Who's Your Hoosier? How External Factors Affect Judgement when Choosing Romantic Partners at Indiana Colleges

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Who's Your Hoosier? How External Factors Affect Judgement when Choosing Romantic Partners at Indiana Colleges

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Abstract

Most of the literature on online dating addresses what makes a profile more desirable. However, little research has been done examining why someone can be drawn to an adverse profile (i.e. a profile containing clear 'red-flag' traits). This study will analyze how two types of external influence, recommendations provided by a computer algorithm and consensus information provided by peers, interact to affect judgement in the context of using a dating application to choose hypothetical romantic partners. The romantic experience level of each participant will also be analyzed to see if lack of experience moderates how much individuals rely on external information when choosing hypothetical romantic partners. It was found that participants who viewed positive comments left by other peer users and who were told they are mathematically a good match via computerized algorithm are more likely to overlook red-flag traits when identifying potential romantic partners. These two external influences were chosen because one is social in nature (i.e., consensus information) and the other is non-social (i.e., computer algorithm). Furthermore, participants with higher levels of romantic experience were less likely to choose profiles containing red-flag traits, but this effect only attenuated slightly the impact of the external influences. The findings of this research may provide critical insights into the processes that drive individuals into making poor decisions in the context of mate selection.
The desire to find a romantic partner has endured the test of time: everyone aspires to be loved. Countless researchers have investigated relationships and selection criteria or romantic partners. These investigations have consistently found that, although the desire for love may be eternal, the characteristics of preferred romantic partners are not. It has been shown that various selection pressures can cause people to modify their selection standards and settle for less than ideal qualities in a mate (Regan, 1998). This occurs more often in men, as they are more easily influenced and have lower minimum standards (Fletcher et al., 2013). However, despite variation both within and across individuals, some traits do seem to be universally desired. So, what traits do people find necessary when looking for a potential romantic partner, and what traits do they tend to forgo for a chance at true love?

It is expected that trade-offs will be involved when selecting a romantic partner, as it is unrealistic to expect that a person is an exact manifestation of one’s fantasies. However, prior work suggests that some qualities stand out in the hierarchy of importance. For example, genetic similarity theory suggests that individuals seek out partners with genetic similarity to increase their inclusive fitness (Figueredo et al., 2005). This means that individuals seek mates with characteristics that would increase the overall reproductive success of their group. Evolutionary forces have clearly shaped humans’ mate preferences through a variety of mechanisms (Regan et al., 2000).

Nevertheless, mate selection criteria will always vary. The choosiness a person exhibits can also result from gendered social norms (Stanik, 2009). In
cultures with more traditional norms, men feel the need to place more weight on physical attractiveness, while women have been shown to emphasize social status (Woody & Eagly, 2002). However, these same studies have shown that in more egalitarian societies, women's preferences may change dramatically. When resources are shared among the genders, women are less likely to favor men with more resources. Many people lack introspective awareness of what qualities are truly their own, as opposed to which ones are shaped by societal forces.

College students represent a unique population, unlike that of most single individuals in the world. Prior work has suggested that their preferred mate characteristics are also relatively unique. Contrary to other groups, the selection standards of males and females were exceedingly similar among college students (Regan, 1998). Regardless of gender, undergraduates were found to place higher emphasis on internal traits, such as intelligence, versus external traits, like physical attractiveness (Menkin et al., 2015). Moreover, they also held similar aversions. Both genders were equally repelled by individuals who violated social norms, such as arriving late, bragging about sexual conquests, and exhibiting poor table manners (Regan, 2012).

