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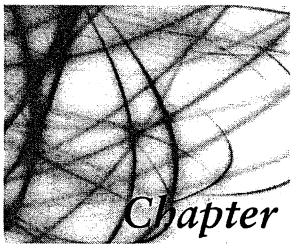

Chapter 4

Finding the One

A Process Model of Mate Selection

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> Of all the gin joints, in all the towns, in all the world,
> she walks into mine.
> —RICK BLAINE (portrayed by Humphrey Bogart)
> in the 1942 film *Casablanca*

The selection of a mate may well be the most important personal decision of a lifetime. Not only one's happiness, overall well-being, and productivity (e.g., Ryff & Singer, 2001) but even the very length of one's life can be significantly and profoundly affected by this singular choice (e.g., Selcuk & Ong, 2013). The reality that the world's population is currently more than 7 billion and rising (World Bank, 2012) means that at any given ~~point in~~ time there are literally millions of individuals of a suitable age and preferred sex from which to choose a mate. Of course, not all potential mates have equal probability of being selected. Still, among the many, how

do people go about finding "the one?" How systematic or conscious is the choice? How much are mating "decisions" the result of hard-wired tendencies or random circumstantial factors? Researchers from a wide variety of fields—psychology, sociology, communication, anthropology, ethology, biology, economics—have sought to answer these questions. The work has been guided by an equally broad array of theoretical perspectives, including cognitive consistency theories (e.g., Heider, 1958), social exchange and interdependence theories (e.g., Kelley et al., 2003), ethological attachment theory (e.g., Hazan & Diamond, 2000), evolutionary theory (e.g., Buss, 1989), and self-perception models (e.g., Buston & Emlen, 2003) to name just a few. Detailed discussions of these theoretical approaches can be found elsewhere (e.g., Sprecher, Wenzel, & Harvey, 2008). The central aim of the present chapter is to survey the range of empirical findings that have been generated by these various theoretical perspectives with a view to providing an integrated process model of human mate selection. In organizing the factors that have been shown to influence mate selection, we start with the least constraining and end with the most constraining. More specifically, we move from the broadest level of "Who is accessible?" to the narrower category of "Who is appealing?" to the even smaller group of "Who is interested and attainable?" to, finally, "Who is the one?"

Before starting, it is worth noting that the majority of research on mate selection focuses on heterosexual couples. Although more research is definitely needed to systematically examine mate selection in lesbians and gay men, extant literature on mate selection in same-sex couples suggests that the factors that influence mate selection in heterosexual couples generally apply to same-sex couples as well (e.g., Felmlee, Orzechowicz, & Fortes, 2010; Peplau & Fingerhut, 2007; Peplau, Padesky, & Hamilton, 1982).

STEP 1: WHO IS ACCESSIBLE AS A POTENTIAL MATE?

It is a truism that mating requires meeting. One's ideal mate might reside across town or across the globe, but either way there will be no mating in the absence of an actual encounter. Propinquity, or distance in space, is one of the most influential factors in narrowing the pool of potential mates. Although we have good intuitions about the importance of propinquity, its role in mate selection is typically underappreciated. Let's say your partner has a crush on a celebrity. You might be mildly annoyed but probably not deeply concerned. Imagine, however, that by some unexpected turn of events you find yourselves living next door to this celebrity. In all likelihood, your concern would be elevated precisely because you understand

intuitively that close physical proximity provides opportunities for interaction that can foster interpersonal attraction. Yet if you were to be asked on what basis you chose your current partner, it is doubtful you would cite propinquity as a factor.

Physical Propinquity

The importance of propinquity in relationship initiation was first documented in a seminal study by Festinger, Schachter, and Back (1950), who observed that the specific apartment in a university student housing complex to which people were randomly assigned had a profound influence on their subsequent social networks. For instance, individuals were almost 10 times as likely to become friends with someone living in the same building compared with someone living in a different building and about twice as likely to become friends with someone living on the same floor within the same building compared with someone living on a different floor. Festinger and colleagues' findings have been well replicated in studies of relationship initiation (e.g., Marmaros & Sacerdote, 2006; Mayer & Puller, 2008).

Thanks to the rapid increase in the use of online social networking, researchers now have access to invaluable archival data on social relationships. Analyses of such data provide converging evidence that people predominantly interact with others who are geographically close. For example, an analysis of the social networks of more than 500,000 LiveJournal bloggers revealed that geographical proximity significantly increased the probability of friendship formation. In this community, two-thirds of an average user's friends were geographically close (Liben-Nowell, Novak, Kumar, Raghavan, & Tomkins, 2005). The finding is notable precisely because online networks are not restricted by geographical location. Similarly, analyses of data from popular social networking websites such as Facebook and MySpace found that the people listed as best friends in online profiles tend to reside geographically close (e.g., DeScioli, Kurzban, Koch, & Liben-Nowell, 2011). Moreover, the frequency and duration of online communication increase as the geographical distance between individuals decreases (Leskovec & Horvitz, 2007). Collectively, these studies provide strong and consistent evidence that geographical propinquity plays a leading role in relationship development.

Kossinets and Watts's 2006 longitudinal study offers further evidence that physical propinquity bolsters initial attraction. This study analyzed e-mail exchanges of 43,553 students, faculty, and staff over the course of an academic year. For students who did not share a single acquaintance, simply taking a class together increased the likelihood of interacting by a

staggering 140 times. Even students who did share an acquaintance were three times more likely to interact if they took a class together. Moreover, manipulating small and seemingly arbitrary differences in physical proximity in classroom settings, such as where students were assigned to sit in an auditorium, influenced later friendships (Back, Schmukle, & Egloff, 2008).

