

BOOKS

Laubichler, M., Rheinberger, H.J. & Hammerstein, P., eds. (forthcoming). *Regulation: Historical and Current Themes in Theoretical Biology*. Cambridge, MA: MIT Press.

Hammerstein, P., ed. (2003). *Genetic and Cultural Evolution of Cooperation*. Cambridge, MA: MIT Press.

Noë, R., van Hooff, J.A.R.A.M. & Hammerstein, P., eds. (2001). *Economics in Nature*. Cambridge: Cambridge University Press.

Albers, W., Güth, W., Hammerstein, P., Moldovanu, B. & van Damme, E., eds. (1997). *Understanding Strategic Interaction - Essays in Honor of Reinhard Selten*. Berlin: Springer-Verlag.

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Endosymbiont-Host Interactions, Intragenomic Conflict and Parasitism

Telschow, A., Flor, M., Kobayashi, Y., Hammerstein, P. & Werren, J.H. (2007). *Wolbachia*-induced unidirectional CI and speciation: Mainland-island model. *PLoS ONE*, in press.

Engelstädter, J., Hammerstein, P. & Hurst, G.D.D. (2007). The evolution of endosymbiont density in doubly infected hosts. *Journal of Evolutionary Biology*, 20, 685-695.

Flor, M., Hammerstein, P. & Telschow, A. (2007). *Wolbachia*-induced unidirectional cytoplasmic incompatibility and the stability of infection polymorphism in parapatric host populations. *Journal of Evolutionary Biology*, 20, 696-706.

Hammerstein, P. & Hagen, E.H. (2006). Broken cogs or strategic agents? *Science*, 304, 964.

Telschow, A., Engelstädter, J., Yamamura, N., Hammerstein, P. & Hurst, G.D.D. (2006). Asymmetric gene flow and constraints on adaptation caused by sex ratio distorters. *Journal of Evolutionary Biology*, 19, 869-878.

Kowald, A., Jendrach, M., Pohl, S., Bereiter-Hahn, J. & Hammerstein, P. (2005). On the relevance of mitochondrial fusions for the accumulation of mitochondrial deletion mutants: A modelling study. *Aging Cell*, 4, 273-283.

Jendrach, M., Pohl, S., Vöth, M., Kowald, A., Hammerstein, P. & Bereiter-Hahn, J. (2005). Morpho-dynamic changes of mitochondria during ageing of human endothelial cells. *Mechanisms of Ageing and Development*, 126, 813-821.

Telschow, A., Hammerstein, P. & Werren, J.H. (2005). The effect of *Wolbachia* versus genetic incompatibilities on reinforcement and speciation. *Evolution*, 59, 1607-1619.

Engelstädter, J., Telschow, A. & Hammerstein, P. (2004). Infection dynamics of different *Wolbachia*-types within one host population. *Journal of Theoretical Biology*, 231, 345-355.

Telschow, A., Hammerstein, P. & Werren, J.H. (2002). The effect of *Wolbachia* on genetic divergence between populations: Models with two-way migration. *American Naturalist*, 160, S54-S66.

Telschow, A., Hammerstein, P. & Werren, J.H. (2002). Effects of *Wolbachia* on genetic divergence between populations: Mainland-island model. *Integrative and Comparative Biology*, 42, 340-351.

Hammerstein, P. (2000). Theoretische Erkenntnisse zur Evolution von Parasitismus und organismischer Integration: Konflikt zwischen Wirten und intrazellulären Symbionten. *Nova Acta Leopoldina*, 316, 287-298

The Interface between Economics and Evolutionary Biology

Hagen, E.H. & Hammerstein, P. (2006). Game theory and human evolution: A critique of some recent interpretations of experimental games. *Theoretical Population Biology*, 69, 339-348.

Hammerstein, P. & Hagen, E.H. (2005). The second wave of evolutionary economics in biology. *Trends in Ecology and Evolution*, 20, 604-609.

Bowles, S. & Hammerstein, P. (2003). Does market theory apply to biology? In *Genetic and Cultural Evolution of Cooperation*, ed. P. Hammerstein, pp. 153-165, Cambridge, MA: MIT Press.

Hammerstein, P. (2001). Economic behaviour in humans and other animals. In *Economics in Nature*, eds. R. Noë, J.A.R.A.M. van Hooff & P. Hammerstein, 1-19. Cambridge: Cambridge University Press.

