



## UvA-DARE (Digital Academic Repository)

### On the role of emotions and social ties in public good games : behavioral and neuroeconomic studies

Pelloux, B.

**Publication date**  
2012

[Link to publication](#)

#### **Citation for published version (APA):**

Pelloux, B. (2012). *On the role of emotions and social ties in public good games : behavioral and neuroeconomic studies*. [Thesis, fully internal, Universiteit van Amsterdam]. Thela Thesis.

#### **General rights**

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

#### **Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

# Bibliography

- Ackermann, H., and A. Riecker (2004): "The contribution of the insula to motor aspects of speech production: A review and a hypothesis," *Brain and Language*, 89, 320-328.
- Adolphs, R. (2002): "Recognizing Emotion From Facial Expressions: Psychological and Neurological Mechanisms," *Behavioral and Cognitive Neuroscience Reviews*, 1, 21-61.
- Anderson, T.J., I. H. Jenkins, D. J. Brooks, M. B. Hawken, R. S. J. Frackowiak, and C. Kennard (1994): "Cortical Control of Saccades and Fixation in Man - a Pet Study," *Brain*, 117, 1073-1084.
- Andreoni, J., W. Harbaugh, and L. Vesterlund (2003): "The Carrot or the Stick: Rewards, Punishments, and Cooperation," *American Economic Review*, 93(3), 893-902.
- Andreoni, J., and R. Petrie (2004): "Public goods experiments without confidentiality: a glimpse into fund-raising," *Journal of Public Economics*, 88(7-8), 1605-1623.
- Aron, A., H. Fisher, D. J. Mashek, G. Strong, H. Li, and L. L. Brown (2005): "Reward, Motivation, and Emotion Systems Associated With Early-Stage Intense Romantic Love," *Journal of neurophysiology*, 94(1), 327-337.
- Barron, G., and E. Yechiam (2009): "The coexistence of overestimation and underweighting of rare events and the contingent recency effect," *Judgment and Decision Making*, 4(6), 447-460.
- Bartels, A., and S. Zeki (2000): "The neural basis of romantic love," *Neuroreport*, 11(17), 3829-3834.
- Batson, C.D. (1991): *The Altruism Question : Toward a Social Psychological Answer*, Hillsdale, N.J.: L. Erlbaum.
- Battigalli, P., and M. Dufwenberg (2007): "Guilt in Games," *American Economic Review*, 97(2), 170-176.

## BIBLIOGRAPHY

- Baumeister, R. F., and M. R. Leary (1995): "The need to belong: Desire for interpersonal attachments as a fundamental human motivation," *Psychological Bulletin*, 117(3), 497-529.
- Benjamini, Y., and Y. Hochberg (1995): "Controlling the False Discovery Rate - a Practical and Powerful Approach to Multiple Testing," *Journal of the Royal Statistical Society Series B-Methodological*, 57, 289-300.
- Ben-Shakar, G., G. Bornstein, A. Hopfensitz, and F.A.A.M. van Winden (2007): "Reciprocity and emotions in bargaining: using physiological and self-report measures," *Journal of Economic Psychology*, 28, 314-323.
- Bochet, O., T. Page, and L. Putterman (2006): "Communication and Punishment in Voluntary Contribution Experiments," *Journal of Economic Behavior & Organisation*, 60(1), 11-26.
- Boddaert, N., N. Chabane, H.Gervais, C. D. Good, M. Bourgeois, M. H. Plumet, C. Barthelemy, M. C. Mouren, E. Artiges, Y. Samson, F. Brunelle, R. S. J. Frackowiak, and M. Zilbovicius (2004): "Superior temporal sulcus anatomical abnormalities in childhood autism: a voxel-based morphometry MRI study," *Neuroimage*, 23, 364-369.
- Bohnet, I. and B. S. Frey (1999): "The sound of silence in prisoner's dilemma and dictator games," *Journal of Economic Behavior & Organization*, 38(1), 43-57.
- Bolton, G. E., and A. Ockenfels (2000): "A theory of equity, reciprocity and competition," *American Economic Review*, 90(1), 166-193
- Bonda, E., M. Petrides, D. Ostry, and A. Evans (1996): "Specific involvement of human parietal systems and the amygdala in the perception of biological motion," *Journal of Neuroscience*, 16, 3737-3744.
- Bone, J., J. D. Hey, and J. Suckling (2009): "Do people plan?," *Experimental Economics*, 12(1), 12-25.
- Bonanno, B., C. List, B. Tungodden, and P. Vallentyne (2008): "Introduction to the Special Issue of Economics and Philosophy on Neuroeconomics," *Economics and Philosophy*, 24, 301-302.