College is a period of academic rigor, which may lead many individuals to develop higher personal standards that generalize to other areas, including potential romantic partners. While admirable, research has shown that such a mindset leads to relationship judgements that are inaccurate and biased. For example, students with such a mindset often convince themselves that an unhealthy relationship is actually perfect (Gagne & Lydon, 2004). Likewise, students weighing
future academic goals tend to be particularly more pessimistic about relationship stability (Murray, 1999). However, many college students believe that their personal happiness is directly linked to their ability to form a successful romantic relationship (Regan, 2012). These conflicting social pressures can lead to impulsive and malleable decision-making of lowered quality. For example, students who feel a strong need to fit in make overly ‘safe’ mate choices to avoid risk (Reay et al., 2012). Other students, who may be driven by other concerns (e.g., the need to be in a romantic relationship), may relax their standards to an undesirable degree in order to have a partner.

Of note, research on college students’ decision-making in other contexts also shows similar effects. Haywood & Molesworth (2010) conducted a study on prospective students’ university selection processes. Many students were defined as inexperienced, lacking the ability to analyze the complex information. Due to the complexity and the importance of the decision, students became increasingly overwhelmed and inclined towards making their decisions on an emotional basis. Similar studies have shown that students are readily willing to leave decision analyses to others and to become exceedingly trusting of their superiors (Moogan & Baron, 2012). Students in these studies accepted the word of significant adults as wise and impartial, causing them to alter their choices based on the recommendations of those adults. Other research has also shown that such social influences are often outside of awareness (Cialdini & Goldstein, 2004). This lack of confidence in one’s judgment and susceptibility to outside influence in college-aged
students’ decision making appears to extend across multiple domains, including decision making about potential romantic partners.

In 1995, the first online dating website, Match.com, was launched. In just 20 years, the phenomenon advanced to the point that 40% of singles have divulged that they have searched for a romantic partner online (Jin & Martin, 2015). Additionally, approximately half of users are between the ages of 18 and 29 (McIsaac, 2017). Meeting mates online has become the new normal, but how does this affect the selection criteria an individual uses? When a person engages in online dating, they expose themselves to a broad range of information about potential partners prior to deciding if they are interested in meeting them in person. Due to the lack of a gradual disclosure of personal information, which characterizes ‘real-life’ interpersonal interactions, many profiles contain superficial information and lack information on morals, goals, or values. This leads assessors to make inferences about their potential partner that they may not be particularly confident about (Hitsch et al., 2010).

Most research suggests that individuals acknowledge the difficulty of gauging the authenticity of another user online. Some progress has been made in identifying what affects individuals’ judgements in this context. In general, the information contained in written descriptions appears to have a significant effect. In one study, profiles containing misspelled words and/or improper grammar were viewed as lower in quality, while large word counts were correlated with perceived trustworthiness (McIsaac, 2017). These effects may be explained by the interpersonal deception theory. This theory proposes that perception of credibility
is dependent upon the judgement of a user’s competence, composure, sociability, and dynamism (Bueller & Burgoon, 1996). Profiles with higher perceived levels of all these qualities, as well as profiles presenting a potential dating partner as having more traditional characteristics, were seen as more attractive (Jin & Martin, 2015).

In addition to a user's personal perceptions of potential partners, algebraic match algorithms also play a part in online dating decision making. Many dating websites present the user with potential partners that they claim will lead to a stronger likelihood of a positive romantic outcome. Users’ reliance on a computer recommendation is further enhanced when there is a large array of potential romantic partners from which to choose (Finkel et al., 2012).

Another factor that is likely to have a powerful effect on individuals' judgements of mate suitability is consensus information, or in this context, what others think about a potential romantic partner. This type of consensus information is readily available in many online settings and has been shown to powerfully affect individuals' judgements and attitudes across a wide range of domains, including the interpersonal (Asch, 1956; Cialdini, 2003; Cialdini & Goldstein, 2004). Erb et al., (1998) has suggested that consensus information creates biased processing, causing decision-makers to perceive the consensus-supported alternative in a more positive manner than it deserves.