Cyber Propinquity

The development of Internet technology enables individuals to achieve virtual proximity through common Internet media—online dating websites, forums, and chat rooms—even if they are not geographically close. For example, being in the same "chat room" with another person is similar to being in the same room in the sense that both situations decrease interpersonal distance. Hence, one may extend the definition of propinquity to include not only closeness in physical space but also closeness in cyberspace. According to a recent survey of a nationally representative sample of U.S. adults (Rosenfeld & Thomas, 2012), "online" ranks only second to "through friends" as the most common way heterosexual couples meet, whereas it is by far the most common way same-sex couples meet.

Individuals may get acquainted online unintentionally, for example, while seeking information in a news discussion group (e.g., McKenna, Green, & Gleason, 2002; Ridings & Gefen, 2004). In a survey of users of such groups, Parks and Floyd (1996) found that 61% reported forming a close online relationship with someone they met on a newsgroup, 33% reported meeting their "cyber friends" face to face, and 8% of online relationships evolved to be romantic. A more recent survey of newsgroup users suggested a dramatic 62% increase in online relationships moving to the face-to-face realm (McKenna et al., 2002).

Individuals may also join online communities to search actively for potential mates; online dating websites are the best example. Although the extent to which online dating websites improve romantic outcomes remains highly questionable (Finkel, Eastwick, Karney, Reis, & Sprecher, 2012), these websites provide unprecedented access to potential mates who may otherwise have been unknown or inaccessible through other means.

Social Propinquity

Propinquity can also be considered in terms of closeness in social space or ties in a social network. One can meet a potential mate through mutual contacts—acquaintances, friends, family members (Rosenfeld & Thomas,

2012). Individuals may ask their friends and family to introduce them to potential mates; friends and family might take the initiative to engineer meetings; or potential mates might be encountered incidentally at social gatherings hosted by friends and family. Indeed, simply sharing an acquaintance dramatically increases the probability of getting acquainted with someone new. Hammer (1980) longitudinally followed individuals in three small networks: a church, a doughnut shop, and a factory. In all three networks, two people who shared an acquaintance at a given time were more likely to become acquainted at a later time. This finding was conceptually replicated in a more recent study by Kossinets and Watts (2006), who showed that two individuals sharing an acquaintance were 30 times more likely to exchange e-mails than those who did not. In both studies, the likelihood of initiating contact steadily increased as the number of mutual acquaintances increased.

In summary, there is ample empirical evidence that propinquity—whether physical, cyber, or social—plays a central role in mate selection. Evidence further suggests that geographical closeness and face-to-face interactions, whether they come early or later in the process, are crucially important. Our online and offline social networks and our daily activities determine to a large extent who we will cross paths with. These are the factors that reduce the millions of potential mates to the smaller pool of those who are accessible and thus have an increased probability of being selected.

STEP 2: WHO IS APPEALING AS A POTENTIAL MATE?

Of this smaller group of individuals who are accessible as potential mates, some will be more appealing than others and, therefore, more likely to be chosen. Two of these appeal factors—similarity and familiarity—are inherently related to propinquity. We tend to affiliate and socialize with others who are similar to us in important ways, a phenomenon known as *social homogamy* (e.g., Kalmijn, 1998). In addition, it is a fundamental aspect of human nature to be drawn to familiar things and persons. To complicate matters even further, repeated contact increases familiarity, and people who are similar seem familiar whether in actuality they are or not (Moreland & Zajonc, 1982). Thus, similarity and familiarity are inextricably linked to propinquity. Other factors that influence the appeal of potential mates include characteristics such as physical appearance, social status and resources, and personality of the potential mate, along with one's affective state.

Similarity

Romantic partners tend to be similar to each other in numerous ways (e.g., Kalmijn, 1998). One reason partners are so alike is that individuals are more attracted to others whom they perceive as similar to themselves (Chapdelaine, Kenny, & LaFontana, 1994)—the "likes-attract" phenomenon (Buston & Emlen, 2003). Accordingly, researchers have investigated similarity in such domains as demographics (e.g., Kurzban & Weeden, 2005), attitudes (e.g., Newcomb, 1956), personality (e.g., Byrne, Griffitt, & Stefaniak, 1967), and physical attractiveness (e.g., Buston & Emlen, 2003).

Demographic Similarity

Similarity in ethnicity is a major factor shaping interpersonal attraction and mate selection. This is not surprising given that individuals tend to display an implicit preference toward people of their own ethnicity (e.g., Greenwald, McGhee, & Schwartz, 1998). In line with this preference, Verbrugge (1977) found that friends, particularly close friends, were likely to be of the same ethnicity. Similarly, Marmaros and Sacerdote (2006) found that race was one of the most important predictors of e-mail exchanges between college students: An e-mail exchange between two Caucasian students was three times more likely than between a Caucasian and an African American student.

Results of speed-dating experiments also show that individuals, particularly women and White conservatives, tend to prefer to date others of their own ethnicity (Eastwick, Richeson, Son, & Finkel, 2009; Fisman, Iyengar, Kamenica, & Simonson, 2006, 2008; Kurzban & Weeden, 2005). In addition, a recent study investigating partner preferences in an online dating website showed that both men and women preferred to contact individuals of their own ethnicity after browsing through online profiles of potential mates (Hitsch, Hortaçsu, & Ariely, 2010).

