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Nash equilibria predict the strategies of rational agents playing a game a priori. We aim to study the development of game strategies through an evolutionary process. Professor Miller has proposed an evolutionary perspective where agents are modeled as a population of automata that compete against each other and evolve their strategies through iterations of a genetic algorithm. We will use this approach to study cooperation between agents and environmental effects in n-player games. Krohn and Rhodes noted the equivalence of automata and the algebraic objects, semigroups and used it to prove the Krohn-Rhodes Theorem, which allows us to decompose an automaton into an equivalent hierarchical system of permutation and reset automata. We hope to use the Krohn-Rhodes theorem to understand the effectiveness of the evolved agents in terms of their constituent parts as well as to study their level of complexity.