The Effect of Model's Age on Mate-Choice Copying

İdil Kuruöz - 21902009

Department of Psychology - Bilkent University

PSYC 498 – Senior Project I

Project Supervisor: Robert Ian Bowers

January 7, 2023

Abstract

There is substantial proof that humans, like different species, are influenced by social cues when creating mate-choice judgments. Seeing a rival display attraction to a fellow of the opposite sex motivates human viewers of both sexes to rank that individual as better attractive as a possible mate. The type of social cues and the factors that affect mate-choice judgments are yet to discover. This study strives to examine the factors that influence mate choice copying behavior. Mainly, this study will focus on interrogating the effect of the model's mate-choice judgments on the target and investigating the influence of the model's age on the participants' mate-choice copying behavior. All participants engage in mate-choice copying behavior examination, including selecting dating profiles among possible mates. Following this selection, a scenario is shown where chosen profile's past date experiences are demonstrated with the model's age information. The literature is limited to the impact of models' age on targets' mate-choice judgments; the project aims to reveal this effect which will contribute to our more satisfactory knowledge of the factors that increase or decrease the likelihood of engagement in mate-choice copying in humans.

Keywords: mate selection, mate-choice copying, model, age

Introduction

Copying anothers' preferences appears within multiple fields of human activities. As (Jones & DuVal, 2019), in the mean of mate choice, the degree to which animals alter their mate choices in reaction to the manners of others can affect the power and dynamics of sexual selection in a community. As in (Bowers et al., 2011), if a possible mate has been achieved in obtaining a mate or not is observable in multiple species. In an ambitious mating atmosphere, the mate preferences of competitors may include practical details regarding the quality of possible mates. The fundamental mechanism may have primarily in joint with different types of learning. Additionally, mate-choice copying may represent an available learning tool in this domain. In either possibility, the forecast is that mate-choice copying will act similarly to different learning types. In some non-human species, there is proof that females replicate each others' mate choice judgments instead of solely depending on their estimation of male attractiveness (Dugatkin & Godin, 1992; Munger et al., 2004; Witte & Ueding, 2003). In evolutionary human mate choice study, awareness has primarily been concentrated on the immediate selection of mates established on bodily and behavioral features (Gangestad & Thornhill, 1997; Johnston et al., 2001).

An influence shaping our mating determinations is mate-choice copying, wherein people are more prone to choose a possible partner established on the selections completed by others. While mate-choice copying has been investigated from different perspectives, one critical aspect that has obtained limited engagement is the effect of the model's age on the copying procedure. Age has been revealed to influence mate choice copying in non-humans, with younger, inexperienced females depending on copying more than older individuals. (Dugatkin and Godin 1993). Also, it has been found that younger females were indeed more prone to copying the matechoice preferences of older females (Amlacher & Dugatkin, 2005). However, the literature is limited to the effect of the model's age on mate-choice copying, especially for males.

Age is not solely an indication of experience but even a possible indicator of reproductive significance and mate attributes. Older individuals may maintain more significant wisdom and gathered understanding, which could impact their decision-making operations dissimilar to younger individuals. Likewise, age-focused disparities in mate choices and social perspectives could influence the scope to which mate-choice copying happens, potentially changing the aspects of social learning in the case of mate preference for both males and females. This age-based

understanding could deliver practical insights about the evolutionary benefits or drawbacks of depending on others' preferences when doing mating determinations. We also can extend our knowledge of how social aspects direct our choices and the mate choice strategy for both genders.

The present study examines model age's effect on mate-choice copying for both males and females. By influencing the age of the models and following the succeeding judgments made by participants, we desire to reveal how age affects the possibility and extent of mate-choice copying for each gender. Also, we aim to explore possible mediating elements such as participants' age, current relationship status, and educational level, which may interact with model age to form the copying process as different for the males and females.

The present study is testing for four hypotheses: First, the mate choice is also affected by the model's age, meaning the participants will change their initial ratings afterthey discuss the profile cards with other models. Second, younger individuals will be more likely to copy the strategies of the older participant. Lastly, the model's age will influence mate-choice copying behavior both for males and females.

Methods

Participants

The study had 34 participants and 13 groups aged between 18 and 25. Groups comprised of 2-3 people. For analysis purposes, the final number of participants that were analyzed was 26 in total. There were 16 females and 10 males aged 18 to 25. The number of participants was reduced to two people in each group.

Material

The study include a Qualtrics survey asking participants to answer some demographic information like their age, sexual orientation, education level, the previous relationships they had (both long-term and short-term), and their current relationship status.

The Qualtrics survey also includes a rating part for profile cards. The study used 30 different profile cards, which rated attractiveness, sense of humor, intelligence, sincerity, ambition, dislikes, and likes of specific profile cards. These profile cards represent a real person formed using real speed dating study data by Fisman et al. (2004). An example of a profile card can be seen in Figure 1.



Figure 1

Experimental Procedure

The experiment had three different phases. In the first part, all participants were required to complete a Qualtrics survey in which they were asked to give demographic information. Then, they were asked to rate 30 different profile cards based on a 7-point scale focusing on the question, "How much are you willing to go on a date with this person?"

