Shopping for a Soulmate: People as Products in Online Dating

Honors in Psychology Project

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#### Abstract

Researchers have long studied what attracts humans to one another. With the rise of online dating in the past two decades, a new area of research has arisen to study this new way of meeting romantic partners. This experiment combined online dating and consumer psychology by comparing people to both products and consumers. Researchers created two hypothetical online dating profiles. One (the short version) supported the information integration theory of consumer psychology, which states that consumers average the qualities of a product together when evaluating it. The other (the long version) supported the theory of reasoned action, which states that consumers add the qualities of a product together. The study included 91 undergraduate participants who were randomly assigned to one of two groups: the short version or the long version. Participants were then asked to answer 16 research questions pertaining to their liking of the person ("Alex") whose profile they had read. They also answered the need for cognition scale. Overall, our hypothesis was not supported; most participants preferred the longer profile, supporting the theory of reasoned action.

Shopping for a Soulmate: People as Products in Online Dating

Much research has been conducted to study what attracts humans to one another (Little, 2015). Attraction is an important instinct for humans, because it allows them to form bonds with each other and create a network of people on whom they can rely and in whom they can trust. Factors that lead to attraction often differ between the sexes; for example, in a study done by Dunn and Hill (2014), men who were described as owning a luxury apartment were rated as more attractive by women than men who were described in a neutral way. In contrast, there was no recorded difference in ratings by men for women with the same conditions. Some factors of attraction are quite basic. Proximity states that most of the social bonds humans have are with people who are geographically close to them (Nahemow & Lawton, 1975). Alleiger and Byrne (1973) found that both males and females were more likely to sit in close proximity to a liked member of the opposite sex than a disliked one.

Physical attractiveness is another commonly cited element that affects attraction. A number of species seek to find physically attractive partners. The male macaque, for example, is more likely to seek a mate who has a more intensely red facial coloration (Pfluger, Valuch, Gutleb, Ansorge, & Wallner, 2014). Many male animals, such as the brightly colored bird of paradise, have elaborate mating rituals that attempt to show off their physical features as a way to attract females (Back, 2011). Just like other animals, a majority of humans prefer attractive people to unattractive people (Baumeister & Bushman, 2008). People are implicitly attracted to faces they find physically pleasing (Eastwick, Eagly, Finkel, & Johnson, 2011). People tend to rate their partners as more physically attractive than themselves, but they also assume that their partner will do the same for them (Swami, Waters, & Furnham, 2010). Males have historically

valued physical attractiveness more than women do. A meta-analysis of nine studies, conducted by Alan Feingold, (1991), supported that theory. Women, on the other hand, consistently value similarity over physical attractiveness (Feingold, 1991).

Attractive people clearly have a sort of "upper hand" in many arenas. Attractive people are assumed to have more positive character traits, make better spouses, and lead better lives in general than unattractive people (Dion, Berscheid, & Walster, 1972). This strong preference for attractive over unattractive people can have real-world consequences unrelated to romantic relationships. Individuals who deal with attractive salespeople are more likely to rate their initial experience as positive. In addition, a female customer with an attractive male salesperson will rate the experience more positively than a female customer with an attractive female salesperson, and vice versa (McColl & Truong, 2013). Research also supports the idea that unattractive defendants are more likely to be declared guilty than their attractive counterparts, regardless of gender (DeSantis & Kayson, 1997); this is especially true of male jurors—specifically, male jurors are more likely to think an unattractive person is guilty than female jurors are (Maeder, Yamamoto, & Saliba, 2015). Additionally, rapists received longer sentences during mock trials if the victim was considered attractive versus an unattractive victim (Thornton, 1977).