- Bradley, M. M., and P.J. Lang (2000) "Measuring emotion: Behavior, feeling, and physiology," in *Cognitive neuroscience of emotion*, ed. by R. Lane and L. Nadel, pp. 242–276, New York: Oxford University Press.
- Brandts, J., A. Riedl, and F. van Winden (2009): "Competitive rivalry, social disposition, and subjective well-being: An experiment," *Journal of Public Economics*, 93(11-12), 1158-1167.
- Bush, G., P. Luu, and M. I. Posner (2000): "Cognitive and emotional influences in anterior cingulate cortex," *Trends in Cognitive Sciences*, 4, 215-222.
- Bush, G., B. A. Vogt, J. Holmes, A. M. Dale, D. Greve, M.A. Jenike, and B. R. Rosen (2002) : " Dorsal anterior cingulate cortex: A role in reward-based decision making," *Proc Natl Acad Sci U S A*, 99, 523-528.
- Camerer, C. F., T. H. Ho, and J. K. Chong (2004): "A Cognitive Hierarchy Model of Games," *Quarterly Journal of Economics*, 119(3), 861-898.
- Camerer, C. F., and K. Weigelt (1988): "Experimental tests of a sequential reputation model," *Econometrica*, 56(1), 1-36
- Camerer, C. F., G. Loewenstein, and D. Prelec (2005): "Neuroeconomics: How Neuroscience Can Inform Economics," *Journal of Economic Literature*, 43(1), 9-64.
- Carpenter, J. P. (2007a): "Punishing free-riders: How group size affects mutual monitoring and the provision of public goods," *Games and Economic Behavior*, 60(1), 31-51.
- Carpenter, J. P. (2007b): "The demand for punishment," *Journal of Economic Behavior & Organization*, 62(4), 522-542.
- Castelli, F., F. Happe, U. Frith, and C. Frith (2000): "Movement and mind: A functional imaging study of perception and interpretation of complex intentional movement patterns," *Neuroimage*, 12, 314-325.
- Cehajic, S., R. Brown, and R. Gonzalez (2009): "What do I Care? Perceived Ingroup Responsibility and Dehumanization as Predictors of Empathy Felt for the Victim Group," *Group Processes & Intergroup Relations*, 12, 715-729.

## BIBLIOGRAPHY

- Charness, G., and M. Dufwenberg (2006): "Promises and Partnership," *Econometrica*, vol. 74(6), 1579-1601.
- Charness, G., and M. Rabin (2002): "Understanding Social Preferences with Simple Tests," *The Quarterly Journal of Economics*, 117 (3), 817-869.
- Chaudhuri, A. (2011): "Sustaining cooperation in laboratory public goods experiments: a selective survey of the literature," *Experimental Economics*, 14(1), 47-83.
- Cinyabuguma, M., T. Page, and L. Putterman (2006) : "Can second-order punishment deter perverse punishment?," *Experimental Economics*, 9(3), 265-279.
- Conte, A., and J.D. Hey (2012): "Assessing multiple prior models of behavior under ambiguity," Discussion Papers 12/01, Department of Economics, University of York.
- Cooper, J.C., T.A. Kreps, T. Wiebe, T. Pirkel, and B. Knutson (2010): "When Giving Is Good: Ventromedial Prefrontal Cortex Activation for Others' Intentions," *Neuron*, 67, 511-521.
- Corrazini, L., and M. Tyszler (2010): "Preference for Efficiency or Confusion? A Note on a Boundedly Rational Equilibrium Approach to Individual Contributions in a Public Good Game," ISLA Working Papers, 37.
- Cox, J. C., D. Friedman, and S. Gjerstad (2007): "A tractable model of reciprocity and fairness," *Games and Economic Behavior*, 59(1), 17-45.
- Craig, A.D. (2009): "How do you feel - now? The anterior insula and human awareness," *Nature Reviews Neuroscience*, 10, 59-70.
- Critchley, H.D., S. Wiens, P. Rotshtein, A. Ohman, and R. J. Dolan (2004): "Neural systems supporting interoceptive awareness," *Nature Neuroscience* 7, 189-195.
- Denrell, J. (2005): "Why most people disapprove of me: Experience sampling in impression formation," *Psychological Review*, 112, 951-978.
- De Waal, F.B.M. (2008): "Putting the altruism back into altruism: The evolution of empathy," *Annual Review of Psychology*, 59, 279-300.

