

# Learning by Similarity in Coordination Problems\*

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## Abstract

We study a learning process in which subjects extrapolate from their experience of similar past strategic situations to the current decision problem. When applied to coordination games, this learning process leads to contagion of behavior from problems with extreme payoffs and unique equilibria to very dissimilar problems. In the long-run, contagion results in unique behavior even though there are multiple equilibria when the games are analyzed in isolation. Characterization of the long-run state is based on a formal parallel to rational equilibria of games with subjective priors. The results of contagion due to learning share the qualitative features of those from contagion due to incomplete information, but quantitatively they differ.

## Abstrakt

Studujeme proces učení v němž hráči extrapolují svou zkušenost z podobných minulých strategických situací k nynějšímu problému. V případě koordinačních her vede tento proces učení k šíření ustáleného chování z her s extrémními pravidly a nepřímo k selekci rovnovážných stavů i ve velmi rozdílných hrách. Z dlouhodobého hlediska je rovnovážný stav jedinečný, ačkoliv, kdyby byla každá hra zkoumaná odděleně, rovnovážných stavů by bylo několik. Při výpočtu rovnovážného stavu využíváme podobnost s koordinačními hrami s asymetrickou informací.

**Keywords:** Similarity, learning, contagion, case-based reasoning, global games, coordination, subjective priors.

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