Another mechanism at work in attraction is similarity. Research suggests that the old adage "birds of a feather flock together" is much more true than "opposites attract." A study by Donn Byrne (1961) showed that subjects rated their feelings toward strangers more positively if the stranger was shown to have similar thoughts and attitudes to themselves. Reid, Davis, and Green (2013) conducted a study in which two strangers were prompted to discuss social issues

on which they disagreed. Afterward, participants were falsely told that either their discussion partner had shifted his or her view to align more closely with theirs, or that the partner still disagreed with them. Participants reported more positive attitudes toward the discussion partners who had changed their views to agree with them. Simply put, individuals are usually more attracted to those people who are like them. This is also true of physical attractiveness; people tend to choose romantic partners whose level of physical attractiveness is similar to their own (Berscheid, Dion, Walster, & Walster, 1971).

Self-esteem also seems to play a role in attraction. Nathaniel Branden (1980) claimed that without a healthy self-esteem, individuals are incapable of being loved by others because they finds themselves to be unworthy of love. This theory is supported by Simon and Bernstein (1971). Children were asked to write down the name of five classmates they would like to spend time with in 7th grade and the names of five classmates they thought would write them down on their own lists. As predicted, children with higher self-esteem were more likely to assume that the people they liked, liked them as well. Reciprocal liking seems somewhat obvious—we are attracted to people who are attracted to us (Forgas, 1992).

Familiarity can also affect attraction. The mere exposure effect states that people are more likely to have positive feelings toward familiar stimuli than toward unfamiliar stimuli (Baumeister & Bushman, 2008). A study done by Little, DeBruine, and Jones (2014) suggested that there may be a sex difference when it comes to familiarity. Men reported being more attracted to novel faces, and women were more attracted to familiar ones. This is also true of sexual dreams— men tend to dream of sex with strangers in unfamiliar settings, while women

dream more often of sex with people they know in more familiar, home settings (Dement & Pelayo, 2014).

As society entered the digital age, a new way of finding "The One" arose: online dating. This phenomena was every introvert's dream: instead of trying to strike up a conversation in a loud bar or in a classroom setting, singles could simply create an online profile and browse through hundreds or thousands of other singles in their area, all of whom were on the same quest to find their perfect match. Some research has been done on the pros and cons of meeting a romantic partner online. Positive data suggests that people are more willing to reveal their "true selves" through online communication and less willing to do so during face-to-face interaction (Bargh, McKenna, & Fitzsimmons, 2002). A study done by Tickle Matchmaking suggested that online daters appear to be more confident than offline daters. The study reported that a higher percentage of online daters were comfortable asking someone out and making direct eye contact with someone they had just met than offline daters were, although this may be due to the fact that online daters likely have had several conversations over text before meeting their date, while offline daters may be speaking to their date for the first time. Rosen, Cheever, Cummings, and Felt (2008) point out that the progression of online dating is quite different from that of real life meetings. In real life, dating begins by meeting someone and exploring similar interests, followed by slow meetings of perhaps once a week, with this frequency rising as the individuals get to know each other. In contrast, online dating generally begins with a string of textual communication, which often includes a revealing of the "true self" as mentioned above. It is no surprise, then, that online daters are marrying at a faster rate than those who meet offline- as much as 72% of online daters marry within a year of meeting, as opposed to 36% of couples who met offline (Rosen, Cheever, Cummings, & Felt, 2008). A stigma has arisen with respect to online dating, although the stigma is less prominent in people who have used online dating versus those who have not (Doan, 2011). Rosen, Cheever, Cummings, and Felt (2008) found that the majority of online daters only reveal that they are using online resources to a few close family members or friends, though the study did not suggest why that may be. Who are more likely to reveal that they are using online dating sites? Females, those who have been dating longer, those who have found a long-term relationship online, and those who overall have more positive experiences online. Is there something wrong with me? Why can't I meet someone in real life? These may be valid questions, but some research suggests that couples who meet online are just as committed to their partners as people who meet in "real life" (Gutkin, 2011).

