategic Environment on Nominal Inertia," *Econometrica* 76 (2008), 353-394; <http://www.econometricsociety.org/includes/tps.asp?vid=76&iid=2&aid=836&type=353>

B6. Strategic Communication of Intentions

- *Joseph Farrell and Matthew Rabin, "Cheap Talk," *Journal of Economic Perspectives* 10 (1996), 103-118; <http://www.jstor.org/stable/2138522>
- Joseph Farrell, "Communication, Coordination and Nash Equilibrium," *Economics Letters* 27 (1988), 209-214; [doi:10.1016/0165-1765\(88\)90172-3](https://doi.org/10.1016/0165-1765(88)90172-3)
- Joseph Farrell, "Cheap Talk, Coordination, and Entry," *RAND Journal of Economics* 18 (1987), 34-39; <http://www.jstor.org/stable/2555533>
- Matthew Rabin, "A Model of Pre-game Communication," *Journal of Economic Theory* 63 (1994), 370-391; [doi:10.1006/jeth.1994.1047](https://doi.org/10.1006/jeth.1994.1047)
- *Vincent Crawford, "Lying for Strategic Advantage: Rational and Boundedly Rational Misrepresentation of Intentions," *American Economic Review* 93 (2003), 133-149; <http://www.jstor.org/stable/3132165> or (in manuscript form) <http://weber.ucsd.edu/~vcrawfor/LyingFinal.pdf>
- Tore Ellingsen and Robert Östling, "Communication and Coordination: The Case of Boundedly Rational Players," 2007; <http://www2.hhs.se/personal/Ellingsen/pdf/BRC271107b.pdf>
- Vincent Crawford, "Let's Talk It Over: Coordination via Preplay Communication with Level-*k* Thinking," manuscript presented at Arne Ryde Symposium on Communication in Games and Experiments, August 2007; <http://dss.ucsd.edu/~vcrawfor/#Talk>

B7. Strategic Communication of Private Information

- *Joseph Farrell and Matthew Rabin, "Cheap Talk," *Journal of Economic Perspectives* 10 (1996), 103-118; <http://www.jstor.org/stable/2138522>
- Vincent Crawford and Joel Sobel, "Strategic Information Transmission," *Econometrica* 50 (1982), 1431-1451; <http://www.jstor.org/stable/1913390>
- Joseph Farrell, "Meaning and Credibility in Cheap-Talk Games," *Games and Economic Behavior* 5 (1993), 514-531; [doi:10.1006/game.1993.1029](https://doi.org/10.1006/game.1993.1029)
- Kartik, Navin, Marco Ottaviani, and Francesco Squintani, "Credulity, lies, and costly talk," *Journal of Economic Theory* 134 (2007), 93-116; [doi:10.1016/j.jet.2006.04.003](https://doi.org/10.1016/j.jet.2006.04.003)
- Hongbin Cai and Joseph Wang, "Overcommunication in Strategic Information Transmission Games," *Games and Economic Behavior* 56 (2006), 7–36; [doi:10.1016/j.geb.2005.04.001](https://doi.org/10.1016/j.geb.2005.04.001)
- Joseph Wang, Michael Spezio, and Colin Camerer, "Pinocchio's Pupil: Using Eyetracking and Pupil Dilation To Understand Truth-telling and Deception in Games," 2006; <http://www.hss.caltech.edu/~camerer/pinocchio2.pdf>
- Toshiji Kawagoe and Hirokazu Takizawa, "Equilibrium Refinement vs. Level-*k* Analysis: An Experimental Study of Cheap-Talk Games with Private Information," *Games and Economic Behavior* (2008), in press; [doi:10.1016/j.geb.2008.04.008](https://doi.org/10.1016/j.geb.2008.04.008)