Hammerstein, P. (2001). Evolutionary adaptation and the economic concept of bounded rationality - a dialogue. In *Bounded Rationality: The Adaptive Toolbox*, eds. G. Gigerenzer & R. Selten, pp. 71-81. MIT Press.

Sadrieh, A., Güth, W., Hammerstein, P., Harnad, S., Hoffrage, U., Kuon, B., Munier, B.R., Todd, P.M., Warglien, M. & Weber, M. (2001). Is there evidence for an adaptive toolbox? In *Bounded Rationality: The Adaptive Toolbox*, eds. G. Gigerenzer & R. Selten, pp. 83-102. MIT Press.

Noë, R. & Hammerstein, P. (1995). Biological markets. *Trends in Ecology and Evolution*, 10, 336-339.

Noë, R. & Hammerstein, P. (1994). Biological markets: Supply and demand determine the effect of partner choice in cooperation, mutualism and mating. *Behavioural Ecology and Sociobiology*, 35, 1-11.

Friedman, J.E. & Hammerstein, P. (1991). To trade, or not to trade; that is the question. In *Game Equilibrium Models I: Evolution and Game Dynamics*, ed. R. Selten, pp. 257-275. Berlin: Springer Verlag.

Hammerstein, P. (1991). Die Ökonomie des Verhaltens von Tieren und Menschen. In *Das Menschenbild der ökonomischen Theorie*, eds. B. Biervert & M. Held, pp. 192-204. Frankfurt/Main: Campus Verlag.

Conceptual Issues in Evolutionary Game Theory

Hammerstein, P. (2007). Interview on game theory. In *Game theory: 5 questions*. Hendricks, V.F. & Guldborg Hansen, P. eds., pp. 75 – 95, Automatic Press.

Hammerstein, P., Laubichler, M. & Hagen, E.H. (2006). The strategic view of biological agents. *Biological Theory*, 1, 191-194.

Laubichler, M.D., Hagen, E.H. & Hammerstein, P. (2005). The strategy concept and John Maynard Smith's influence on theoretical biology. *Biology and Philosophy*, 20, 1041-1050.

Hammerstein, P. (2005). Strategic analysis in evolutionary genetics and the theory of games. *Journal of Genetics*, 84, 7-12.

Hammerstein, P. (1998). What is evolutionary game theory? In *Game Theory and Animal Behavior*, eds. L.A. Dugatkin & H.K. Reeve, pp. 3- 15. New York: Oxford University Press.

Hammerstein, P. (1996). Streetcar theory and long-term evolution. *Science*, 273, 1032.

Hammerstein, P. (1996). Darwinian adaptation, population genetics and the streetcar theory of evolution. *Journal of Mathematical Biology*, 34, 511-532.

Kuhn, H.W., Harsanyi, J.C., Selten, R., Weibull, J.W., van Damme, E., Nash, J.F. & Hammerstein, P. (1995). The work of John F. Nash Jr. in game theory: Nobel Seminar, December 8, 1994. *Duke Journal of Mathematics*, 81, 1-29. Also published 1996 in the *Journal of Economic Theory*, 69, 153-185.

Selten, R. & Hammerstein, P. (1995). Contribution to the Nobel Seminar: The Work of John Nash in Game Theory. In *Les Prix Nobel*, pp. 287-290. Stockholm: Almquist & Wiksell International.

Hammerstein, P. & Selten, R. (1994). Game theory and evolutionary biology. In *Handbook of Game Theory with Economic Applications, Vol.2*, eds. R.J. Aumann & S. Hart, pp. 929-993. Amsterdam: Elsevier.

Hammerstein, P. (1989). Biological Games. *European Economic Review*, 33, 635-644.

Parker, G.A. & Hammerstein, P. (1985). Game theory and animal behaviour. In *Evolution - Essays in Honour of John Maynard Smith*, eds. P.J. Greenwood, P.H. Harvey & M. Slatkin, pp. 73-94. Cambridge: Cambridge University Press.

Hammerstein, P. (1985). Spieltheorie und Evolution. *Habilitationsarbeit, Universität Bielefeld*.

Hammerstein, P. (1984). The biological counterpart to non-cooperative game theory. *Nieuw Archief voor Wiskunde (4)*, 2, 137-149.

Riechert, S.E. & Hammerstein, P. (1983). Game theory in the ecological context. *Annual Review of Ecology and Systematics*, 14, 377-409.