With the rise of the internet in late 1990s and early 2000s, innovative entrepreneurs were quick to assemble websites on which single people could meet other singles. Beginning with match.com in 1995 (History of Internet Dating Services, n.d.), online dating exploded, with as many as 844 dating websites and apps available online in 2008 (History of Internet Dating Services, n.d.) Match, the first dating website, (History of Internet Dating Services, n.d.) has over 4 million unique users each month (How Many People Use match.com?, n.d.). As online dating continues to gain popularity, individuals seeking romantic relationships now find themselves bombarded with thousands of potential dating sites from which to choose. Each site has a unique way of determining which users might be compatible with each other. Match uses Myers-Briggs personality type matching (Comparison of Online Dating Websites, n.d.). Other sites use a variety of questions and answers to lead users to their perfect match.

These sites use some, if not all, of the major components of attraction theory to direct users to those individuals who might be best for them. Nearly every dating site uses proximity. A user simply types in a ZIP code or allows the app to identify their location. Location-based dating allows users to not waste time viewing single people who live hundreds of miles away from them. Tinder, for example, actually tells users how many miles a potential match is away from them at the current moment. Other apps such as OKCupid simply list the city in which the user is located.

Physical attractiveness, as discussed earlier, plays a major role in an individual's success in online dating. Some apps rely almost entirely on physical attractiveness for the selection process. Tinder and Grindr are two such apps. Tinder allows users to upload up to six pictures of themselves, and users are encouraged (but not required!) to fill out a short biography of themselves. Users then "swipe" through potential matches. Swipe to the left, and the person disappears. Swipe to the right, and you have "liked" that person. If the other person liked you back, it's a match. After matching with someone, users are able to start a conversation. Grindr, an allmale app used mostly by gay men, is also based mostly on physical appearance. Users upload photos and answer a small number of questions about themselves. Afterward, men are free to browse other men in their area, with an option to initiate a conversation with anyone. Hot or Not, as the name certainly implies, is another app based almost entirely on appearances. Beautiful People com is a site in which users submit photos of themselves and are then voted on by current members of the community. If the user evokes a positive reaction, they are allowed to use the site. However, the moderators of the site will remove users whom the community decides are no longer attractive enough to use the site.

As previously discussed, similarity plays a major role in who individuals find attractive (Byrne, 1961). Some dating sites have decided to tap into this tenant by using algorithms to match potential mates based on user-answered questions. Each site has its own way of doing this. OKCupid, a popular free app, has users fill out an in-depth profile about themselves: a general statement about themselves; their favorite books, music, and movies; what people notice about them first; six things they could never do without; and other such questions. In addition, users are prompted to answer questions about a myriad of issues, from questions such as "How important is religion in your life?" to "How do you feel about zoos?" The site then uses an algorithm to compare the users' answers with other users' answers and give a match percentage on how compatible the site thinks two people might be. This taps in heavily to the similarity principle.

Some sites take similarity to an extreme, inviting only people who share one certain characteristic to join the site. FarmersOnly is a site for people who enjoy a laid-back, country way of life. BlackPeopleMeet is an app meant for African Americans only. ChristianMingle is available for those people who value their faith, and GlutenFreeSingles is a site for individuals who live a gluten-free lifestyle, due to allergies or personal choice.

Online dating can easily be compared to going shopping at any store. A person enters a store and all the products the store has to offer are laid out in front of them, leaving the customer free to choose anything that catches their eye. In the same way, online dating allows users to browse through hundreds or even thousands of other users, all of whom are trying to make themselves look and seem desirable. In essence, people turn into products. With so many people to compete with, it is important to craft a profile in a way that will catch the eye of potential mates. What kind of profile will be most effective in doing that? Consumer psychology has two

conflicting theories on what kind of information about a product makes the product most desirable to consumers.

