

Dr Kesten C. Green

Curriculum Vitae

Senior Research Fellow
[Business and Economic Forecasting Unit](#)
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Research interests

Predicting the decisions of others: the effects of role, interaction, and conflict on decision making; the effects of problem framing on forecasting accuracy; the use of analogies in forecasting; assessing probabilistic forecasts; judgmental forecasting methods; survey research methods; forecasting for negotiations and strategy in business and warfare, and for public policy.

Principal findings

[Forecasting for conflict situations:](#)

Forecasts of decisions in conflicts from simulated interaction (a type of role playing) are substantially more accurate than the forecasts of game theory experts, and of domain experts using their unaided judgment.

The forecasts of experts are no more accurate than chance when they use their unaided judgement to predict the decisions that will be made in conflict situations.

When experts use structured analogies (a method developed by me) their forecasts of decisions in conflicts are more accurate than those of game theory experts and of experts using their unaided judgement.

The accuracy of forecasts from structured analogies increases with the number of similar conflicts an expert can identify and the familiarity the expert has with those conflicts.

[Forecasting for public policy:](#)

Forecasts of global warming and of the extinction of polar bears are not derived from scientific forecasting methods and are therefore not credible.

Articles

- Armstrong, J. S., Green, K. C., & Soon, W. (2008). [Polar bear population forecasts: A public-policy forecasting audit](#). *Interfaces*, accepted for publication.
- Green, K. C. & Tashman, L. (2008). [Should we define forecast error as \$e = F - A\$ or \$e = A - F\$?](#) *Foresight*, 10, 38-40.
- Green, K. C. & Armstrong, J. S. (2007). [Global warming: Forecasts by scientists versus scientific forecasts](#). *Energy and Environment*, 18, 997-1021.
- Green, K. C., Armstrong, J. S., & Graefe, A. (2007). [Methods to Elicit Forecasts from Groups: Delphi and Prediction Markets Compared](#). *Foresight*, 8, 17-20.
- Green, K. C. & Armstrong, J. S. (2007). [Structured analogies for forecasting](#). *International Journal of Forecasting*, 23, 365-376. *
- Green, K. C. & Armstrong, J. S. (2007). [The value of expertise for forecasting decisions in conflicts](#). *Interfaces*, 37(3), 287-299. †
- Armstrong, J. S. & Green, K. C. (2007). [Competitor-oriented objectives: The myth of market share](#). *International Journal of Business*, 12 (1), 117-136.
- Green, K. C. (2005). [Game theory, simulated interaction, and unaided judgement for forecasting decisions in conflicts: Further evidence](#). *International Journal of Forecasting*, 21, 463-472. ‡
- Green, K. C. & Armstrong, J. S. (2005). [The war in Iraq: Should we have expected better forecasts?](#) *Foresight*, 2, 50-52.
- Green, K. C. (2005). [What can forecasting do for you?](#) *Foresight*, 1 (1), 53-54.
- Green, K. C. (2003). [Do practitioners care about findings from management research?](#) *Interfaces*, 33(6), 105-107.
- Green, K. C. (2002). [Forecasting decisions in conflict situations: a comparison of game theory, role-playing, and unaided judgement](#). *International Journal of Forecasting*, 18, 321-344. §
- Green, K. C. (2002). [Embroided in a conflict: who do you call?](#) *International Journal of Forecasting*, 18, 389-395.

Working papers and unpublished reports

- Armstrong, J. S., Green, K. C., Jones, R., & Wright, M. (2008). [Predicting elections from politicians' faces](#). MPRA Paper No. 9150.
- Green, K. C. (2008). [Assessing probabilistic forecasts about particular situations](#). MPRA Paper No. 8836.
- Green, K. C., Armstrong, J. S., Bush, R. M., & Morse, E. L. (2006). Impact of role playing on the accuracy of predictions in the intelligence community. Report on research commissioned by Disruptive Technology Office, contract 06-894-6336.
- Armstrong, J. S. & Green, K. C. (2005). [Demand forecasting: Evidence-based methods](#), Monash University Department of Econometrics and Business Statistics Working Paper 24-05.
- Armstrong, J. S. & Green, K. C. (2005). Evidence-based methods for predicting terrorists' decisions: Two new methods and one old method. Paper commissioned by CENTRA Technology, Inc.

