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ORIGINAL ARTICLE

Testing mixed strategies in the field: an experiment with soccer penalty kicks

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Abstract

I conduct a (quasi) field experiment in the soccer field with junior players to study if non-professionals satisfy the implications of mixed strategy equilibrium when repeatedly facing the same opponents in the penalty kick game. By having repeated observations on different pairs of soccer players, a rare situation in real life, I can not only deal with the heterogeneity of the optimal strategies across pairs of players, but also study possible interactions between the actions of the players. My empirical results are consistent with the theory, even though the least experienced goalkeepers tend to replicate each other's actions. Interestingly, when all pairs are erroneously treated as a homogeneous one, I find rejections of the equilibrium implications, highlighting the importance of heterogeneity for determining mixed strategy play at the non-professional level.

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