

January 5, 2005, Kjell Hausken

Game theory and appropriative conflict at multiple levels

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Room To be announced
Time Z-day 12.15-16.00
Credit points: 4
Admission: To be announced

Course objectives

The purpose of the course is to expose you to game theory and conflict at multiple levels of organization, i.e. the individual level and the collective level. The course is organized into 13 weeks. We start the first two weeks with games of pure conflict, mixed motives, coordination, and the emergence of cooperation. We continue two weeks with conflict, peace, and redistribution. Thereafter come two weeks on the emergence and conflict over property rights, and one week on conflict, production, and growth. Then come two weeks on single-level and multi-level game theory, and network theory. Thereafter come two weeks on rent seeking at the individual and group levels, and one week with production and conflict models at the group level. The final week focuses on group conflict, alliances, and unions. The course exposes you to a broad range of issues relevant for understanding and appraising game theory and conflict at multiple levels. Each topic is typically presented from different and often diametrically opposite viewpoints prevalent in contemporary research. The course trains you to make consciously intelligent and scientifically justifiable stands within each sub-field, and contributes to your ability to organize these stands into a coherent whole.

Course requirements

Each student will write a 3 pages double-spaced (say 600 words) essay due in class every week, starting the second week. Write concisely. I do not want to read a superfluity of sesquipedalian obfuscatory prolixity. You can take stands on the issues, but you need to justify them. You will be evaluated on your command of the material, and on the comprehension you reveal of the major factors relevant for each week's topic. Every week 2-4 of you will present your essays in class. Assignments will be arranged on the first week of class ensuring that the major viewpoints of each topic get presented. These essays to be presented are to be provided to me (or someone to be assigned the task) at 11 a.m. the day before every class. They will be copied, and can be picked up by all other students two hours later outside office zzz. With less than 15 students, the course will be run as an informal lecture/discussion course. With more than 20 students, a larger

auditorium will be assigned, and the course will be held in a more formal lecturing tone. Each student will write a final paper, due Thursday of exam week at 4 p.m. in my mailbox in zzz. The paper should be 12-20 pages, double-spaced, and on a topic relevant for the course. Please come and see me if you want to discuss your topic, or if you want me to suggest possible topics for you. You will be evaluated 50% on your essays, 30% on your final paper, and 20% on your oral presentation including how well you withstand critique from the other students and myself. Office hours are Wednesdays 12.15-14.00 in zzz.

Course schedule

1. week: Introduction

A presentation of the course, including a 3-5 minutes description of each of the course's topics. Assignment of students to topics to be presented in class. Games of pure conflict, mixed motives, coordination.

Hardin, G. (1968), "The Tragedy of the Commons," *Science*, 162, 1243- 1248.

Hausken, K. (1997), "Gametheoretic and Behavioral Negotiation Theory," *Group Decision and Negotiation* 6, 6, 509-527.

Hausken, K. (2005a), "The Battle of the Sexes when the Future is Important," *Economics Letters*, forthcoming.

Rapoport, A. and Guyer, M. (1966), "A Taxonomy of 2 x 2 Games," *General Systems* 11, 203-214.

Schelling, T. (1960), *The Strategy of Conflict*, Harvard University Press, Cambridge, MA.

2. week: The emergence of cooperation

Axelrod, R. (1984), *The Evolution of Cooperation*, Basic Books, Inc., part 1, pp. 3-24.

Hirshleifer, J. and Martinez Coll, J.C. (1988), "What strategies can support the evolutionary emergence of cooperation?" *J. of Conflict Resolution*, 32, 367-398.

Martinez-Coll, J.C. and Hirshleifer, J. (1991), "The Limits of Reciprocity: Solution Concepts and Reactive Strategies in Evolutionary Equilibrium Models," *Rationality and Society* 3, 35-64.

Taylor, M. (1987), *The Possibility of Cooperation*, Cambr. Univ. Pr.

3. week: Conflict and peace

Guttman, J.M. (1997), "The explanatory power of game theory in international politics: Syrian-Israeli crisis interactions, 1951-87," *Economics and Politics*, 9, 71-85.

Hirshleifer, J. (2001), "Appeasement: Can it work?" *Am. Ec. Review*, 91, 342-346.

Hirshleifer, J. (2002), "Peace or war: An economic approach to appeasement," UCLA Working Paper 817.

Hirshleifer, J. and Rasmusen, E. (1992), "Are equilibrium strategies unaffected by incentives?" *J. of Theoretical Politics*, 4, 3, 353-367.

Klein, D.B. and O'Flaherty, B. (1993), "A game-theoretic rendering of promises and threats," *Journal of Economic Behavior and Organization*, 21, 295-314.

