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**ENDOGENOUS HETEROGENEITY IN STRATEGIC
MODELS: SYMMETRY-BREAKING VIA STRATEGIC
SUBSTITUTES AND NONCONCAVITIES**

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Abstract

This paper is an attempt to develop a unified approach to endogenous heterogeneity by constructing general class of two-player symmetric games that always possess only asymmetric pure-strategy Nash equilibria. These classes of games are characterized in some abstract sense by two general properties: payoff non-concavities and some form of strategic substitutability. We provide a detailed discussion of the relationship of this work with Matsuyama's symmetry breaking framework and with business strategy literature. Our framework generalizes a number of models dealing with two-stage games, with long term investment decisions in the first stage and product market competition in the second stage. We present the main examples that motivate this study to illustrate the generality of our approach.

Keywords: inter-firm heterogeneity, submodular games, business strategy, innovation strategies.

JEL Classification: C72, C62, L11.

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