Strategically Valuable Information

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ABSTRACT

Abstract: In this paper, we extend the Blackwell (1953) comparison of experiments to a strategic setting. We introduce a new partial order more strategically informative — information held by players is "better" — and prove it is equivalent to the partial order more strategically valuable — the ability to induce more equilibrium payoff vectors in all Bayesian games. The conditions we provide are easily checked, are useful in an array of economic settings, and have straightforward geometric interpretations. We establish the existence and uniqueness of the maximally informative information structure. Our results provide a natural partial ordering on sunspot equilibria, regardless of the environment in which they operate. The centerpiece application is to repeated games with private monitoring where the more strategically informative order ranks monitoring structures. Consequently, we can show when a change in monitoring structure will weakly expand the set of sequential equilibria. This mirrors a classic result of Kandori (1992) for repeated games with imperfect public monitoring.