

Mutual Mate Choice with Multiple Criteria

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Abstract. This article presents a model of mutual mate search based on two trait measures. One measure describes the attractiveness of an individual and preferences are common according to this measure i.e. each female prefers highly attractive males and all females agree as to which males are attractive. Preferences are homotypic with respect to the second measure, referred to as character i.e. all individuals prefer mates of a similar character. It is assumed that attractiveness is easy to measure, but in order to observe the character of a prospective partner, it is necessary to court. Hence, on meeting a prospective partner an individual must decide whether to try and court the other. Courtship only occurs by mutual consent. During courtship individuals observe the character of the prospective partner and then decide whether to mate or not. Mutual acceptance is required for mating to occur. This paper presents the model and outlines a procedure for finding a Nash equilibrium which satisfies a set of criteria based on the concept of subgame perfection.

Keywords game theory; mate choice; common preferences; homotypic preferences; subgame perfection