Massoud, T.G., (1998), "Theory of moves and the Persian Gulf War," in M. Wolfson, ed., *The Political Economy of War and Peace*, Kluwer Academic Publishers.

4. week: Conflict and redistribution

- Grossman, H.I. (1995), "Robin Hood and the Redistribution of Property Income," *European Journal of Political Economy*, 11:399-410.
- Grossman, H.I. (1994), "Production, Appropriation, and Land Reform," *American Economic Review*, 84, 3, 705-12.
- Noh, S.J. (2002), "Production, Appropriation, and Income Transfer," *Economic Inquiry*, 40, 2, 279-287.
- Skaperdas, S. (1992), "Cooperation, Conflict, and Power in the Absence of Property Rights," *American Economic Review* 82, 720-739.
- Skaperdas, S. and Syropoulos, C. (1997), "The Distribution of Income in the Presence of Appropriative Activities," *Economica* 64, 101-117.
- Usher, D. and Engineer, M. (1987), "The distribution of income in a despotic society," *Public Choice*, 54, 261-276.

5. week: The emergence of property rights

- Bowles, S. and Choi, J.K. (2002), "The first property rights revolution," Santa Fe Institute Working Paper #: 02-11-061.
- Hafer, C. (2003), "On the Origins of Property Rights: Conflict and Production in the State of Nature" Working Paper, New York University.
- Muthoo, A. (2004), "A Model of the Origins of Basic Property Rights," *Games and Economic Behavior* 49, 288-312.
- Umbeck, J. (1981), "Might Makes Rights: A Theory of the Formation and Initial Distribution of Property Rights," *Economic Inquiry*, 38-59.

6. week: Conflict over claims to property

- Grossman, H.I. and Mendoza, J. (2003), "Scarcity and Appropriative Competition," *European Journal of Political Economy*, 19, 747-758.
- Grossman, H.I. and Kim, M. (1995), "Sword or Plowshares? A Theory of the Security of Claims to Property," *Journal of Political Economy* 103, 6, 1275-1288.
- Hotte, L. (2001), "Conflicts over Property Rights and Natural Resource Exploitation at the Frontier," *Journal of Development Economics*, 66, 1-21.
- Meza, D. de and Gould, J.R. (1992), "The Social Efficiency of Private Decisions to Enforce Property Rights," *Journal of Political Economy*, 100, 3, 561-580.
- Helsley, R.W. and Strange, W.C. (1994), "Exclusion and the Private Enforcement of Property Rights," *Journal of Public Economics*, 53, 291-308.

7. week: Conflict, production, and growth

- Cothren, R. (2000), "A Model of Plunder and Economic Growth," *Journal of Macroeconomics* 22, 3, 385-407.
- Grossman, H.I. (2005), "Inventors and Pirates: Creative Activity and Intellectual Property Rights" *European Journal of Political Economy*, forthcoming.
- Grossman, H.I. and Kim, M. (1996a) "Predation and Accumulation," *Journal of Economic Growth*, 1, 333-350.
- Grossman, H.I. and Kim, M. (1996b), "Predation and Production," in *The Political Economy of Conflict and Appropriation*, Garfinkel, M. and Skaperdas, S. (eds.), Cambridge University Press.

- Grossman, H.I. (1998), "Producers and Predators." *Pacific Economic Review*, 3, 169-187.
- Grossman, H.I. and Kim, M. (2000), "Producers and Predators," *European Journal of Political Economy* 16, 2, 173-187.
- González, F.M. (2004), "Effective Property Rights, Conflict and Growth," revised and resubmitted to the *Journal of Economic Theory*.
- Haber, S., Razo, A. and Maurer, N. (2003), *The politics of property rights: political instability, credible commitments, and economic growth in Mexico, 1876-1929*, Cambridge University Press.

8. week: Single-level game theory

- Brams, S.J., (1993), "Theory of moves," *American Scientist*, 81, 562-570.
- Brandenburger, A. and Stuart, H. (2001), "Biform Games," Ms., Harvard Business School, Columbia Business School, www.columbia.edu/~symbol{%126}hws7.
- Greenberg, J. (1990), *The Theory of Social Situations: An Alternative Game-Theoretic Approach*, Cambridge University Press, Cambridge.
- Greenberg, J., Monderer, D., and Shitovitz, B. (1996), "Multistage Situations," *Econometrica* 64, 6, 1415-1437.
- Hausken, K. and Mohr, M. (2001), "The Value of a Player in n-Person Games," *Social Choice and Welfare* 18, 3, 465-483.