The theory of reasoned action suggests that consumers beliefs about products are added together. This theory purports that the more positive information the consumer has about the product, the more they like it (Kardes, Cronley, & Cline, 2015). Consumers have both beliefs and evaluations of products. Beliefs are the extent to which the consumer thinks the product has an attribute that is important to them; evaluations are how much the consumer likes the attribute, or how important it is to them. The theory of reasoned action assumes that each positive attribute a product has is added together. Operating under this theory, a user of an online dating site would put as much positive information in his or her profile as possible. When another person reads that long list of traits, the theory assumes that their attitude toward this person would become increasing positive with each positive attribute listed. It might be assumed that if a user finds another person with many positive traits, their attitudes about that person would be positive, and therefore there would be an increased likelihood that the user would message the person and go out on a date with him or her. While that may be true, other factors influence whether or not the "consumer" (user) would "purchase" (initiate contact with) the "product" (the other person). One influencer is the opinions of others. A consumer may like a product a lot, but if the opinion of someone else (a parent, friend, or coworker) matters to them significantly, the consumer will make a decision to purchase a product based on how they think the other person will react (Kardes et al., 2015). In the same way, online dating users may find someone's profile engaging, but if they fear disapproval from family or friends, they may decide to find someone else who will be more pleasing to the people in his or her life. To summarize, this

theory can be simplified into an equation: BI = A + SN. BI stands for behavioral intention, A stands for attitude, and SN stands for subjective norms (Miller, 2005). A person's attitude about a product (or a person), added with their subjective norms (i.e., what will other people think of me if I use this product?) will produce a behavioral intention, which leads to an action (Miller, 2005).

The opponent of the theory of reasoned action is the information integration theory. This theory suggests that beliefs about a product are *averaged* together, as opposed to added together. (Kardes et al., 2015). This would tell advertisers that less (but positive) information is better. In order to most effectively market a product under this model, companies should promote only the absolute best qualities about their product. The more qualities a product advertises, the more likely it will be that a consumer will find at least one or two of those qualities just okay, as opposed to excellent. The mediocre qualities of the product will bring the evaluation of the product as a whole down, because the customer is averaging all the qualities in their mind (Kardes et al., 2015).

The present study examined which of these theories would be most effective in predicting online dating attraction. Very little research has been done in the area of online users presenting themselves as products competing for a consumer's attention. With some data reporting more than 20% of marriages beginning online between 1995 and 2005 (Rosenfeld & Thomas, 2012), data on effective strategies for dating online are relevant and important to single individuals and to the community as a whole. This research compared the theory of reasoned action with the information integration theory of consumer psychology by way of simulated

online dating profiles. We hypothesized that participants would like the shorter, more positive profile better than the longer profile, supporting the information integration theory. The results may apply to more than web-based romance; individuals writing documents such as resumes and cover letters may also find the information useful.

#### Method

# **Participants**

Participants were gathered through Sona, the system used by Northern Kentucky University to keep track of participation in research studies by students. Students received 2 points of either course credit or extra credit for participating. The study had 89 participants, ranging in age from 18-34 (M=19.17). Of the participants, 20% were male and 80% were female. The majority (87%) were White. Nearly 77% of the participants had never used online dating before, while 23% had.

#### Measures

This study utilized two variations of an independent variable: a hypothetical online dating profile. Participants were randomly assigned to either a "short" version of the profile (N=49), meaning the profile featured only five very good characteristics, or a "long" version (N=42), which featured the same five very good characteristics and had an additional five average characteristics. In order to determine which characteristics were good and which were average, a pretest was done with 32 volunteers from the researcher's industrial/organizational psychology class. The statements were given to the class and they were asked to rate them on a scale of 1 to 7, with 1 being extremely negative and 7 being extremely positive (see Appendix A). The top five

characteristics were considered very good, and the five closest to a mean of 4 (neutral) were considered average. The five most favorable characteristics were: I have a job (M = 6.0, SD = 1.44); I am a student at Northern Kentucky University (M = 5.81, SD = 1.09); I like hanging out with my friends (M = 5.88, SD = 1.09); I like listening to music (M = 5.81, SD = 1.20); and I like making people laugh (M = 6.10, SD = 0.96). The five most neutral characteristics were: I plan to study cardiology in medical school (M = 4.34, SD = 2.17); I play tennis regularly (M = 4.31, SD = 2.08); I play bass in a band with some of my friends (M = 4.22, SD = 1.99); My favorite color is blue (M = 4.41, SD = 1.12); and My favorite food is Chinese food (M = 4.25, SD = 1.03).