- Decety, J., and T. Chaminade (2003): "Neural correlates of feeling sympathy," *The cognitive neuroscience of social behavior*, 41(2), 127-138.
- Decety, J., P. L. Jackson, J. A. Sommerville, T. Chaminade, A. N. and Meltzoff (2004): "The neural bases of cooperation and competition: an fMRI investigation," *Neuroimage*, 23, 744-751.
- Demonet, J.F., F. Chollet, S. Ramsay, D. Cardebat, J. L. Nespoulous, R. Wise, A. Rascol, and R. Frackowiak, (1992): "The Anatomy of Phonological and Semantic Processing in Normal Subjects," *Brain*, 115, 1753-1768.
- van Dijk, F., J. Sonnemans, and F. van Winden (2002): "Social ties in a public good experiment," *Journal of Public Economics*, 85, 275-299.
- van Dijk, F., and F. van Winden (1997): "Dynamics of social ties and local public good provision," *Journal of Public Economics*, 64(3), 323-341.
- Dronkers, N.F. (1996): "A new brain region for coordinating speech articulation," *Nature*, 384, 159-161.
- Dugar, S. (2010): "Nonmonetary sanctions and rewards in an experimental coordination game," *Journal of Economic Behavior & Organization*, 73(3), 377-386.
- Dufwenberg, M., and G. Kirchsteiger (2004): "A theory of sequential reciprocity," *Games and Economic Behavior*, 47(2), 268-298.
- Egas, M., and A. Riedl (2008): "The economics of altruistic punishment and the maintenance of cooperation," *Proceedings of the Royal Society B.*, 275, 871-878.
- Eisenberg, N. (2000): "Empathy and Sympathy," in *Handbook of Emotions*, eds. M. Lewis & J.M. Haviland-Jones. 2nd ed. (New York-London: The Guilford Press).
- El-Gamal, M. A., and D. M. Grether (1995): "Are People Bayesian? Uncovering Behavioral Strategies," *Journal of the American Statistical Association*, 90(432), 1137-1145.
- Ellingsen, T., and M. Johannesson (2008): "Anticipated verbal feedback induces altruistic behavior," *Evolution and Human Behavior*, 29, 100-105.