Using the methods of Finkel et al., (2012) and Haywood and Molesworth (2010), the present study examined whether exposure to specific types of information affects the quality of decision-making for romantic partners in college-aged students. Unlike previous research, this study will investigate how two forms
of external influence, consensus information from peers and information from a supposed computer algorithm, can ultimately lead to a less than ideal decision regarding a potential romantic partner. This study will also investigate how the romantic experience level of individuals affects their susceptibility to external sources of information.

Most of the literature available on online dating addresses what makes a profile more desirable. However, little research has been done examining why someone can be drawn to an adverse profile (i.e., a profile containing clear ‘red-flag’ traits). This study will analyze how two types of external influence, recommendations provided by a computer algorithm and consensus information provided by peers, interact to affect judgement in the context of using a supposed dating application to choose hypothetical romantic partners. The romantic experience level of each participant will also be analyzed to see if lack of experience moderates how much individuals rely on external information when choosing hypothetical romantic partners. Ultimately, it is predicted that participants who view positive comments left by other peer users and who are told they are mathematically a good match via computerized algorithm will be more likely to overlook red-flag traits when identifying potential romantic partners. These two external influences were chosen because one is social in nature (i.e., consensus information) and the other is non-social (i.e., computer algorithm). Furthermore, it is predicted that participants with higher levels of romantic experience will be less likely to choose profiles containing red-flag traits. The findings of this research may
provide critical insights into the processes that drive individuals into making poor decisions in the context of mate selection.

**Method**

*Overview*

The current study investigated whether college students who are purportedly beta-testing a newly developed dating app for central Indiana college students can be convinced to select an undesirable profile due to: 1) a computer algorithm telling them they are a highly compatible match and 2) positive peer reviews of potential dating partners whose profiles exhibit red-flag characteristics (e.g., excessive levels of alcohol consumption).

For this experiment, participants will be told they are participating in a usability study, but will not actually be contacting any actual dating partners. They will be directed to a ‘newly developed’ dating website that will resemble the type of webpage one visits when joining an actual online match-making service. After navigating the homepage, they will be asked to create a profile. This will consist of a questionnaire that asks about their personality, what they look for in a potential romantic partner, their preferred gender of dating partner and their romantic experience. Their responses will purportedly be analyzed, and participants will be presented with several potential romantic partners (i.e., matches) (Appendix A). Participants will be told the profiles are from real individuals already in the app’s database, but that they will not actually be able to contact or be contacted by anyone currently in the database. Thus, any choices made will be hypothetical, but participants will be asked to imagine that they really were actual users of the app.
One of the matches, the target match, will possess ‘red-flag’ problematic characteristics. Participants will then assess each profile and either accept or reject each match, as well as rate how they feel about each profile. Participants’ responses to the red-flag target profile will serve as the primary dependent variable. The independent variables are whether the red-flag target profile is indicated to be a high-quality match or not according to the computer algorithm (91% vs 75%) and if highly rated peer reviews are left on the target profile (i.e., high consensus information) or not.

Participants

Sixty-four participants from various Indiana universities were included in this study. Demographics were representative of the Butler University population, with 88% of participants self-identifying as white, 5% as Hispanic, 5% as Asian/Pacific Islander, 1% as African-American, and 1% as other. In addition, 70% of participants identified as female, and 30% identified as male. All participants were required to be single at the time of using the website. Participants were recruited through word-of-mouth and SONA, a recruitment system used by the Psychology Department at Butler University. Participants recruited via SONA were granted course credit for taking part in the study; all other participation was voluntary.

