

Contribution ID: 129 Type: Oral presentation

## Feedback dynamics in heterosexual matching drive differential strategies in mate selection

Research in social psychology consistently shows that men and women differ markedly in their selectivity when choosing partners for casual relationships, with women typically exhibiting more stringent criteria than men. While this robust phenomenon has traditionally been explained through evolutionary or sociocultural frameworks, we propose an alternative mechanism based on network dynamics. Our explanation derives from two fundamental properties of heterosexual matching networks: first, each match must involve one agent from each group (men and women), and second, changes in selectivity within one group directly affect matching opportunities in the other. We demonstrate how these properties create a feedback loop that amplifies any small inherent differences between the two sexes, inevitably driving one group toward high selectivity and the other toward minimal selectivity. This dynamic renders largely irrelevant within-group variation both in relationship goals and attractiveness: even an attractive man who prefers fewer, quality encounters is driven to become non-selective. This mechanism explains observed sex differences in mate selection without requiring evolutionary adaptations or sociocultural forces, though it remains compatible with their influence.

## Keywords/Topics

sex differences, matching, feedback, micro-macro, agent-based modeling

**Primary author(s):** Dr. GELASTOPOULOS, Alexandros (Institute for Advanced Study in Toulouse); Dr. KEHAGIAS, Athanasios (Aristotle University of Thessaloniki)

**Session Classification :** Network Models for Complex Phenomena in Music, Sport, and Psychology

**Track Classification :** Network Models for Complex Phenomena in Music, Sport, and Psychology