* TOP25 Hottest Articles in *International Journal of Forecasting* during September quarter 2007.

† With introduction by Goodwin (pp. 285-286) and commentary by Kirkpatrick, Koehler, and Tetlock (pp. 293-299).

‡ TOP25 Hottest Articles in *International Journal of Forecasting* during September quarter 2005.

§ Best Paper Award 2002-2003 and 3rd most requested *International Journal of Forecasting* paper in 2002 with 241 requests. Commentary on pages 345-387 by J. Scott Armstrong; Gary Bolton; Paul Goodwin; Ido Erev, Alvin Roth, Robert Slonim, and Greg Barron; Hersh Shefrin; and George Wright.

Conference papers

- 2008 24 June Climate Forecasting for Public Policy: Public opinion, scientists' opinions, and scientific forecasts. Polar Bear Population Forecasts: A Public Policy Forecasting Audit. [Both with J. S. Armstrong and W. Soon] *International Symposium on Forecasting*: Nice.
- 23 June Predicting Elections from Politicians' Faces. [With J. S. Armstrong, R. Jones, and M. Wright] *International Symposium on Forecasting*: Nice.
- 3 March Scientific Forecasting of Climate Change. *International Conference on Climate Change*: New York.
- 2007 27 June Session - Auditing Public Policy Forecasting: Climate Change, Gun Control, and Other Issues
Feature Paper - Global Warming: Forecasts by Scientists versus Scientific Forecasts.
[Both presented by J. S. Armstrong] *International Symposium on Forecasting*: New York City.
- 2006 13 June Structured analogies: Evidence from conflict forecasting. [Presented by J. S. Armstrong] *International Symposium on Forecasting*: Santander, Spain.
- 2005 14 June What we know about forecasting methods for conflicts. [With J. S. Armstrong] *International Symposium on Forecasting*: San Antonio, Texas.
Role thinking: Does standing in the other guy's shoes improve forecast accuracy?
International Symposium on Forecasting: San Antonio, Texas.
- 2004 30 Nov Using experts effectively for predicting competitor and stakeholder decisions.
Australian and New Zealand Marketing Academy Conference: Wellington, New Zealand.
- 26 Aug How to use experts to forecast decisions in organizational conflicts. [Presented by J. S. Armstrong] *2nd Int'l Conference on Organizational Foresight*: Glasgow.
- 5 July How to use experts to forecast in the War on Terrorism. [With J. S. Armstrong] *International Symposium on Forecasting*: Sydney.
Simulated interaction: An approach to terrorism forecasting. [With J. S. Armstrong] *International Symposium on Forecasting*: Sydney.
- 28 June What role for mathematics in forecasting decisions in real conflicts?
Opening address to the *Institute of Mathematics & its Applications Conference on Analysing Conflict & its Resolution*: Oxford.
- 19 May Structured analogies for forecasting: a test using conflict situations. [Presented by J. S. Armstrong] *European Marketing Association Conference*: Murcia (Spain).
- 2003 17 June Structured analogies: A new method for forecasting decisions in conflicts.
International Symposium on Forecasting: Mérida (México).
- 2002 24 June Forecasting decisions in conflicts: Analogies, game theory, role-playing, and expert judgement compared. *International Symposium on Forecasting*: Dublin.
- 25 June Using knowledge effectively: The overwhelming influence of method on accuracy in conflict forecasting. *International Symposium on Forecasting*: Dublin.
- 2001 24 June The effect of mediation.
The International Association for Conflict Management 14th Annual Conference: Cergy (Paris).
- 19 June Game theory wins Nobel Prizes, but can it win at forecasting?
International Symposium on Forecasting: Atlanta. [Feature paper at special session.]