Design

This study employed a 2 (Consensus Information: Positive vs. Mixed) x 2 (Computer algorithm match quality: High vs. Average) between-participants experimental design. Four conditions were generated that will be labeled: (1) high
match/high consensus, (2) low match/low consensus, (3) low match/high consensus, and (4) high match/low consensus. The condition participants were assigned to was changed after every eight participants for randomization purposes. In the high match conditions, subjects were told the target ‘red flag’ profile computerized algorithm match was 91%. In the high consensus conditions, subjects were told the target ‘red flag’ profile was given 4.5 out of 5 stars on average from other users. However, in the low conditions (match = 75%, consensus = 3.6/5.0), the values assigned to the target ‘red flag’ profile were of comparable value to the other, non-target profiles in order to avoid suspicion. The dependent variable was acceptance of and rating of the target profile with red-flag traits. Red-flag profile rating was made on a 10-point Likert-type scale with one being “I do not think we should be matched,” and ten being “I think we are a perfect match.” Participants were also asked if they hypothetically would accept a date with the person described in the red-flag profile (i.e., yes or no). A combination of analysis of variance (ANOVA) and logistic regression were used to analyze the results. For the linear regression, saying yes to a date was represented as a one and saying no was represented as a two. Additionally, romantic experience, personal values, activity involvement, and personality characteristics were analyzed as potential covariates.

Cover Story

Because participants must be unaware that their match choices are being analyzed, a cover story was necessary. The study was advertised as a dating website created for college students in the state of Indiana. Participants were told that participation is for trial purposes to work out kinks in the website before going
public. They were also told that Who’s Your Hoosier™, the supposed website and app developer, had partnered with nearby universities to conduct this beta-testing. They were made aware that they could make choices about potential partners, but that communication between profiles was not yet available. After either accepting or rejecting and evaluating their matches, participants were asked for feedback in terms of usability and functionality of the website. This was done to bolster the cover story. The profiles that participants examined were created using photos given by out-of-state volunteers to ensure that they were not recognized. All people whose photos were displayed in the profiles gave their written consent.

Pilot testing was conducted using 32 participants prior to creating the profiles used in the experiment. Participants were presented with 36 photos (17 female, 19 male) and asked to rate them on a scale from one to ten solely on their physical attractiveness. The mean attractiveness score was used to ensure that the individuals portrayed in the experimental profiles were all of equal physical attractiveness. Participants were also presented with eight potential partner profiles, including the red-flag profiles used in the current study. Participants clearly perceived the problematic descriptions in the red-flag profiles to be problematic. Any red-flag characteristics were eliminated from any profile description other than the target profile.

Procedure

Participants were asked to volunteer to beta-test a potential new dating app for Who’s Your Hoosier™. Those who participated through SONA were told that Butler University had partnered with Who's Your Hoosier™ to test the app in
exchange for professors being granted the use of the data for research purposes. Before they could access the website, participants read the informed consent and clicked “agree.” Additionally, every time they changed screens on the website, participants were met with a pop-up that reminded them that they site was still in trial stages. Once participants choose to create a profile, they were asked to complete a questionnaire about what they look for in a potential romantic partner and their romantic experience. This information was supposedly used by the Who’s Your Hoosier™ computer when analyzing for good matches. After submitting the information, the participant was presented with four potential matches of their preferred gender supposedly from surrounding Indiana universities. The information in the target profile differed depending on the participant’s condition, as described earlier; otherwise, depending on preferred gender, all participants received the same set of profiles. Participants were allowed to view all profiles before accepting/rejecting and rating each one, however only responses to the target profile were analyzed, as described earlier. Participants were periodically asked for input on the functionality of the website, and if anything had seemed suspicious. A debriefing statement then appeared, notifying the participant of the true nature of the study and thanking them for their participation.

**Results**

It was predicted that participants would be most likely to accept the red-flag profile and rate it positively when the profile was indicated to be a high-quality match and when positive consensus information was provided. Additionally, a significant interaction was predicted, such that the effects of the external influences
would be amplified when both factors were present. Moreover, it was predicted that amount of experience with romantic relationships would moderate the effects of the two independent variables on the dependent variable such that a person with less romantic experience would be more susceptible to these external influences.