Evolutionary Perspectives on Conflict and Cooperation

Hammerstein, P. & Leimar, O. (2006). Cooperating for direct fitness benefits. *Journal of Evolutionary Biology*, 19, 1400-1402

Leimar, O. & Hammerstein, P. (2006). Facing the facts. *Journal of Evolutionary Biology*, 19, 1403-1405.

Hammerstein, P. (2003). Understanding cooperation: An interdisciplinary challenge. In *Genetic and Cultural Evolution of Cooperation*, ed. P. Hammerstein, pp. 1-6, Cambridge, MA: MIT Press.

Hammerstein, P. (2003). Why is reciprocity so rare in social animals? A protestant appeal. In *Genetic and Cultural Evolution of Cooperation*, ed. P. Hammerstein, pp. 84-93, Cambridge, MA: MIT Press.

McElreath, R., Clutton-Brock, T.H., Fehr, E., Fessler, D.M.T., Hagen, E.H., Hammerstein, P., Kosfeld, M., Milinski, M., Silk, J.B., Tooby, J. & Wilson, M.I. (2003). Group report: The role of cognition and emotion in cooperation. In *Genetic and Cultural Evolution of Cooperation*, ed. P. Hammerstein, pp. 125-152, Cambridge, MA: MIT Press.

Hammerstein, P. (2002). Konflikt und Kooperation aus Sicht der evolutionären Spieltheorie. In *Elftes Würzburger Symposium der Universität Würzburg: Welt ohne Krieg?* Eds. W. Böhm & M. Landauer, pp. 249-271. Stuttgart: Ernst Klett Verlag

- Leimar, O. & Hammerstein, P. (2001). Evolution of cooperation through indirect reciprocity. *Proceedings of the Royal Society, B*, 268, 745-753.
- Hammerstein, P. (1997). Evolutionary conflict and the design of life. In *Understanding Strategic Interaction: Essays in Honor of Reinhard Selten*, eds. W. Albers, W. Güth, P. Hammerstein, B. Moldovanu, & E. van Damme, pp. 122-127. Berlin: Springer Verlag.
- Hammerstein, P. (1996). The evolution of cooperation within and between generations. In *Interactive Minds: Life-Span Perspectives on the Social Foundation of Cognition*, eds. P.B. Baltes & U.M. Staudinger, pp. 35-58. New York: Cambridge University Press.
- Hammerstein, P. (1995). Evolutionary biology: A twofold tragedy unfolds. *Nature*, 377, 478.
- Hammerstein, P. & Hoekstra, R.F. (1995). Evolutionary theory: Mutualism on the move. *Nature, London*, 376, 121-122.
- Hammerstein, P. & Riechert, S.E. (1988). Payoffs and strategies in territorial contests: ESS analyses of two ecotypes of the spider *Agelenopsis aperta*. *Evolutionary Ecology*, 2, 115-138.
- Hammerstein, P. & Bierhoff, H.W. (1988). Kooperation und Konflikt. In *Psychobiologie: Grundlagen des Verhaltens*, eds. K. Immelmann, R. Scherer, C. Vogel & P. Schmoock, pp. 525-560. Stuttgart: Gustav Fischer Verlag.
- Hammerstein, P. & Parker, G.A. (1987). Sexual selection: Games between the sexes. In *Sexual Selection: Testing the Alternatives*, eds. J.W. Bradbury & M.B. Andersson, pp. 119-142. Dahlem Konferenzen. Chichester: John Wiley & Sons.
- West-Eberhard, M.J., Bradbury, J.W., Davies, N.B., Gouyon, P.H., Hammerstein, P., König, B., Parker, G.A., Queller, D.C., Sachser, N., Slagsvold, T., Trillmich, F. & Vogel, C. (1987). Conflicts between and within the sexes in sexual selection. In *Sexual Selection: Testing the Alternatives*, eds. J.W. Bradbury & M.B. Andersson, pp. 180-195. Dahlem Konferenzen. Chichester: John Wiley & Sons.
- Hammerstein, P. (1985). Spieltheorie und Kampfverhalten von Tieren. *Verhandlungen der Deutschen Zoologischen Gesellschaft*, 78, 83-99.
- Selten, R. & Hammerstein, P. (1984). Gaps in Harley's argument on evolutionarily stable learning rules and in the logic of "tit for tat". *The Behavioral and Brain Sciences*, 7, 115-116.
- Hammerstein, P. & Parker, G.A. (1982). The asymmetric war of attrition. *Journal of Theoretical Biology*, 96, 647-682.
- Hammerstein, P. (1982). Evolutionary game theory and the logic of agonistic behaviour. *Dissertation, Universität Bielefeld*.