Seminars

- 2008 15-20 Aug. Predictability. [European Forum Alpbach](#), Seminar Week: Alpbach, Austria.
[Co-chaired with [Leonard A. Smith](#)]
- 2006 21 July Making the best use of judgement in forecasting.
Treasury Economic Performance Seminar Series: Wellington, New Zealand
- 2005 20 Sept. Evidence-based methods for predicting terrorists' decisions.
Fall 2005 Tradecraft and Training Conference: Queenstown, MD. [Presented by J. S. Armstrong]
- 15 Feb. Forecasting for conflicts: Making better predictions for commercial negotiations, union disputes, competitor initiatives, and hostile takeovers; Ask the Experts Panel; *Forecasting Summit*: Orlando.
- 14 Feb. Predicting decisions in conflicts: Methods and experts.
University of Chicago Graduate School of Business: Chicago, IL.
- 2004 22 Sept. Better prediction for conflict situations. *Melbourne Business School*, Australia.
- 17 Sept. How to make sense of intelligence about people who don't seem to make sense.
Central Intelligence Agency: Langley, VA.; How to use forecast decisions in conflicts. *Kent Center*: Washington D.C. [Both presented by J. S. Armstrong]
- 20 Aug. Can statistics help forecast decisions in real conflicts? *Monash University*: Melbourne, Australia
- 23 June Simulated interaction for strategy development. *Warwick Business School*, UK.
- 9 June Structured analogies to improve judgemental predictions.
London Judgement and Decision Making Group, University College, London.
- 7 June Improving predictions about conflicts with simulated interaction and structured analogies.
RAND Organisation, Santa Monica, CA.
- 2002 19 July Forecasting decisions in conflicts: What works, and what doesn't. *Royal NZ Police College*.
- 17 July Predicting decisions in conflicts: What works, and what doesn't. *New Zealand Centre for Conflict Resolution, Victoria University Law School*, Practitioner Seminar Series lecture.
- 18 June Further findings on methods for forecasting decisions in conflicts. *Operations Research Society and Victoria Management School (VMS)*.
- 2001 15 June Findings on relative accuracy of game theorists forecasts of decisions in conflicts. *VMS*.