Participants were asked to come to the lab for the second part of the study. The groups were comprised of 2 people, were gender-specific, and were formed based on the sexual orientation and age of the participants. First, the participants were asked to watch a short movie trailer to warm them up and prime them to discuss dates. Then, 15 profiles were chosen from the 30 cards given to the participants; they were asked to talk about each of the profiles and come up with a ranking: "How much are you willing to go on a date with this person?" as a group. Each group talked for approximately 20-25 minutes, and voice recordings were obtained.

After group ranking was over again, a Qualtrics survey was given to the participants. This time, they were just asked to individually rate the same 30 profile cards on a 7-point scale.

Analysis

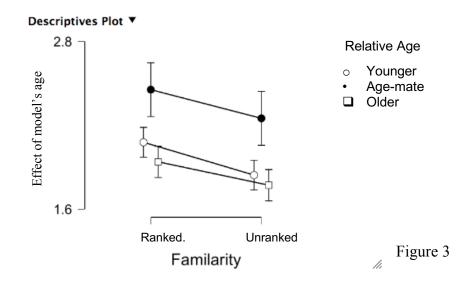
For the analysis, four different subcategories were used. For each group, relative age (which is the participant's age status to each other: either younger(0), same(1), or older(2)) was calculated. For each participant, the difference between their pre-rating and post-rating was calculated. Then, ranked values were calculated, which is the average of the difference between the cards they see as a group, and the unranked values, which is the average of the difference for the cards they didn't see as a group. Lastly, for each participant, the difference between their pre and post-rating is correlated with the other participant's post-rating. JASP used for the analysis. Two different analyses were conducted. The first analysis was ANOVA. For this analysis, the dependent variable is chosen to be the correlation that is calculated, and relative age is chosen to be the independent variable. The first analysis aim was to see if there would be any rating change on the discussed profile card. The second analysis was Repeated Measure ANOVA. For this analysis, the repeated measure factor was chosen to be the ranked and unranked values (that is described above), and the relative age was between the subject factors. The second analysis aim was to see if there was an effect of the model's age.

Results

Results showed that the 15 profile cards they talked about in group ratings changed more for all the groups, F(2,23) = 1.218, p=.31 $\eta 2=.096$. Figure 2 shows the correlation between the difference between the pre-ratings and post-ratings of one participant and the post-ratings of the other participants in each group.

Pescriptives Plot O.4 Younger Age-Mate Older Relative Age

Results showed that the effect of model's age was not significant but in the expected direction. For within-subject comparision, for familiarity F(1,23) = 3.54, p=.07, $\eta 2=.13$. For familiarity and relative age correlation F(2,23) = .04, p=.96, $\eta 2=.004$. For between-subject F(2,23) = 2.74, p=0.8, $\eta 2=.19$. The Figure 3 shows the effect of model's age relation to relative age for each group.



Discussion

This study has several distinctive aspects from prior studies: Firstly, age is a primary variable. The influence of the model's age has often been neglected or adapted as a secondary concern. Secondly, although there is evidence for the effect of models' age on mate choice copying in some animal species like guppies, no such effect is investigated on humans. Thirdly, the literature is limited to the impact of the model's age, especially for males and even for non-human animals. This study includes both females and males. Lastly, prior studies investigating mate choice copying generally present social stimuli indirectly, like showing pictures, profile cards, or statements of the models. This study enabled real-life interactions involving participants in a controlled laboratory setting, allowing them to be real models for each other.

The study didn't reveal any significant age effect, but the results were in the expected direction. The reason the effect was not significant may be due to the following: an insufficient number of participants and no considerable age gap between participants.

References

Amlacher, J., and Dugatkin, L. A. (2005). Preference for older over younger models during mate-choice copying in young guppies. *Ethol. Ecol. Evol.* 17, 161–169. doi: 10.1080/08927014.2005.9522605

Bowers, R. I., Place, S. S., Todd, P. M., Penke, L., & Asendorpf, J. B. (2011). Generalization in mate-choice copying in humans. *Behavioral Ecology*, *23*(1), 112–124. https://doi.org/10.1093/beheco/arr164

Dugatkin, L., & Godin, J. (1992). Reversal of female mate choice by copying in the guppy. Proceedings of the Royal Society of London B, 249, 179–184.

Dugatkin, L., & Godin, J. (1993). Female mate copying in the guppy (Poecilia reticulata): Agedependent effects. Behavioral Ecology, 4, 289–292.

Gangestad, S., & Thornhill, R. (1997). The evolutionary psychology of extrapair sex: The role of fluctuating asymmetry. Evolution and Human Behavior, 18, 69–88.

Johnston, V., Hagel, R., Franklin, M., Fink, B., & Grammer, K. (2001). Male facial attractiveness:

Evidence for hormone-mediated adaptive design. Evolution and Human Behavior, 22, 251–267.

Jones, B. C., & DuVal, E. H. (2019). Mechanisms of social influence: A meta-analysis of the effects of social information on female mate choice decisions. *Frontiers in Ecology and Evolution*, 7. https://doi.org/10.3389/fevo.2019.00390

Munger, L., Cruz, A., & Applebaum, S. (2004). Mate choice copying in female humpback limia. Ethology, 110, 563–573.

Waynforth, D. (2007). Mate choice copying in humans. *Human Nature*, *18*(3), 264–271. https://doi.org/10.1007/s12110-007-9004-2

Witte, K., & Ueding, K. (2003). Sailfin molly females copy the rejection of a male. Behavioral Ecology, 14, 389–395.