## BIBLIOGRAPHY

- Fahrenfort, J. J., F. van Winden, B. Pelloux, M. Stallen, and K. R. Ridderinkhof (2012): “Neural correlates of dynamically evolving interpersonal ties predict prosocial behavior,” *Frontiers in Neuroscience*, 6:28.
- Falk, A., and U. Fischbacher (2006): “A theory of reciprocity,” *Games and Economic Behavior*, 54(2), 293-315.
- Fareri, D. S., M. A. Niznikiewicz, V. K. Lee, and M. R. Delgado (2012): “Social Network Modulation of Reward-Related Signals,” *The Journal of Neuroscience*, 32(26), 9045-9052.
- Farrow, T.F.D., Y. Zheng, I. D. Wilkinson, S. A. Spence, J. F. W. Deakin, N. Tarrier, P. D. Griffiths, and P. W. R. Woodruff (2001): “Investigating the functional anatomy of empathy and forgiveness,” *Neuroreport*, 12, 2433-2438.
- Fehr, E., and U. Fischbacher (2003): “The nature of human altruism,” *Nature*, 425, 785-791.
- Fehr, E., and S. Gächter (2000): “Cooperation and Punishment in Public Goods Experiments,” *American Economic Review*, 90(4), 980-994.
- Fehr, E., and S. Gächter (2002): “Altruistic punishment in humans,” *Nature*, 415, 137-140.
- Fehr, E., and K. Hoff (2011): “Introduction: Tastes, Castes and Culture: the Influence of Society on Preferences,” *The Economic Journal*, 121(556), F396-F412.
- Fehr, E., and A. Rangel (2011): “Neuroeconomic Foundations of Economic Choice - Recent Advances,” *Journal of Economic Perspectives*, 25(4), 3-30.
- Fehr, E., and K. M. Schmidt (1999): “A Theory of Fairness, Competition, and Cooperation,” *The Quarterly Journal of Economics*, 114(3), 817-868.
- Fehr, E., and K. M. Schmidt (2006): “The Economics of Fairness, Reciprocity and Altruism – Experimental Evidence and New Theories,” in *Handbook of the Economics of Giving, Altruism and Reciprocity*, Eds S.-C. Kolm and J. Mercier Ythier, 1, 615-691.
- Fisher, H., A. Aron, and L. L. Brown (2005): “Romantic love: An fMRI study of a neural mechanism for mate choice,” *The Journal of comparative neurology*, 493(1), 58-62.

- Gächter, S., E. Renner, and M. Sefton (2008) "The Long-Run Benefits of Punishment," *Science*, 322 (5907), 1510.
- Gehring, W.J., B. Goss, M. G. H. Coles, D. E. Meyer, and E. Donchin (1993): "A Neural System for Error-Detection and Compensation," *Psychological Science*, 4, 385-390.
- Glimcher, P. W. (2005): "Indeterminacy in Brain and Behavior," *Annual Review of Psychology*, 56, 25-56.
- Gneezy, U., and A. Rustichini (2000): "A Fine is a Price," *Journal of Legal Studies*, Vol. 29, No. 1.
- Goette, L., D. Huffman and S. Meier (2012): "The Impact of Social Ties on Group Interactions: Evidence from Minimal Groups and Randomly Assigned Real Groups," *American Economic Journal: Microeconomics*, 4(1), 101-115.
- Greiner, B. (2004): "The Online Recruitment System ORSEE - A Guide for the Organization of Experiments in Economics," Papers on Strategic Interaction 2003-10, Max Planck Institute of Economics, Strategic Interaction Group.
- Gul, F., and W. Pesendorfer (2008): "The Case for Mindless Economics," in *The Foundations of Positive and Normative Economics*, eds Caplin, A., and A. Schotter, (New York: Oxford University Press), 3-39.
- Güth, W., V. Levati, M. Sutter, and E. van der Heijden (2007): "Leading by example with and without exclusion power in voluntary contribution experiments," *Journal of Public Economics*, 91, 1023-1042.
- Haber, S.N., and B. Knutson (2010): "The Reward Circuit: Linking Primate Anatomy and Human Imaging," *Neuropsychopharmacology*, 35, 4-26.
- Hampton, A.N., P. Bossaerts, and J. P. O'doherty (2008): "Neural correlates of mentalizing-related computations during strategic interactions in humans," *Proc Natl Acad Sci U S A*, 105, 6741-6746.
- Harrison, G. W. (2008): "Neuroeconomics: A Critical Reconsideration," *Economics & Philosophy*, 24, 303-344.