Rany Jazayerli, "Guest Column: Will Bin Laden Strike Again?," October 10, 2008; <http://www.fivethirtyeight.com/2008/10/guest-column-will-bin-laden-strike.html>
Ulrike Malmendier and Devin Shanthikumar, "Are Small Investors Naive about Incentives?," *Journal of Financial Economics* 85 (2007), 457-489; [doi:10.1016/j.jfineco.2007.02.001](https://doi.org/10.1016/j.jfineco.2007.02.001)
Ron Suskind, *The One Percent Doctrine*, New York: Simon and Schuster, 2006.
Rany Jazayerli, "Guest Column: Will Bin Laden Strike Again?," October 10, 2008; <http://www.fivethirtyeight.com/2008/10/guest-column-will-bin-laden-strike.html>

B8. Auctions

Jacob Goeree, Charles Holt, and Thomas Palfrey, "Quantal Response Equilibrium and Overbidding in Private-Value Auctions," *Journal of Economic Theory*, 104 (2002), 247-272; [doi:10.1006/jeth.2001.2914](https://doi.org/10.1006/jeth.2001.2914)
Erik Eyster and Matthew Rabin, "Cursed Equilibrium," *Econometrica*, 73 (2005), 1623-1672; <http://www.econometricsociety.org/includes/tps.asp?vid=73&iid=5&aid=631&type=1623>
*Vincent Crawford and Nagore Iriberry, "Level-k Auctions: Can Boundedly Rational Strategic Thinking Explain the Winner's Curse and Overbidding in Private-Value Auctions?," *Econometrica* 75 (2007), 1721-1770; <http://dss.ucsd.edu/~vcrawfor/#Auctions>
Vincent Crawford, Tamar Kugler, Zvika Neeman, and Ady Pauzner, "Behaviorally Optimal Auction Design: An Example and Some Observations," *Journal of the European Economic Association* 7 (April-May 2009), in press; <http://dss.ucsd.edu/~vcrawfor/CKNPBehaviorallyOptimalAuctionsManuscript14Oct08.pdf>
Ulrike Malmendier and Adam Szeidl, "Fishing for Fools," manuscript, 2008; http://www.econ.berkeley.edu/~ulrike/Papers/fishing_for_fools.pdf

B9. Other Games of Incomplete Information

*Colin Camerer, Teck-Hua Ho, and Juin Kuan Chong, "A Cognitive Hierarchy Model of Games," *Quarterly Journal of Economics*, 119 (2004), 861-898: Section VI.A, "Speculation"; <http://www.mitpressjournals.org/doi/abs/10.1162/0033553041502225> or (in manuscript form) <http://www.hss.caltech.edu/~camerer/qjefinal6.pdf>
Jonathan Skinner, "Purification of a Mixed Strategy Equilibrium," *Journal of Political Economy* 116 (2008), back cover; [doi:10.1086/595969](https://doi.org/10.1086/595969)
Philippe Jehiel and Frédéric Koessler, "Revisiting Games of Incomplete Information with Analogy-Based Expectations," *Games and Economic Behavior* 62 (2008) 533-557; [doi:10.1016/j.geb.2007.06.006](https://doi.org/10.1016/j.geb.2007.06.006)
Gary Charness and Dan Levin, "The Origin of the Winner's Curse: A Laboratory Study," *American Economic Journal: Microeconomics*, 1 (2009), in press; <http://www.aeaweb.org/aej-micro/accepted/MIC-2007-0003.pdf> or (in manuscript form) http://papers.ssrn.com/sol3/papers.cfm?abstract_id=932250
Asen Ivanov, Dan Levin, and James Peck, "Hindsight, Foresight, and Insight: An Experimental Study of a Small-Market Investment Game with Common and Private Values," *American Economic Review* 99 (2009), in press; <http://www.e-aer.org/accepted/20070475.pdf>
Erik Eyster and Matthew Rabin, "Naive Herding," LSE and UC Berkeley, 2008; <http://else.econ.ucl.ac.uk/conferences/bbw08/talks/eyster.pdf>
Alexander Brown, Colin Camerer, and Dan Lovallo, "To Review or Not To Review? Limited Strategic Thinking at the Movie Box Office," 2008; <http://econweb.tamu.edu/abrown/cold.pdf>

Copyright © Vincent P. Crawford, 2009. All federal and state copyrights reserved for all original material presented in this course through any medium.