9. week: Multi-level game theory and network theory

- Jackson, M. and Watts, A. (2002a), "The evolution of social and economic networks," *Journal of Economic Theory* 106, 2, 265-295.
- Jackson, M. and Watts, A. (2002b), "On the Formation of Interaction Networks in Social Coordination Games," *Games and Economic Behavior* 41, 2, 265-291.
- Jackson, M. and Wolinsky, A. (1996), "A Strategic Model of Social and Economic Networks," *Journal of Economic Theory* 71, 44-74.
- Hausken, K. and Cressman, R. (2004), "Formalization of Multi-Level Games," *International Game Theory Review* 6, 2, 195-221.
- Matsumoto, M. (2001), "Formulation and Applications of Hierarchy Games," *International Game Theory Review* 3, 2&3, 189-201.

10. week: Rent seeking at the individual level

- Baik, K.H. (2004), "Two-Player Asymmetric Contests with Ratio-Form Contest Success Functions," *Economic Inquiry* 2004, 42, 679-689.
- Krueger, A.O. (1974), "The Political Economy of the Rent Seeking Society," *American Economic Review* 64, 3, 291-303.
- Nitzan, S. (1991a), "Rent Seeking with Non-Identical Sharing Rules," *Public Choice* 71, 43-50.
- Nitzan, S. (1994), "Modelling Rent-Seeking Contests," *European Journal of Political Economy* 10, 41-60.
- Posner, R.A. (1975), "The Social Costs of Monopoly and Regulation," *Journal of Political Economy* 83, 807-827.
- Tullock, G. (1967), "The Welfare Costs of Tariffs, Monopolies, and Theft," *Western Economic Journal* 5, 224-232.

Tullock, G. (1980), "Efficient Rent-Seeking," in Buchanan, J.M., Tollison, R.D., and Tullock, G., *Toward a Theory of the Rent-Seeking Society*, Texas A. & M. University Press, College Station, 97-112.

11. week: Rent seeking at the group level

- Baik, K.H. and Lee, S. (1997), "Collective Rent Seeking with Endogeneous Group Sizes," *European Journal of Political Economy* 13, 121-130.
- Baik, K.H. and Shogren, J.F. (1995), "Competitive-Share Group Formation in Rent-Seeking Contests," *Public Choice* 83, 113-126.
- Bös, D. (2004), "Contests Among Bureaucrats," *Public Choice* 119, 359-380.
- Hausken, K. (1995a), "Intra-level and Inter-level Interaction," *Rationality and Society* 7, 4, 465-488.
- Hausken, K. (1995b), "The Dynamics of Within-Group and Between-Group Interaction," *Journal of Mathematical Economics* 24, 7, 655-687.
- Hausken, K. (1998), "Collective Rent Seeking and Division of Labor," *European Journal of Political Economy* 14, 4, 739-768.
- Hausken, K. and Ortmann, A. (2004), "A First Experimental Test of Multilevel Game Theory: The PD Case," Manuscript.
- Katz, E. and Tokatlidu, J. (1996), "Group Competition for Rents," *European Journal of Political Economy* 12, 599-607.
- Lee, S. (1995), "Endogenous Sharing Rules in Collective-Group-Rent-Seeking," *Public Choice* 85, 31-44.
- Müller, H.M. and Wärneryd, K. (2001), "Inside Versus Outside Ownership: A Political Theory of the Firm," *RAND Journal of Economics* 32, 3, 527-541.
- Nitzan, S. (1991), "Collective Rent Dissipation," *The Economic Journal* 101, 1522-1534.
- Noh, S. J. (1998), "A General Equilibrium Model of Two Group Conflict with Endogenous Intra-Group Sharing Rules," *Public Choice* 98, 251-267.

12. week: Production and conflict models at the group level

- Hausken, K. (2000a), "Cooperation and Between-Group Competition," *Journal of Economic Behavior and Organization* 42, 3, 417-425.
- Hausken, K. (2000b), "Migration and Intergroup Conflict," *Economics Letters* 69, 3, 327-331.
- Hausken, K. (2005b), "Production and Conflict Models Versus Rent Seeking Models," *Public Choice*, forthcoming, <http://www.kluweronline.com/issn/0048-5829/>.

13. week: Group conflict, alliances, and unions

- Garfinkel, M.R. (2004), "Stable alliance formation in distributional conflict," *European Journal of Political Economy* 20, 4, 829-1105.
- Hausken, K., Mattli, W., and Pluemper, T. (2004), "The Political Economy of International Unions," Manuscript.
- Leeson, P. (2004), "Cooperation and Conflict: Evidence on Self-Enforcing Arrangements and Heterogeneous Groups," *American Journal of Economics and Sociology*, forthcoming.
- Walt, S. (1991), *The Origins of Alliances*, Cornell Univ. Pr., chapter 2, pp. 17-49.

Wärneryd, K. (1998), "Distributional Conflict and Jurisdictional Organization," *Journal of Public Economics* 69, 435-450.