## BIBLIOGRAPHY

- Harrison, G. W., and E. E. Rutstrom (2009): "Expected utility theory and prospect theory: one wedding and a decent funeral," *Experimental Economics*, 12(2), 133-158.
- Haruno, M., and C. D. Frith (2010): "Activity in the amygdala elicited by unfair divisions predicts social value orientation," *Nature Neuroscience*, 13, 160-161.
- Haruno, M., and M. Kawato (2009): "Activity in the Superior Temporal Sulcus Highlights Learning Competence in an Interaction Game," *Journal of Neuroscience*, 29, 4542-4547.
- Heatherton, T. F., C. L. Wyland, C. N. Macrae, K. E. Demos, B. T. Denny, and W. M. Kelley (2006): "Medial prefrontal activity differentiates self from close others," *Social Cognitive and Affective Neuroscience*, 1(1), 18-25.
- Hein, G., G. Silani, K. Preuschhoff, C. D. Batson, and T. Singer, (2010): "Neural responses to ingroup and outgroup members' suffering predict individual differences in costly helping," *Neuron*, 68, 149-160.
- Hopfensitz, A., and E. Reuben (2009): "The Importance of Emotions for the Effectiveness of Social Punishment," *Economic Journal*, 119, 1534-1559.
- Houser, D., and E. Xiao (2011): "Classification of Natural Language Messages using a Coordination Game," *Experimental Economics*, 14(1), 1-14.
- Isaac, R.M., and J. M. Walker (1988): "Group-Size Effects in Public-Goods Provision - the Voluntary Contributions Mechanism," *Quarterly Journal of Economics*, 103, 179-199.
- Jabbi, M., M. Swart, and C. Keysers (2007): "Empathy for positive and negative emotions in the gustatory cortex," *Neuroimage*, 34, 1744-1753.
- Johnson, E. J., C. F. Camerer, S. Sen, and T. Rymon (2002): "Detecting Failures of Backward Induction: Monitoring Information Search in Sequential Bargaining," *Journal of Economic Theory*, 104(1), 16-47.
- Khalsa, S.S., D. Rudrauf, J. S. Feinstein, and D. Tranel (2009): "The pathways of interoceptive awareness," *Nature Neuroscience*, 12, 1494-1496.

- King-Casas, B., D. Tomlin, C. Anen, C. F. Camerer, S. R. Quartz, and P. R. Montague (2005): "Getting to know you: Reputation and trust in a two-person economic exchange," *Science*, 308, 78-83.
- Kirchsteiger, G. (1994): "The role of envy in ultimatum games," *Journal of Economic Behavior & Organization*, 25(3), 373-389.
- Kreps, D. M., P. Milgrom, J. Roberts, and R. Wilson (1982): "Rational cooperation in the finitely repeated prisoners' dilemma", *Journal of Economic Theory*, 27(2), 245-252.
- Kriegeskorte, N., W. K. Simmons, P. S. F. Bellgowan, and C. I. Baker (2009): "Circular analysis in systems neuroscience: the dangers of double dipping," *Nature Neuroscience*, 12, 535-540.
- Krienen, F. M., P.-C. Tu, and R. L. Buckner (2010): "Clan Mentality: Evidence That the Medial Prefrontal Cortex Responds to Close Others," *Journal of Neuroscience*, 30(41), 13906-13915.
- Krueger, F., K. McCabe, J. Moll, N. Kriegeskorte, R. Zahn, M. Strenziok, A. Heinecke, and J. Grafman (2007): "Neural correlates of trust," *Proceedings of the National Academy of Sciences*, 104(50), 20084-20089.
- Lane, R.D., E. M. Reiman, B. Axelrod, L. S. Yun, A. Holmes, and G. E. Schwartz (1998): "Neural correlates of levels of emotional awareness: Evidence of an interaction between emotion and attention in the anterior cingulate cortex," *Journal of Cognitive Neuroscience*, 10, 525-535.
- van Lange, P.A.M. (1999): "The pursuit of joint outcomes and equality in outcomes: An integrative model of social value orientation," *Journal of Personality and Social Psychology*, 77, 337-349.
- LeDoux, J. E. (1996): *The Emotional Brain: The Mysterious Underpinnings of Emotional Life*, New York: Simon & Schuster.
- Ledyard, J.O. (1995): "Public Goods: A Survey of Experimental Research," in *The Handbook of Experimental Economics*, eds. A. Roth & J. Kagel. (Princeton, NJ: Princeton University Press), 111-181.