Hammerstein, P. (1981). The role of asymmetries in animal contests. *Animal Behaviour*, 29, 193-205.

Oster, G.F., Bradbury, J.W., Charlesworth, B., Curio, E., Feldman, M.W., Hammerstein, P., Hausfater, G., Heller, R., Lumsden, C.J., May, R.M., Maynard Smith, J., Sherman, P.W. & Wickler, W. (1980). Methodology and sociobiology modeling. Group report. In *Evolution of Social Behavior: Hypotheses and Empirical Tests*, ed. H. Markl, pp. 165-180. Dahlem Konferenzen. Weinheim: Verlag Chemie.

Polymorphism, Developmental Plasticity and Pattern Formation

Leimar, O., Hammerstein, P. & Van Dooren, T.J.M. (2006). A new perspective on developmental plasticity and the principles of adaptive morph determination. *American Naturalist*, 167, 367-376.

Hagen, E.H. & Hammerstein, P. (2005). Evolutionary biology and the strategic view of ontogeny: Robustness versus flexibility in the life course. *Research in Human Development*, 2, 87-101.

Leimar, O., van Dooren, T. J.M. & Hammerstein, P. (2004). Adaptation and constraint in the evolution of environmental sex determination, *Journal of Theoretical Biology*, 227, 561-570.

Hammerstein, P. & Leimar, O. (2002). Ants on a Turing trail. *Nature*, 418, 141-142.

Schmidt, P., Hammerstein, P., & Weinzierl, R. (1995). Warum werden sexuelle Strudelwürmer (*Dugesia polychroa*) nicht von ihren pseudogam-parthenogenetischen Artgenossen verdrängt? *Verhandlungen der Deutschen Zoologischen Gesellschaft. Kurzpublikationen*, 88.1, 51.

Evolutionary Approaches to Medicine, Anthropology and Psychology

McElreath, Boyd, R., Gigerenzer, G., Glöckner, A., Hammerstein, P., Kurzban, R., Magen, S., Richerson, P., Robson, A., Stevens, J. (forthcoming). Individual decision making and the evolutionary roots of institutions. In *Better than Conscious*, eds. C. Engel & W. Singer. Cambridge, MA: MIT Press.

Hagen, E.H. & Hammerstein, P. (in press). Did Neanderthals and other early humans sing? Insights from the territorial advertisements of primates, lions, hyenas, and wolves. *Musicae Scientiae*.

Hagen, E.H., Sullivan, R.J. & Hammerstein, P. (2007). Human counter-exploitation of plant neurotoxins: Towards resolving the paradox of drug reward. *American Journal of Physical Anthropology* 132 (S 44), 123.

Sullivan, R.J., Hagen, E.H., Hammerstein, P. (2007). The paradox of drug reward in human evolution. *American Journal of Physical Anthropology* 132 (S 44), 228.

Hagen E.H. & Hammerstein, P. (2005). Comment on Signaling theory, strategic interaction, and symbolic capital. *Current Anthropology*, 46, 241-242.

Hammerstein, P. (2004). Böses im Erbe? Die evolutionsbiologischen Wurzeln menschlichen Verhaltens. In *Leben im Schatten des Bösen. Eine Vortragsreihe im Berliner Dom*, pp. 50-62. Neukirchen-Vluyn: Neukirchner Verlagshaus.

Davis, J.N. & Hammerstein, P. (2001). Comparative review of "Darwinism in Philosophy, Social Science and Policy" by Alexander Rosenberg and "Evolution's Eye: A Systems View of the Biology-Culture Divide" by Susan Oyama. *Quarterly Review of Biology*, 76, 477-478.

Hammerstein, P. (2000). The role of animal psychology in evolutionary biology. *American Behavioral Scientist*, 43, 1015-1026.

Hammerstein, P. (2000). Evolution, learning, games and simple heuristics. *Behavioral and Brain Sciences*, 23: 752-753.

General Themes in Theoretical Biology

Hammerstein, P., Hagen, E.H., Herz, A.V.M. & Herzel, H. (2006). Robustness: A key to evolutionary design. *Biological Theory*, 1, 90-93.

Callebaut, W., Caporael, L.R., Hammerstein, P., Laubichler, M.D. & Müller, G.B. (2006). Risking deeper integration. *Biological Theory*, 1, 1-3.

Szathmáry, E. & Hammerstein, P. (2004). Obituary - John Maynard Smith (1920 - 2004). *Nature*, 429, 258-259.