Selecting Mates 6

What people want in a mate – the nature of mating standards – the origins of mate standards – within-gender differences – gender differences and mating strategies – explaining gender differences – mate preferences and the self – explaining within-gender differences – mate preferences and behavior – summary and conclusions

Someday he'll come along
The man I love
And he'll be big and strong
The man I love
And when he comes along
I'll do my best to make him stay

George and Ira Gershwin

In classes we teach on the science of intimate relationships, some of us use a demonstration developed by Bruce Ellis and Harold Kelley (1999). The students in the class are randomly given cards with numbers on them, ranging from 1 to 10, which represent their assigned mating value. These cards are held to their foreheads in such a way that others can see them, but remain out of sight for the card-bearer (so that each individual does not know his or her own mate value). The aim of the game is to get together with the individual with the highest mate value possible (gender is ignored). Once a mate selection is made, the initiator indicates his or her selection by attempting to shake hands. If the individual approached spurns the handshake, then the initiator must look elsewhere. When a couple is formed, indicated by a handshake, then each individual first guesses his or her own mate value number, before taking a peek at the

The Science of Intimate Relationships, First Edition. Garth Fletcher, Jeffry A. Simpson, Lorne Campbell, and Nickola C. Overall.

Published 2013 by Blackwell Publishing Ltd.

assigned value. As the class members mill about, individuals pair off, until a small and disconsolate group is left standing in the middle of the room. Inevitably, this group represents the dregs of the mating market, but they too finally pair off in a crestfallen sort of way.

The numbers are then crunched on a laptop, and reported back to the class. The results typically reveal that the mating values of the paired-up partners are highly correlated (about .70 or so), but also that individuals are very accurate at guessing their own mate value after pairing off (with correlations also around .70 between the predicted self-mating values and the actual numbers assigned). This demonstration suggests two important features about choosing potential mates. First, merely utilizing the heuristic – get the best deal possible – is enough to produce **assortative mating** (i.e. mating in which people match highly on given characteristics) in situations where both parties exercise choice. Second, the process of assortative mating provides feedback allowing people to accurately and rapidly assess their own mate value.

Of course, such a classroom exercise is limited and leaves many questions unanswered. Do individuals deliberately choose others who are similar to them? Are people rated according to a simple mate value dimension (good versus bad)? Do people carry round general ratings of their own mate value in their heads, or are such judgments more complex and variegated? For example, does a man who is good-looking, but cold, offer the same overall mate value as a man who is homely and warm? Are there gender differences in what people seek in a mate? And, finally, what are the origins of mate ideals? Evolutionary and social psychologists have devoted much attention to such questions, and a more complete picture of how mate selection works in humans is beginning to emerge.

In this chapter we explore the nature of interpersonal attraction and mate selection. The first topics we deal with concern what men and women around the world look for in a mate and the thorny question of why humans adopt the standards they do. We then discuss both the nature of within-gender differences and across-gender differences in mating strategies, and then why such differences exist. Some of the fascinating ways in which self perceptions and presentations of self are linked to mate selection processes are described. Finally, we analyze the extent to which preferences, perceptions, and desires are related to behavior in this domain.

Searching for a Mate: What do People Want?

In New Zealand, Canada, the United States, Pacific Islands, African hunter-gatherer cultures, and around the world, people focus on more or less the same qualities in evaluating potential mates: traits related to intelligence, warmth and trustworthiness; a second set related to physical attractiveness; and a third set related to status and resources or the ability to achieve them. Moreover, although there are characteristic gender differences in the importance attached to such categories (more on this later), there is also good agreement across both gender and cultures concerning which factors are most important in selecting mates for long-term relationships: The winner is intel-

ligence, warmth, and trustworthiness, with physical attractiveness and the ability to obtain status and resources typically running a close second.

The evidence supporting this generalization comes in various forms. David Buss (1989; Buss *et al.*, 1990) carried out the first systematic analysis in which men and women ranked a range of factors on their importance for selecting mates across 37 cultures. He found that traits like kind, understanding, and intelligence trumped earning power and attractiveness in both genders. A more recent study (Lippa, 2007) using an internet survey asked respondents to choose the most important three traits from a list of 23 items. Over 100 000 responses from 53 nations later, the top 9 items were the same for men and women, and featured familiar items like intelligence, kindness, and good looks. However, all the research on mate preferences discussed to this point shares a similar limitation; namely, the traits presented to participants were based on the hunches or theories of the experimenters. This approach could easily overlook important mate categories.