Mass media and other coverage

- Tonkin, C. (2008). [Kids pick the winners in this year's election](#). *3News: Nightline*, 24 June 10:25 PM.
- Goldfarb, M. (2008). [The polar bears are all right: So cool it about the arctic ice](#). *The Weekly Standard*, 013(29) Week of 14 April.
- Competitive Enterprise Institute (2008). [Skeptics speak out: Dr. Kesten Green](#). A CEI video series available on YouTube from 4 April at <http://www.youtube.com/watch?v=DY2wm7sEVkQ>
- Ragsdale, R. (2008). [Debunking polar bear fears: More scientists speak out against global warming forecasts: urge better science](#). *Petroleum News*, 13(11) Week of 16 Mar, 1 & 21.
- Burnett, H. S. (2008). [Climate panel on the hot seat](#). *The Washington Times*, 14 March.
- Soon, W., Green, K. C., and Armstrong, J. S. (2008). [Polar opposites](#). *TCS Daily*, 8 February.
- Black, T. (2008). [Decimation of the polar bear: bearfaced lies?](#) *Spiked*, 4 February.
- Tierney, J. (2008). [Polar bears and seer suckers](#). *The New York Times: TierneyLab*, 31 January.
- Holden, C. (ed.) (2007). Presidential face-off. *Science*, 318, 723, DOI: 10.1126/science.318.5851.723c.
- Georgia, P. (2007). [Speculation elimination: Did the Bush Administration really censor science?](#) *National Review Online*, 29 Nov.
- Inhofe, J. (2007). [Global alarmism reaches a "tipping point"](#). Speech to US Senate, 26 Oct.
- Weir, J. (2007). [Taxman warming to a new opportunity](#). *The Dominion Post*, 22 Sep., C1.
- Lawson, M. (2007). [Global warming sceptics fuel hot debate](#). *Australian Financial Review*, 19 Sep., Suppl., 8.
- Bialik, C. (2007). [Grading the forecasts of 'experts'](#). *Wall Street Journal: The Numbers Guy*, 5 Sep.
- Buley, T. (2007). [Weather report](#). *Wall Street Journal: Opinion Journal's Political Diary*, 11 Jul.
- Carter, R. (2007). [Kiwi climate scientist confirms IPCC models don't predict](#). *National Business Review*, 5 Jul.
- O'Neill, B. (2007). [Put your money where your 'myth' is: Meet the Ivy League professor and expert on forecasting who is challenging Al Gore to a \\$20,000 bet that he is wrong on global warming](#). *Spiked*, 25 Jun.
- Campisi, A. (2007). [An inconvenient bet?](#) *The Summer Pennsylvanian*, CXXIII(5) 21 Jun., 1 & 8.
- ManyWorlds (2007). [Review of Value of Expertise for Forecasting Decisions in Conflicts](#). 26 May.
- Morgan, S. J. (2007). [The 'Myth of Market Share': Can focussing too much on the competition harm profitability?](#) Knowledge@Wharton, 24 Jan.
- Ewers, J. (2006). [Corporate exec, help thyself](#). *U.S. News & World Report*, 25 Dec., 41.
- ManyWorlds (2006). [Review of "Demand Forecasting: Evidence-based methods"](#). 15 Dec.
- Boucher Ferguson, R. (2006). [Inside eWEEK News: Oracle vs. SAP: Does mud slinging work?](#) *eWEEK.com*, 7 Dec.
- ManyWorlds (2006). [Review of "Competitor-oriented objectives: The myth of market"](#). 4 Dec.
- Surowiecki, J. (2006). [The financial page: In praise of third place](#). *The New Yorker*, 4 Dec, 44.
- ManyWorlds (2006). [Review of "The War in Iraq: Should we have expected better forecasts?"](#). 13 Jan.
- Green, K. C. (2005). [Trying to predict future Parliaments](#). *The Dominion Post*, 23 Sep, B7.
- Green, K. C. (2004). [Is it possible to accurately forecast the behavior of terrorists?](#) *The Oracle*, 6(3), 8.
- Armstrong, J. S. (2004). [Professor devises terror prediction model](#). *ABC Online, The World Today*, 6 Jul.
- Penttila, C. (2003). [Not just play acting](#). *CRN*, 11 Jul.
- Armstrong, J. S. (2003). [Why we argue about the war on terrorism: Bad forecasts, and how to avoid them](#). *BBC Radio, Manchester*, 14 Mar. [Notes prepared for interview.]
- Henricks, M. (2002). [Smart moves: Role-playing can help you see the future through someone else's eyes](#). *Entrepreneur*, Sep, 83-85.
- London, S. (2002). [Games or serious business?](#) *Financial Times*, 26 Mar., 16.
- Repertoire (2002). [Heard on the street: Role-playing good predictor in conflict situations](#). *Repertoire*, 10(3).
- Tweney, D. (2002). Rehearsing for success. *Business 2.0*, Jul. 94.

Cases (Available for teaching or research from conflictforecasting.com)

- Nurses Dispute* was a conflict over pay between the nursing staff and management of Capital Coast Health, a government-owned organisation operating hospitals. The decision was the size of the pay rise.
- Personal Grievance* was a conflict over the pay scale for employee's role. Decisions to be made were whether to commission a new independent evaluation, and whether to accept the salary band.
- Telco Takeover* was a conflict for the ownership of a regional telecommunications provider that occurred during 2001. The decision was how the stand-off between the two companies involved would be resolved.
- Water Dispute* was a 1975 conflict between Iraq and Syria over access to the water of the Euphrates River. The decision was whether Iraq would move towards war or whether Syria would release more water voluntarily.
- Zenith Investment* was a 1975 conflict between British Steel managers over an investment decision. The decision was whether to invest in expensive new technology and, if so, whether to invest in one new plant, or two.

