

## **Learning and the Effectiveness of Punishment**

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### **Abstract:**

Classical research in behavioral psychology suggests that: (a) punishment is effective in the short-run but is less effective in the long-run, (b) the process of learning to avoid punishment is more important than the temporal suppression of behavior and that (c) in the long run, the temporary achievements of punishment are obtained at the cost of reducing the overall efficiency of the group (Skinner, 1953). In contrast, research in experimental economics demonstrate that punishment provides long-run benefits for individuals and groups by increasing cooperative behavior (Fehr & Gächter, 2000; Gächter, 2008).

Using the decisions from experience paradigm (Hertwig et al, 2004) this research examines the boundary conditions that account for the effectiveness of punishment. Specifically, when the individuals learn to avoid punishing contingencies the use of punishment leads to inefficient equilibrium. Additionally, this research investigates the learning processes that lead to the prevalent use of punishment, as method of controlling behavior, even in situations in which it is ineffective. Specifically, the tendency to rely on small samples of experiences and the underweighting of rare events in decisions from experience predict excessive use of punishment. Future directions and implications are also discussed.