To deal with this thorny methodological issue, and to develop some valid and reliable scales to measure individual differences in mate ideals, Fletcher *et al.* (1999) initially had groups of women and men write down items that described their own ideal mates for long-term relationships. The hundreds of items that were generated were placed into categories, and any item that was cited by less than 5% of the sample was deleted, which left a total of 49 items. A different sample of students then rated how much importance they placed on each ideal in the context of sexual or romantic relationships. By using a statistical technique known as **factor analysis**, this research unearthed the general way in which people grouped the items together. The items fell neatly into the tripartite mate preference structure that has previously postulated: warmth/trustworthiness (with items like understanding, supportive, considerate, kind, a good listener, and sensitive); attractiveness/vitality (with items like adventurous, nice body, outgoing, sexy, attractive, good lover); and status/resources (with items like good job, financially secure, nice house or apartment, successful, and dresses well). These results proved to be the same regardless of whether the samples comprised men or women, or whether or not individuals were involved in sexual relationships.

What this brand of data analysis (factor analysis) shows is that people differ in terms of which sorts of mate characteristics they think are important, but that these differences occur across the three categories rather than within the sets of specific items that are included within each general ideal category. That is, people do not just set high or low ideal partner standards – individuals set high or low standards in ways that vary in a relatively independent fashion across the three kinds of mate characteristics.

Why do people not want it all? Why is Jane's preferred partner not incredibly kind, highly intelligent, handsome, tall – and rich? First, such people might be plentiful in TV soap operas, but in real life they are remarkably thin on the ground. Second, even when Jane meets such a male paragon he will probably not be interested in Jane (who is not a perfect ten in every category). Third, even if Jane succeeds in striking up a relationship with such a catch, he may be difficult to retain, and Jane may find she needs to invest an exhausting amount of time and resources in maintaining the relationship. Different people favor different tradeoffs and, hence, should differentially

weight associated mating criteria – and they do. We shall explain later why different people favor different tradeoffs in these criteria when actually choosing mates.

Reflecting a major theme in this book, what people want in a mate will also vary as a function of their goals. It is true that people want more or less the same things when looking for uncommitted sex or a short-term fling, compared to looking for a long-term partner in terms of the big three (kindness, good looks, and money). However, not surprisingly, well replicated findings show that both men and women report substantially lowering their standards in these domains for short-term compared to long-term relationships. Importantly, there is one exception to this pattern – physical attractiveness – which maintains its importance across mating contexts for both men and women (Fletcher *et al.*, 2004). This result is explicable in terms of **parental investment theory** (see Chapter 2) – the genes of the man or woman flitting through town are all that the other individual can gain (in reproductive terms), given that investment in a long-term relationship is not on offer.

A different way of conceptualizing mating criteria is in terms of the minimum standards required for a romantic relationship to be even considered. In a scene from "Sex in the City" (the TV series) four professional women in their mid-30s are sitting

"I wonder which will fade first—your tan or your animal magnetism."

Figure 6.1 *Source:* © 2008 Liza Donnelly

in a New York bar, bemoaning the lack of men in New York. But there are good-looking men everywhere in the bar – barmen, busboys, valets, and so forth. These men are invisible to Samantha's friends (in mate selection terms) because they are young and possess limited status and wealth; thus, they fail to surpass their minimum standards. Kenrick *et al.* (1993) asked participants to specify minimum criteria for a relationship for a mate differing in level of commitment, including a single date, a one-night stand, sexual relations, steady dating, and marriage. As expected, men and women had similar minimum standards, particularly for traits such as emotional stability, agreeableness, and intellect. Similarly, the minimum standards of both men and women increased as the type of relationship being sought increased in the level of investment required.