#### **Procedure**

University's online research participant management system. Participants were prompted to read an informed consent statement containing the purpose of the study and any foreseeable risks of involvement. After completing the survey, participants were given contact information for the researchers in case they had any questions or concerns about the study. Participants' answers were kept confidential. After agreeing to participate, one of two hypothetical online dating profiles was presented and participants were instructed to read the profile. After reading the profile, participants were asked to answer a series of questions about the profile, using a 7-point Likert scale (see Appendix B). Then participants responded to the need for cognition scale (Cacioppo et al., 1996) (see Appendix C).

#### Results

An independent samples t-test was used to analyze each response to the 16 main research questions (questions about participants liking of and/or willingness to initiate contact or go out

with Alex). Five of the questions yielded significant results (see Table 1). Participants who received the "short" version of the profile rated themselves as significantly more similar to Alex than those in the "long" version (i.e., the one with a few very good characteristics and several "average" characteristics). Participants who received the long version of the profile were significantly more likely to go on a date with Alex. Participants who received the long version also agreed significantly more than those in the short group with two statements: "Alex has good earning potential" and "Alex is intelligent." Additionally, participants in the long group rated Alex's profile as significantly more interesting than those in the short version. An analysis of variance was run to compare the need for cognition scale to each version of the profile, but no significant results were found.

#### Discussion

This study investigated the effectiveness of two different consumer psychology advertising strategies, the theory of reasoned action and the information integration theory. The theory of reasoned action states that consumers *add* character traits together, and the more positive or neutral statements about a product, the more the consumer will like the product. In contrast, the information integration theory states that consumers *average* traits together, so anything that is not considered very good would bring the overall average liking of the product down. Our hypothesis, which stated that the information integration theory would be more effective for making Alex appealing, was generally not supported. Many of our measures were not significant, and the ones that were supported the theory of reasoned action; that is, participants rated the long version of the profile more favorably than the short one.

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The fact that participants considered the Alex of the long version to be more intelligent and have better earning potential is probably due to the fact that in the long version, we state that Alex is planning to study cardiology in medical school. This decision was made based on the pre-test we administered. The cardiology statement was rated as very close to average, so it was included in the five average statements. Additionally, the fact that participants considered the long profile to be more interesting than the short profile can probably be explained by the simple fact that there was more information given about Alex, thus giving a better opportunity for a participant to find something they considered interesting. The one question that supported the short version was "To what degree do you feel you are similar to Alex?" This can most likely be explained by the fact that the information in the short profile was very general (I like to make people laugh, I like listening to music). Most people would agree with those statements. However, one significant finding cannot necessarily be explained away—the fact that the participants in the long version were significantly more likely to agree to go on a date with Alex. This finding lends support to the theory of reasoned action. However, neither group was very willing to out with Alex (M = 3.02 for the short version and 3.95 for the short long version).

Weaknesses of the current study should be discussed. As described above, perhaps the measures were not executed as well as they could have been. Making both of the profiles longer could help participants make a more informed decision on which profile they liked more. A replication of this study could benefit from doing more pre-testing with a larger number of potential statements to include in the profiles. Additionally, many of the participants (76%) had never used online dating before. Perhaps another study with participants who are more familiar with online dating would yield different results.

In conclusion, participants who read the long version of the profile rated Alex as more intelligent and considered Alex to have better earning potential, as well as being more willing to go on a date with Alex and finding Alex's profile more interesting than the short version.

Participants who received the short version considered themselves more similar to Alex than those in the long version condition. Future research could investigate what makes people more likely to engage with a person in an online dating setting, and what strategies to use when trying to appeal to others online.

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# Appendix A: Pretest to Determine Good and Neutral Characteristics

I am studying pre-med in college.

I like watching movies.

I have an apartment.

I am a student at Northern Kentucky University.

I volunteer at a homeless shelter every other weekend.

My favorite color is blue.

My favorite food is Chinese food.

I like hanging out with my friends.

