

# Asymmetric Learning from Financial Information

CAMELIA M. KUHNEN

First published: 27 October 2014

<https://doi.org/10.1111/jofi.12223>

Citations: 159

## ABSTRACT

This study asks whether investors learn differently from gains versus losses. I find experimental evidence that indicates that being in the negative domain leads individuals to form overly pessimistic beliefs about available investment options. This pessimism bias is driven by people reacting more to low outcomes in the negative domain relative to the positive domain. Such asymmetric learning may help explain documented empirical patterns regarding the differential role of poor versus good economic conditions on investment behavior and household economic choices.

## REFERENCES

Andersen, Torben G., Tim Bollerslev, Francis X. Diebold, and Clara Vega, 2007, Real-time price discovery in global stock, bond and foreign exchange markets, *Journal of International Economics* **73**, 251–277.

[Web of Science®](#) | [Google Scholar](#)

Asparouhova, Elena, Peter Bossaerts, Jon Eguia, and William Zame, 2010, Cognitive biases, ambiguity aversion and asset pricing in financial markets, Working paper, University of Utah.

[Google Scholar](#)

Banerjee, Abhijit, and Esther Duflo, 2011, *Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty* (Public Affairs, New York, NY).

[Google Scholar](#)

Barberis, Nicholas, Andrei Shleifer, and Robert Vishny, 1998, A model of investor sentiment, *Journal of Financial Economics* **49**, 307–343.

[Web of Science®](#) | [Google Scholar](#)

Ben-David, Itzhak, John R. Graham, and Campbell R. Harvey, 2013, Managerial miscalibration, *Quarterly Journal of Economics* **128**, 1547–1584.

[Web of Science®](#) | [Google Scholar](#)

---

Bollerslev, Tim, and Viktor Todorov, 2011, Tails, fears and risk premia, *Journal of Finance* **66**, 2165–2211.

[Web of Science®](#) | [Google Scholar](#)

---

Bossaerts, Peter, 2004, Filtering returns for unspecified biases in priors when testing asset pricing theory, *Review of Economic Studies* **71**, 63–86.

[Web of Science®](#) | [Google Scholar](#)

---

Bruguier, Antoine J., Steven R. Quartz, and Peter Bossaerts, 2010, Exploring the nature of trader intuition, *Journal of Finance* **65**, 1703–1723.

[Web of Science®](#) | [Google Scholar](#)

---

Brunnermeier, Markus K., and Jonathan A. Parker, 2005, Optimal expectations, *American Economic Review* **95**, 1092–1118.

[Web of Science®](#) | [Google Scholar](#)

---

Carlin, Bruce, Shimon Kogan, and Richard Lowery, 2013, Trading complex assets, *Journal of Finance* **68**, 1937–1960.

[Web of Science®](#) | [Google Scholar](#)

---

Doll, Bradley B., Kent E. Hutchison, and Michael J. Frank, 2011, Dopaminergic genes predict individual differences in susceptibility to confirmation bias, *Journal of Neuroscience* **31**, 6188–6198.

[CAS](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

---

Eppinger, Ben, Michael Herbert, and Jutta Kray, 2010, We remember the good things: Age differences in learning and memory, *Neurobiology of Learning and Memory* **93**, 515–521.

[PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

---

Frank, Michael J., Ahmed A. Moustafa, Heather M. Haughey, Tim Curran, and Kent E. Hutchison, 2007, Genetic triple dissociation reveals multiple roles for dopamine in reinforcement learning, *Proceeding of the National Academy of Sciences* **104**, 16311–16316.

[CAS](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

---

Froot, Kenneth A., 2001, The market for catastrophe risk: A clinical examination, *Journal of Financial Economics* **60**, 529–571.

[Web of Science®](#) | [Google Scholar](#)

Gabaix, Xavier, David Laibson, Guillermo Moloche, and Stephen Weinberg, 2006, Costly information acquisition: Experimental analysis of a boundedly rational model, *American Economic Review* 96, 1043–1068.

[Web of Science®](#) | [Google Scholar](#)

---

Garcia, Diego, 2012, The kinks of financial journalism, Working paper, University of North Carolina at Chapel Hill.

[Google Scholar](#)

---

Gennaioli, Nicola, and Andrei Shleifer, 2010, What comes to mind, *Quarterly Journal of Economics* 125, 1399–1433.

[Web of Science®](#) | [Google Scholar](#)

---

Hoberg, Gerard, and Gordon Phillips, 2010, Real and financial industry booms and busts, *Journal of Finance* 65, 45–86.

