

Take home examination: Family Economics, MA Yoram Weiss, July 2010

Part 1

Consider the marriage patterns among men and women of the same cohort. There is an equal number of men and women and each one of them lives two periods. In the beginning of each period, single individuals meet with probability α a potential partner of the opposite sex and of the same age. With probability $1 - \alpha$ they meet no potential partner. In each gender, half of the agents are of type h and half of the agents are of type l , where $h > l > 0$. A single person has income h if he\she is of type h and income l if he\she is of type l . Single individuals consume their own income. If a marriage occurs, all family income is spent on a single public good that both partners consume jointly. Marriage occurs if and only if both matched partners wish to marry. There is no divorce.

Question 1. Find the condition that ensures that every agent will accept only high ability agents that are met in the first period. Write this condition in terms of the ratio $\frac{h}{l}$ and the probability of meeting α . Explain the condition. What is the proportion of singles in the population at the beginning of the second period and what is their average quality?

Question 2. Find the condition that ensures that every agent will accept both types of agents that are met in the first period. Write this condition in terms of the ratio $\frac{h}{l}$ and the probability of meeting α . Explain the condition. What is the proportion of singles in the population and the beginning of the second period and what is their average quality?

Question 3. Compare the results in the questions 1 and 2 and explain the differences.

Question 4. Is it possible to have an equilibrium in which some agents accept the low type some reject the low type and yet all agents are indifferent between accepting an rejecting? In particular let $l = 1$ and $h = 5$. Then at what range of α can such a equilibrium equilibrium occur? Verify that if $\alpha = .75$ then, when .444 of the agents reject the low type and .556 accept the low type, all agents are indifferent between accepting and rejecting the low type. Explain.

Part 2

Question 5. Suppose now that each agent can choose to search in one of two equal sized pools. In pool A , the proportion of h types is expected to be larger than $\frac{1}{2}$ and in pool B it is expected to be smaller than $\frac{1}{2}$. The probability of meeting in these two pools is the same and denoted by β . Examine the assortative matching in this case.

Question 6. Discuss the differences between the two models.

Question 7. Describe the differences between the two models above and the model by Burdett and Coles.

Part 3

Based on your previous answers and the attached papers by Belot & Francesconi and by Hitch et al., discuss the potential impact of internet and speed dating on assortative matching, address the following questions:

Question 8. What is the procedural difference between speed dating and on line dating.

Question 9. Compare the two methods in terms of their likely impact on assortative matching.

Question 10. What can we learn from the results in the two attached studies about who marries whom and who remains single?