

CONTENT ANALYSIS OF ONLINE PERSONAL ADVERTISEMENTS:
ATTRIBUTES DESIRED AND OFFERED

by

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Abstract

The evolutionary perspective has often been used in the study of mate preferences. Guided by an evolutionary-based theory called Sexual Strategies Theory (Buss, 1994), the current research examined the effect of the type of relationship sought, represented by an intimate encounter, a date, and a relationship, on attributes desired and offered by online dating ad placers. Online personal advertisements ($N = 120$) from a Canadian dating web site were content analyzed for the following attributes: physical attractiveness, resources, commitment, social skills, social attitudes, and interests. Attributes desired and offered did not differ by gender but did differ by type of relationship. Ad placers desired more commitment, social skills, and social attitudes when seeking a relationship than an intimate encounter. These attributes, in addition to resources, were offered more when seeking a relationship than an intimate encounter. Contrary to the theory, physical attractiveness was not desired or offered more when seeking an intimate encounter and to date compared to a relationship. Gender moderated the relationship between type of relationship sought and resources offered but none of the other attributes. A shift away from gender differences in mate preferences is suggested. The limitations of the theory for explaining the results are discussed and alternative explanations are provided.

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Dedications

To thoughtful endings and new beginnings.

Introduction

With the advent of the internet and the expansion of its use, online dating web sites have become the latest method of advertising for relationships or dates. As a result, users are enjoying many benefits including web sites that cater to specific religions, sexual orientations, ethnicities, interests, and geographic locations (Arvidsson, 2006). Web sites have client bases from the thousands to millions, which means a larger dating pool from which to choose a potential mate. These developments point to greater social acceptance than there had been in the past for personal print advertisements, which were regarded as a deviant activity (Darden & Koski, 1988).

While some web sites have gone the route of specializing, there are others that are designed to have many clients and greater profits. It is estimated that in total, dating web sites are generating US\$100 million in revenue annually (Arvidsson, 2006). The largest web site Match.com, an American web site, reports having up to 700,000 clients who pay user fees. Ticketmaster, the company that owns Match.com, reported US\$49.2 million in revenue in 2001 (Arvidsson, 2006).

In addition to the growing financial success of online dating web sites, the number of users of dating web sites is expected to continue to increase. In 2001, Lavalife.com, one of the larger Canadian web sites, reported a client base of 2 million users with an additional 7,000 users per day (Arvidsson, 2006). At that time, the largest web site, Match.com, was reporting a client base of 9 million users. The Pew Internet and American Life Project (Madden & Lenhart, 2006) found that 11% of American internet users, or about 16 million people, have gone to a dating web site or other web site to meet people. Within this group, 43% have gone on dates while 17% have been in long-term relationships or married those people whom they met through the internet. People appear to be having some success using the internet and dating web sites to find romantic relationships.

Written personals were previously used, dating back to the mid 1700s, in the United States (Gudenlunas, 2005). Additional methods to finding a mate included the use of matchmakers and mail order bride systems (Steinfurst & Moran, 1989). Written personals, appearing in magazines and newspapers, became more widely used during the 1980s when young working people enjoyed more leisure time. However, during this time people still felt a stigma attached to using written personal ads, behaving with reluctance, embarrassment and secretiveness when discussing their experiences (Darden & Koski, 1988). Paper personals were eventually offered with voice links which allowed individuals who were interested in a particular personal advertisement to dial a number and listen to a pre-recorded message left by the ad placer (Coupland, 1996). The creation of the internet led to dating web sites, offering users a more dynamic and interactive experience when searching for a mate (Gudenlunas, 2005).

Although it is difficult to determine the success of online dating, the method has been observed as efficient (Hollander, 2004) and rational (Bulcroft, Bulcroft, Bradley, & Simpson, 2000). This method is rather calculated, where the ad placer lists exactly what they want and only those individuals matching this description should apply (Hollander, 2004). Adding to the rationality of the process is the usage of screening criteria and methods of matching people that are promoted by personal web sites (Bulcroft et al., 2000). The ad placer can seek a specific type of relationship, from looking for a one-time date to describing their preferences for finding a potential partner suitable for marriage, and anything in between. As an updated version of paper advertisements, online ads offer variety and diversity in content and style (Lynn, & Bolig, 1985). On dating web sites, the ad placer has the opportunity to provide more detail than possible with paper ads and to make use of innovative features for fully conveying their personality, resulting in an extremely worthwhile, rich, and interesting data source.

While there is research using online personal ads, dating preferences in same-sex relationships have been the focus (Gudenlunas, 2005; Phua, 2002; Phua & Kaufman, 2003;

Tewksbury, 2003). Research on heterosexual mating preferences has made use of paper ads (Cameron, Oskamps, & Sparks, 1977; Hatfield & Sprecher, 1995; Jagger, 1998; Pawlowski & Koziel, 2002; Smith, Waldorf & Trembath, 1990; Steinfirst & Moran, 1989) with a few studies using online ads (Badahdah & Tiemann, 2005; Dawson & Macintosh, 2006; Matthews, 1999; Rusu & Bencic, 2003; Strassberg & Holty, 2003). The few online studies of heterosexual relationships have not included the duration of relationship sought. Also, a Canadian sample has not been used in the existing cross-cultural studies (Hatfield & Sprecher, 1995; Linlin, 1993).

The research avenues for learning about different relationships and mate selection appear numerous given the dynamic, creative, and expressive nature of information provided on dating web sites. The current study took advantage of this source of information to study ads on the Canadian web site, Lavalife.com. Specifically, we assessed how the attributes desired and offered by ad placers varied among the types of relationships being sought, from a one-time sexual encounter to a long-lasting relationship, and how gender affected what was desired and offered by ad placers.

Theory

Sexual Strategies Theory (SST)

According to Sexual Strategies theorist Buss (1997; SST), people have strong mating preferences. Sexual Strategies Theory is based on the identification of underlying psychological mechanisms that have resulted from evolution for explaining mating preferences. These mechanisms are useful, demonstrating the flexibility of human behaviour and the dynamic nature of mating strategies used by both men and women (Buss, 1997).

Buss (1985; 1994; 1997) is one of the first leaders in this field, now known as evolutionary psychology. In the early 1980s when he began his work, there was little scientific evidence on mating concerning the broad human population and even less support for grand evolutionary ideas being applicable to humans. Consequently, research was initiated that was meant (Buss, 1983; 1984a; 1984b; 1984c; 1985; Buss & Craik, 1983) to test some obvious evolutionary predictions about how men and women differed when it came to the attributes they desired in a mate. Such research led to the discovery that desires about human mating had implications for dating, marriage, extramarital affairs, and divorce (Buss, 1997). These results led to the introduction of Sexual Strategies Theory (SST; Buss & Schmidt, 1993).

Sexual Strategies Theory is based on an evolutionary framework with three key ingredients (Buss, 1994). The first ingredient of this framework is that human mating is inherently strategic. Strategies exist because they have provided solutions to problems in human evolutionary history. Buss points out that the manifestations of these strategies are not necessarily conscious psychological mechanisms but are often unconscious. Another key ingredient contributing to the theory is that mating strategies are context-dependent. The type of relationship sought, whether it is a situation of short-term or long-term duration, will affect how people behave within the situation. The last component of the framework states that men and women have evolved different mating strategies because they faced unique mating problems

during the course of human evolution.

Expanding on the last two components, SST identifies that each gender will have different preferences in a mate. Specifically, within each context, the short- and long-term, each gender will differ in preferences. In the short-term mating context, the relationship is characterized as involving casual sex with no expectations. In the long-term context, the relationship is characterized as committed and lasting. The reproductive challenges for each gender differ greatly in the short-term mating context. For men, the challenges centre around how to mate with as many women as possible with minimal costs incurred. Also, men need to identify women who are sexually accessible and are fertile. In contrast, the challenges for women are to extract resources from short term mates, to find alternative mates as backups, and even though it is a short-term mating situation, women are still evaluating their short-term mates for potential as long-term mates. In the long-term context, there is overlap in preferences because both genders encounter some of the same problems in mating. The reproductive challenges that both genders face are seeking commitment, high quality genes, and good parenting skills in a potential mate. Further challenges unique to women in the long-term are seeking mates with resources and the ability to offer protection, while challenges specific to men include seeking paternity confidence in offspring and mates of reproductive value.

This theory provides detailed explanations about the conditions which have resulted in men and women wanting different attributes in a mate. The context, a short- or long-term orientation, is recognized to shape these preferences. Some key assumptions in the form of theoretical hypotheses (Buss, 1994; Buss & Schmidt, 1993), which add to a better understanding of the theory, are introduced next.

Assumptions Derived from Sexual Strategies Theory

Nine key theoretical hypotheses have been formulated from SST and have guided research (Buss & Schmidt, 1993; Buss, 1994). Six of the hypotheses have been useful in this

study. These theoretical hypotheses contain assumptions about what men and women look for in different contexts.

The first assumption is that short-term mating is more important for men than women. This is because men can minimize their parental investment to one time contact and still produce offspring unlike women who are required to provide a higher level of parental investment when they produce offspring (Buss, 1994). The use of the short-term strategy also allows men to minimize what they offer.

The second assumption is that men's preference for short-term mating solves the problems of commitment and investment (Buss, 1994). According to SST, men and women view commitment and investment differently. Men make use of short-term mating so that they do not have to be committed or invested in their short-term mate. Alternatively, if seeking a long term mate, this assumption allows for the speculation that commitment and investment will be more willingly offered by men.

The third assumption is that men's preference for short-term mating solves the problem of finding fertile women (Buss, 1994). A related assumption is that men's use of the long-term mating strategy solves the problem of finding women who have reproductive value. These two assumptions are connected. Buss (1989) points out that fertility and reproductive value are linked but unique concepts. Fertility is defined as the probability of a woman's current ability to conceive a child while reproductive value is defined actuarially in units of expected future reproduction. Put another way, it is the extent to which a person of a given age and gender, on average, will contribute to ancestry of future generations. This would mean that a 24 year old woman would be more fertile while a 14 year old would have more reproductive value. These traits are not easily observable so cues need to be observed. For women, age is linked to these traits and physical cues can be reliably linked to age. For men, age is less obviously linked with these two traits making the physical cues about age less useful to women (Buss, 1994). As a

result, men can use physical cues to assess a woman's reproductive value and fertility. These assumptions emphasize the value men place on physical traits in a mate in both short- and long-term contexts.

Another assumption is that women in a short-term mating context seek men who are willing to offer immediate resources. Resources are essential to ensuring that offspring and mothers are well cared for. This assumption helps explain why in the short term women seek immediate resources from men (Buss, 1994). In a long-term context, women also favour men who can provide resources to invest in their offspring. These assumptions highlight the importance of resources in a mate for women in a short- and long-term context.

In contrast to viewing mate preferences as arbitrary and culture-bound, SST shows that both genders have strategies that are patterned (Buss, 1994). Central to understanding mate preferences is considering the short- and long-term context in which men and women operate. SST helps to fulfill the aims of the current study, which were two-fold. The first was to gain a better understanding of the preferences held by people using a dating web site to find a potential partner. This theory offers guidance about what preferences existed and why. The second aim of the study was to determine how preferences compare in three relationship types, varying in length of time, and by gender. SST asserts that the context in which one seeks a partner is pivotal, that in the context of looking for a short-term versus a long-term relationship, the preferences differ. The key assumptions of this theory and the research to be presented led to the formulation of hypotheses that address these aims.

Next, some criticisms on SST and the discipline of evolutionary psychology are discussed followed by a literature review. The review covers existing empirical evidence on mate preferences.

Criticisms of Evolutionary-based Theories

Sexual Strategies Theory (Buss, 1994), belonging to the discipline of evolutionary

psychology, has met with many criticisms (Kenrick et al., 2003; Schmitt, Shackelford, & Buss, 2001). SST has been particularly controversial because of its focus on gender differences (Schmitt et al., 2001). SST has been criticized for its interpretation that men favour short-term mating, therefore, seek physical attractiveness in partners. On the other hand, women are associated with a long-term mating context, benefitting more from this context, and focused on finding partners with resources. Specifically, it appears that each gender operates better within a particular context. No insight is offered about within gender differences.

Another criticism of SST and all evolutionary theories is that they are reductionistic (Kenrick et al., 2003). All evolutionary theories hold the basic underlying assumption that particular genes are responsible for all social behaviours. Evolutionary researchers are seen as being concerned with isolating the genes responsible for study apart from the possible environmental influences and ignoring the functional nature that may exist between behaviours. There is little consideration that what influences mating decisions may have no evolutionary basis (Buss, Shackelford, Kirkpatrick, & Larsen, 2001).

Another issue is the implication that the behaviour being explained is unchangeable (Kenrick et al., 2003). This is a concern when a connection between behaviour and an evolved mechanism that is genetically predisposed is acknowledged, since genes, themselves, are seen as inflexible. Furthermore, behaviour from evolved mechanisms has implications of being “natural,” which is associated with being moral and good. As a result, research on gender differences could be used to justify current gender inequalities in our social system or to implement additional social structures where women would be oppressed.

Another concern is that evolutionary-based theories, such as SST, are not falsifiable (Kenrick et al., 2003). The assumptions made about the past in regards to evolution are not observable. Yet, hypotheses are derived from these assumptions. Arguably, anything can fit into the evolutionary framework. A related concern is that SST offers post-hoc explanations.

The explanations do not add but recount obvious behaviour, which may be indicative of confirmation bias. This signals an unwillingness to re-examine the original theory, instead seeing what one wants to see.

Two additional criticisms aimed at evolutionary research have to do with the focus on mate preferences over eventual mate choice behaviour and lack of distinction between marital statuses in samples (Surra, Gray, Cotte, & Boettcher, 2004). Research has been conducted asking about mate preferences, where people rate, rank, or describe ideal attributes. There has been limited follow-up research as to how people eventually behave in partner selection. The concern about marital statuses refers to evolutionary research using samples that contain a mixture of single people and people who are not single. The concern is that people in a relationship may be providing biased mate preferences. People in relationships may be predisposed to favouring attributes that their current partner possesses, rather than indicating attributes they specifically prefer in a partner.