Ethnicity is not the only demographic characteristic on which mates tend to be similar. Research has shown that both heterosexual and gay/lesbian individuals prefer to befriend, date, and marry those who are similar to themselves on other demographic characteristics, including age, education, financial resources, and religion (e.g., Buston & Emlen, 2003; Hitsch et al., 2010; Leskovec & Horvitz, 2007; Mayer & Puller, 2008; Peplau et al., 1982; Verbrugge, 1977).

The fact that people tend to affiliate with others who are like them naturally limits contact with others who are unlike them. Whether mates are similar on any specific characteristic may result from an active seeking of similarity or may be a more passive consequence of social homogamy (Sakai & Johnson, 1997).

Attitudinal Similarity

Attitudinal similarity has also been found to facilitate interpersonal attraction. In a classic study on this topic, students randomly assigned to rooms in a dorm were found to like fellow students with similar attitudes more than those with dissimilar attitudes (Newcomb, 1956). In a series of subsequent experiments, Byrne and colleagues (e.g., Byrne & Nelson, 1965) manipulated attitude similarity by varying the degree of overlap between participants' self-reported attitudes and attitude ratings ostensibly provided by another participant. Self–other similarity in attitudes was found to be positively related to participants' initial attraction scores. Supporting these early findings, more recent studies showed that individuals are more likely to become friends and romantically involved with those who share similar political views (e.g., Mayer & Puller, 2008; Watson et al., 2004).

Similarity in Personality

Studies investigating whether similarity in personality characteristics increases attraction have produced mixed findings. Some studies found that personality similarity increased attraction (Byrne et al., 1967; Klohnen & Luo, 2003). Yet other studies found weak or no evidence of personality similarity facilitating attraction (e.g., Back, Schmukle, & Egloff, 2011; Luo & Zhang, 2009).

These mixed findings suggest potential factors moderating the association between personality similarity and interpersonal attraction. For instance, individuals show greater liking of people whose personality matches their ideal personality but not those whose personality matches their own actual personality (e.g., Herbst, Gaertner, & Insko, 2003). Other studies provided evidence that perceived but not actual similarity in personality (e.g., Selfhout, Denissen, Branje, & Meeus, 2009) and likability of the target person (Taylor & Mettee, 1971) appear to moderate the relationship between similarity and attraction. Finally, for certain traits, such as dominance, complementarity rather than similarity may lead to greater attraction (Dryer & Horowitz, 1997).

Similarity in Physical Attractiveness

Individuals prefer to date a person who is similar to themselves in physical attractiveness (Buston & Emlen, 2003; Todd, Penke, Fasolo, & Lenton, 2007; but see Kurzban & Weeden, 2005). Moreover, attractive individuals expect to date more attractive people, whereas unattractive individuals expect to date less attractive people (Montoya, 2008). Similarly, a

study analyzing data from HotOrNot.com, a website where users rate the "hotness" of photographs submitted by other users, revealed that attractive individuals were more likely to accept dating requests of individuals who were also high on attractiveness (Lee, Loewenstein, Ariely, Hong, & Young, 2008). Studies on established relationships also demonstrate that partners are similar in terms of observer ratings of attractiveness (e.g., Stevens, Owens, & Schaefer, 1990). Thus, although everyone might desire a highly attractive partner, in actuality most end up with someone who is similar to themselves in attractiveness.

In summary, individuals tend to be attracted to others who are similar to themselves in attitudes, physical attractiveness, and a variety of demographic characteristics. Although some studies provided evidence that similarity in personality also enhances attraction, others demonstrated that this association depends on which personality traits are investigated, whether similarity to the actual-self or the ideal self is assessed, and whether perceived or actual measures of similarity are used. Exceptions notwithstanding, the evidence overwhelmingly shows that it is likes, and not opposites, that attract.

Familiarity

Feelings of familiarity created by repeated exposure to a person can also increase liking. Indeed, in the groundbreaking Festinger et al. (1950) study described previously, propinquity facilitated liking precisely because it afforded opportunities for interaction that resulted in increased familiarity. The effect of familiarity is so robust that repeated exposure increases liking for faces presented for such a short time as to not be consciously detected (Bornstein, Leone, & Galley, 1987). The effect extends to more naturalistic settings such as face-to-face interactions and online conversations (e.g., Reis, Maniaci, Caprariello, Eastwick, & Finkel, 2011). A powerful demonstration of the influence of familiarity on attraction in everyday life was provided by Moreland and Beach (1992), who manipulated mere exposure by having four female confederates attend different numbers of sessions in a course without interacting with students. The greater number of sessions the women attended, the greater the attraction reported by students. Although such studies provide strong evidence that familiarity increases attraction, the effect appears to hold only when initial impressions are either neutral or mildly positive. For disliked others, repeated exposure, in fact, decreases liking (e.g., Ebbesen, Kjos, & Konecni, 1976).

Affective State

In a famous study on interpersonal attraction, Dutton and Aron (1974) had an attractive female experimenter approach male participants as they were crossing either "a fear-arousing suspension bridge or a non-fear-arousing bridge." Participants crossing the fear-arousing bridge (vs. the non-fear-arousing bridge) afterward used more sexual imagery in the stories they were asked to write and were also more likely to telephone the female experimenter. These findings have been conceptually replicated in subsequent studies using diverse methods for inducing arousal (for a review, see Foster, Witcher, Campbell, & Green, 1998), including physical exercise (e.g., White, Fishbein, & Rutstein, 1981), threat of electric shock (Dutton & Aron, 1974), and exposure to sexual material (e.g., Griffitt, May, & Veitch, 1974).