The Nature of Mating Standards

Personality traits, status, and resources

There is a wealth of cross-cultural evidence that people everywhere categorize people in terms of personality categories such as warmth, loyalty, and trustworthiness (Church and Lonner, 1998). In contrast, although increased status and resources elevates mating value everywhere, the fashion in which this is done is hugely variable. Living in New Zealand, Canada or the United States, men can gain status by dressing expensively, driving a Porsche, hanging around cafes talking on a cell phone, playing in a band, flashing money around, playing basketball on a winning team, successfully winning a drinking contest at a local dive, being a successful local politician, living in a fabulous house with a view, or even winning an air guitar competition, and the list could go on and on. The key seems to be to provide evidence of the sort of ambition, drive, and ability that signals the probability that one is, or may become, a wealthy man, or perhaps someone who can forge social connections and win respect from the group.

In human ancestral environments, men who wished to establish their status and resource-gathering credentials did not have cafes, cars, or cell phones. Moreover, in hunter-gatherer cultures, it is not easy to accumulate much in the way of resources, given the life-style and the need to travel light. No matter. Political savvy, hunting prowess or fighting ability are respected and confer status in almost every culture. One obvious (evolutionary) explanation for the value placed on hunting ability is that the man will be able to supply more food to his own family. However, in contemporary hunter-gatherer cultures, anthropological research has found that the best male hunters often give away most of the food to friends and others in the tribe (Hawkes, 1991; Smith and Bird, 2000). Such displays of generosity are effective advertisements of status and prowess – "Look at me, I am a great hunter." They also increase the chances of others in the group rallying around and supplying food and support in times of illness or hardship – what goes around comes around (Gurven *et al.*, 2000).

The human desire for status and respect (especially for men) is one of the most powerful, yet most general, human traits. The evolutionary reason is almost certainly

because women (and perhaps men) find related characteristics – ambition, intelligence, resources – so attractive in potential mates, or more accurately, did so during our ancestral past.

Physical attractiveness

In contrast to status and resources, physical attractiveness is judged in much the same way both across and within cultures (Berry, 2000). It is commonly, but wrongly, believed that physical beauty is judged in wildly different and unpredictable ways across cultures. The reason may reside in our exposure in western cultures to photographs and documentaries featuring men and women from traditional cultures who look anything but attractive to western eyes. Male members (forgive the pun) of the Ketengban tribe in New Guinea who wear enormous penis sheaths, or Maori men from New Zealand with heavily tattooed faces, may not appeal to the average woman living in the United States. In the same vein, women from the Mursi (a Southern Ethiopian tribe) who wear enormous discs to push out their lower lips, or women from the Paduang (in Burma) who wear multiple brass coils around their necks, which lengthens them to the point where they can die from suffocation if they are removed, may look grotesque to the average US man.

But this sort of experience is misleading, as it mixes up fashion with the more basic bodily features associated with physical beauty. True, individuals in western and other cultures differ (to some extent) in whom they find attractive. Popular magazines sometimes feature stories that exploit this idea with men varying in terms of whether they get turned on most by women's legs or breasts, and women arguing over whether size matters, and to what extent big muscles are attractive. However, the research evidence shows that differences of opinion within western cultures in standards of beauty and sex appeal are no greater than the differences across cultures. Beautiful or homely faces are perceived the world over in much the same way. Michael Cunningham and others (Cunningham *et al.*, 1995) had Asian, Hispanic, Taiwanese, and black and white Americans rate the attractiveness of faces from all the same ethnic groups. Individuals from the different ethnic groups overwhelmingly agreed with one another about who was more physically attractive (with correlations reported over .90!). Such results have also been replicated with other cultural and ethnic groups (Cunningham *et al.*, 1997).

The universally attractive female face (for men) has a relatively child-like appearance, with wide-set, large eyes, a small nose and chin, prominent cheekbones, high eyebrows, large pupils, and a warm smile (Cunningham, 1986). The story with men's faces is more complicated. Michael Cunningham and his colleagues have found that the universally attractive male face (compared to a woman's face) has a relatively angular appearance, wide-set eyes, and a large chin – but combined with baby-face features, including large eyes, and an expressive smile (Cunningham *et al.*, 1990).