A range of concerns and limitations have been addressed regarding evolutionary theories. Particularly, concern has been raised about the focus on gender differences, the connotations of behaviour being positive and rigid due to the accepted link that behaviour is genetically predisposed, the underlying assumptions that are difficult to disprove, the treatment of relationship status in data collection, and whether mate preferences actually translate into actual mate choice behaviour. Aside from the concerns, the evolutionary perspective has been a useful tool for formulating interesting hypotheses and parsimonious explanations of various behaviours. Proponents have dealt with the concerns and limitations discussed (see Kenrick et al., 2003; Schmitt et al., 2001).

Literature Review

Much of the literature about dating preferences using online personal ads has emphasized same-sex relationships (e.g. Gudenlunas, 2005; Kaufman & Phua, 2003; Matthews, 1999; Phua, 2002; Phua, Hopper, & Vaquez, 2002; Phua & Kaufman, 2003; Smith & Stillman, 2002a; 2003; Tewksbury, 2003). The medium of personal ads has provided an effective and anonymous way to meet others, an especially useful tool for gays and lesbians who may have been unable to meet like-minded individuals in their current social networks (Gudenlunas, 2005). The added ability to browse personal ads on the internet in the privacy of one's home is a further benefit, particularly for those individuals who are still closeted. Online personal ads are also a practical and goal-directed form of computer-mediated communication, making it a source of data that can be systematically analyzed to learn about how gays and lesbians have used this new medium to meet their social needs and establish identities in a virtual world (Gudenlunas, 2005). Previously, it would have been difficult to study this demographic group and their preferences in a romantic partner. The usage of online dating ads has been a good way to study the experiences of same-sex individuals in the areas of partner preferences.

The medium of online dating ads has changed every ad placer's experience, including those of heterosexual people (Gudenlunas, 2005). However, only a few articles (Dawson, & McIntosh, 2006; Rusu & Bencic, 2007) have looked at the heterosexual dating community despite the popularity of internet dating web sites (Madden & Lenhart, 2006).

The remainder of the literature review is divided into three separate sections: gender differences by attributes desired, gender differences by attributes offered, and the connection between the type of relationship sought and the attributes desired and offered by the ad placer. The research consists of many sources of data, providing a thorough review of the dating preferences of the heterosexual community, which is the focus of the current study.

Gender Differences by Attributes Desired

Research Using Online Advertisements

A strong gender difference appears to exist when it comes to the type of attributes desired by heterosexual online ad placers. Matthews (1999) had students complete a class project where the content of online personal advertisements was analyzed. The personal advertisements that were collected fell under the following four categories: men for women, men for men, women for men, and women for women. The results for the heterosexual portion of the sample indicated that men sought younger women and women sought older men.

A content analysis of 400 web personals placed by Romanians yielded similar results (Rusu & Bencic, 2007). Romanian women were found to seek older partners and partners with attributes reflecting wealth. Romanian men were found to be interested in younger partners and in attributes that reflected fertility and health. Also, the women were more aware of their market value while the men tended to overestimate their value on the market.

Strassberg and Holty (2003) combined two methodologies, a content analysis and an experiment, in their study on mate preferences using online personal advertisements. The experimental condition of the study involved the researchers writing four different personal advertisements from the point of view of women seeking men, which were placed on two websites. Over a six week period, 500 responses were received in response to the four advertisements, which were content analyzed. The advertisement where the woman described herself as financially independent, successful, and ambitious received the majority of the responses, over 50% more responses than the second most popular advertisement, where the woman described herself as lovely, very attractive, and slim. These results indicate that more men prefer the less traditional attributes in a mate but that the traditional preferences for a physically attractive partner still exist.

Badahdah and Tiemann (2005) examined 500 randomly selected online advertisements

placed by Muslims living in the United States. It was assumed that the ad placers sought long-term relationships since the Islamic religion does not allow non-marital sex and dating for those that are not engaged. The results showed women seeking financially secure, sincere, and emotionally sensitive partners. Also, women more often than men sought and valued religiosity. Religiosity was coded as any reference to a specific religion or the use of religious expressions when discussing the self or a potential mate. Men sought younger partners. There was no gender difference in seeking physical attractiveness.

Research Using Paper Advertisements

The research making use of paper advertisements indicates similar findings to those found in online advertisements, the existence of gender differences in attributes desired. Steinfurst and Moran (1989) took a sample of personal advertisements from a paper publication that consisted of critiques of literature and art. A content analysis of the advertisements showed that men sought physical attractiveness evidenced by often requesting a photo, while women sought financial security in a potential partner.

Pawlowski and Koziel (2002) proposed that the number of responses received by a personal advertisement is a good indicator of human mate preferences. This study used a sample of 1168 advertisements from a Polish newspaper. First, a content analysis was completed. Traits, such as age, educational level, place of residence, marital status, height, weight, offered resources, and attractiveness were studied to determine their effect on the number of responses each ad received. For men, the traits mentioned that positively affected the number of responses received, in order from most to least important, were educational level, age, height, and resources offered. For the ads written by women, weight, height, education, and stated age were negatively correlated with the number of responses received. The authors pointed out that women still seek resources while men still value appearance. However, the respondents seem to be using relatively objective traits that are less prone to error or

manipulation, such as achieved education, male height, and female weight, when choosing to respond to an ad. Additional support for women seeking resources more than men comes from similar research (Bereczkei, Voros, Gal, & Bernath, 1997; Waynforth & Dunbar, 1995). Resources in ads by men only had a small positive effect on the number of responses received while physical attractiveness in ads by women had no effect on the number of responses received (Pawlowski & Koziel, 2002).

Further support for a gender difference in what is sought was found in a study of 514 advertisements from a New Mexico magazine (Smith, Waldorf, & Trembath, 1990). Participants were asked to rank 10 of the most desired characteristics found in the ads. For men, physical attractiveness was ranked as first on the list of preferences in a mate; for women, physical attractiveness was sixth. Women ranked understanding as their most desired characteristic. Within the category of physical attractiveness, one third of the men preferred thin or petite women (Smith et al., 1990).

Gustavsson, Johnsson, and Uller (2008) analyzed paper and online personals written by Swedish ad placers and found mixed support for gender differences. Resources were desired by women more than men. No gender difference was found for desiring physical attractiveness. The researchers concluded that physical attractiveness was a more flexible attribute preference than resources.

Cross-Cultural Research

Research comparing different cultures has shown that men and women seek different attributes in potential mates. A cross-cultural study (Linlin, 1993) that compared paper personals from China and the United States found cultural and gender differences. Chinese ad placers expressed interest in beginning a family and marriage while American ad placers conveyed more individualistic values through their self-advertising and freedom of choice. Overall, there was agreement on ideal characteristics in a mate among the Chinese ad placers;

however, there was no such agreement among the American ad placers. The attributes desired differed by gender: men preferred shorter, younger, never married, and honest women and women preferred taller, older, professional men, who were resolute decision makers.

In another cross-cultural study, Hatfield and Sprecher (1995) studied three different cultures, the United States, Russia, and Japan. Students in eight universities participated: 970 from five American universities, 327 from one Russian university, and 222 from two Japanese universities. Women were more selective than men. In all the cultures, men cared more about physical attractiveness and women cared more about status and personality attributes. Similar results were found from a study (Buss, 1994) conducted among 37 different cultures looking at mate preferences. Men were found to value physical attractiveness and good looks more than women in all these cultures, even in the cultures that were not saturated with visual media and westernized groups.

Gender Differences by Attributes Offered

Research Using Online Advertisements

Similar to research on the type of attributes desired by heterosexual ad placers, there is evidence of gender differences when considering the types of attributes offered by ad placers to potential partners. Dawson and McIntosh (2006) proposed that without traditional attributes such as physical attractiveness to offer, ad placers would offer other positive personal characteristics, such as intelligence and a sense of humour. A content analysis was performed using 151 web personals, specifically looking at attractiveness, income, physical attributes and other personal characteristics mentioned. The results, which supported SST (Buss, 1989; 1994), showed that for men's advertisements, wealth and attractiveness were negatively related to offering other positive personal characteristics. For women, physical attributes mentioned in advertisements were negatively related to offering other positive personal characteristics. Although the traditionally stereotypical characteristics were still offered, ad placers who lacked

those features offered other personality characteristics in their place.

Badahdah and Tiemann (2005) did a content analysis of 500 randomly selected online advertisements by Muslim ad placers living in the United States. Focusing on how religiosity affected mating preferences instead of geographical location, the results showed a familiar pattern of women offering looks while men offered status. Interestingly, when it came to religiosity, women were found to advertise and value religiosity more than men.

Similarly, Gustavsson and researchers (2008) using Swedish online and paper personal ads, found a gender difference for resources offered. Men offered resources more than women. However, the degree to which physical attractiveness was offered did not differ between men and women.

Research Using Paper Advertisements

One of the earliest studies (Cameron, Oskamps, & Sparks, 1977) in the area of mating preferences indicated a gender difference in what is offered by ad placers. A content analysis of 347 paper personal advertisements found that traditional sex appropriate characteristics were being offered by both genders. Male and female ad placers were described as operating within a heterosexual stock market, emphasizing positive characteristics in an aim to maximize their profit when seeking a partner. For example, women stressed their physical appearance in the advertisements while men stressed their status. These results indicate that both men and women seem to be in sync with what their value is and what is of value to the opposite gender. Additional research suggests that women are eager to describe themselves as thin (Harrison, & Saeed, 1977) when men reveal that they value thinness (Smith et al., 1990). Similar research has also found that women stress attractiveness more than men (Bereczkei et al., 1997; Waynforth & Dunbar, 1995). However, a study on Romanian online ad placers (Rusu & Bencic, 2007) indicated that men tended to overestimate their value in the market by seeking more attributes in a potential mate than they had to offer. In contrast, women were aware of

their market value, demonstrating this awareness in what they included in their ads.

Offering a different view, Jagger (1998) performed a content analysis using 1098 paper advertisements and found that both genders were offering attributes that moved away from the traditional and stereotypical trends of the previous research. Women were found to market physical attractiveness but men did so as well. Jagger identified a body consciousness that has emerged among men where they are trying to conform to an ideal image, as well. Regarding the personality attributes, women mentioned being career-oriented whereas men described themselves as emotional. Both genders seemed to be moving away from the traditional stereotypical characteristics, choosing instead to emphasize what the other gender previously offered.

Type of Relationship and Attributes Desired and Offered by the Ad Placer

Much of the research discussed so far has provided a foundation for this section of literature on mating preferences which considers the role of the variable, the type of relationship sought. To review, the literature on what is sought and offered by both ad placers of paper and online advertisements has been discussed. This final section reviews research that explores how the type of relationship sought relates to what type of attributes ad placers desire and offer.

The Value Placed on Physical Attractiveness and Resources

One study (Pandey, 2004), based on both paper and online advertisements, offered a glimpse into how the different types of relationship sought were associated with attributes, but only indirectly. South Asian matrimonial and American personal advertisements were examined and the results showed that the ad placers had a clear preference for specific characteristics. Both types of advertisements were structurally similar with writer, reader, and purpose segments (Bruthiaux, 1996) but the content differed. For example, in the purpose segment of matrimonial advertisements, the singular purpose was marriage whereas in American personal advertisements, there was more variety in purpose. The matrimonial advertisements

were oriented toward male readers whereas the personal advertisements were oriented toward suitable individuals for the purposes outlined. Although the type of relationship sought was not examined directly in the study, the matrimonial ads can be representative of seeking a long-term relationship while the American personals can be seen as equal to seeking a short-term relationship. In both types of advertisements, men and women gave priority to appearance over shared interests.

Similarly, a study looking at preferences for a date partner showed gender differences (Sheldon, 2007). Women preferred ads that contained endorsing personal growth, helping others, emotional intimacy, and financial resources. Men preferred physical attractiveness in a date partner.

The remainder of the research is based on survey methods. When exploring the roles of fertility and reproductive value when seeking a specific type of relationship, Buss (1994) surveyed a college sample of men and women. He pointed out that fertility and reproductive value are linked but are unique concepts. These traits are not easily observable so cues need to be considered. For women, age is linked to these traits and physical cues can reliably be linked to age. For men, age is less obviously linked with these two traits making the physical cues about age less useful to women (Buss, 1994). This led Buss to hypothesize that physical cues, such as youth and attractiveness are more important to men than women. Men rated the importance of physical attractiveness higher in a short-term mate than the long-term mate although it was important in both durations. Women exhibited the same pattern, rating physical attractiveness in both durations as important but more so in the short- than long-term. Also, physical attractiveness was more important to men than women overall.

Stewart, Stinnett, and Rosenfeld (2000) examined preferences for characteristics in both short-term and long-term relationship partners where 'typical short-term' was defined as 'dating someone more than once' and not having any expectation for a short or long-term relationship

and 'long-term' was defined as 'dating someone a long time' accompanied by a possibility but not necessarily a certainty for marriage. A gender difference was found in terms of desired characteristics for both categories of relationship duration where men preferred reproductive value, translated into the characteristic, physical attractiveness in a mate and women valued resource acquisition ability, which translated into preferring the characteristic, earning capacity.

Kenrick, Sadalla, Groth, and Trost (1990) used an evolutionary perspective to assess what the minimum criteria were along 24 dimensions of four levels of involvement, which were a date, sexual relations, steady dating, and marriage with a heterosexual sample of undergraduate students. Women were the most selective, specifically preferring status-linked dimensions. The involvement type yielding the greatest gender differences was 'sexual relations.' Men cared less about status, friendliness, health, and family orientation variables than women. However, men and women did not differ significantly on attractiveness and aggressiveness variables. The researchers concluded that the evolutionary perspective was supported as it reflected how sexual relations required more potential investment by women, resulting in more selectivity on their part while for men the opposite was true so they were less selective in the short-term.

Turning to financial resources, Buss (1994) hypothesized that women desire signs that a man will spend resources on her in the short term, which was tested with 50 female subjects who were asked to rate the desirability of the following characteristics in the short- and long-term: spends a lot of money early on, gives gifts early on, and has an extravagant lifestyle. Women desired these characteristics more in the short than long term. Also, women disliked stingy men more in the short than the long term. These findings indicate that in the short term women value a mate who has resources to offer and is willing to use those resources.