Why does arousal lead to attraction? One explanation is that when individuals encounter a potential mate in an arousing context, they misattribute the source of arousal to the other person (Dutton & Aron, 1974). According to an alternative view, arousal enhances a specific dominant response in a given situation (Allen, Kenrick, Linder, & McCall, 1989). The dominant response toward an attractive potential mate in an arousing context is romantic attraction, whereas the dominant response toward an unattractive potential mate is aversion. Indeed, arousal only increases attraction to physically attractive targets and, in fact, has the opposite effect for unattractive targets (e.g., Foster et al., 1998; White et al., 1981).

Whether individuals are in a good or a bad mood can also influence attraction. Individuals in a positive mood—induced by watching a happy film (Gouaux, 1971), getting favorable performance feedback (Forgas & Bower, 1987), or experiencing a pleasant temperature (Griffitt, 1970)—showed greater interpersonal attraction than individuals in a negative mood. Those feeling good (vs. bad) also engaged in more mimicry (van Baaren, Fockenberg, Holland, Janssen, & van Knippenberg, 2006) and self-disclosure (Forgas, 2011), both of which are conducive to attraction and liking.

Physical Appearance

Perhaps the most studied factor in mate selection is physical appearance. Physically attractive individuals are rated as more desirable potential mates than are less attractive individuals by both heterosexual and gay/lesbian individuals (e.g., Ha, van den Berg, Engels, & Lichtwarck-Aschoff, 2012). In a meta-analysis of more than 900 studies, Langlois and colleagues (2000)

found that across cultures physically attractive individuals are judged and treated more favorably than unattractive individuals. Strikingly, attractiveness judgments can be made as rapidly as within 20 milliseconds of exposure to a target (Olson & Marshuetz, 2005), suggesting that they are highly automatic.

Normative Cues of Attractiveness

Facial, bodily, vocal, and more recently olfactory cues have all been linked with attractiveness. One such cue is the extent to which a face looks typical. Averageness of a face is positively associated with judgments of attractiveness. In fact, composite faces created by averaging multiple faces are rated more attractive than the individual faces (e.g., Langlois & Roggman, 1990). One effect of averaging faces is increased symmetry. Most faces have some degree of asymmetry, but when faces are averaged the asymmetries tend to cancel each other out. Symmetrical faces are rated as more attractive than asymmetrical faces (e.g., Perrett et al., 1999). Similarly, individuals with symmetrical bodies are judged as more attractive (Gangestad, Thornhill, & Yeo, 1994) and are more desirable as mates than those with asymmetrical bodies (Thornhill & Gangestad, 1994). One explanation for these findings is that symmetry signals mate quality or "good genes." Indeed, in both human and nonhuman animals, fluctuating asymmetries (i.e., random deviations from perfect symmetry in bilaterally paired traits) are associated with developmental instability (e.g., Gangestad et al., 1994). In a range of species, males with low fluctuating asymmetry attract more mates than their less symmetrical counterparts (Watson & Thornhill, 1994).

Sexual maturity of facial, bodily, and vocal features is also associated with attractiveness. Male and female faces are virtually indistinguishable prior to puberty. However, the hormonal changes associated with pubertal onset alter faces dramatically and in sex-typical ways (e.g., Thornhill & Møller, 1997). Surges in testosterone cause disproportionate growth in the chin and jaw region and also brow thickening, making a face appear more masculine. A smaller chin and jaw and less prominent brow, along with such estrogen-driven changes as lip plumping, make a face appear more feminine. Men tend to judge female faces with feminine features as more attractive than those with masculine features (e.g., Cunningham, Roberts, Barbee, Druen, & Wu, 1995). Interestingly, women find slightly feminized versions of male faces more attractive than those that are modified to look even more masculine, theoretically because femininity signals trustworthiness (e.g., Perrett et al., 1998). However, women's preferences vary as a

function of their menstrual cycle: Women prefer more masculine male faces when they are in the fertile phase of their menstrual cycle than during the infertile phase (e.g., Penton-Voak, Perrett, Castles, Kobayashi, Burt, Murray et al., 1999).

Pubertal onset is also associated with bodily changes, including the differentiation of male and female body shapes (e.g., Thornhill & Møller, 1997). Increases in testosterone trigger growth in the upper body and shoulders while suppressing growth in the gluteofemoral region (hips and thighs). In contrast, estrogen causes disproportionate growth in the hips and thighs. Body shapes that signal sex-typical maturation—a high shoulder-to-hip ratio in men and a low waist-to-hip ratio in women—are judged as more attractive (e.g., Dijkstra & Buunk, 2001; Singh, 1993).

The same hormones responsible for changes in facial and bodily features also produce sex-differentiated changes in voice (Abitol, Abitol, & Abitol, 1999). Men find women with higher pitched voices more attractive (e.g., Collins & Missing, 2003), whereas women, particularly those in the fertile phase of their menstrual cycle, find men with lower pitched voices more attractive (e.g., Feinberg et al., 2006).