One of the major tools that researchers can now exploit is programs that can morph individual digital photographs in systematic ways, or generate composite photographs based on hundreds of individual photographs. Using this technique, Gillian Rhodes created different human facial images based originally on an average female and an

average male face (using both European and Chinese faces). Some of the images created represented exaggerated versions of stereotypical human female and male faces, while others became feminized male faces or masculinized female faces. The results (for both Chinese and European faces) showed that the superfemale faces were rated as most attractive by all the raters, whereas for the male faces the feminized versions were the clear winners (Rhodes *et al*., 2000). If you are a woman and look like Lindsay Lohan you seem to be on to a winner; if you are a man, then it looks like a compromise between Lewis Hamilton and David Coulthard (Grand Prix drivers) or Hugh Jackman and Leonardo DiCaprio (actors) may be the best bet (although the story becomes more complicated as we shall see).

The development of preferences for attractive faces also requires little or no learning. Infants from 14 hours to 6 months old prefer looking at faces that are attractive rather than unattractive (as defined according to adult preferences) (Slater *et al*., 1998). Thus, preferences for attractive faces are not only universal, but seem to be hard-wired and present at birth (see Zebrowitz and Rhodes, 2002).

What goes for faces also goes for bodies; namely, particular body prototypes are universally held to be attractive. Perhaps the most widely studied physical trait to date is the female **waist–hip ratio**. Body shape in humans is largely determined by the distribution of body fat rather than the total amount of body fat, and body fat distribution is regulated by sex hormones, as described in Chapter 4. The end result is that women have a much curvier appearance than men, and women's curves have not escaped the attention of both men and researchers. It is true that fashion models tend toward thinness, sometimes to the point that they seem quite emaciated. However, when ordinary men (not fashion mavens) are asked to rate body shapes, fashion-model thinness is not judged as physically attractive (Singh, 1994). Devandra Singh (1993) conducted the first large scale research project focusing on the ideal female body shape. In a creative move, Singh first obtained body measurements from *Playboy* centerfolds between the years 1955–1965 and 1976–1990, as well as from Miss America winners from 1923–1987.

Two trends emerged from Singh's research. First, *Playboy* models and Miss America winners were slimmer in later compared to earlier years. Second, the waist–hip ratio of all women regardless of the year, or their weight, hovered around .70. A waist–hip ratio of .70 means that the waist is 70% the size of the hips, representing a perfect hourglass shape. Moving to the laboratory, Singh next showed a series of drawings representing a woman with waist–hip ratios ranging from .70 to 1.0, depicted as being overweight, underweight, or of normal weight to a large number of participants. Everyone in the sample agreed that the woman with a .70 waist-hip ratio was the most attractive (see Figure 6.2). Recent research using naked body images of real women reveals a similar pattern of effects, with men preferring a waist–hip ratio of around .70, and women of average weight (Perilloux *et al*., 2010).

Turning to men, those who are muscular, athletic, and tall are sexier than flabby, short men worldwide (Langlois *et al*, 2000; Singh and Luis, 1995). Short, out-of-condition, middle-aged men with potbellies can still do surprisingly well in the mating stakes, if they hold power and prestige, or have other qualities such as high intelligence.

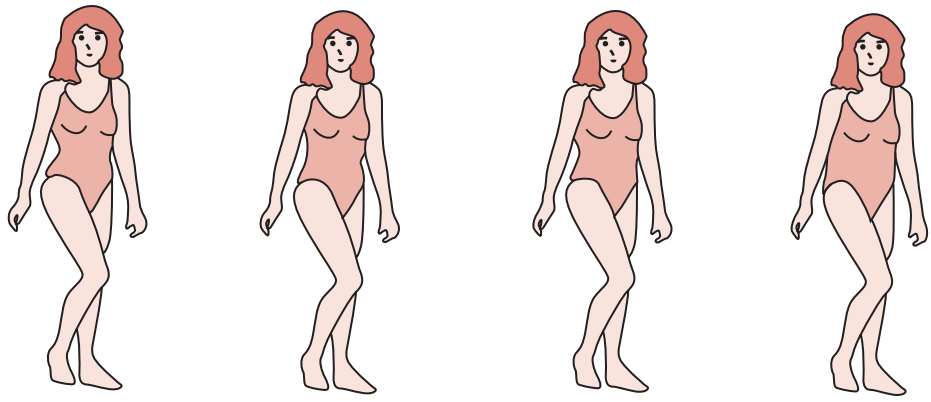

Figure 6.2 Stimulus figures from Singh (1993) depicting different waist–hip ratios, from left to right: .70, .80, .90 and 1.0
Source: © 1993 American Psychological Association, Inc.