In a similar study, Buss (1994) explored how relationship duration linked to women desiring in a potential mate ambition, earning capacity, professional degrees, and wealth, as these

are indicators of ability to provide for offspring. A group of 58 men and 50 women were asked to rate the desirability of what was termed future resource-acquisition potential indicators. Women were found to value the following characteristics more in a long term mate than a short term mate: is likely to succeed in profession, is likely to earn a lot of money, and has a reliable future career. Findings were similar in a study exploring 37 different cultures (Buss, 1994). Men's and women's preferences regarding attributes such as, good financial prospects, social status, and ambition-industriousness, in a long term mate were examined. In all cultures except for one, women more than men placed significantly greater value on good financial prospects in a long-term mate. In the majority of cultures studied, women more than men also valued social status and ambition-industriousness in a long-term mate.

Commitment is a Context-Dependent Attribute

Specifically exploring the variable, commitment, and duration of relationship, Buss (1994) asked men and women to rate the variable, wants a commitment, for short-and long-term mates. Buss noted that this variable was the most context-dependent out of all the variables he has examined. Commitment was strongly desired by men in long-term mates and strongly undesired in short-term mates. For women, the distinction was less strong: women strongly wanted commitment from a long-term mate and found commitment only mildly undesirable in a short-term mate. Stewart and colleagues found that women desired a dependable partner in the short-term (2000). Likewise, Regan (1998) found that family orientation attributes were more desired in the long- than short-term with women showing a more stringent desire in the short-term than men. This gender difference was well supported (Kenrick et al., 1990; Kenrick et al., 1993). These findings show the type of relationship strongly influences desiring commitment for men. On the other hand, women appear to seek commitment and investment from men in both the short- and long-term but especially in the long-term.

Diverging and Converging Selectivity in Preferences

Women were more selective than men in short-term relationships, whereas men were almost as selective as women when it came to long-term relationships (Kenrick et al., 1990; Stewart et al., 2000). Kenrick, Groth, Trost, and Sadalla (1993) found further support for the existence of gender differences. University students (92) were asked to rate what percentile they wanted a potential partner to be on a given dimension for five types of involvement. There was the greatest gender difference when men and women were asked to rate given characteristics for a partner for the purposes of sexual relations and a one night stand, which was consistent with results from the previous study (Kenrick et al., 1990). There were fewer gender differences when the purpose was a marriage and a date. Overall, women were the most selective, which is supportive of the evolutionary perspective.

Regan (1998) surveyed undergraduate students, also finding a change in level of selectivity when a short-term versus a long-term partner was sought. When the mating context shifted from short to long-term, both men and women became more selective on a number of attributes, such as social status, agreeableness, extraversion/sociability, family orientation, intellect, and emotional stability. Women were more selective in the short-term than men when considering a potential partner, again.

Summary

The literature review showed gender differences in mate preferences. There was strong support for gender differences in attributes desired, with men desiring physical attractiveness (Buss, 1994; Steinfirst, & Moran, 1989) and women desiring resources (Bereczkei et al., 1997; Pawlowski, & Koziel, 2002; Rusu, & Bencic, 2007; Waynforth & Dunbar, 1995). These gender differences were shown to exist cross-culturally (Buss, 1994; Hatfield & Sprecher, 1995; Linlin, 1993). Some support exists showing no gender difference for physical attractiveness (Gustavsson, Johnsson, & Uller, 2008) or at least some flexibility for this attribute (Strassberg &

Holty, 2003).

The support for gender differences in attributes offered is mixed. There was evidence on a gender difference for offering physical attractiveness, indicating that women offer this attribute more than men (Bereczkei et al., 1997; Dawson, & McIntosh, 2006; Waynforth & Dunbar, 1995). There was also support for no gender difference (Gustavsson et al., 2008; Jagger, 1998). There was a gender difference for resources with men offering this attribute more than women (Bereczkei et al., 1997; Cameron et al., 1977; Waynforth & Dunbar, 1995). To a lesser extent, personality characteristics (Hatfield, & Sprecher, 1995; Smith et al., 1990) and lifestyle choices (Badahdah, & Tiemann, 2005) were being desired by women and offered by both genders, indicating that presenting oneself as well-rounded was important (Jagger, 1998).

The research showed that attributes differed by type of relationship sought. When seeking a short-term partner, physical attractiveness was desired and offered (Buss, 1994; Kenrick et al., 1990; Stewart et al., 2000) while resources and commitment were more important when it came to an ideal long-term partner (Buss, 1994). Gender also moderated the relationship between the type of relationship sought and attributes desired and offered, applying particularly to physical attractiveness, resources, and commitment (Kenrick et al., 1990; Kenrick et al., 1993; Regan, 1998; Stewart et al., 2000).

Characteristics of Online Daters

Thus far, the literature on mate preferences has been reviewed and has shown that there is variation in attributes desired and offered by online daters. A profile of Canadian online daters is offered because the current study used a Canadian sample. According to Brym and Lenton (2001), online daters differed significantly from Canadian internet users and the general Canadian population. A comparison between Canadian internet users and the general Canadian population showed that internet users are younger, better educated, more likely to be employed, and have a higher income. When Canadian online daters were compared to internet users who

were not online daters, it was found that online daters are more likely to be male, single, divorced, employed, living in an urban area, and earning a higher income. The age range of 18 to 30 represents 70% of online daters, with fewer online daters as the age increases. There were some differences in which gender used the internet and online dating. More women, by 7%, use the internet than men while 37% more men use online dating services than women. For every female online dater, there are over two male online daters (Brym & Lenton, 2001).

The demographic characteristics of American online daters share some similarity to Canadian online daters. American online daters are younger than American internet users, with the largest percentage (18%) of online daters between the ages of 18 to 29 years old (Madden & Lenhart, 2006). Online daters are also more likely to be employed and to be male when compared to American internet users, similar to Canadian online daters. Online daters earn a lower income and are less educated than American internet users, which differs from Canadian online daters.

Canadian online daters used online dating services primarily to find dates (78%) and to find a long-term relationship (58%) (Brym & Lenton, 2001). The third reason was to find sexual partners (44%), with men (53%) more likely to do so than women (20%). Other reasons included using online dating for curiosity and fun with no intention of ever meeting face-to-face (41%), to casually chat and flirt (36%), and to find a possible marriage partner (31%). Women (40%) were more likely than men (30%) to use online dating services to casually chat and flirt.

The motivations offered for using online dating websites also varied by age (Brym & Lenton, 2001). Those between 18 and 29 differed from those who were 30 and older, reporting more often that their motivations for online dating were to satisfy curiosity and to have fun with no intention of ever meeting face-to-face. Online daters below the age of 29 and over the age of 59 were most likely to look for sexual partners.

Also, interesting to note was that those looking for sexual partners were men, below 25 or

above 59, and married or common-law. Those looking for long-term relationships were single and 30 years or older while online daters looking for a marriage partner were single, widowed or divorced and 30 years of age or older.

Demographic characteristics, such as age, education, and income set Canadian online daters apart from internet users and the general Canadian population. The motivations that Canadian online daters have for using online dating show a range of interactions and relationships being sought. The motivations of online daters also vary in interesting ways according to age and gender.

The Hypotheses and Supporting Research

Hypotheses on Attributes Desired

There was strong support for gender differences in type of attributes desired by paper ad placers, showing that men desired physical attractiveness (Buss, 1994; Steinfirst, & Moran, 1989) and youth (Matthews, 1999) and women desired financial resources (Bereczkei et al., 1997; Pawlowski, & Koziel, 2002; Rusu, & Bencic, 2007; Waynforth & Dunbar, 1995). To a lesser extent, personality characteristics (Hatfield, & Sprecher, 1995; Smith et al., 1990) and lifestyle choices (Badahdah, & Tiemann, 2005) were important in potential partners for women. Gender differences were shown to exist cross-culturally (Buss, 1994; Hatfield & Sprecher, 1995; Linlin, 1993). This leads to the following hypothesis on gender differences in attributes sought: H1: Men will desire physical attractiveness more than women. Women, more than men, will desire resources, commitment, social skills, social attitudes, and interests.

The research showed that attributes differed by type of relationship sought. When seeking a short-term partner, physical attractiveness was desired (Buss, 1994; Kenrick et al., 1990; Stewart et al., 2000) while resources and commitment were more important when it came to an ideal long-term partner (Buss, 1994). Personality characteristics (Hatfield & Sprecher, 1995; e.g. resolute, humour; Linlin, 1993; e.g. understanding; Smith et al., 1990) and lifestyle

choices (e.g. wanting children, marriage; Linlin, 1993) were favoured in a long-term relationship but to a lesser extent. This leads to the following hypothesis on type of relationship and attributes sought:

H2: Physical attractiveness will be desired when seeking an intimate encounter and to date; in general, more attributes, and specifically, resources, commitment, social skills, social attitudes, and interests, will be desired when seeking a relationship.

While gender is hypothesized to have a direct effect on attributes desired, it may also moderate the association between the type of relationship sought and attributes desired. In terms of selectivity, women were found to be more selective than men, seeking more in both the short- and the long-term (Kenrick et al., 1990; Kenrick et al., 1993; Regan, 1998). In the long term, men were almost as selective as women (Kenrick et al., 1990; Kenrick et al., 1993). Theoretical hypotheses five and six of SST also highlight the emphasis that women place on men with resources in all types of relationships (Buss, 1994), leading to the following hypothesis:

H2a: Male ad placers will go from desiring a low to a higher level of attributes when the type of relationship sought goes from an intimate encounter and to date to a relationship, whereas female ad placers will desire a constant high level of attributes regardless of the type of relationship sought.

Hypotheses on Attributes Offered

The existence of gender difference in attributes offered was mixed. There was a gender difference for financial resources with men offering this attribute more than women (Bereczkei et al., 1997; Cameron et al., 1977; Waynforth & Dunbar, 1995). The evidence of a gender difference for physical attractiveness was less definitive. Women offered physical attractiveness (Bereczkei et al., 1997; Dawson, & McIntosh, 2006; Waynforth & Dunbar, 1995) but some research indicated (Gustavsson et al., 2008; Jagger, 1998) no difference among men and women in offering physical attractiveness. Personality characteristics were being offered

but to a lesser degree (Dawson, & McIntosh, 2006), which leads to the next hypothesis on gender differences in attributes offered:

H3: Men will offer resources more than women. Women will offer physical attractiveness, commitment, social skills, social attitudes, and interests, more than men.

The research showed that when seeking a short-term partner, physical attractiveness was offered (Jagger, 1998), while resources (Cameron et al., 1977; Dawson, & Macintosh, 2006) and commitment (Buss, 1994) were offered when seeking a long-term partner. SST theory also states that finding long-term mates with skills and characteristics that exhibit a willingness to commit and be good at parenting is valued (Buss, 1994), leading to this hypothesis on type of relationship and what is offered:

H4: Physical attractiveness will be offered when seeking an intimate encounter and to date; in general more attributes and specifically attributes indicating resources, commitment, social skills, social attitudes, and interests, will be offered when seeking a relationship.

While gender has been hypothesized to have a direct affect on attributes offered, it is speculated to moderate the association between the type of relationship sought on attributes offered. SST proposes that men and women deal with the issue of resources differently (Buss, 1994). The level of resources offered will vary by gender depending on the type of relationship. Women are starting to offer attributes indicating resources (Jagger, 1998) while research has shown that men emphasize resources as what they have to offer (Badahdah & Tiemann, 2005; Bereczkei et al., 1997; Dawson & Macintosh, 2006; Pawlowski & Koziel, 2002; Waynforth & Dunbar, 1995) and offer more resources when they are seeking a long-term mate (Buss, 1994), which leads to this hypothesis:

H4a: Female ad placers will offer a constant level of resources, regardless of the type of relationship sought, whereas male ad placers will offer a low to higher level of resources, when seeking an intimate encounter and to date to a relationship.

Methods

Data Source

Personal advertisements were downloaded from Lavalife.com, a Canadian internet dating web site. The web site allows individuals to seek out people from three different communities, representing three types of relationships: 'intimate encounter,' 'dating,' and 'relationship'. The intimate encounter category focuses on short-term relationships of a sexual nature, the dating category represents casual but ongoing relationships that involve time spent together in various activities, and the relationship category is about pursuing relationships that involve long-term investment, potentially leading to marriage.

There is no way of telling if each advertisement is from a different person as ad placers may have up to three active advertisements simultaneously or even sign up for multiple accounts. Signing up for an account, which is free, entitles a person to have access to all three categories of ads. Only those who opt to pay a fee are provided with information on how to communicate with others in the online dating system.

A screening process and guidelines on amount of content provide some quality control. For example, ad placers' descriptions about themselves ("In your own words . . .") must be between 100 and 2000 characters, and they are told that the information must be submitted for approval before it is posted on the website. An ad is removed if its content is not appropriate for the specific type of relationship. This process helps to ensure that the ads are a source of data that is appropriate and rich in content for scholarly examination.

The advertisements are quite structured but there is variation depending on the type of relationship sought (see Table 1). For all three types of ads, there is an "In my own words..." section, which contains information about what is desired and offered by the ad placer. The dating and relationship ads, unlike the intimate encounter ads, have an "interests" section, in

Table 1

Section Content by Type of Ad

Section	Type of Ad		
	Intimate Encounters	Dating	Relationship
Personal Details	X	X	X
In your own words...	X	X	X
A little to get us started...	X	X	
Have in common...			X
Interests		X	X

Note: For relationship ads, the personal details section also asked about having children, wanting children, education, and income.

which the ad placers check off their interests from a fixed list of hobbies, sports, and other forms of entertainment.

As shown in Table 1, there are sections unique to each type of ad. These sections focus on information that is most relevant to the specific type of relationship. For example, ad placers who are seeking relationships are given the choice to provide information about their level of education, income, and if they have or want to have children. In contrast, ad placers seeking an intimate encounter or a date are not asked to provide this information.

Sampling

Criteria for Sample

To be included in the sampling frame, ad placers had to be between the ages of 18 and 39, single, never married or could be divorced, and live within Vancouver and its surrounding cities. The age range was based on the trends in online dating, internet use, and age at first marriage. A Canadian report noted that the majority (69.2 %) of online daters are between the ages of 18 and 40, with the largest percentage (33.8%) of this group in their 30s (Brym & Lenton, 2001). Statistics Canada (2008) reported that 96% of people between the ages of 16 to 24 used the internet in 2007. People under the age of 35 had the highest rates of internet shopping (Ellison & Clark, 2001) and 74% of people aged 25 to 44 used online banking (Canada Leads, 2008). These trends on online dating and internet use justified setting the lower end of the age range at 18 and the upper end in the thirties.