Menstrual cycle phase is also a factor in men's judgments of female attractiveness, with men judging women in the fertile phase of their menstrual cycle as more attractive than those in the infertile phase (Roberts et al., 2004). In an interesting demonstration of this effect, Miller, Tybur, and Jordan (2007) showed that lap dancers earned more tips while in the fertile (vs. infertile) phase of their menstrual cycle. Parallel to these findings, men found the body scent of women more attractive (Havlícek, Dvorakova, Bartos, & Flegr, 2006; Singh & Bronstad, 2001) and had elevated testosterone in response to these scents (Miller & Maner, 2010) when women were in the fertile (vs. infertile) phase of their menstrual cycle.

Heterosexual women are similarly sensitive to olfactory cues when it comes to odors signaling men's disease resistance. Having a mate with a dissimilar major histocompatibility complex (MHC)—a gene family involved in the immune system—is thought to increase the likelihood of reproducing offspring with good immunocompetence (Thornhill et al., 2003), and this information is transmitted by body scent. Women prefer the body scent of men whose MHC is dissimilar from their own as compared to the scent of men with a similar MHC (e.g., Wedekind, Seebeck, Bettens, & Paepke, 1995). Women in the fertile phase of their menstrual cycle were also found to prefer the body scent of men with high (vs. low) facial symmetry, another cue that signals disease resistance (e.g., Rikowski & Grammer, 1999).

The attraction factors discussed thus far are by and large difficult to alter, whereas others are more changeable. One example is emotional

reaction. Raised eyebrows and dilated pupils increase attractiveness ratings of female faces (Cunningham, 1986), presumably because both indicate a positive mood state and favorable emotional reaction. A big smile has also been found to boost the attractiveness ratings of female as well as male faces (Cunningham, 1986; Cunningham, Barbee, & Pike, 1990). For women, even the color of one's clothing can make a difference. In a series of studies, men found women more attractive if they were wearing red compared with blue, consistent with the common association of the color red with female sexual arousal (Elliot & Niesta, 2008).

Idiosyncratic Cues to Attractiveness

The existence of features that are consistently associated with judgments of attractiveness seems to support the contention that standards of beauty are widely shared. Consistent with this view, past work has repeatedly reported considerable agreement across individuals about who is attractive and who is not, thus further strengthening the view that attractiveness is objective and not subjective (e.g., Langlois et al., 2000). Hönekopp (2006) challenged this notion on the charge that current methods of calculating interjudge agreement (e.g., Cronbach's alpha) actually overestimate the role of shared versus idiosyncratic taste in judgments of attractiveness. That is, when the number of judges (i.e., participants rating the attractiveness of faces) is large, as in a typical behavioral experiment, interjudge agreement might seem very high even if the intercorrelations between judges are small. To estimate the relative roles of idiosyncratic and shared taste on judgments of attractiveness, Hönekopp (2006) asked participants to repeatedly rate the same set of faces. Results showed that idiosyncratic taste and shared taste accounted for roughly equal variance in judgments of attractiveness. In other words, idiosyncratic taste was just as important as shared preferences in who participants found attractive.

One possible source of idiosyncratic preferences is one's experiences in past relationships. Extensive research shows that individuals may apply aspects of their past relationships to new relationships, a phenomenon referred to as *transference* (e.g., Andersen & Chen, 2002). One study found that individuals judged faces that resembled their romantic partner more attractive than faces that did not (Günaydin, Zayas, Selcuk, & Hazan, 2012). Another factor likely to shape idiosyncratic preferences is physical similarity of a potential mate to oneself. For instance, studies have consistently shown that individuals rate pairs of faces that represent actual couples as more similar to one another compared with random pairs of faces (e.g., Bereczkei, Gyuris, & Weisfeld, 2004).

Situational Factors Affecting Judgments of Attractiveness

A number of situational factors have been found to influence judgments of attractiveness. For example, in a classic study, Pennebaker et al. (1979) showed that individuals in a bar found opposite-sex targets more attractive as closing time approached and hence potential mates became more scarce. In addition to perceived scarcity of potential mates, scarcity of resources was found to alter standards of beauty. Nelson and Morrison (2005) showed that when men were lacking in resources—hungry (vs. sated) or dissatisfied (vs. satisfied) with their finances—they lowered their standards when evaluating women as potential mates.

Alcohol consumption, which is known to impair judgments of all sorts, also has been shown to influence judgments of attractiveness. For example, heterosexual individuals who consumed alcohol found opposite-sex targets more attractive than those who did not consume alcohol (e.g., Parker, Penton-Voak, Attwood, & Munafò, 2008). Finally, even mere exposure to highly attractive others can shift perceivers' standards of beauty by creating a contrast effect. For example, men exposed to unusually attractive women in a TV show (i.e., *Charlie's Angels*) or in a magazine ad subsequently rated a woman of average attractiveness less attractive than men who were not exposed to women of above-average attractiveness (Kenrick & Gutierres, 1980).

Social Status/Resources

High social status and good earning prospects are desirable in a mate potentially because they both help secure resources necessary to promote child care. Indeed, both male and female conceptions of an ideal partner include characteristics signaling high social status and good financial prospects, such as having good job and a nice home and being successful and financially secure (Fletcher, Simpson, Thomas, & Giles, 1999). A recent study that asked participants to indicate their interest in dating individuals based on their profile descriptions found similar results (Ha et al., 2012). Specifically, both heterosexual and gay/lesbian individuals were interested in dating potential mates with higher (vs. lower) social status and financial resources.

Personality

Another important consideration in mate selection is personality. Studies across many different cultures consistently find that both heterosexual and gay/lesbian individuals prefer partners who are kind, warm, and

trustworthy (e.g., Buss, 1989; Felmlee et al., 2010; Fletcher et al., 1999). A review of the evolution of morality also identified warmth, trustworthiness, and kindness as well as other morally relevant traits, such as heroism, fidelity, and empathy, as virtues that individuals typically look for in potential mates (Miller, 2007).