## BIBLIOGRAPHY

- Le Lec, F., A. Matthey, and R. Ondřej (2012): "Punishment Fosters Efficiency in the Minimum Effort Coordination Game," *Jena Economic Research Papers*, #2012-030.
- Levine, D. K. (1998): "Modeling Altruism and Spitefulness in Experiments," *Review of Economic Dynamics*, 1(3), 593-622.
- Liebrand, W.B.G. (1984): "The Effect of Social Motives, Communication and Group-Size on Behavior in an N-Person Multi-Stage Mixed-Motive Game," *European Journal of Social Psychology*, 14, 239-264.
- Loewenstein, G., and T. O'Donoghue (2007): "The heat of the moment: Modeling interactions between affect and deliberation," Working Paper.
- Loomes, G., and R. Sudgen (1982): "Regret Theory: An Alternative Theory Of Rational Choice Under Uncertainty," *The Economic Journal*, 92(368), 805-824.
- López-Pérez, R., and M. Vorsatz (2010): "On approval and disapproval: Theory and experiments," *Journal of Economic Psychology*, 31(4), 527-541.
- Malmendier, U., and K. M. Schmidt (2012): "You owe me," Working Paper.
- Masclet, D., C. Noussair, S. Tucker, and M-C. Villeval (2003): "Monetary and Nonmonetary Punishment in the Voluntary Contributions Mechanism," *American Economic Review*, 93(1), 366-380.
- Masten, C.L., S. A. Morelli, and N. I. Eisenberger (2011): "An fMRI investigation of empathy for 'social pain' and subsequent prosocial behavior," *Neuroimage*, 55, 381-388.
- Mathur, V.A., T. Harada, T. Lipke, and J. Y. Chiao (2010): "Neural basis of extraordinary empathy and altruistic motivation," *Neuroimage*, 51, 1468-1475.
- Matthews, K. A., C. D. Batson, J. Horn, and R. H. Rosenman (1981): "'Principles in his nature which interest him in the fortune of others...': The heritability of empathic concern for others," *Journal of Personality*, 49, 237-247.
- McCabe, K., D. Houser, L. Ryan, V. Smith, and T. Trouard (2001): "A functional imaging study of cooperation in two-person reciprocal exchange," *Proceedings of the National Academy of Sciences*, 98(20), 11832-11835.

- McKelvey, R. D., and T. R. Palfrey (1992): "An Experimental Study of the Centipede Game," *Econometrica*, 60(4), 803-836.
- Mehrabian, A. (1997): "Relations among personality scales of aggression, violence, and empathy: Validation evidence bearing on the risk of eruptive violence scale," *Aggressive Behavior*, 23, 433-445.
- Mehrabian, A., and N. Epstein (1972): "A measure of emotional empathy," *Journal of Personality*, 40, 525-543.
- Moll, J., F. Krueger, R. Zahn, M. Pardini, R. De Oliveira-Souza, and J. Grafman (2006): "Human fronto-mesolimbic networks guide decisions about charitable donation," *Proc Natl Acad Sci U S A*, 103, 15623-15628.
- Mottonen, R., G. A. Calvert, I. P. Jaaskelainen, P. M. Matthews, T. Thesen, J. Tuomainen, and M. Sams (2006): "Perceiving identical sounds as speech or non-speech modulates activity in the left posterior superior temporal sulcus," *Neuroimage*, 30, 563-569.
- Nikiforakis, N. (2008): "Punishment and counter-punishment in public good games: Can we really govern ourselves," *Journal of Public Economics*, 92(1-2), 91-112.
- Nikiforakis, N., and H.-T. Normann (2008): "A comparative statics analysis of punishment in public-good experiments," *Experimental Economics*, 11(4), 358-369.
- Noussair, C., and S. Tucker (2005): "Combining monetary and social sanctions to promote cooperation," *Economic Inquiry*, 43(3), 649-660.
- Ortony, A., G. L. Clore, and A. Collins (1988): *The Cognitive Structure of Emotions*, Cambridge University Press.
- Ostrom, E. (2000): "Collective Actions and the Evolution of Social Norms," *Journal of Economic Perspective*, 14(3), 137-158.
- Page, T., L. Putterman, and B. Unel (2005): "Voluntary Association in Public Goods Experiments: Reciprocity, Mimicry and Efficiency," *The Economic Journal*, 115, 1032-1053.