To determine the upper age limit, trends on marriage and divorce were also considered. The average age at first marriage in Canada, excluding Ontario, was 30.6 years for men and 28.5 years for women in 2003 (Statistics Canada, 2007). Canadians entering their second marriage were 39 years of age on average (Clark & Crompton, 2006; Statistics Canada, 2006).

There is some research to support that those between the age range of 30 to 40 are active online daters and internet users (Brym & Lenton, 2001), with divorcees falling into this

age range. Relevant research using paper ads, comparing the preferences of single, never married daters with divorcees, has found that age has a greater impact on preferences than relationship status (never married versus divorced) (Koziel, & Pawlowski, 2003). These findings support setting the upper age range in the late-thirties to achieve a more homogeneous sample.

A Canadian online study found that the majority (70.3%) of online daters live in large cities and their suburbs (Brym & Lenton, 2001). For this study, the catchment area was 150 miles so that Vancouver, British Columbia and its surrounding cities were included. To do this, the researcher signed on the website as residing in the city of Burnaby, the center of the catchment area (Welcome, 2004). In addition, all ads needed to have demographic information and specific sections filled out to be included in the sample (see Table 2). There was common information required from all three types of ads, as well as information unique to each type of ad

Determining Sample Size

The sample size was determined using two equations from Tabachnick and Fidell (2001), which involve considering the number of independent variables in the study (m). There are eight independent variables, which are gender, age, ethnic background, religion, want/do not want children, education, income, and type of relationship sought. Where m is equal to the number of independent variables, the following equations were used to calculate sample size: 1) $N \geq 50 + 8m$ ($114 = 50 + 64$) and 2) $N \geq 104 + m$ ($112 = 104 + 8$). The larger sample size out of the two equations was used ($N = 114$) and that number was rounded up ($N = 120$) so that each strata would contain an even number of ads.

Selection of the Sample

The sample was selected using a stratified systematic sampling method (Rao, 2000).

Table 2

Information Required by Ad Type to be Included into the Sample

Required Information	Type of Ad		
	Intimate Encounters	Dating	Relationship
Demographic			
Age	X	X	X
Gender	X	X	X
Ethnic Background	X	X	X
Religion	X	X	X
Want/Do not want children			X
Education			X
Income			X
Sections			
"In my own words" section	X	X	X
What turns me on ²	X		
What I am looking for in a partner ²	X		
My friends would describe me as		X	
I value			X

The sample was stratified by gender and by relationship type. Beginning with a random start, every k th ad was selected (the number of ads in each strata divided by the desired sample size equals k). The researcher signed into the web site as a female user to select 20 ads from each relationship category where the k th ad was selected, resulting in 60 ads placed by men.

Gathering ads placed by women involved logging in as a male user and using the same method. Sub-samples consist of 40 ads taken from the 'intimate' encounter category, 40 from the 'dating' category, and 40 from the 'relationship' category with an equal number placed by men ($N = 60$) and women ($N = 60$). The total sample included 120 ads. The ads were downloaded over a period of two days on November 29th and 30th, 2008 during the evening time.

Variable Descriptions

Dependent Variables

Type of attributes desired by the ad placer. This dependent variable consists of six attributes (see Table 3), which have been found in related research using online and print ads (Badahdah & Tiemann, 2005; Pawlowski, & Dunbar, 1999b; Waynforth & Dunbar, 1995) and identified by Sexual Strategies Theory as important in mating preferences and strategies (Buss, 1994). Category one was physical attractiveness, which includes specific terms used for both genders (e.g., "good-looking," "healthy," and "nice body") and terms specific to each gender (e.g., for men, "handsome," "tall," "muscular," ; e.g., for women, "petite," "pretty," "slim"). Category two was resources, both current and future earning potential (e.g., any reference to property ownership, wealth, or professional qualifications). Category three consisted of commitment-related characteristics (e.g., "understanding," "emotionally stable," "dependable"). Social skills made up category four (e.g., "creative," "intelligent," "easy going"). Category five was social attitudes (e.g., any reference to social and political views, religious beliefs, and lifestyle) and category six was interests (e.g., outdoor activities/fitness, sports, entertainment, and hobbies). The last three categories have been found in research (Pawlowski & Dunbar, 1999b)

on the topic of mate preferences, although category five and six were previously combined. For the current study, a separate category was made for interests because the ad placer was offered close to a hundred options to check off. Also, interests and social attitudes are different enough to be separate categories.

Type of attributes offered by the ad placer. The second dependent variable was what the ad placers offered. The coding descriptions were the same as for the attributes desired. When ad placers listed attributes offered then said that they desired the same in a mate, what was offered was recorded as what was desired, and vice versa, which has been done in similar research on personal advertisements (Pawlowski, & Dunbar, 1999b). Counting such cases as desiring zero attributes in a potential mate would bias the information.

Independent Variables

Taken from the “personal details” section of the online ads, the following demographic information was recorded: 1) age, 2) ethnic background (White; Black; Asian; Hispanic/Latino; First Nations; East Indian; Middle Eastern; West Indian; mixed; Pacific Islander; other), 3) religion (New Age; Islamic; Jewish; Catholic; Buddhist; Hindu; non-religious; Anglican; Sikh; Methodist; Christian-other; Baptist; Lutheran; Presbyterian; other), 4) want/do not want children, 5) education (secondary school; CEGEP; vocational/technical; college; university; grad school), and 6) annual income (less than \$25,000; \$25,000 to \$50,000; \$50,000 to \$75,000; \$75,000+). All ads contained the age of the ad placer. If demographic information in a desired partner was mentioned by the ad placer, it was also recorded.

Gender of ad placer. This is a control variable examined for moderator and main effects.

Type of relationship sought by the ad placer. This is another independent variable, which consists of the three relationship categories. The intimate category represents the shortest lasting relationship sought by the ad placer. As of March 21, 2008 when a female ad

placer selected this category on the web site, she saw the caption 'explore your wild side' and saw that 178,534 men had placed advertisements in this category. The second category is called dating, with the caption "flirt shamelessly." As a female ad placer, the web site did not reveal how many male members were in the dating community. This section also contained articles, for example, discussing dating advice. The dating category represents a relationship between an intimate encounter and a long-term relationship. The relationship category represents the longest lasting relationship type sought. When a female ad placer viewed this section, she saw the caption, "looking long-term?" and that 191,331 members were in the category. This category implies commitment and included articles on topics, such as gift giving. When logged in as a male ad placer, the number of women in each relationship category was revealed. There was also prominent advertising that encouraged male ad placers to upgrade to a paying account. The articles seen by male ad placers were the same ones seen by female ad placers.

Coding Instructions

Each advertisement was coded using a checklist (see Appendix A). Demographic information was recorded in two separate "Offered by Ad Placer" and "Desired in a Potential Partner" columns. For the desired age in a partner, in cases where an age range or the phrase, "in the 30s" was mentioned, the midpoint in the range was coded. When the terms used included, "early, mid, or late 20s," the age was coded as 22, 25, and 28, respectively. These decision rules have been used in similar research (Greenlees & McGrew, 1994; Pawlowski & Dunbar, 1999b; Waynforth & Dunbar, 1995) where the effect of age on resources desired and offered was examined. These decisions rules were applied to the desired age in a partner and not necessary for the age of the ad placer because the web site required its users to give their age. For the age of ad placer, in a few cases there was conflicting information, such as two different ages given. In these cases, the older age was recorded.

With a similar structure to the demographic information section, there are two more similarly labelled columns in the checklist used to check off attributes desired in a potential partner and offered by the ad placer with a column in between containing the six categories and a list of terms for each category. During coding, if a word synonymous to a listed word was encountered, the coder added the word in the "other" section.

Two different persons, the author and a second coder coded the ads. The second coder was trained with a small number of personal advertisements, not included in the final sample. Once the principal coder and the second coder had a consistent understanding of the code categories, the second coder coded 10% of the actual sample of advertisements.

Reliability of Coding

Intra-class correlation (ICC) was used to measure inter-rater reliability because the data are continuous, and this correlation takes into account that the two raters' scores could be highly correlated, but show limited agreement (Shrout & Fleiss, 1979). Pearson correlation, another estimate of inter-rater reliability for continuous data, is also reported for comparison. It does not take into account that there might be limited inter-rater agreement even though the correlation is high. The overall reliability for attributes offered was high (ICC = .994; Pearson's $r = .995$). The main and second coder met and discussed each situation where there was a disagreement on the coding, and the agreed upon code was used. Three categories for attributes offered (physical attractiveness, social skills, and social attitudes) showed some lack of agreement between coders: some terms were not counted for physical attractiveness, a new term was added to the list of social skills, and two items (smoking and drinking which were listed in another part of the advertisement) were overlooked and not always included. Subsequently, each of the ads in the study was recoded for these three changes. There were some synonymous terms that were encountered and considered to possibly fit with an attribute category but not retained. For example, "authoritative" was considered but not included for the social skills category.

The overall reliabilities for coding the attributes desired by the ad placer were moderate but acceptable (ICC = 0.731; Pearson's $r = 0.840$). The difference in agreement between the coders was in the category of "intimate encounters", specifically in recording the ad placer's sexually-related interests. The decision was to interpret the section "Interested in" as what the ad placer desires as well as offers, rather than just offers, as had been done in the initial coding. Consequently, the ads in the category of 'intimate encounters' were recoded reflecting this decision.

To assess the main coder's consistency in coding, a sample of 30 ads was drawn from the previously coded sample and these were coded again. Within coder reliability was high (both ICC and Pearson's r were 1.0 for the attributes offered and 0.99 for attributes desired).

Results

Demographic Characteristics by Type of Relationship and Gender

Based on chi square analysis for categorical and t-test for continuous variables, there were no significant differences in demographic characteristics either by type of relationship (see Table 3) or by gender (data not shown). The majority of this sample of ad placers is Caucasian (81.7%). The remaining, in the "other" category (18.3%), in order of frequency are: Asian (7.5%), mixed ethnicity (4.2%), unspecified (3.3%), East Indian (1.7%), First Nations (0.8%), and Hispanic/Latino (0.8%). The majority of ad placers (61.7%) were non-religious. The next largest category (22.5%) was non-Christian religions, consisting of Buddhist (1.7%), Jewish (1.7%), Sikh (0.8%) or non-specified (18.3%). The age range for inclusion of ad placers was 18 to 39 years old. The mean age was 30.8 years for women and 31.2 for men. Information on education, desire for children, and income were available only for the relationship category: ad placers seeking relationships wanted children, were university educated, and were distributed across the three income categories.

Analysis Description for H1 to H4

To test H1 and H3, differences in the amount of attributes desired and offered between male and female ad placers were analyzed using t-tests. For H2 and H4, one-way analysis of variance was conducted to determine whether the mean scores for the attributes desired and offered differed among the three types of relationship sought (intimate encounter, dating, and relationship). Post-hoc comparisons were made using Tukey's HSD test with p set at .05. Tukey's HSD test was used because it is commonly employed to compare the means of equal sample sizes (Jones, 2008) and is a conservative test that is sensitive to pair-wise comparisons (Hinton, 2004); both of these criteria apply in the current study.

Table 3

Characteristics of Sample: Summary of Demographic Variables by Type of Relationship

Demographic Variables	Type of Relationship			
	Intimate Encounters <i>n</i> = 40	Dating <i>n</i> = 40	Relationship <i>n</i> = 40	Total <i>n</i> = 120
Age (<i>M, SD</i>)	30.85 (5.05)	29.90 (5.15)	32.25 (4.48)	31.00 (4.96)
Ethnicity (%)				
Caucasian	82.5	90.0	72.5	81.7
Other	17.5	10.0	27.5	18.3
Religion (%)				
Non-religious	60.0	67.5	57.5	61.7
Christian	10.0	20.0	17.5	15.8
Other	30.0	12.5	25.0	22.5
Wants Children ^a (%)	n/a	n/a	57.5	n/a
Education ^a (%)				
Some post-secondary or less	n/a	n/a	40.0	n/a
University degree and beyond	n/a	n/a	60.0	n/a
Income ^a (%)				
Less than \$50 000	n/a	n/a	30.0	n/a
\$50 000 to 75 000	n/a	n/a	37.5	n/a
More than \$75 000	n/a	n/a	32.5	n/a

^aInformation for these variables was available only for the relationship category.

H1 and H3: Attributes Desired and Offered by Gender

H1 stated that men will seek physical attractiveness more than women; women will seek resources, commitment, social skills, social attitudes, and interests more than men. Based on analysis using independent t-tests, this hypothesis was not supported as there were no gender differences in the amount of attributes desired. H3 stated that men will offer more resources than women; women will offer a greater amount of physical attractiveness, commitment, social skills, social attitudes, and interests than men. There were no differences by gender in the amount of these attributes offered.

H2: Attributes Desired by Type of Relationship

H2 is concerned with the relationship between type of relationship sought (intimate encounter, dating, and relationship) and attributes desired (physical attractiveness, resources, commitment, social skills, social attitudes, and interests). It was hypothesized that greater physical attractiveness would be sought when seeking an intimate encounter and to date; in general, more resources, commitment, social skills, social attitudes, and interests will be sought when seeking a relationship.

Five out of seven categories of attributes desired were significant: commitment, social skills, social attitudes, interests, and total attributes desired (see Table 4). The analyses were not significant for physical attractiveness, $F(2, 117) = 1.06, p > .05$, and resources $F(2, 117) = 2.02, p > .05$.

Attribute desired: Commitment. The amount of commitment desired differed by the type of relationship, $F(2, 117) = 6.73, p < .01$. Ad placers in the relationship category ($M = 1.53$) desired significantly more commitment than those in the intimate encounter ($M = 0.55$) and dating ($M = 0.73$) categories (see Table 4). The intimate encounter category was not significantly different from the dating category.