A 2x2 between-participants ANOVA was conducted to analyze the impact of peer consensus and match percentage on the rating of target profile. The mean target profile rating was lower in the low-low condition ($M = 3.38, SD = 1.96$) than in the high consensus-low match condition ($M = 6.38, SD = 2.63$), the low consensus-high match condition ($M = 6.69, SD = 2.94$), or the high-high condition ($M = 5.56, SD = 3.05$). No significant main effects were found for peer consensus, $F(1, 60) = 1.958$, $p = 0.167$, or for match percentage, $F(1, 60) = 3.481$, $p = 0.067$. However, a significant interaction was observed between peer consensus and match percentage, $F(1, 60) = 9.478$, $p = 0.003$, partial eta squared $= .18$ (see Appendix B). Follow-up tests revealed that the low-low condition differed from each of the other three conditions ($p$'s $< .01$), but that the three other conditions did not differ from each other ($p$'s $> .10$). These findings indicate that either source of external influence was sufficient to drive up participants’ ratings significantly. However, the presence of both consensus and match information did not increase ratings any more than if only one were present.

To analyze the dichotomous acceptance (yes or no) data, logistic regression was used. The logistics regression indicated significant main effects for peer consensus ($p = 0.002$) and match percentage ($p = 0.002$), but more importantly, a
significant interaction was observed ($p = 0.007$) (see Appendix C), essentially replicating the same pattern observed with the ratings data.

To explore the impact of relationship experience, a 2x2 between-participants ANCOVA was conducted to analyze the impact of peer consensus and match percentage on the rating of target profile while controlling for relationship experience. Number of previous romantic partners was used as a covariate to see if controlling for relationship experience might reduce the impact of consensus and match information. The results indicated that controlling for relationship experience had virtually no impact on the results. For the interaction term, the p-values were relatively unchanged ($p=.003$ vs. $p=.002$). Despite the apparent inability of relationship experience to attenuate the effects of consensus and match information, a significant negative correlation was observed between target profile rating and the number of romantic partners an individual has had ($r = -0.517, p < 0.0005$).

**Discussion**

Overall, the hypothesis was supported by the data. The finding of a significant interaction between peer consensus and match percentage indicated that either the presence of consensus or match information was enough to cause participants to view the red flag profile significantly more positively. However, the presence of both factors at the same time did not cause ratings of the red-flag profile to increase further, as originally predicted. Additionally, while there was some support for the idea that participants with more relationship experience would be better able to recognize the negative aspects of the red-flag profile, as evidenced by the significant correlation between experience and rating, experience did not really
seem to hinder the effects of consensus or match information. Together, these results indicate that the impact of external factors on mate preferences can be quite powerful.

These results are consistent with previous research indicating that college-aged students are susceptible to outside influences when engaging in decision-making (Moogan & Baron, 2012), particularly in the context of mate selection (Maner et al., 2005). There was a clear and consistent trend that participants only rejected the red-flag profile when neither peer consensus nor match percentage were available as an influence. The data support the idea that the mere presence of these external influences can cause an individual to make a less than ideal decision in terms of romantic partners. However, the exact cause behind this change in decision making is still unknown. Previous research has shown that college students feel increased societal pressure to find a successful romantic partner while also developing higher social standards (Reagan, 2012). These often contradictory objectives can lead to them placing greater trust in others - in this case the “dating experts” who determined the match percentage or their peers with previous experience in the area. Consistent with Cialdini (2003), individuals may have recognized that certain traits in the red-flag profile were bad, but a high peer consensus may have established a norm that participants felt they should conform to, perhaps because they thought that others saw something positive in the red-flag profiles that they did not.

The question remains as to why individuals are so inclined to believe information provided by a dating app when it comes to choosing a romantic partner
with no factual data to support the information’s validity. Participants did not have to be convinced that relying on these computer matches or peer judgments had led to successful matches. Instead, the simple statement that an algorithm was used and the appearance of a realistic website led individuals to trust the results. This is quite alarming, as it shows that individuals may be over-trusting these types of external influences.

