
Empirical Analysis on Dating Patterns

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Abstract—This paper is to observe dating behaviour on a dataset which includes questionnaire data gathered from participants at different points in the process of the four minute date. The fields include: demographics, dating habits, self-perception across key attributes, beliefs on what others find valuable in a mate, and lifestyle information.

The idea is to compare and contrast the attributes considered imperative by men and women population. The dataset used is publicly available on Kaggle Repository. In order to understand the features, exploratory analysis is performed. Understanding the importance of religion and racial background in the selection of ones potential partner is one of our aims.

The design estimates the significance of similar professional background in decision making. It is hoped that the model we intend to develop can be extended to understand the variation in the psychology of men and women spanning over a period of time.

I. INTRODUCTION

The choice of a marriage partner is one of the most serious decisions people face. In olden days, the concept of arranged marriage was predominant. People used to marry without being aware of any detail of their partner's personal life. Such a tradition could lead to a mismatch among the partners with respect to their personality, traits, behaviour patterns, etc.

At present, the decision of choosing a marriage partner usually follows a long understanding period where partners spend time in learning about each other's personal traits such as behaviour patterns, interests, career goals, ambitions, etc in a much informal manner. People want to make an informed decision when it comes to choosing a partner.

With increased awareness and the onset of dating websites, making an informed decision is possible. Our goal is to study the dating behavior of people in a certain age group belonging to various races and different countries using an experimental Speed Dating market and to investigate what factors affect this decision making. We aim to investigate any gender differences as to how the various attributes are weighted by both men and women and what significance can be drawn from the decisions made.

II. EXISTING WORK

Project Title - Gender differences in mate selection: Evidence from a speed dating experiment (raymond fisman, sheena s. iyengar, emir kamenica, itamar simonson)

A. Approach

The study conducted involved data from a speed dating experiment. The experimental design was based on meetings through Speed Dating, in which participants engage in four-minute conversations to determine whether or not they are interested in meeting each other again. If both people accept, then each is subsequently provided with the others contact information. The experiment was carried out in three phases:

- 1) Pre-event Survey: Collection of data involving general details(age,sex,religion,university etc), kind of partner they are looking for(same ethnicity, same religion), interests(sports,museum,art,podcasts etc) of individuals willing to participate in the experiment.
- 2) The Event: Every individual is asked to interview every other individual(of opposite sex) for four minutes. Individuals switch to the next partner after every four minutes. During the interview the participants are asked to rate each other on 6 parameters(Attractiveness, Sincerity, Intelligence, Fun, Ambitious, Shared Interests) and also a yes/no indicating whether they would date that individual in the future.
- 3) Post-event Survey: Questionnaire used to assess what attributes helped an individual in decision making(accept/reject),what do individuals look in their partner, what do their fellow men/women look in their partners etc.

The purpose of the study was to observe individual decisions made by people in selecting their partners rather than just the final matches(accept/reject).

B. Summary

The empirical results mentioned in the report are classified in two categories of choice behaviour as follows:

- 1) valuation of attributes by men and women:

- a) Women put greater weight on intelligence than men do, while men place more value on physical appearance.
 - b) Women put more emphasis on the partners race
 - c) Men are significantly less likely to accept a woman who is more ambitious than themselves.
 - d) Women prefer men who grew up in wealthier neighborhoods, while men express no such preference.
- 2) Selectivity:
- a) Gender difference in selectivity crucially depends on group size.
 - b) In smaller sessions (fewer than fifteen partners), selectivity is virtually identical for men and women.
 - c) In larger sessions, however, male selectivity is unchanged, while females become significantly more selective.
- 4) Observing trends on the significance of similar career goals and profession for decision making.
 - 5) Determining if geographical location of settlement after marriage plays a role in choosing a partner.

V. CITATIONS

- [1] Raymond Fisman, Sheena S. Iyengar, Emir Kamenica and Itamar Simonson. Gender Differences in Mate Selection: Evidence From A Speed Dating Experiment.
- [2] <https://www.kaggle.com/annavictoria/speed-dating-experiment>

C. Limitations

- 1) Inability in conducting the study on a broader set of population.
- 2) Larger population set would have enabled better generalization of results and could have been used to better understand the differences across communities in dating preferences.
- 3) Individual preferences could not be captured.

III. PROBLEM STATEMENT

- 1) Analysis of gender differences in dating preferences.
- 2) Understanding the differences in the selection criteria of men and women.
- 3) Validating/Invalidating the emphasis of Attractiveness as a determinant of pre-marriage mate selection by men.
- 4) Whether the population as a whole believes in Homogamy (choosing a mate who shares personal and social characteristics, such as race, age, ethnicity, education, socioeconomic class, and religion) or Heterogamy?
- 5) Mating Gradient is the tendency of men to be more advanced than women with regard to age, education and occupational success. Is it true when selecting a mate?
- 6) How does the number of choices given, affect an individuals selection criteria? (Does group size matter?)
- 7) Does economy of the city that date belongs to influence the decision in its favour?
- 8) Influence of subjects own attribute on its decision making.

IV. OUR APPROACH

- 1) Analysing the key parameters which influence an individuals decision based on the rating for several attributes using a decision tree.
- 2) Prediction of how likely will a person be accepted by his/her match again based on the scores.
- 3) Estimating the influence on the selection based on ones own attribute.