Table 4

Means of Attributes Desired by Type of Relationship Sought

Attributes Desired	Type of Relationship								
	Intimate Encounter <i>n</i> = 40			Dating <i>n</i> = 40			Relationship <i>n</i> = 40		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
Physical Attractiveness	0.43	0.71	0-3	0.23	0.68	0-3	0.53	0.91	0-4
Resources	0.03	0.16	0-1	0.08	0.27	0-1	0.18	0.50	0-2
Commitment	0.55 _a	0.99	0-5	0.73 _b	1.04	0-4	1.53 _{ab}	1.66	0-6
Social Skills	0.90 _c	1.17	0-6	0.93 _d	1.23	0-4	1.93 _{cd}	1.51	0-8
Social Attitudes	0.50	0.72	0-3	0.25 _e	0.54	0-2	0.78 _e	1.03	0-4
Interests	7.50 _{fg}	3.00	2-17	0.83 _g	2.40	0-13	1.43 _f	2.40	0-9
Total Desired	9.90 _h	3.02	5-17	3.08 _h	3.93	0-15	6.35 _h	3.43	1-14

Note: Means with the same subscript differ significantly at $p < .05$, except commitment_a and social skills_d at $p < .01$, and interests_g and total desired_h at $p < .001$.

Attribute desired: Social skills. The amount of social skills desired differed by type of relationship, $F(2, 117) = 7.95, p < .01$. Ad placers in the relationship category ($M = 1.93$) desired significantly more social skills than those in the intimate encounter ($M = 0.90$) and dating ($M = 0.93$) categories (see Table 4). The intimate encounter category was not significantly different from the dating category.

Attribute desired: Social attitudes. The number of social attitudes desired differed by type of relationship, $F(2, 117) = 4.45, p < .05$. Ad placers in the relationship category ($M = 0.78$) desired significantly more indicators of social attitudes than the dating category ($M = 0.25$) (see Table 4). The intimate encounter category ($M = 0.50$) was not significantly different from either the dating or the relationship category.

Attribute desired: Interests. The number of interests sought differed by type of relationship, $F(2, 117) = 80.42, p < .001$. Ad placers in the intimate encounter ($M = 7.50$) category desired more interests from their potential partner than those in the dating ($M = 0.83$) and relationship ($M = 1.43$) categories (see Table 4). There were no significant differences in the number of interests desired between the dating and relationship categories.

Total attributes desired. The number of total attributes desired, which is a composite of all attributes desired, differed by type of relationship, $F(2, 117) = 38.47, p < .001$. All comparisons were significant (see Table 4). Ad placers in the intimate encounter ($M = 9.90$) category desired more attributes than those in the dating ($M = 3.08$) and relationship ($M = 6.35$) categories. Ad placers in the relationship category desired more attributes than those in the dating category.

H4: Attributes Offered By Type of Relationship

H4 speculates on the relationship between the type of relationship sought (intimate encounter, dating, and relationship) and the amount of attributes offered. H4 stated that physical attractiveness will be offered when seeking an intimate encounter and to date; in general,

more resources, commitment, social skills, social attitudes, and interests will be offered when seeking a relationship. Based on one-way ANOVA calculations, the analyses for the attributes of physical attractiveness, $F(2, 117) = 0.24, p > .05$, and social attitudes, $F(2, 117) = 3.06, p > .05$, were not significant (see Table 5). The remaining four categories of attributes and the total amount of attributes offered were significant.

Attribute offered: Resources. The number of resources differed by the type of relationship, $F(2, 117) = 39.45, p < .001$. Ad placers in the relationship category ($M = 1.73$) offered significantly more resources than those in the intimate encounter ($M = 0.25$) and dating ($M = 0.58$) categories (see Table 5). The intimate encounter category was not significantly different from the dating category.

Attribute offered: Commitment. The amount of commitment offered differed by the type of relationship, $F(2, 117) = 15.17, p < .001$. Ad placers in the relationship ($M = 2.20$) and the dating categories ($M = 1.70$) desired significantly more commitment than those in the intimate encounter ($M = 0.30$) category (see Table 5). The relationship category was not significantly different from the dating category.

Attribute offered: Social skills. The amount of social skills offered differed by type of relationship, $F(2, 117) = 18.76, p < .001$. All comparisons were significant (see Table 5). Ad placers offered more social skills when seeking a relationship ($M = 2.53$) than seeking a date ($M = 1.73$) or an intimate encounter ($M = 0.68$). Ad placers offered more social skills in the dating than the intimate encounter category.

Attribute offered: Interests. The number of interests offered differed by type of relationship, $F(2, 117) = 42.94, p < .001$. Ad placers offered a greater number of interests when seeking a relationship ($M = 30.50$) than when seeking a date ($M = 20.30$) or an intimate encounter ($M = 7.78$) (see Table 5). Ad placers in the dating category offered a greater number of interests than those in the intimate encounter category.

Table 5

Means of Attributes Offered by Type of Relationship Sought

Attributes Offered	Type of Relationship								
	Intimate Encounter <i>n</i> = 40			Dating <i>n</i> = 40			Relationship <i>n</i> = 40		
	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range	<i>M</i>	<i>SD</i>	Range
Physical Attractiveness	1.00	0.96	0-3	0.88	0.94	0-4	1.00	0.88	0-3
Resources	0.25 _a	0.63	0-3	0.58 _b	0.64	0-2	1.73 _{ab}	1.01	0-4
Commitment	0.30 _{cd}	0.91	0-4	1.70 _c	1.11	0-5	2.20 _d	2.37	0-10
Social Skills	0.68 _e	1.27	0-7	1.73 _e	1.20	0-5	2.53 _e	1.57	0-7
Social Attitudes	2.20	0.69	0-5	2.35	0.86	1-6	2.68	1.05	0-6
Interests	7.78 _f	2.93	2-16	20.30 _f	12.67	0-44	30.50 _f	13.89	0-71
Total Offered	12.20 _g	4.39	5-30	27.53 _g	12.84	5-55	40.63 _g	15.29	11-83

Note: Means with the same subscript differ significantly at $p < .001$, except social skills and overall mentioned at $p < .05$.

Total attributes offered. The number of total attributes offered differed by type of relationship, $F(2, 117) = 58.14, p < .001$. Ad placers offered significantly more attributes when seeking a relationship ($M = 40.63$) than a date ($M = 27.53$) or an intimate encounter ($M = 12.20$) (see Table 5). Ad placers also offered significantly more attributes when seeking a date than an intimate encounter.

Analysis Description for H2a and H4a

Hierarchical and logistic regression analyses were conducted for H2a and H4a, which proposed that gender moderated the relationship between attributes and the type of relationship sought. Logistic regression was used for the outcome variables with skewed distributions indicating that the assumptions of normality and homoscedasticity would not be met for hierarchical regression analysis. These variables were recoded into dichotomous variables for logistic regression analysis (see Appendix B). The remaining continuous dependent variables were analyzed using hierarchical regression. A regression analysis was not done for the outcome variable, resources desired, because the majority of the sample (92.5%) did not mention desiring resources. Cross-tabulations showed that individual cells had fewer than acceptable cases or zero cases in some cells, resulting in a lack of data for analysis.

Separate regressions were run for each type of attribute desired and offered. For all regression models, the following three blocks were entered: 1) age, as a control variable, 2) gender (female = 0, male = 1) and type of relationship, with the latter consisting of two dummy variables (intimate encounter = 1, dating = 2) with the omitted category being relationship, and 3) two interaction terms, involving the variables, type of relationship and gender (intimate encounter by gender and dating by gender). For H2a, it is proposed that male ad placers will go from seeking a low to a higher level of attributes when the type of relationship sought goes from an intimate encounter and to date to seeking a relationship whereas female ad placers will seek a constant high level of attributes regardless of type of relationship sought. It is speculated for

H4a that female ad placers will offer a constant level of resources regardless of the type of relationship sought, whereas male ad placers will offer a low to higher level of resources when seeking an intimate encounter and a date, which are comparable, short-term durations when compared to a relationship. This analysis also provides an assessment of the relative contribution of each independent variable when all of the selected demographic variables are included.

Logistic Regression Analysis: Interpreting the Results

The logistic regression results will be interpreted using the odds ratio, e^B . A significant odds ratio with a value below 1 means that the independent variable decreases the odds of the dependent variable, whereas an odds ratio of greater than 1 means that the independent variable increases the odds (Crosnoe, Mistry, Elder, 2002). The odds ratio can be calculated by exponentiating the B coefficient. The coefficient itself is not used because it is in log-odds units, which can lead to an awkward interpretation. Thus, the odds ratio is preferred, representing the odds of Y , for every unit increase in X , net of other predictors in the model (DeMaris, 1995). For dummy coefficients, a unit difference in X is the difference between membership in category X and membership in the omitted reference category.

H2a: Attributes Desired Using Logistic Regression

Attributes desired: Physical attractiveness. The type of relationship sought was not a significant predictor of physical attractiveness desired. Also, gender did not moderate the relationship (see Table 6).

Attributes desired: Commitment. The type of relationship sought was a significant predictor of commitment (see Table 6). For ad placers seeking an intimate encounter versus a relationship, the odds of desiring commitment are decreased by $e(-1.43) = 0.24$. Alternatively, this result can be expressed as the percentage in the odds for each unit increase in X with the equation, $100(e^B - 1)$. When this result is expressed as a percentage change, for ad placers

Table 6

Logistic Regression: Main Effect and Interaction Models for Physical Attractiveness and Commitment Desired (N=120)

Predictor	Physical Attractiveness						Commitment					
	Main Model			Interaction Model			Main Model			Interaction Model		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
Age	-0.05	0.04	0.95	-0.05	0.04	0.95	0.04	0.04	1.04	0.04	0.04	1.04
Gender												
Female	0.07	0.42	1.07	0.75	0.70	1.18	0.39	0.39	1.47	0.44	0.70	1.56
Type of relationship												
Intimate	-0.07	0.49	0.93	0.47	0.70	0.45	-1.43**	0.48	0.24	-1.24	0.67	0.29
Dating	-0.94	0.55	0.39	-0.37	0.77	0.24	-1.07*	0.48	0.34	-1.19	0.67	0.31
Type of relationship x gender												
Intimate x gender				-1.07	0.98	1.18				-0.39	0.97	0.68
Dating x gender				-1.16	1.10	1.12				0.21	0.96	1.24
Constant	0.76			0.62			-0.68			-0.69		
χ^2	4.41			6.01			13.15*			13.58*		
<i>df</i>	4			6			4			6		
% desired				27.5						49.2		

Note: % desired = percentage of ad placers desiring the attribute. e^B = exponentiated *B*. Gender is coded with male as the reference category. Type of relationship is dummy coded with relationship as the reference category.

* $p < .05$. ** $p < .01$. *** $p < .001$.

seeking an intimate encounter versus a relationship, the odds of desiring commitment are changed by $100(e^{-1.43} - 1) = -76.1\%$ or reduced by 76.1%. Therefore, ad placers seeking an intimate encounter are significantly less likely to desire commitment.

For ad placers seeking to date versus having a relationship, the odds of desiring commitment are decreased by 0.34; expressed as a percentage change, for ad placers seeking to date versus a relationship, the odds of desiring commitment are reduced by 65.7%. Therefore, ad placers seeking to date are significantly less likely to desire commitment. The interaction model was significant but gender was not a significant moderator variable. In the interaction model, the effect of type of relationship sought disappeared.

Attributes desired: Social skills. The type of relationship sought was a significant predictor (see Table 7). For ad placers seeking an intimate encounter versus a relationship, the odds of desiring social skills is decreased by 0.15; expressed as a percentage change, the odds of desiring social skills are reduced by 85.2%. Therefore, ad placers seeking an intimate encounter are significantly less likely than those seeking a relationship to desire social skills in a partner.

For ad placers seeking to date versus a relationship, the odds of desiring social skills is decreased by 0.10; expressed as a percentage change, the odds of desiring social skills is reduced by 90.0%. Therefore, ad placers seeking to date are significantly less likely than those seeking a relationship to desire social skills. The interaction model was significant. However, gender was not found to play a significant moderating role.

Attributes desired: Social attitudes. The type of relationship sought was a significant predictor of social attitudes desired, and the main effect model was significant (see Table 7). For ad placers seeking to date versus a relationship, the odds of desiring social attitude attributes is decreased by 0.25; expressed as a percentage change, the odds of desiring social skills is reduced by 74.8%. Ad placers seeking to date are significantly less likely than those seeking a

Table 7

Logistic Regression: Main Effect and Interaction Models for Social Skills and Social Attitudes Desired (N=120)

Predictor	Social Skills						Social Attitudes					
	Main Model			Interaction Model			Main Model			Interaction Model		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
Age	0.01	0.04	1.01	0.01	0.04	1.01	0.01	0.04	1.01	0.01	0.04	1.01
Gender												
Female	0.52	0.42	1.69	1.20	1.20	3.33	0.47	0.40	1.60	0.39	0.64	1.48
Type of relationship												
Intimate	-1.91**	0.62	0.15	-1.53*	0.77	0.22	-0.40	0.46	0.67	-0.20	0.64	0.82
Dating	-2.31***	0.63	0.10	-2.13**	0.78	0.12	-1.38**	0.52	0.25	-1.98*	0.87	0.14
Type of relationship x gender												
Intimate x gender				-0.99	1.37	0.37				-0.38	0.91	0.68
Dating x gender				-0.59	1.36	0.55				0.97	1.10	2.63
Constant	1.70			1.55			-0.56			-0.51		
χ^2		21.07***			21.67**			9.84*			11.45	
<i>df</i>		4			6			4			6	
% desired					65.0						36.7	

Note: % desired = percentage of ad placers desiring the attribute. e^B = exponentiated *B*. Gender is coded with male as the reference category. Type of relationship is dummy coded with relationship as the reference category.

* $p < .05$. ** $p < .01$. *** $p < .001$.

relationship to desire social skills. Gender was not found to moderate this relationship.

H2a: Attributes Desired Using Hierarchical Regression

Attributes desired: Interests. The type of relationship sought significantly predicted the number of interests; the main effect model was significant (see Table 8). Ad placers seeking an intimate encounter identified a greater number of interests desired than those seeking a relationship. Age, gender, and the type of relationship sought accounted for 58% of the variance in the number of interests desired, $F(4, 115) = 40.01, p < .001$. However, gender did not moderate the relationship between number of interests desired and the type of relationship sought.

Total attributes desired. As shown in Table 8, ad placers seeking an intimate encounter desired more total attributes in a partner than those seeking a relationship. On the other hand, ad placers seeking to date desired fewer total attributes in a partner than those seeking a relationship. Age, gender, and the type of relationship sought accounted for 40% of the variance in attributes desired, $F(4, 115) = 19.01, p < .001$. The interaction model was not significant, indicating that gender was not a moderator for this relationship.

