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校园恶性突发事件发生机理的"规则-策略"博弈学习模型

刘德海[1,2]

1. 东北财经大学 经济计量分析与预测研究中心, 大连 116025;
2. 东北财经大学 数学与数量经济学院, 大连 116025

Rule-strategy game learning model for the generation mechanism of campus vicious emergency

LIU De-hai[1,2]

1. Center of Econometric Analysis and Forecasting, Dongbei University of Finance & Economics, Dalian 116025, China;
2. School of Mathematics and Quantitative Economics, Dongbei University of Finance & Economics, Dalian 116025, China

- 摘要
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摘要 在"规则-策略"的博弈理论范式下, 建立了校园恶性突发事件发生机理的博弈学习模型.首先, 通过建构社会边缘人的心智模型(包括主观认知规则和决策规则), 分析了校园恶性突发事件中社会边缘人从理性的学习规则, 到非理性的反社会学习规则的"规则学习"过程(即"规则学习"遵循着同时包含了强化学习规则与理性规则的广义强化学习模型), 得出了社会边缘人面对自身博弈收益的持续恶化状况, 采取非理性的反社会行为规则的临界条件.其次, 分析了校园恶性突发事件处于潜伏期、爆发期和扩散期等不同演化阶段中社会边缘人的"策略学习"过程, 构建了社会边缘人的"策略学习"的模仿学习模型.最后, 提出防范校园安全的综合治理对策.

关键词: 校园安全   规则学习   突发事件应急管理   社会边缘人   博弈学习模型

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Abstract: Under the "Rule-Strategy" game theoretical paradigm, the game learning model of campus vicious emergency is built. Firstly, it analyzes the "rule learning" course of social marginal man from the rational learning rule to the irrational anti-social learning rule in campus vicious emergency, where the rule learning obeys the generalized reinforcement learning model including the reinforcement learning rule and rational behavior rule, and gets the critical condition that the social marginal man takes the irrational anti-social behavior rule when facing the income continual worsen. Secondly, it analyzes the social marginal man strategic learning course in the different evolutionary phases of campus vicious emergency including latent period, breakout period and diffusing period, and builds the strategy learning model of social marginal man. Lastly, the paper puts forward the countermeasures for overall treatment of campus vicious emergency.

Key words: campus safety   rule learning   emergency management for incident   social marginal man   game learning model

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[1] 王二平. 基于公众态度调查的社会预警系统[J]. 中国科学院院刊, 2006, 21(2): 125-131.Wang E P. Social monitoring system based on publ attitudes survey[J]. Bulletin of Chinese Academy of Sciences, 2006, 21(2): 125-131.

[2] 刘德海. 政府不同应急管理模式下群体性突发事件的演化分析[J]. 系统工程理论与实践, 2010, 30(11): 1968-1976.Liu D H. Evolutionary analys unexpected incident involving mass participation under different governmental emergency management models[J]. Systems Engineering — Theory & Practice, 2010, 30(11): 1968-1976.

[3] 刘德海. 群体性突发事件中政府机会主义行为的演化博弈分析[J]. 中国管理科学, 2010, 18(1): 175-183.Liu D H. Evolutionary game analysis o governmental opportunism behavior in unexpected incidents involving mass participation[J]. Chinese Journal of Management Scien 2010, 18(1): 175-183.

[4] 罗成琳, 李向阳. 突发性群体事件及其演化机理分析[J]. 中国软科学, 2009(6): 163-171.Luo C L, Li X Y. Analysis on mass emergency and it evolutive mechanism[J]. China Soft Science, 2009(6): 163-171.

[5] Brandeuburger A M, Nalebuff B J. Coopetition[M]. New York: Doubleday Dell Publishing, 1996. cross ref

[6] Gurr T R. Why Men Rebel[M]. Princeton: Princeton University Press, 1971.

[7] 于建嵘. 社会泄愤事件中群体心理研究: 对"瓮安事件"发生机制的一种解释[J]. 北京行政学院学报, 2009(1): 1-5.Yu J R. A study on group psychology in incidents of people's venting their anger upon society[J]. Journal of Beijing Administrative College, 2009(1): 1-5.

[8] 张荆红. 社会边缘人: 价值主导型群体事件的积极参与者——基于SS事件的分析[J]. 学习与探索, 2011, 193(2): 88-91.Zhang J H. Social margin man: The active participant of value dominant mass event[J]. Study & Exploration, 2011, 193(2): 88-91.

[9] 王春光. 城市化中的社会边缘人[N]. 21世纪经济报道, 2004-03-22. Wang C G. Social Marginal Man in Urbanization[N]. 21st Century Busi Herald, 2004-03-22.

[10] Maslow A H. A theory of human motivation[J]. Psychological Review, 1943, 50(4): 370-396. cross ref

[11] Weibull J W. Evolutionary Game Theory[M]. MIT Press, Boston, MA, 1995. cross ref

[12] Stahl D. Rule learning in symmetric normal-form games: Theory and evidence[J]. Games and Economic Behavior, 2000, 32(1): 105 138. cross ref

[13] Josephson J. A numerical analysis of the evolutionary stability of learning rules[J]. Journal of Economic Dynamics and Control, 200 32(5): 1569-1599. cross ref

[14] Gagne R. The Conditions of Learning[M]. 2nd ed. New York: Holt, Rinehart and Winston, 1970.

[15] Heller D. An evolutionary approach to learning in a changing environment[J]. Journal of Economic Theory, 2004, 114(1): 31-55. c

[16] Liu D H, Wang W G. Why is replicator dynamic model fit for social evolutionary problems? A pipelining enter and exit explanation[J Journal of Information and Computational Science, 2007, 4(4): 1185-1196.

[17] Piaget J. Science of Education and the Psychology of the Child[M]. New York: Viking Press, 1971.

[18] Aoki M. Towards a Comparative Institutional Analysis[M]. Boston: Massachusetts Institute of Technology, 2001. cross ref

[19] Bethwaite J, Tompkinson P. The ultimatum game and non-selfish utility functions[J]. Journal of Economic Psychology, 1996, 17(2) 259-271. cross ref

[20] Smith J M. Evolution and the Theory of Games[M]. Cambridge: Cambridge University Press, 1982.

[21] Sethi R. Strategy-specific barriers to learning and nonmonotonic selection dynamics[J]. Games and Economic Behavior, 1998, 23(284-304. cross ref

[22] 刘德海. 信息交流在群体性突发事件处理中作用的博弈分析[J]. 中国管理科学, 2005, 13(3): 95-102.Liu D H. The role of communication in th mass unexpected incident management[J]. Chinese Journal of Management Science, 2005, 13(3): 95-102.

[1] 于辉;陈剑;于刚. 回购契约下供应链对突发事件的协调应对[J]. 系统工程理论实践, 2005, 25(8): 38-43.

[2] 于辉;陈剑;于刚. 协调供应链如何应对突发事件[J]. 系统工程理论实践, 2005, 25(7): 9-16.