These personality judgments can be made by looking at a person's face for a fraction of a second (e.g., Willis & Todorov, 2006). Such snap judgments are based on a number of cues. For one, perceivers are more likely to ascribe trustworthiness and kindness to physically attractive targets than to unattractive ones (e.g., Berry & Zebrowitz-McArthur, 1985; Dion, Berscheid, & Walster, 1972). Other cues associated with these judgments are babyfacedness and facial width-to-height ratio. An objective measure of babyfacedness derived from facial features (e.g., large eyes, bulging forehead, receding chin) as well as subjective judgments based on photographs were found to be positively correlated with judgments of honesty and kindness, even after controlling for facial attractiveness (e.g., Berry & Zebrowitz-McArthur, 1985). Facial width-to-height ratio—a sexually dimorphic, testosterone-linked cue related to aggression in men (e.g., Carre & McCormick, 2008)—also influences judgments of male trustworthiness, with wider faces being perceived as less trustworthy (Stirrat & Perrett, 2010). Moreover, men with wider (vs. narrower) faces were more likely to betray the trust of others, deceive others during negotiation, and cheat to enhance financial gain (Haselhuhn & Wong, 2012; Stirrat & Perrett, 2010), showing that there is some grain of truth in perceivers' initial impressions of trustworthiness.

Why do humans across virtually all cultures value traits like trustworthiness, kindness, warmth, and empathy in mates? One reason is that these traits are indicators of good mental health and hence reproductive fitness (Miller, 2007). For instance, capacity for empathic response advertises genetic quality since it is easily disrupted by several mental health problems (e.g., autism spectrum conditions; Baron-Cohen, 2009). These traits are associated with reproductive fitness also by way of the ability and willingness to commit in the relationship (e.g., Schmitt, 2004) and care for the offspring (e.g., Prinzie, Stams, Dekovic, Reijntjes, & Belsky, 2009).

Sex Differences in the Importance of Attractiveness, Resources, and Personality in Mate Selection

Do women and men value similar or different characteristics in a potential mate? According to sexual strategies theory (Buss, 1989; Buss & Schmitt, 1993), attractiveness and resources are differentially important for men

and women because women's investment in offspring care is much higher than that of men. As a result, for women, the adaptive mate selection strategy that increases chances of offspring survival is to look for cues in potential mates signaling ability to care for the offspring (financial resources and traits such as ambitiousness), whereas the adaptive mating strategy for men is to look for cues signaling reproductive ability (physical attractiveness).

The best known study testing this theory is Buss's (1989) survey of 10,047 respondents in 37 cultures. Respondents were asked to rank order their preferences for a potential mate. This study showed that physical attractiveness ranked higher on men's lists compared with women's lists, whereas good earning potential ranked higher on women's lists compared with men's lists, supporting the predictions of sexual strategies theory. More important, between-sex similarities in partner preferences outweighed between-sex differences in this study. Neither men nor women found either attractiveness or social status as the most important characteristic of a mate. The most preferred four traits in a potential mate were identical for both sexes, with "kind and understanding" topping the list.

Of course, individuals often encounter various trade-offs in their relationship experiences. After all, a potential partner may be a really nice person but not so physically attractive, another may be of high social status but cold, and so on. Hence, another way to study the relative importance of attractiveness, social status/resources, and personality in mate preference is to systematically manipulate these trade-offs. This is exactly what Fletcher, Tither, O'Loughlin, Friesen, and Overall (2004) did. Results of this study showed that when warmth/trustworthiness was pitted against attractiveness or status/resources in a long-term mate, both men and women preferred warmth/trustworthiness. When attractiveness was pitted against status/resources in a long-term mate, men preferred attractiveness over status/resources, whereas women were equally likely to choose either characteristic. Again, this study suggests that between-sex similarities in partner preferences are as prominent as between-sex differences.

The majority of studies investigating sex differences, including those just reviewed, relied on self-reported preferences. Yet from an evolutionary perspective actual mate choice is more relevant for offspring survival than stated preferences (e.g., Todd et al., 2007). Studies focusing on actual mate choice generally lend no support or mixed support for sex differences in mate preferences (e.g., Conley, Moors, Matsick, Ziegler, & Valentine, 2011; Eastwick & Finkel, 2008; Kurzban & Weeden, 2005; but see Schmitt et al., 2012). In summary, sex differences in mate choice are much smaller than is popularly assumed.

STEP 3: WHO IS INTERESTED AND ATTAINABLE AS A POTENTIAL MATE?

All things being equal, people tend to like those who like them back. Reciprocity of romantic interest is a strong signal that the other person is interested and attainable as a potential mate. Signs of reciprocity help avoid social rejection, which humans find highly aversive and painful (Williams & Nida, 2011). In a seminal study demonstrating the effect of reciprocity on attraction, Backman and Secord (1959) asked participants to engage in a group discussion with unknown others. Prior to the discussion, participants were given the names of three other participants who, on the basis of a personality analysis, would most probably like them. After the group discussion, participants were asked to name three individuals they wanted to be partnered with in an upcoming interaction. Participants were significantly more likely to select individuals whom they thought would like them compared with other members of the group.