H4a: Attributes Offered Using Logistic Regression

Attributes offered: Physical attractiveness. The type of relationship sought was not a significant predictor of physical attractiveness desired. Also, gender did not moderate the relationship (see Table 9).

Attributes offered: Resources. The type of relationship sought was a significant predictor of resources. The main effect and interaction models were significant (see Table 9). For ad placers seeking an intimate encounter versus a relationship, the odds of offering resources is decreased by .07. When this result is expressed as a percentage change for ad placers seeking an intimate encounter versus a relationship, the odds of offering resources are reduced by 93.3%. Therefore, ad placers seeking an intimate encounter are significantly less likely to

Table 8

Hierarchical Regression: Main Effect and Interaction Models for Interests and Total Attributes Desired (N = 120)

Variable	Interests						Total Desired					
	Main Model			Interaction Model			Main Model			Interaction Model		
	B	SE B	β	B	SE B	β	B	SE B	β	B	SE B	β
Age	0.02	0.05	0.02	0.02	0.05	0.02	0.03	0.07	0.03	0.03	.07	0.03
Gender												
Female	0.39	0.48	0.05	0.27	0.84	0.03	0.14	0.64	0.02	-0.07	1.12	-0.01
Type of relationship												
Intimate	6.10	0.59	0.73***	6.04	0.85	0.72***	3.59	0.80	0.38***	3.17	1.13	0.34**
Dating	-0.56	0.60	-0.07	-0.70	0.85	-0.08	-3.21	0.80	-0.34**	-3.11	1.14	-0.33**
Type of relationship x gender												
Intimate x gender				0.11	1.19	0.01				0.84	1.59	0.07
Dating x gender				0.27	1.18	0.03				0.20	1.58	0.01
R ²		.58			.58			.40			.40	
F for change in R ²		53.32***		0.03				24.95***			0.24	

Note: Type of relationship is dummy coded with relationship as the reference category.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 9

Logistic Regression: Main Effect and Interaction Models for Physical Attractiveness and Resources Offered

Predictor	Physical Attractiveness						Resources					
	Main Effect Model			Interaction Model			Main Effect Model			Interaction Model		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
Age	0.02	0.04	1.02	0.02	0.04	1.02	-0.08	0.05	0.93	-0.10	0.05	0.91
Gender												
Female	-0.59	0.39	0.56	0.21	0.68	1.23	0.27	0.46	1.31	1.34	1.21	3.81
Type of relationship												
Intimate	0.04	0.49	1.04	0.49	0.70	1.62	-3.95***	0.70	0.02	-2.70**	0.81	0.07
Dating	-0.27	0.48	0.76	0.51	0.70	1.66	-2.42***	0.64	0.09	-2.59**	0.81	0.08
Type of relationship x gender												
Intimate x gender				-0.88	0.97	0.42				-3.66*	1.69	0.03
Dating x gender				-1.50	0.97	0.22				-0.10	1.39	0.91
Constant	0.27			0.01			4.51			4.90		
χ^2	3.39			5.85				50.46***			60.54***	
<i>df</i>	4			6				4			6	
% offered				65.0							52.5	

Note: % offered = percentage of ad placers desiring the attribute. e^B = exponentiated *B*. Gender is coded with male as the reference category. Type of relationship is dummy coded with relationship as the reference category.

* $p < .05$. ** $p < .01$. *** $p < .001$.

offer resources.

For ad placers seeking to date versus a relationship, the odds of offering financial resources is decreased by .08 (see Table 9). When this result is expressed as a percentage change, the odds of offering resources are reduced by 92.5%. Therefore, ad placers seeking to date are significantly less likely than those seeking a relationship to offer resources.

There was an interaction of gender for the intimate encounter relationship (see Table 9). To further examine this interaction, the data file was sorted by gender, and separate regressions were run: one with male ad placers and the other with female ad placers. Resources offered were regressed on type of relationship sought. Type of relationship (intimate encounter vs. relationship) was a significant predictor in both regressions. For female ad placers seeking an intimate encounter versus a relationship, the odds of offering resources is decreased by .001 ($B = -6.64, p < .001$). For male ad placers seeking an intimate encounter versus a relationship, the odds of offering resources is decreased by .02 ($B = -3.95, p < .001$). These results indicate that both men and women are less likely to offer resources when seeking an intimate encounter versus a relationship. The odds for men and women differ, with the odds for the women being lower. The significant interaction shows this difference, indicating that among female ad placers seeking an intimate encounter, the odds of offering resources is decreased by $e(-3.66) = .03$. Women compared to men looking for an intimate encounter versus a relationship are especially unlikely to offer resources.

Attributes offered: Commitment. The type of relationship sought was a significant predictor of commitment. The main effect model was significant (see Table 10). For ad placers seeking an intimate encounter versus a relationship, the odds of offering commitment is decreased by .06. When this result is expressed as a percentage change, for ad placers seeking an intimate encounter versus a relationship, the odds of offering commitment are reduced by 94.2%. Therefore, ad placers seeking an intimate encounter are significantly less likely to offer

Table 10

Logistic Regression: Main Effect and Interaction Models for Commitment and Social Skills Offered

Predictor	Commitment						Social Skills					
	Main Effect Model			Interaction Model			Main Effect Model			Interaction Model		
	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B	<i>B</i>	<i>SE B</i>	e^B
Age	0.12*	0.05	1.12	0.12*	0.06	1.13	0.06	0.05	1.06	0.05	0.05	1.06
Gender												
Female	-0.10	0.50	0.90	-0.68	0.77	0.51	-0.44	0.50	0.64	1.89	8.94	6.62
Type of relationship												
Intimate	-2.85***	0.60	0.06	-3.26***	0.87	0.04	-3.33***	0.80	0.04	-2.41**	0.87	0.09
Dating	1.18	0.64	3.26	0.55	0.86	1.73	-1.07	0.86	0.34	0.83	1.27	2.30
Type of relationship x gender												
Intimate x gender			0.76		1.19	2.15				-1.97	1.25	0.14
Dating x gender			1.32		1.27	3.75				-1.31	1.01	0.27
Constant	-2.49			-2.42			1.30			0.49		
χ^2		58.23***			59.41***			37.99***			37.10***	
<i>df</i>		4			6			4			6	
% offered					59.2						46.7	

Note: % offered = percentage of ad placers desiring the attribute. e^B = exponentiated *B*. Gender is coded with male as the reference category. Type of relationship is dummy coded with relationship as the reference category. The dependent variable, social skills, is dichotomously coded as offering social skills more than once being the predicted category and offering social skills one time or less being the reference category.

* $p < .05$. ** $p < .01$. *** $p < .001$.

commitment. The interaction model was significant but gender was not a significant moderator variable.

Attributes offered: Social skills. The measure for social skills was split at the median: the predicted category represents offering social skills *more than once*, and the reference category represents offering social skills *one time or less*. The categories were split at the median to solve the problem of low cell frequencies. When this action is not taken, the result is an unstable logistic model with implausibly large *B* coefficients and odds ratios for the independent variables (Garson, 2009).

The type of relationship sought was a significant predictor for social skills and the main effect model was significant (see Table 10). For ad placers seeking an intimate encounter versus a relationship, the odds of offering social skills more than once is decreased by .04; expressed as a percentage change, the odds of offering social skills more than once are reduced by 96.4%. Therefore, ad placers seeking an intimate encounter are significantly less likely to offer social skills more than once. The interaction model was significant but gender was not found to play a significant moderating role.

H4a: Attributes Offered Using Hierarchical Regression

Attributes offered: Social attitudes. The main effect model was not significant (see Table 11). Ad placers seeking an intimate encounter offered significantly fewer social attitudes than those seeking a relationship. The interaction model was not significant, indicating that gender was not a moderator for this relationship.

Attributes offered: Interests. The type of relationship sought was a significant predictor and the main effect model was significant (see Table 11). Ad placers seeking an intimate encounter and to date identified fewer interests than those seeking a relationship. Age, gender, and the type of relationship sought accounted for 43% of the variance in interests offered

Table 11

Hierarchical Regression: Main Effect and Interaction Models for Social Attitudes and Interests Offered (N = 120)

Variable	Social Attitudes						Interests					
	Main Model			Interaction Model			Main Model			Interaction Model		
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Age	-0.02	0.02	-0.11	0.02	-0.02	0.02	0.16	0.21	0.06	0.17	0.21	0.06
Gender												
Female	0.06	0.16	-0.03	0.28	-0.27	0.28	-1.41	2.02	-0.05	-0.03	3.51	-0.00
Type of relationship												
Intimate	-0.50	0.20	-0.27*	0.28	-0.81	0.28	-22.50	2.48	-0.74***	-22.33	3.55	-0.74***
Dating	-0.37	0.20	-0.20	0.28	-0.57	0.28	-9.83	2.52	-0.32***	-7.91	3.57	-0.26*
Type of relationship x gender												
Intimate x gender				0.60	0.40	0.25				-0.33	4.99	-0.01
Dating x gender				0.39	0.39	0.16				-3.80	4.98	-0.10
R ²		.06			.08			.43			.43	
F for change in R ²		2.32		1.19				27.76***			0.36	

Note: Type of relationship is dummy coded with relationship as the reference category.

* $p < .05$. ** $p < .01$. *** $p < .001$.

$F(4, 115) = 21.55, p < .001$). The interaction model was not significant indicating that gender was not a moderator of this relationship.

Total attributes offered. The type of relationship sought was a significant predictor and the main effect model was significant (see Table 12). Ad placers seeking an intimate encounter and to date offered significantly fewer attributes than those ad placers seeking a relationship. Age, gender, and the type of relationship sought accounted for 51% of the variance in attributes offered, $F(4, 115) = 29.51, p < .001$. The interaction model was not significant, indicating that gender was not a moderator for this relationship.

Table 12

Hierarchical Regression: Main Effect and Interaction Models for Total Attributes Offered (N = 120)

Variable	Total Offered					
	Main Model			Interaction Model		
	B	SE B	β	B	SE B	β
Age	0.26	0.22	0.08	0.25	0.23	0.08
Gender						
Female	-1.66	2.16	-0.05	-2.30	3.76	-0.07
Type of relationship						
Intimate	-28.06	2.66	-0.80***	-29.72	3.80	-0.85***
Dating	-12.49	2.70	-0.36***	-11.84	3.82	-0.34**
Type of relationship x gender						
Intimate x gender				3.28	5.33	0.07
Dating x gender				-1.35	5.32	-0.03
R ²		.51			.51	
F for change in R ²		37.61***			0.00	

Note: Type of relationship is dummy coded with relationship as the reference category.

* $p < .05$. ** $p < .01$. *** $p < .001$.

Discussion

The current study explored how gender and type of relationship sought relate to attributes desired and offered by online ad placers. Hypotheses were formulated using Sexual Strategies Theory (Buss, 1994) and research on mating preferences. The results are considered in the context of this theory, along with alternative explanations.

Gender and Attributes Desired and Offered

The results did not support H1, that men will seek physical attractiveness more than women, while women, more than men, will seek resources, commitment, social skills, social attitudes, and interests. Also, results did not support H3, that men will offer resources more than women, while women, more than men, will offer physical attractiveness, commitment, social skills, social attitudes, and interests. The data indicate that there are no differences by gender for attributes desired and offered, contrary to existing research (Buss, 1994; Dawson & Macintosh, 2006; Hatfield & Sprecher, 1995; Pawlowski & Koziel, 2002; Steinfirst & Moran, 1989).

The lack of gender differences, particularly for physical attractiveness desired and offered, was identified as due to modesty for a sample of Muslim ad placers who identified religion as what they desired and offered in seeking a relationship (Badahdah & Tiemann (2005). Women, more than men, desired and offered a religious mate. Muslims follow Islamic teachings which emphasize modesty when it comes to displaying and seeking beauty. However, religion as an explanation may not apply to the current study because a large majority of online ad placers reported being non-religious. A study using both paper and online ads in Sweden also yielded no gender differences in physical attractiveness desired and offered by the ad placers (Gustavsson, Johnsson, & Uller, 2008). Social factors that vary across cultural contexts were offered as a possible explanation. For example, the amount of exposure to physically attractive people in the media depends on societal values and practices of each society (Hetsroni, 2000).

Similarly, the lack of gender difference for resources may suggest societal factors at work. For example, greater gender equality within a society means that women possess and control resources, which may lead them to emphasize less the importance of finding a partner with resources. Alternatively, women seek physical attractiveness because they have the resources to care for themselves and offspring (Moore, Cassidy, Smith, & Perrett, 2005). In response, men are aware of these changes and are offering physical attractiveness and other attributes more than in the past (Gustavsson, 2008).

Another perspective, proposed by Jagger (1998), suggests that men and women are moving away from traditional sex roles or at least extending the meanings of masculinity and femininity. As a result, a softer, nurturing, and more emotional type of man has appeared (Mort, 1996) in ad descriptions. In turn, women are describing themselves as career-oriented and active individuals (McRobbie, 1994).

The other attributes of commitment, social skills, social attitudes, and interests, have not been examined as thoroughly in research, with the exception of commitment. The lack of gender differences for these and the previously discussed attributes may be closely linked with age, since the age range of 18 to 39 was selected for the current study. Waynforth and Dunbar (1995) found that men sought the most attributes during their forties but were steady in their demand for attributes in the years before and after their forties. Women were most demanding during their twenties and thirties but the number of attributes desired and offered declined after their thirties, with the exception of commitment. Due to the age range selected, ads by ad placers in their forties were not sampled, which is where gender differences may have appeared.

The lack of gender differences is contrary to Sexual Strategies Theory (SST) (Buss, 1994). SST is based on the theory of parental investment and sexual selection which puts forth that gender differences exist in mate preferences (Trivers, 1972). Gender differences are due to the varying level of parental investment required of each gender in producing offspring with women

investing more than men. The findings question the view that men and women assume very different roles when faced with a mating situation, as proposed by the evolutionary perspective. Perhaps, cultural and social factors are eroding these once firm roles. It may be that gender differences are flexible, shifting, or persisting. It is beyond the scope of this study to determine what exactly is occurring although there appears to be some elasticity in gender differences among mate preferences.