## BIBLIOGRAPHY

- Pelloux, B., J.-L. Rullière, and F. van Winden (2009): "La Neuroéconomie dans l'Agenda de l'Economie Comportementale," *Revue Française d'Economie*, 23(4), 3-36.
- Peeters, R., and M. Vorsatz (2012): "Immaterial Rewards and Sanctions in a Voluntary Contribution Experiment," *Economic Inquiry*, forthcoming.
- Perrett, D.I., M. H. Harries, R. Bevan, S. Thomas, P. J. Benson, A. J. Mistlin, A. J. Chitty, J. K. Hietanen, and J. E. Ortega (1989): "Frameworks of Analysis for the Neural Representation of Animate Objects and Actions," *Journal of Experimental Biology*, 146, 87-113.
- Rabin, M. (1993): "Incorporating Fairness into Game Theory and Economics," *American Economic Review*, 83(5), 1281-1302.
- Rand, D. G., A. Dreber, T. Ellingsen, D. Fudenberg, and M. A. Nowak (2009): "Positive Interactions Promote Public Cooperation," *Science*, 325 (5945), 1272-1275.
- Rakow, T., and B. R. Newell (2010): "Degrees of Uncertainty: An Overview and Framework for Future Research on Experience-Based Choice," *Journal of Behavioral Decision Making*, 23, 1-14.
- Reis, H.T., W. A. Collins, and E. Berscheid (2000): "The Relationship Context of Human Behavior and Development," *Psychological Bulletin*, 126(6), 844-872.
- Rilling, J.K., D. A. Gutman, T. R. Zeh, G. Pagnoni, G. S. Berns, and C. D. Kilts (2002): "A neural basis for social cooperation," *Neuron*, 35, 395-405.
- Rilling, J. K., A. G. Sanfey, J. A. Aronson, L. E. Nystrom, and J. D. Cohen (2004): "The neural correlates of theory of mind within interpersonal interactions," *Neuroimage*, 22(4), 1694-1703.
- Rissman, J., A. Gazzaley, and M. D'Esposito (2004): "Measuring functional connectivity during distinct stages of a cognitive task," *Neuroimage*, 23(2), 752-763.
- Rolls, E.T. (1994): "Neurophysiology and Cognitive Functions of the Striatum," *Revue Neurologique*, 150, 648-660.
- Rubinstein, A. (1979): "Equilibrium in supergames with the overtaking criterion," *Journal of Economic Theory*, 21-1, 1-9.

- Rustichini, A. (2005): "Neuroeconomics: Present and future," *Games and Economic Behavior*, 52, 201-212.
- Sally, D. (1995): "Conversation and Cooperation in Social Dilemmas: A Meta-Analysis of Experiments from 1958 to 1992," *Rationality and Society*, 7, 58-92.
- Saxe, R., D. K. Xiao, G. Kovacs, D. I. Perrett, and N. Kanwisher (2004): "A region of right posterior superior temporal sulcus responds to observed intentional actions," *Neuropsychologia*, 42, 1435-1446.
- Sefton, M., and R. Steinberg (1996): "Reward structures in public good experiments," *Journal of Public Economics*, 61(2), 263-287.
- Sefton M., R. Shupp, and J. M. Walker (2007): "The Effect Of Rewards And Sanctions In Provision Of Public Goods," *Economic Inquiry*, 45(4), 671-690.
- Seymour, B., J. P. O'doherty, P. Dayan, M. Koltzenburg, A. K. Jones, R. J. Dolan, K. J. Friston, and R. S. Frackowiak (2004): "Temporal difference models describe higher-order learning in humans," *Nature*, 429, 664-667.
- Singer, T., S. J. Kiebel, J. S. Winston, R. J. Dolan, and C. D. Frith (2004a): "Brain responses to the acquired moral status of faces," *Neuron*, 41, 653-662.
- Singer, T., and C. Lamm (2009): "The Social Neuroscience of Empathy," *Year in Cognitive Neuroscience, 2009* 1156, 81-96.
- Singer, T., B. Seymour, J. O'doherty, H. Kaube, R. J. Dolan, and C. D. Frith (2004b): "Empathy for pain involves the affective but not sensory components of pain," *Science*, 303, 1157-1162.
- Singer, T., B. Seymour, J. P. O'doherty, K. E. Stephan, R. J. Dolan, and C. D. Frith (2006): "Empathic neural responses are modulated by the perceived fairness of others," *Nature*, 439, 466-469.
- Sloof, R., and F.A.A.M. van Winden (2000): "Show Them Your Teeth First! A Game-Theoretic Analysis of Lobbying and Pressure," *Public Choice*, 104, 81-120.
- Sobel, J. (2005): "Interdependent Preferences and Reciprocity," *Journal of Economic Literature*, 43(2), 392-436.