Backman and Secord's (1959) findings were subsequently replicated in getting-acquainted interactions (e.g., Chapdelaine et al., 1994; Kenny, Bond, Mohr, & Horn, 1996) and dating contexts. In two speed-dating studies, participants flirted more with, showed more romantic desire for, and eventually wanted to date those who reciprocated their interest (Back et al., 2011; Eastwick, Finkel, Mochon, & Ariely, 2007).

Converging evidence for reciprocal liking comes from studies of online social networks. For example, an analysis of the friend rankings of 11 million users in the MySpace network revealed that an individual's best friend choices reflected how others had ranked that individual in their own online profile (DeScioli et al., 2011). Specifically, 69% percent of users chose as their best friend someone who had given them a high ranking. A study of the LiveJournal community also found that 80% of online friendships were reciprocal (Liben-Nowell et al., 2005).

Although reciprocity is the norm, people also take selectivity into account when deciding whether to reciprocate interest on the part of a potential mate. As reviewed previously, individuals are motivated to seek characteristics such as attractiveness, resources, and good personality in a potential mate. Extensive research shows that individuals who possess these qualities are selective when signaling romantic interest (e.g., Lee et al., 2008). Thus, seeking a potential mate who selectively reciprocates one's interest ensures that the other person is attainable yet desirable as a mate. To manipulate selectivity, Walster, Walster, Piliavin, and Schmidt (1973) had male participants read profiles of women who were ostensibly potential dates. One of the women was described as selective in her mate choice; she was willing to date the participant but not anyone else. Another woman

was described as not wanting to date anybody. A third was reportedly willing to date everyone. The profile for the fourth woman provided no information about her dating preferences. Participants liked the woman who was selective in her dating choice more than the other three women, and most selected her for a date.

Similarly, in speed-dating studies, individuals, particularly men, who indiscriminately showed romantic desire and dating interest were judged unselective and, in turn, less appealing as dates (Back et al., 2011, Eastwick et al., 2007; Kurzban & Weeden, 2005; Luo & Zhang, 2009).

STEP 4: WHO IS "THE ONE"?

How do these multiple and diverse factors—from chance encounters to split-second judgments of attractiveness to one's affective state at the time of meeting—come together to influence mate selection? We propose that mate selection can be characterized as a series of steps in a process of narrowing the pool of eligible mates from the many to "the one" (see Figure 4.1). Arguably the most influential factor in narrowing the pool of "eligibles" is propinquity—be it physical, cyber, or social—because this is what determines the probability of actually meeting a potential mate. Also, as argued previously, similarity and familiarity are inextricably linked to propinquity. Our social networks tend to be composed of people who are similar to us on a wide range of dimensions; the similarity makes them seem familiar, and the increased exposure afforded by propinquity makes them actually more familiar. Within this smaller pool of eligible mates, some individuals will appeal more than others. This includes considerations of physical appearance, social standing and resources, and personality as well as our affective state when we encounter these individuals.

There are two very important and interesting questions about this narrowing-down process. First, to what degree is the process driven by consciously held criteria? That is, do we know what we are looking for in a mate, and do our mate choices match our conscious selection criteria? Research findings indicate that what individuals say they are looking for in a mate does not in general coincide with their actual mate choices (e.g., Eastwick & Finkel, 2008). Rather, mate "selection" is more likely the result of "adventitious" or chance factors like propinquity (Lykken & Tellegen, 1993) and unconscious processes such as transference (e.g., Günaydin et al., 2012).

The second important and interesting question is this: If mate selection involves the narrowing down of a pool of "eligibles" to a smaller number of individuals who are equally accessible, appealing, and attainable, what

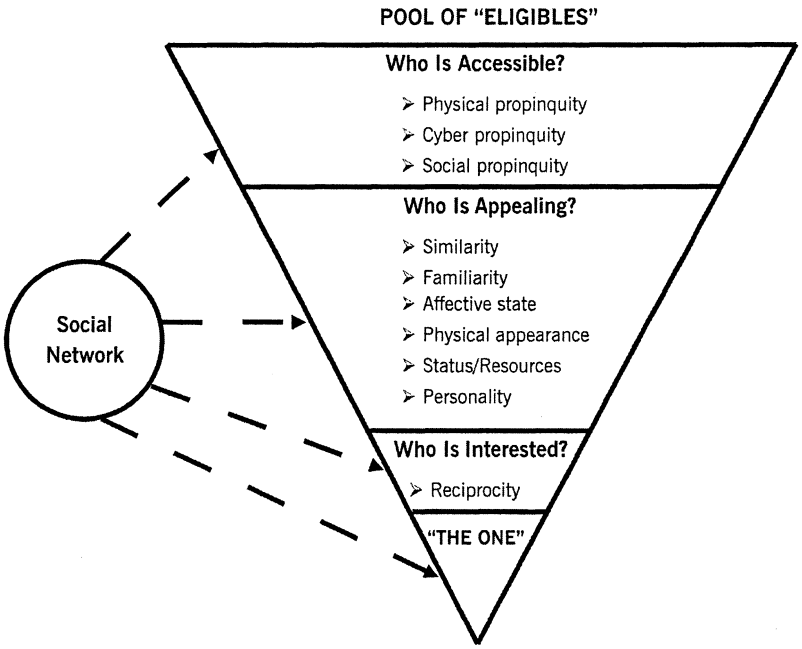

FIGURE 4.1. A process model of mate selection.

accounts for the selection of one to the exclusion of the others? This is where the fourth and final step in our process model comes into play. A sign of reciprocated interest on the part of a potential mate who is accessible, appealing, and attainable may suffice to trigger romantic infatuation. On the basis of interviews with hundreds of individuals, Tennov (1979) identified the common characteristics of infatuation, which later became the subject of much empirical research. Studies have shown that physiological arousal and anxiety (Marazziti & Canale, 2004), mental preoccupation with (Marazziti, Akiskal, Rossi, & Cassano, 1999) and idealization of (Niehuis, Lee, Reifman, Swenson, & Hunsaker, 2011) the target of attraction, as well as an intense longing for contact with this person (Aron et al., 2005) indeed characterize feelings of infatuation, as Tennov originally proposed. Such feelings narrow one's focus even further by focusing attention on one potential mate to the exclusion of all others.