Type of Relationship and Attributes Desired and Offered

H2 was partially supported: those seeking a relationship desired more commitment, social skills, and social attitudes; however, those seeking a relationship did not desire more physical attractiveness, resources, interests, and total attributes as was hypothesized. H4 was partially supported: those seeking a relationship offered more resources, commitment, social skills, interests, and total attributes; however, those seeking a relationship did not offer more physical attractiveness and social attitudes. The findings regarding commitment and resources support Sexual Strategies Theory (Buss, 1994). Commitment is important to both men and women in a long-term context. Mention of resources is also prevalent in a long-term context.

Physical attractiveness was not desired more in a short-term than a long-term partner, as had been hypothesized. This finding does not fit SST or research that found physical attractiveness to be important when considering a short-term partner (Buss, 1994). A possible reason may be that participants are choosing to pay less attention to physical attractiveness because one can easily misrepresent themselves. This is a common criticism aimed at paper ads (Waynforth & Dunbar, 1995), which can be applied to online ads (Brym & Lenton, 2001).

The findings that social skills and social attitudes were more highly valued when seeking a relationship of longer than shorter duration is consistent with previous research (Kenrick et al., 1990; Kenrick et al., 1993; Regan, 1998). In these studies physical attractiveness and resources were still rated more highly than social skills and social attitudes which is the reverse in the

current study. The social skills category aids in getting along with a partner and keeping a partner entertained while the social attitudes category is about sharing one's lifestyle. Both would be useful at the start of and for maintaining relationships but most likely more useful for maintaining a long-term relationship. The current findings indicate that attributes linked to behaviour may be growing in value in the long-term to ad placers.

Social skills and social attitudes are not addressed in SST. It is likely that offering and seeking these attributes are of value in the long-term to both genders. For example, SST identifies that both genders seek a mate with good parenting skills which ensures offspring are well taken care of. A case can be made that when seeking a long-term mate, future relationship dissolution is an issue that would affect properly caring for offspring. Safeguarding against dissolution would help to maintain parental involvement and investment for offspring. Parental involvement is sought by both genders and can be more easily achieved if a partnership is stable. Kenrick and colleagues (1993) note that seeking a partner who is easy to get along with is an adaptive and useful tendency to encourage pair permanence. The findings suggest that social skills and social attitudes are valued attributes when considering a long-term relationship.

Additionally, two findings involving attributes desired by the type of relationship sought were unexpected and did not support H4. One finding was that more interests were desired when seeking an intimate encounter than when seeking a date and a relationship. The second finding was that ad placers described more attributes desired in a partner when seeking an intimate encounter than either a date or a relationship. A possible explanation may have to do with how the online ads were structured for each relationship category. Ad placers seeking an intimate encounter mentioned sexual preferences in their ads and these were coded as "interests". The structure of the ad for seeking an intimate encounter consisted mainly of sections asking about sexual interests and preferences, which may have encouraged more sharing and kept the ad placer focused on those topics. In contrast, the structure of the ads for seeking a date and a

relationship contained more sections that encouraged ad placers to share a variety of attributes and interests, such as ideal date preferences and values. Ad placers seeking a date or a relationship may have chosen to be more succinct in their ads, having a strong sense of what they sought in a dating and long-term partner whereas ad placers seeking intimate encounters were more verbose, and provided a listing of a variety of preferences. These considerations may have contributed to both of these unexpected findings.

These findings on attributes desired fit with SST, considering that a number of the interests desired and offered were sexually-related. Research and SST (Buss & Schmidt, 1993) indicate that men favour women who are promiscuous and have sexual experience when seeking a short-term relationship. The high occurrence of interests desired and offered in the results is indicative of sexual willingness and experience by ad placers. Displaying and expressing sexual knowledge and experience in intimate encounter ads appropriately signalled sexual willingness.

Another possible explanation may be changing sexual attitudes. Evidence suggests that the sexual attitudes of men and women are converging (Herold & Mewhinney, 1993; Hendrick & Hendrick, 1987). Herold and Mewhinney (1993) surveyed Canadian dating bar regulars and found no gender difference in the number of casual sex partners and life-long sex partners reported. Women appear to have a more permissive attitude towards casual sex, which means they too are seeking casual sexual encounters, supporting the finding of a high number of sexually-related interests in intimate encounter ads with no gender difference.

Within the hypothesized relationships for H2 and H4, the expected pattern was that more attributes would be desired or offered in relationships, followed by dating, and intimate encounters. This was the general pattern found for these desired attributes: resources, commitment, social skills, and interests. For physical attractiveness, social attitudes, and interests, the pattern was intimate encounters, relationships, then dating. Five out of six of the attributes

were offered in this order: relationship, dating, then intimate encounter. The exception was physical attractiveness which was offered at the same level in both the intimate encounter and relationship ads.

The emphasis on physical attractiveness when seeking an intimate encounter and a relationship supports Sexual Strategies Theory (Buss, 1994). The theory identifies physical attractiveness being more important in the short-term although the attribute is valued in the long-term, as well. Specifically, SST indicates that men use physical attractiveness as a cue for fertility and fecundity in women when seeking short term mating relationships (Buss, 1994). Existing research (Buss, 1994; Kenrick et al., 1993) also indicates that women desire more physical attractiveness in relationships of shorter duration.

The trend of more attributes desired and offered in a longer relationship fits with research (Kenrick et al., 1993; Stewart et al., 2000) and SST. A possible explanation for interests and social attitudes not being desired more in relationships is that intimate encounter ads are focused on sexually-related activities and preferences. Also, social attitudes are concerned with lifestyle choices, such as practicing safe sex, drinking habits, and having good hygiene, which may be of particular importance to ad placers seeking sexual relations. Consequently, ad placers already explicitly seeking sexual relations would also not be shy about seeking a person whose lifestyle choices and practice match theirs, in regards to sexual practices.

The low levels of physical attractiveness desired and offered, although most mentioned in intimate encounter ads, are contrary to SST. The implication is that physical attractiveness is becoming less of a focus. The current study joins a small group of studies (Badahdah & Tiemann, 2005; Gustavsson et al., 2008; Jagger, 1998) yielding a similar result although overwhelming research suggests otherwise (Matthews, 1999; Rusu & Bencic, 2007; Smith et al., 1990; Steinfurst & Moran, 1989; Strassberg & Holty, 2003).

Alternatively, social skills, social attitudes, interests, and commitment are highly desired

and offered according to the results. The latter attribute, also known as family orientation, is more widely researched whereas the other three have been scarcely studied. The results suggest that people are attentive to these attributes. Unlike SST theory based research where there is clear delineation between men and women desiring and offering specific attributes, these results imply something different.

The most valued attributes, social skills, social attitudes, interests, and commitment, indicate a potential shift in mate preferences. All these attributes are intrinsic, having to do with how one behaves. People are sharing how they get along with others, what they like to do and that they are looking for the same in a potential partner. These mate preferences can be explained by the similarity principle, that people are attracted to those who are similar to themselves. Similarity is argued to be attractive because it serves an adaptive function, such as facilitating couple interactions, cultivating a sense of familiarity and safety, and validating one's self-concepts (Byrne, 1971). Another view on this principle is balance theory, which says that when similar individuals get together they form a balanced system and enjoy harmony and positive feelings (Heider, 1958). An imbalanced partnership would cause psychological discomfort for the individuals. The particular attributes expressed in this study can be understood as individuals seeking out individuals who share similar social skills, social attitudes, interests, and commitment/family orientation as themselves.

Gender as a Moderator

Gender was proposed as a moderator of the relationship between the type of relationship sought and the attributes desired (H2a) and attributes offered (H4a). The results partially supported a moderating effect by gender on resources offered. Specifically, H4a predicted that female ad placers will offer a constant level of resources regardless of the type of relationship sought, whereas male ad placers will offer a low to higher level of resources when seeking an intimate encounter and a date to a relationship. The hypothesis was partially supported: there

was an interaction by gender for the intimate encounter relationship. Male ad placers looking for an intimate encounter were more likely to offer resources than female ad placers; however, both genders were less likely to offer resources when seeking an intimate encounter relative to those seeking a relationship. This finding supports SST, which states that in the short-term men aim to minimize offering resources. Adding to existing research on gender differences (Bereczkei et al., 197; Dawson & Macintosh, 2006; Pawlowski & Koziel, 2002), this finding shows that men are continuing to emphasize offering resources.

For H2a, it was hypothesized that male ad placers will go from seeking a low to a high level of attributes when the type of relationship sought goes from an intimate encounter and a date to a relationship whereas female ad placers will seek a constant high level of attributes regardless of the type of relationship sought. Gender was not a moderator. This finding goes against SST and research (Buss, 1994, Kenrick et al., 1990; Kenrick et al., 1993; Regan, 1998) that finds men to be less discriminating when seeking a short-term mating partner but more demanding when seeking a long-term mating partner. This finding also goes against the theory which stresses that resources are valued by women in all types of relationships. The sampling decision to only collect ads by ad placers between the ages of 18 to 39 may have contributed. Research (Waynforth & Dunbar, 1995) indicates a gender difference for attributes desired for older ages, the forties and beyond. Men in their forties are the most demanding of attributes in a partner. Ad placers in their forties are experiencing a different life stage than those in their thirties, arguably and studying these ads may reveal the differences among men and women.

The lack of a moderating effect by gender may indicate that resources are no longer an attribute of value. The current sample may be unique in that the majority of individuals possess resources to take care of themselves so a partner with resources is not stressed for any type of relationship sought. The majority of the sample did not mention desiring resources at all. Demographic information indicates that online daters differ with a higher income and are more

likely to be employed than internet users that do not date on line and the Canadian population (Brym & Lention, 2001). In terms of resources, men and women who use online dating might have comparable resources and have set aside this particular attribute as a preference.

An alternative reason could be an issue of respondents studied. The existing research makes use of undergraduate student samples (Kenrick et al., 1990; Kenrick et al., 1993; Regan, 1998). It has been pointed out that students may express a range of responses when it comes to their attitude and behaviour (Oyserman, Coon, & Kemmelmeier, 2002). For example, in college campuses egalitarian values are the norm among upper level students who previously expressed more male-dominant views when they were in their first year of college (Lottes & Kuriloff, 1994). Another observation is that students lack specific psychological characteristics (Dasgupta & Hunsinger, 2008). College students are at a particular life stage, lack life experience, and possess a unique outlook on life, all of which are very likely to differ from the sample used in the current study, which was selected to represent the typical person using online dating.

Another reason may have to do with the source of data used. The finding that men shifted from being less to more demanding of a potential short- to long-term partner comes from research (Buss, 1994, Kenrick et al., 1990; Kenrick et al., 1993; Regan, 1998) that had participants rank and rate various attributes. The circumstances under which this information was supplied allowed participants to enjoy anonymity and suffer no consequences for their responses. The opposite is true when one writes an online advertisement that will be read and its content meticulously analyzed by potential partners.

Implications and Future Research Directions

This study showed diversity in human mate preferences. The applicability of SST to the results was limited. The theory asserts that men and women will have different preferences in a partner because each gender overcomes specialized obstacles in mating. More specifically,

when seeking a partner for the short-term men's and women's preferences diverge while the preferences become similar when seeking a partner for the long-term. Gender differences, key to SST, were not found although results supported other components of the theory, such as commitment and resources being of value when seeking a long-term relationship. Greater understanding was gained about the attributes linked to the type of relationship sought, showing that SST is a valuable perspective on human mate preferences but has its limitations in explaining the results in this study.

Despite possible social and economic change, the link between resources and commitment with seeking a long-term relationship confirms that people view these attributes as necessary for a long-term relationship. These preferences for a long-term relationship show continuity with past research, which has emphasized resources and commitment as valued attributes. Furthermore, it was found that social skills and interests were emphasized for the long-term relationship. These attributes have not been valued to this degree in past research. The current study confirms that these attributes are critical components that should be included in the study of mate preferences. It is possible that these attributes represent additional mate preferences that are surpassing attributes, like physical attractiveness, in importance to online daters. Additional research should be undertaken to confirm the preference for social skills and interests in a partner when seeking a long-term relationship and whether gender differences exist for these attributes.

The current study showed that gender did not moderate the relationship between attributes desired and offered and type of relationship, not fitting SST. A few questions that come to mind are: Could the preferences expressed be better understood by a closer assessment of social, cultural, and economical factors, rather than simply explained by gender differences which are due to evolved psychological mechanisms resulting from our evolutionary past? Are gender differences weakening or completely disappearing? How do men and women view their

responsibilities in creating offspring and the care of offspring, in terms of biological and social expectations? The existence of gender difference in mate preferences appears less definitive than previously discussed in the literature. A clearer understanding of the effect that gender has on the association between type of relationship and attributes is needed. The continued examination of gender differences, societal and cultural factors, and each gender's viewpoint on the role of mating and offspring care would be useful for comprehending the variety of mate preferences expressed in the research to date. Comparing mate preferences among groups who are in the process of seeking a partner and those who already have a partner may be another way of studying the type of relationship and gender differences. Additional research using updated data sources, such as specialized dating web sites, speed dating, and matchmaking services, and various methods, including experimental and participant observation, for exploring mate preferences would be new avenues in conducting future research. A few studies of this kind have appeared recently, which is encouraging (see Eastwick & Finkel, 2008; Glasser, Robnett, & Feliciano, 2009; Kurzban & Weeden, 2007).

The mating preferences expressed by online ad placers are diverse. This source of data is likely to be used more frequently in future research given that researchers can study a myriad of variables and their prospective link to mate preferences. An advantage of online dating is that there are an abundance of web sites that are specialized in many ways. For example, web sites offer to help those seeking marriage partners, connect people with the same religious affiliation, and bring together people interested in interracial dating. Online dating can be as flexible as the internet is world-wide reaching.

Online dating allows users to be dynamic and creative in communicating their mate preferences and describing themselves. Users can easily make changes to their advertisement, post pictures, and tell stories, to convey their preferences and what they have to offer. This makes for a source of data that is complex, but rich in information for studying the preferences of

online daters.