As technology advances, computerized matching algorithms are increasingly being used and consensus information is becoming more widely available. For example, with popular applications such as Instagram and Twitter providing a constant portal for peer commentary, individuals are constantly being exposed to consensus information. If the mere presence of peer consensus information or match percentages can influence an individual’s decision-making, these applications may be more powerful than ever imagined. This idea is increasingly worrisome given that these external influences were significant across all participants. Despite a person’s relationship experience, they were more likely to agree to a date with the red-flag profile if the external influences were present.

Unlike previous research, the present study shows that individuals do not necessarily place a significant amount of weight on the written profile of a potential partner. McIsaac (2017) showed that individuals are significantly influenced by the type of information presented in a written profile. However, the findings of the current study suggest that external sources of information can easily ‘drown out’ the information contained in a typical profile, even highly diagnostic information. Similarly, although past research has indicated that an individual’s trust in a
computer algorithm increases as the number of potential partners increases (Finkel et al., 2012), the current study indicates that even with only four potential partners, trust in computer algorithms is quite high.

Limitations & Future Directions

This study is not without limitations. Firstly, although there was a “no preference” option for a person’s preferred gender of partner, clicking this option resulted in being presented with four female matches. This may have caused suspicion in some participants. Additionally, participants did not have to upload a personal photo, yet they were provided with photos of their matches, which may have also aroused some doubt. Some participants were also curious as to how the peer-consensus rating was generated given that the app was still in beta testing. However, the majority of participants did not notice anything suspicious and believed that Who’s Your Hoosier™ was a legitimate dating site. Another limitation is that participants were never asked to indicate what kind of relationship they were interested in (e.g., casual or serious). An individual’s intentions may have influenced their decision to go on a date with a potential partner despite the presence red-flag traits. Finally, the population of Butler and its nearby universities lacks in diversity, as indicated by the ethnic make-up of the sample, and data were only collected for 64 participants over a three-week period. In the future, research should look at a larger and more diverse samples, and data should be collected for a longer duration to ensure that decision-making is not altered by seasonal factors.

A new dating app, Hinge, has also recently gained widespread popularity. In this app, individuals are able to see who has already liked them before they accept
or reject the match. Future research should look into whether removing the fear of rejection influences an individual's choices about potential romantic partners. It is possible that if students are more confident that they will not be rejected, they will rely on higher standards when choosing a potential mate, which could lessen the impact of external sources.

Overall, this study is the first of its kind to investigate the role of external influences on decision-making for potential romantic partners in college students specifically. In a culture where thousands of dating options are at our fingertips, students may feel profuse societal pressure to find a romantic partner, thus making them more susceptible to trusting external influences and choosing less than ideal mates. In conclusion, this study demonstrates the importance of recognizing these influences and encouraging individuals, particularly college-aged students, to trust their own judgement rather than relying on potentially dubious external sources.
References


**Male Target Profile.** The image is what would appear under the match screen for the different conditions. Attractiveness of the profile picture was rated a 7.24/10 by participants during pilot testing. Written profile was indicated as containing a red flag by 98% of participants during pilot testing.
The Impact of Peer Consensus Rating and Match Percentage on Rating of Red Flag Profile. Rating of red flag profile was on a scale of 1-10. Rating was significantly lowest when both consensus rating and match percentage were low ($M=3.38$, $SD=1.96$). Rating was similar in the low consensus/high match condition ($M=6.69$, $SD=2.94$), the high consensus/low match condition ($M=6.38$, $SD=2.63$), and the high consensus/high match condition ($M=5.56$, $SD=3.05$).
The Impact of Peer Consensus Rating and Match Percentage on Agreeing to a Date with Red Flag Profile. Lower values on the Y-axis indicate increased likelihood of saying yes to a date. Values were significantly highest when both peer consensus and match percentage were low ($M = 1.81, SD = 0.40$). Values were similar in low consensus/high match condition ($M = 1.25, SD = 0.45$), high consensus/low match condition ($M = 1.25, SD = 0.45$), and high consensus/high match condition ($M = 1.38, SD = 0.50$).