## BIBLIOGRAPHY

- Sonnemans, J., F. van Dijk, and F. van Winden (2006): "On the dynamics of social ties structures in groups," *Journal of Economic Psychology*, 27(2), 187-204.
- Sturmer, S., M. Snyder, A. Kropp, and B. Siem, (2006): "Empathy-motivated helping: The moderating role of group membership," *Personality and Social Psychology Bulletin*, 32, 943-956.
- Tangney, J.P., and R. Dearing (2002): *Shame and guilt*, New York: Guilford.
- Tankersley, D., C. J. Stowe, and S. A. Huettel (2007): "Altruism is associated with an increased neural response to agency," *Nature Neuroscience*, 10, 150-151.
- Tvesky, A., and D. Kahneman (1992): "Advances in Prospect Theory: Cumulative Representaion of Uncertainty," *Journal of Risk and Uncertainty*, 5(4), 297-323.
- Vrticka, P., and P. Vuilleumier (2012): "Neuroscience of Human Social Interactions and Adult Attachment Style," *Frontiers in Human Neuroscience*, 6(00212).
- Wang, M., and P. S. Fischbeck (2004): "Incorporating Framing into Prospect Theory Modeling: A Mixture-Model Approach," *Journal of Risk and Uncertainty*, 29(2), 181-197.
- Wicker, B., C. Keysers, J. Plailly, J. P. Royet, V. Gallese, and G. Rizzolatti (2003): "Both of us disgusted in My Insula: The common neural basis of seeing and feeling disgust," *Neuron*, 40, 655-664.
- Wilcox, N. T. (2007): "Predicting Risky Choices Out-of-Context: A Monte Carlo Study," University of Houston Working Paper.
- van Winden, F. (2001): "Emotional Hazard Exemplified by Taxation-Induced Anger," *Kyklos*, 54, 491-506.
- van Winden (2012): "Affective Social Ties – Missing Link in Governance Theory," *Rationality, Markets and Morals*, 3, forthcoming.
- van Winden, F., M. Stallen, and K. R. Ridderinkhof (2008): "On the nature, modeling, and neural bases of social ties," *Adv Health Econ Health Serv Res*, 20, 125-159.

- Wittmann, B.C., N. D. Daw, B. Seymour, and R. J. Dolan (2008): "Striatal activity underlies novelty-based choice in humans," *Neuron*, 58, 967-973.
- Xiao, H., and D. Houser (2005): "Emotion expression in human punishment behavior," *Proceedings of the National Academy of Sciences of the United States of America*, 102(20), 7398-7401.
- Xiao, H., and D. Houser (2009) "Avoiding the sharp tongue: Anticipated written messages promote fair economic exchange," *Journal of Economic Psychology*, 30(3), 393-404.
- Zajonc, R. B. (1984): "On The Primacy of Affect," *American Psychologist*, 39(2), 117-123.
- Zeiliger, R. (2000): "A Presentation of Regate, Internet Based Software for Experimental Economics," <http://www.gate.cnrs.fr/~zeiliger/regate/regate.htm>, GATE.
- Zeki, S. (2007): "The neurobiology of love," *FEBS letters*, 581(14), 2575-2579.