Courses (Available from forecastingprinciples.com)

- Simulated interaction – a method for forecasting decisions in conflicts* (Beta version)
- Forecasting using structured analogies* (Beta version)

Professional activities, organisation memberships, communications, and awards

Co-director and co-owner of the Forecasting Principles site, forecastingprinciples.com
Editorial Board, *Foresight: The International Journal of Applied Forecasting*
Invited Session Organizer, International Symposium on Forecasting (ISF), San Antonio 2005
Reviewer for Australian and New Zealand Marketing Academy Conference (ANZMAC), Wellington 2004, Perth 2005.
Conference Programme Sub-committee, International Symposium on Forecasting (ISF), Sydney 2004

Institute for Operations Research and the Management Sciences (INFORMS).
Decision Analysis Society.
International Association for Conflict Management (IACM).
International Institute of Forecasters (IIF).
Society for Judgement and Decision Making (SJDM).

[Answers to Frequently Asked Questions](#). * More than 27,000 visits since June 2006. [With J. S. Armstrong and F. Collopy.]

[Selection Tree for Forecasting Methods](#). * More than 23,000 visits since June 2006. [With J. S. Armstrong]

[Methodology Tree for Forecasting](#). * More than 19,000 visits since August 13, 2006. [With J. S. Armstrong]

*At forecastingprinciples.com.

SAS Grant awarded by the IIF in 2004 for research on usefulness of forecasts expressed as probabilities.

Best Paper Award 2002-2003 from IIF and Elsevier for Green (2002).

Forecasting Decisions in Conflicts web page: conflictforecasting.com

Webmaster for pages on forecasting decisions in conflicts. The pages, launched in April 2003 on the IIF-sponsored forecastingprinciples.com site under "Special Interest Groups", have been visited 17,000 times since June 2006.

Education

2000 to 2003: PhD candidate at [Victoria Management School](#), [Victoria University](#) of Wellington. [Thesis](#) on forecasting decisions in conflicts accepted in September 2003; degree conferred on 10 December.
1998 to 2000: Part-time Master of Management Science (Decision Sciences) student at Victoria University; switched from Masters program to full-time PhD program after starting thesis.

Work History

From 2005: [Senior Research Fellow](#), Business and Economic Forecasting Unit, *Monash University*.
Jul-Dec 2004: [Visiting Senior Lecturer](#), Department of Econometrics and Business Statistics, *Monash University*. Lecturing to MBA students, senior graduate students and faculty, writing, and conducting research.
2000 to 2001: Senior Research Fellow, Victoria Management School, *Victoria University of Wellington* with responsibility for managing the Public Good Science Fund funded Employment Institutions Project.
From 1995: Founder and Managing Director of [Decision Research Ltd](#), which provides forecasts, programme evaluations, mail surveys, and depth interviews, as well as advice on forecasting, research, and management decision making. *Decision Research* has been responsible for more than 60 diverse projects for clients in government and the private sector.
1994 to 1995: Founder and manager of *Pisé Blocks Limited*, a manufacturer of pressed earth blocks for construction. The blocks were an aesthetic triumph and the company was a marketing success unfortunately let down by inadequate technology.
1985 to 1994: Founder and Director of [Infometrics Limited](#), a leading New Zealand economic forecasting and consulting house. During my time, the client base grew to more than 70 subscribers while subscription fees quadrupled. I gave client seminars and consulted on economic issues.
1982 to 1985: Founder and Director of the publisher of *Bettor Informed*, a computerised horse-racing information magazine based on assessment of probabilities under different conditions. I developed systems, and organised production of this twice-weekly nationally distributed magazine.
1981 to 1982: Taught Master of Public Policy students and others in Department of Economics at *Victoria University of Wellington*. Trained academic staff and graduate students to use computer software and develop to econometric models.

25 August, 2008