Limitations

This study is not without limitations, such as the generalizability of the results. Online dating is being viewed more positively but the stigma that was once attached warrants consideration. Aimed at paper personal ads, it has been argued that due to the stigma, the results may not be representative and the generalizability of the findings questionable (Dupre, 1992). This criticism can also be applied to online personal advertisements. Additionally, the sample size was limited to 120 ads and an age range for ad placers was also set. Only ads with ad placers between the ages of 18 to 39 were accepted into the sample to achieve a sample representative of individuals who used online dating sites; those who had never been married and those who were recently divorced for the first time. The limitations of sample size and age range may have contributed to the lack of gender differences and not finding gender as a moderator. The nuances of age, connected to life stages, and a more complete picture of the preferences of ad placers may have been captured by collecting ads authored by ad placers of all ages. However, the information that was collected provided insight on a strategically chosen group of online daters that represented a typical online dater.

Another shortcoming is the limited amount of demographic information available in intimate encounter and dating ads. The relationship ads included additional information, such as income earned, education level, and wanting or not wanting children while this information was not present for the other two types of ads. Unfortunately, the web site was structured in this manner, making it impossible to collect this information. Consequently, these demographic variables could not be tested for a potential link with attributes desired and offered, reducing the scope of the study for exploring the role of type of relationship sought.

A final limitation is the 'realness' of the ads or that ads may not be genuine. The same person may open multiple accounts, authoring multiple ads in an attempt to cast a wider net or

ads may be used to get in touch with lonely, vulnerable individuals for purposes other than to find a potential mate. When engaging in online dating, misrepresentation can easily occur in online interaction (Brym & Lenton, 2001). Misrepresentation may include deceiving people for the purpose of monetary gain, which would be a concern for the study. However, a small number of 'fake' ads should have little effect on the results. In the case where multiple ads may be placed by the same person, if their intention is still to seek out a partner the ad would still serve to help answer the questions undertaken by the current study. To combat the issue of deception, vigilance was used during the process of collecting and analyzing ads to identify and delete suspicious and duplicate ads.

Some of these limitations can be overcome by considering a different method of study and changing sampling criteria. Other limitations, such as the data source and deceptive ads can be acknowledged for its benefits and drawbacks. A combination of awareness and understanding of the effects of the limitations on the results would also be important for improving future studies.

Concluding Remarks

This study set out to learn about the preferences of online dating users, particularly in three contexts, when seeking an intimate encounter, a date, and a long-term relationship. Sexual Strategies Theory offered understanding about how attributes were valued in particular types of relationships. Alternative considerations, such as the principle of similarity, social, economical, and cultural factors offered further insight on the range of preferences expressed by online ad placers. Future research directions involving the use of online dating advertisements and other new sources of data and the implementation of assorted methods are suggested.

It can be concluded that mate preferences vary across different types of relationships but not by gender. It would seem logical that preferences change when type of relationship sought differs however research has not fully uncovered what preferences set different relationships

apart. The current study has made use of online dating, an increasingly common way of seeking an assortment of relationships, to study mate preferences. The attributes, social attitudes and interests, set the long-term relationship apart from shorter relationship durations. This information about the distinct attributes preferred in differing relationships provides new insight on what current mate preferences exist.

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Appendix A

Online Personal Advertisement Checklist

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered in Ad	Demographic Information	Desired in Ad
	Gender	
	F = 0 M = 1	
	Age	
	Fill in age or age range. Missing = 99	
	Ethnicity	
	Asian = 0 Pacific Islander = 7	
	Black = 1 West Indian = 8	
	East Indian = 2 White = 9	
	First Nations = 3 Other = 10	
	Hispanic / Latino = 4	
	Middle Eastern = 5	
	Mixed = 6	
	Religion	
	Anglican = 0 Lutheran = 8	
	Baptist = 1 Methodist = 9	
	Buddhist = 2 New age = 10	
	Catholic = 3 Presbyterian = 11	
	Christian-other = 4 Sikh = 12	
	Hindu = 5 Non-religious = 13	
	Islamic = 6 Other = 14	
	Jewish = 7	
	Want Children	
	Do not want = 0 Undecided = 2	
	Want = 1 N/A = 8	
	Have Children	
	No = 0 Prefer not to say = 2	
	Yes = 1 N/A = 8	
	Education	
	Secondary school = 0 University = 4	
	CEGEP = 1 Graduate school = 5	
	Vocational/Technical = 2	
	College = 3 N/A = 8	
	Annual Income	
	Less than \$25 000 = 0 Greater than \$75 000 = 3	
	\$25 000 to \$50 000 = 1 N/A = 8	
	\$50 000 to \$75 000 = 2	
	Status	
	Single = 1 Divorced = 3	
	Couple = 2 Attached ♀ or ♂, minus partner = 4	

Case number: _____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Physical Attractiveness	Desired in Ad
	Used to describe both genders:	
	Athletic	
	Attractive	
	Cute	
	Fit	
	Good-looking	
	Healthy	
	Nice body	
	Average	
	Few extra pounds	
	King or queen sized	
	Active	
	Hot	
	Nice facial features	
	Sexy	
	Skinny	
	Young looking	
	Other:	
	Used to describe women:	
	Buxom	
	Petite	
	Pretty	
	Shapely	
	Slender	
	Slim	
	Other:	
	Used to describe men:	
	Handsome	
	Hunk	
	Muscular	
	Rugged	
	Tall	
	Well-built	
	Strong	
	Other:	

* Please make sure to check the write spot. Use the ruler provided.

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Resources	Desired in Ad
	This refers to terms indicating home-ownership, professional status, being well-off, a business owner, being college-educated, or any terms indicating an above-average lifestyle. These terms also indicate that the individual has or expects to have resources to support a family.	
	Property ownership	
	Boat	
	Car	
	Condominium	
	Home	
	Vacation home	
	Other:	
	Disposable wealth	
	Assets	
	Debt free	
	Income / Financial stability/ Secure / Financially successful	
	Wealthy	
	Well-off	
	Other:	
	Professional qualifications	
	Accounting: CGA, CMA, CA	
	CEO	
	Engineer	
	Executive	
	Lawyer	
	Manager	
	MBA	
	Medical doctor	
	Professor	
	Surgeon	
	Well-educated	
	Other:	
	Nonspecific assets:	
	Have career	
	Have job	
	Professional	
	Self-employed	
	Other:	

* Please make sure to check the write spot. Use the ruler provided.

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Commitment This refers to characteristics during interactions that show commitment to the relationship or to family. These characteristics are highly desirable in a potential mate by both men and women.	Desired in Ad
	Terms	
	Caring / Considerate / Compassionate / Selfless / Thoughtful / Understanding	
	Dependable / Reliable	
	Emotionally stable / Balanced / Secure / Confident	
	Family-minded / Likes, wants children	
	Gentle / Kind	
	Giving / Generous	
	Good cook / Housekeeper / Handy	
	Honest / Genuine / Integrity / Loyal / Trustworthy	
	Mature / Serious/ Down-to-earth / Independent / Self-sufficient	
	Pleasing disposition / Agreeable / Polite / Good mannered	
	Other:	

*If any word is present, give one check. Also, take the opportunity to circle the word(s) found in the ad. More than one check can be given for each group of words. The words are grouped together because they share similar definitions. Refer to the 'Instructions Definitions' sheet for meanings to the words.

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Social Skills This refers to characteristics that allow individuals to maintain a relationship even during difficult times and that partly involves keeping a mate entertained. Also, these characteristics indicate sociableness.	Desired in Ad
	Terms	
	Analytical / Curious / Inquisitive	
	Articulate / Strong communicator	
	Bubbly / Lively / Fun	
	Creative / Artistic / Musical	
	Easygoing / Laid-back / Relaxed / Non-judgmental / Open-minded /Happy-go-lucky	
	Good listener / Attentive	
	Happy / Optimistic / Positive	
	Sense of humour / Funny / Good humoured	
	Intelligent / Smart / Witty	
	Kid-like / Silly / Nonsensical	
	Outgoing / Friendly	
	Sophisticated / Urbane / Worldly	
	Strong	
	Other:	

*If any word is present, give one check. Also, take the opportunity to circle the word(s) found in the ad. More than one check can be given for each group of words. The words are grouped together because they share similar definitions. Refer to the 'Instructions Definitions' sheet for meanings to the words.

Case number: _____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Social Attitudes This refers to terms relating to social and political views, religious beliefs, and lifestyle. The terms suggest the strength of these attitudes or lack thereof in one's lives. It also refers to the way one's life is like, what one does and doesn't do.	Desired in Ad
	Social and political views	
	Environmentalism	
	Immigration	
	Materialism / non-materialism	
	Politics	
	Religion	
	Other:	
	Religious beliefs / Practices	
	Going to church routinely	
	Going to temple	
	Praying	
	Other:	
	Lifestyle	
	Disease free	
	Drinking	
	Drug use	
	Explorer or likes to discover	
	Freethinker	
	Free spirit	
	Frugal or thrifty	
	Good Hygiene	
	Likes to party	
	Safe sex	
	Smoking	
	Social butterfly	
	Variety in life or joie de vivre	
	Workaholic or Career focused, oriented or Hardworking or Work ethic	
	Other:	

* Please make sure to check the write spot. Use the ruler provided.

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Interests This refers to terms relating to leisure time activities, which include outdoor activities/fitness, sports, entertainment, and hobbies.	Desired in Ad
	Outdoor Activities/Fitness:	
	Unspecified activities	
	Unspecified exercise	
	Aerobics	
	Biking or Cycling	
	Boating or Sailing	
	Bungee jumping	
	Camping	
	Fishing	
	Hiking	
	Horseback Riding	
	Hunting	
	Ice skating	
	In-line skating	
	Jogging or Running	
	Kayaking or Canoeing	
	Martial Arts	
	Mountain climbing	
	Scuba diving	
	Skydiving	
	Snorkelling	
	Snow skiing or Snowboarding	
	Snowmobiling	
	Swimming	
	Walking	
	Water skiing	
	Weight lifting	
	Wind surfing or Surfing	
	White water rafting	
	Other:	
	Sexual Activities / Preferences:	
	Anything sexual related:	
	High sex drive	
	Threesome	
	Ideal Date Activities / Preferences / Romantic Gestures:	
	Not found in Interests :	
	Holding hands	
	Sitting by fireplace	
	Receiving flowers	

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad		Interests	Desired in Ad	
Watch	Participates	Sports:	Watches	Participates
		Unspecified		
		Auto racing		
		Badminton		
		Baseball		
		Basketball		
		Billiards		
		Bowling		
		Boxing		
		Canoeing		
		Cricket		
		Diving		
		Extreme sports		
		Figure skating		
		Football		
		Golf		
		Hockey		
		Olympic sports		
		Rugby		
		Soccer		
		Softball		
		Squash or racquetball		
		Tennis		
		Volleyball		
		Other:		

* Please make sure to check the write spot. Use the ruler provided

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Entertainment:	Desired in Ad
	Bars or pubs	
	Casino or gambling	
	Comedy clubs	
	Concerts or live music	
	Cultural events	
	Dance clubs	
	Dancing	
	Darts	
	Dinner parties at home	
	Fashion events	
	Fine dining	
	Movies	
	Music - Classical	
	Music - Country	
	Music - Pop	
	Music - Jazz	
	Music - Rap	
	Music - Rock	
	Poetry	
	Reading	
	Surfing the web	
	Traditional games	
	TV: Entertainment	
	TV: Educational or news	
	Video games	
	Wine tasting	
	Other:	

* Please make sure to check the write spot. Use the ruler provided.

Case number: ____ Type of Relationship: Intimate = 0 Dating = 1 Relationship = 2

Offered by Ad	Hobbies:	Desired in Ad
	Antiques or furniture restoration	
	Astrology	
	Cars	
	Cats	
	Collecting	
	Computer or software	
	Crafts	
	Creative writing	
	Dogs	
	Family or kids	
	Friends	
	Fish or aquarium	
	Gardening	
	Gourmet cooking	
	Home improvement	
	Hunting	
	Investing	
	Motorcycles	
	News or politics or Current events	
	Painting	
	Philosophy or spirituality	
	Photography	
	Playing a musical instrument	
	Shopping	
	Social cause or activism	
	Traveling	
	Vegetarianism	
	Volunteer	
	Yoga	
	Other:	

* Please make sure to check the write spot. Use the ruler provided.

Note: Adapted from Waynforth & Dunbar, 1995; Pawlowski, & Dunbar, 1999a for categories 1-3, Badahdah & Tiemann, 2005; Pawlowski & Dunbar, 1999b for categories 4-6.

Appendix B

Coding Instructions for Creating the Data File Used in the Analyses

Variable	Coding for Analysis
Ad Placer	
Age	Ranged from 18-39
Gender	Dummy coded with 0 = female, reference is male
Ethnicity	Recoded with 0 = Caucasian, 1 = Other
Religion	Recoded with 0 = non-religious, 1 = Christian, 2 = non-religious
Relationship Category Only	
Education	Recoded with 0 = some post-secondary and below, 1 = university degree and above
Income	Recoded with 0 = less than \$50 000, 1 = \$50 000 to 75 000, 2 = \$75 000 and above
Want Children	Recoded with 0 = do not want, 1 = want children, undecided
Type of Relationship Sought	Two dummy variables, reference is relationship
Attributes Desired and Offered ^a	
Physical Attractiveness Attributes Desired	Dichotomously coded with 0 = not desired, 1 = desired
Financial Resources Attributes Desired	Deleted from analysis due to lack of data
Commitment Attributes Desired	Dichotomously coded with 0 = not desired, 1 = desired
Social Skills Attributes Desired	Dichotomously coded with 0 = not desired, 1 = desired
Social Attitudes Attributes Desired	Dichotomously coded with 0 = not desired, 1 = desired
Interests Attributes Desired	Continuous scale
Total Attributes Desired	Continuous scale, composite of all attributes desired
Physical Attractiveness Attributes Offered	Dichotomously coded with 0 = not offered, 1 = offered
Financial Resources Attributes Offered	Dichotomously coded with 0 = not offered, 1 = offered
Commitment Attributes Offered	Dichotomously coded with 0 = not offered, 1 = offered
Social Skills Attributes Offered	Dichotomously coded at the median with 0 = offered attribute once or none, 1 = offered attribute more than once
Social Attitudes Attributes Offered	Continuous scale
Interests Attributes Offered	Continuous scale
Total Attributes Offered	Continuous scale, composite of all attributes offered

Note: For analysis involving data for the relationship ads, religion was coded as 0 = religious, 1 = non-religious and income, 0 = less than \$75 000, 1 = \$75 000 and above.

^a Coding used for the logistic and hierarchical regression analyses.