[Web of Science®](#) | [Google Scholar](#)

---

Kahneman, Daniel, and Amos Tversky, 1979, Prospect theory: An analysis of decision under risk, *Econometrica* 47, 263–291.

[Web of Science®](#) | [Google Scholar](#)

---

Kluger, Brian D., and Steve B. Wyatt, 2004, Are judgment errors reflected in market prices and allocations? Experimental evidence based on the Monty Hall problem, *Journal of Finance* 59, 969–997.

[Web of Science®](#) | [Google Scholar](#)

---

Knutson, Brian, and Peter Bossaerts, 2007, Neural antecedents of financial decisions, *Journal of Neuroscience* 27, 8174–8177.

[CAS](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

---

Kogan, Shimon, 2009, Distinguishing the effect of overconfidence from rational best-response on information aggregation, *Review of Financial Studies* 22, 1889–1914.

[Web of Science®](#) | [Google Scholar](#)

---

Kuhnen, Camelia M., and Brian Knutson, 2005, The neural basis of financial risk taking, *Neuron* 47, 763–770.

[CAS](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

---

Kuhnen, Camelia M., and Brian Knutson, 2011, The influence of affect on beliefs, preferences, and financial decisions, *Journal of Financial and Quantitative Analysis* 46, 605–626.

[Web of Science®](#) | [Google Scholar](#)

---

Lusardi, Ana-Maria, and Olivia S. Mitchell, 2007, Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth, *Journal of Monetary Economics* 54, 205–224.

[Web of Science®](#) | [Google Scholar](#)

---

Malmendier, Ulrike, and Stefan Nagel, 2011, Depression babies: Do macroeconomic experiences affect risk-taking? *Quarterly Journal of Economics* 126, 373–416.

[Web of Science®](#) | [Google Scholar](#)

---

Mather, Mara, and Andrej Schoeke, 2011, Positive outcomes enhance incidental learning for both younger and older adults, *Frontiers in Neuroscience* 5, 1–10.

[PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

---

Mullainathan, Sendhil, and Eldar Shafir, 2013, *Scarcity: Why Having Too Little Means So Much* (Times Books, New York, NY).

[Google Scholar](#)

---

Payzan-LeNestour, Elise, 2010, Bayesian learning in unstable settings: Experimental evidence based on the bandit problem, Swiss Finance Institute Research Paper No 10-28, 1–41.

[Google Scholar](#)

---

Phillips, Lawrence D., and Ward Edwards, 1966, Conservatism in a simple probability inference task, *Journal of Experimental Psychology* 72, 346–354.

[CAS](#) | [PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

---

Prelec, Drazen, 1998, The probability weighting function, *Econometrica* 66, 497–527.

[Web of Science®](#) | [Google Scholar](#)

---

Rabin, Matthew, 2000, Risk aversion and expected-utility theory: A calibration theorem, *Econometrica* 68, 1281–1292.

[Web of Science®](#) | [Google Scholar](#)

---

Routledge, Brian R., and Stanley E. Zin, 2010, Generalized disappointment aversion and asset prices, *Journal of Finance* 65, 1303–1332.

[Web of Science®](#) | [Google Scholar](#)

Sokol-Hessner, Peter, Colin F. Camerer, and Elizabeth A. Phelps, 2013, Emotion regulation reduces loss aversion and decreases amygdala responses to losses, *Social Cognitive and Affective Neuroscience* 8, 341–350.

[PubMed](#) | [Web of Science®](#) | [Google Scholar](#)

Van Nieuwerburgh, Stijn, and Laura Veldkamp, 2010, Information acquisition and under-diversification, *Review of Economic Studies* 77, 779–805.

[Web of Science®](#) | [Google Scholar](#)

Citing Literature



[Download PDF](#)

#### ABOUT WILEY ONLINE LIBRARY

[Privacy Policy](#)

[Terms of Use](#)

[About Cookies](#)

[Manage Cookies](#)

[Accessibility](#)

[Wiley Research DE&I Statement and Publishing Policies](#)

[Developing World Access](#)

#### HELP & SUPPORT

[Contact Us](#)

[Training and Support](#)

[DMCA & Reporting Piracy](#)

#### OPPORTUNITIES

[Subscription Agents](#)

[Advertisers & Corporate Partners](#)

#### CONNECT WITH WILEY

[The Wiley Network](#)

[Wiley Press Room](#)