I like making people laugh.

I plan to study cardiology in medical school.

I play bass in a band with some of my friends.

I like reading books.

I like listening to music.

I have a job.

I like going outside.

\*The above were rated on a 7-point Likert scale, where 1= very negative and 7= very positive.

### Appendix B: Versions of Hypothetical Profile and Primary Research Questions

**Short Version:** Hey! I'm Alex. I am currently working a job, and I am enrolled at Northern Kentucky University. I like hanging out with my friends, listening to music, and making people laugh. Message me if you think we would get along!

Long Version: Hey! I'm Alex. I am currently working a job, and I am enrolled at Northern Kentucky University. I plan to study cardiology in medical school. I like hanging out with my friends, listening to music, and making people laugh. I play tennis regularly, and I play bass in a band with a few of my friends. My favorite color is blue, and my favorite food is Chinese. Message me if you think we would get along!

#### **Questions:**

How likely would you be to message Alex on an online dating site?

To what degree do you feel you are similar to Alex?

How interesting is Alex's profile?

I would go on a date with Alex.

Alex seems likable.

Alex is someone I would get along with.

If Alex messaged you, how likely would you be to respond to the message?

Alex has good earning potential.

Alex is friendly.

Alex is intelligent.

How attractive is Alex?

\*The above were rated on a Likert scale from 1 to 7, where 1= extremely negative and 7= extremely positive.

Have you ever used an online dating site or application?

If you answered yes to the above question, how would you rate Alex's profile compared with others you have seen?

## Appendix C: Need for Cognition Scale

I would prefer complex to simple problems.

I like to have the responsibility of handling a situation that requires a lot of thinking.

Thinking is not my idea of fun.

I would rather do something that requires little thought than something that is sure to challenge my thinking abilities.

I try to anticipate and avoid situations where there is likely a change I will have to think in depth about something.

I find satisfaction in deliberating hard and for long hours.

I only think as hard as I have to.

I prefer to think about small, daily projects to long-term ones.

I like taste that require little thought once I've learned them.

The idea of relying on thought to make my way to the top appeals to me.

I really enjoy a task that involves coming up with new solutions to problems.

Learning new ways to think doesn't excite me very much.

I prefer my life to be filled with puzzles that I must solve.

The notion of thinking abstractly is appealing to me.

I would prefer a task that is intellectual, difficult, and important to one that is somewhat important but does not require much thought.

I feel relief rather than satisfaction after completing a task that required a lot of mental effort.

It's enough for me that something gets done; I don't care how or why it works.

I usually end up deliberating about issues even when they do not affect me personally.

\*The above were rated on a 7-point Likert scale where 1= strongly disagree and 7= strongly agree.

Table 1: Response item means, standard deviations, and significance tests by description

Response Items	Short Version M (SD)	Long Version M (SD)	t ·	p
How likely would you be to message Alex on an online dating site?	3.67 (1.48)	4.10 (1.69)	1.28	.203
To what degree do you feel you are similar to Alex?	4.50 (1.46)	3.74 (1.13)	-2.74	.007*
How interesting is Alex's profile?	2.94 (1.30)	3.93 (1.37)	3.53	.001*
I would go on a date with Alex.	3.02 (1.41)	3.95 (1.87)	2.67	.009*
Alex seems likable.	4.92 (1.07)	5.33 (1.32)	1.66	.102
Alex is someone I would get along with.	4.48 (1.34)	4.88 (1.21)	1.49	.141
If Alex messaged you, how like would you be to respond to the message?	4.44 (1.57)	4.98 (1.92)	1.46	.147
Alex has good earning potential.	4.21 (1.30)	5.05 (1.58)	2.72	.008*
Alex is friendly.	4.79 (1.15)	5.17 (1.38)	1.41	.163
Alex is intelligent.	3.88 (0.76)	4.98 (1.28)	5.04	.000*
How attractive is Alex?	3.30 (1.30)	3.57 (1.40)	0.98	.213

<sup>\* =</sup> p < .05