Intense infatuation toward a potential mate can be triggered by any one or a combination of factors covered in this chapter. Regardless, when infatuation kicks in, it tends to "lock the emotional gates against further

intrusion" from attractive others (Tennov, 1979, p. 254). In laboratory as well as online dating contexts, simply thinking that one's romantic interest is reciprocated has the effect of directing attention away from attractive alternatives (Koranyi & Rothermund, 2012).

THE INFLUENCE OF SOCIAL NETWORKS AT EVERY STEP IN THE PROCESS

An individual's social network can play a major role in mate selection. In a previous section, we have reviewed evidence that having mutual social ties decreases social distance, thereby increasing the likelihood of interaction and interpersonal attraction. However, reducing social distance is not the only means by which social networks influence mate choice. Network members can exert influence by approving or disapproving of a potential mate, by playing matchmaker, and by doing the actual choosing, as in arranged marriage.

Network Members Approve or Disapprove

Friends and family may not always agree with one's mate choices (Buunk, Park, & Dubbs, 2008), and their approval or lack thereof has consequences for a budding relationship. Network members exert an influence in all stages of relationship development (Sprecher, 2011), although this influence is strongest when the couple is transitioning from casual dating to serious involvement (Knobloch & Donovan-Kicken, 2006). Indeed, increased network approval is associated with increased commitment, love, and satisfaction and lower likelihood of breakup over time (e.g., Etcheverry & Agnew, 2004; Sprecher & Felmlee, 1992). In contrast, when network members disapprove, they engage in behaviors intended to undermine the relationship (e.g., preventing the couple from spending time together) and avoid behaving in a manner that encourages the relationship (e.g., saying anything positive about the partner; Sprecher, 2011). Of course, such attempts can also backfire by fueling attraction, a phenomenon referred to as the "Romeo and Juliet effect" (Driscoll, Davis, & Lipetz, 1972). However, more often evidence supports the view that social network disapproval leads to lesser rather than greater attraction (Sprecher, 2011; Sprecher & Felmlee, 1992).

Not surprisingly, the impact of social network approval or disapproval depends on how much people care about what their network members have to say about their relationships. When individuals are motivated to comply with the opinions of their network members, approval leads to greater

commitment, which in turn prospectively predicts relationship stability (Etcheverry & Agnew, 2004).

Network Members Play Matchmaker

It is not uncommon for friends or family to introduce members of their social networks to each other in the hopes of making a good match. To play matchmaker, one has to make an assessment of whether two people are compatible in ways that matter (Chapdelaine et al., 1994). For example, if Kate believes Jessie will like Jamie, she might assume that Jamie will reciprocate Jessie's liking. Alternatively, because Kate herself likes Jamie, she assumes Jessie will agree on Jamie's likability. Kate could also assume Jessie and Jamie will like each other because they are similar in a variety of ways. In a reanalysis of five studies of initial attraction, Kenny et al. (1996) showed that individuals are indeed quite accurate—albeit not perfect—at assessing whether two of their acquaintances, particularly those whom they know well, might like one another. So people might actually be quite good at playing matchmaker for members of their social networks. To our knowledge, however, relationship outcomes of network-initiated matches have yet to be empirically investigated. Whether matches set up by friends and family are happier or more enduring than those resulting from chance encounters is a matter for future research.

Network Members Arrange Marriages

The most direct form of social influence on mate selection is the arranged marriage. Arranged marriages are common in many parts of the world (Goodwin, 1999), such as Japan, China, India (e.g., Sprecher & Chandak, 1992), and Turkey (e.g., Hortaçsu, 2007). As opposed to individual "choice marriages" prevalent in Western cultures, spouses in arranged marriages are selected by the couple's parents, sometimes with the help of other kin and typically with little or no input from the couple. Interestingly, spouses in arranged marriages and so-called choice marriages were found to be equally similar in terms of age, education, and family background (e.g., Fox, 1975). It appears that whether mates are chosen by individuals or arranged by their families, the pool of eligibles is roughly the same—that is, a social network defined by propinquity.

CONCLUDING REMARKS

Research guided by numerous theoretical perspectives has identified myriad factors that influence human mate selection. However, the richness

of the insights brought about by these diverse perspectives and empirical advances has not been fully utilized in the sense of organizing them into a unified framework. The process model of mate selection we presented in this chapter is one plausible way of integrating the vast literature on human mate selection. Future investigations that take multiple factors into account simultaneously (see Eastwick & Finkel, 2008; Hitsch et al., 2010; Kurzban & Weeden, 2005; Liben-Nowell et al., 2005, for examples of such an approach) rather than a single factor in isolation have the potential to advance theory and research greatly. Whether our process model holds up under empirical testing or not, we hope it will encourage others to join us in the search for an integrated process model of human mate selection.

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