Indeed, if there is a famine in the land, then being overweight could be a draw card, given that it may signal the presence of status and wealth. However, excessive corpulence is not regarded as sexy anywhere and what is perceived as universally sexy in women (by men) is the classic hourglass shape with rounded, firm breasts and smooth skin (Singh and Luis, 1995).

Summary

Thus far we have established that both men and women are looking for similar qualities in a potential mate – personality qualities like warmth and trustworthiness, physical attractiveness, and the possession of status and resources or the drive and ambition to gain them. Moreover, these standards and even the way they are embodied or expressed (with the possible exception of possessing status) are close to universal around the world. But why are they universal? We turn to this question next.

The Origins of Mate Standards

Clearly, culture plays a pivotal role in any origin account of ideal mate standards. Within western cultures, for example, individuals are incessantly exposed to theorizing about the nature and functions of relationships from birth, emanating from parents, teachers, friends, the media, books, plays, TV, magazines, songs, and so forth. Such theorizing is certainly not totally coherent, but by the time people enter puberty they have become thoroughly psychologically conditioned with beliefs and expectations about romantic relationships.

However, an answer in terms of a shared cultural heritage only goes so far. One could adopt a relativist approach and claim that cultures develop such theories in some sort

of random fashion, or completely tied to historical accident and contingencies. However, such an account is hardly plausible, given the available evidence documented in this book. One commonly accepted answer to this question is that humans have evolved instincts to search out mates according to these criteria, because possessing them enhanced reproductive success in our ancestral environments and probably continues to do so. Steven Gangestad and Jeffry Simpson (2000) argue that mate value is enhanced according to two general but different kinds of criteria: the possession of **good genes** and/or **good investment**. Let's consider the mating criteria we have discussed thus far in terms of this distinction.

Being attentive to a partner's capacity for intimacy and commitment should increase an individual's chances of finding a cooperative, committed partner who would be a devoted mate and parent (good investment). By focusing on attractiveness and health, an individual would be more likely to acquire a mate who was younger, healthier, and more fertile – this is the primary good genes factor. And, by considering a partner's resources and status, an individual should have been more likely to obtain a mate who could ascend social hierarchies and form coalitions with other people who had – or could acquire – valued social status or resources. This last category is likely to represent a mixture of both good genes and the ability to invest in the relationship and the children. If an evolutionary approach is on the mark, then the possession of such traits should hold the promise of higher reproductive success. What evidence is there for this proposition?

Good investment

In humans, as we have noted, offspring require a great deal of intensive parental care over a long period of time to survive, much longer than other primate species. In Chapter 2 we also posited that the role of the family was likely to have been critical in the evolution of humans and their unique abilities and attributes, up to and including the development of culture. In this context two parents are better than one, and men should therefore play an important role in the rearing of their children.

A thorough review of the literature on paternal investment in children by Geary (2000) supports this claim. For instance, father investment in offspring has been linked in pre-industrial times with increased infant health and decreased infant mortality (e.g. Hed, 1987). Paternal investment is also related to improved social competitiveness for children, such as higher socio-economic status in adulthood (e.g. Kaplan *et al.*, 1998) and increased educational achievement for adolescents (e.g. Amato and Keith, 1991). Children born and raised within pair bonds were also more likely to survive to reproductive age in the past, and to be more socially competitive later in life when they attempted to attract mates (Geary, 2000) (also see Chapter 7).

Good genes

It is perhaps obvious why an individual loaded with warmth and trustworthiness, along with high status and wealth, should make an effective mate and parent. After

all, such individuals have both the motivation (being kind and considerate), and the means (possessing status and wealth) to be effective and devoted partners and parents. But why should attractiveness be associated with good genes? Human faces and bodies are so routinely perceived as inherently attractive and beautiful (or the opposite) that it is difficult to step back and ask why particular arrangements of the human body are so forcefully and automatically perceived as either beautiful or homely. **Sexual selection** theory provides the most plausible explanation; namely, such features were associated in human ancestral environments with reproductive fitness. Remember the peacock and his gorgeous tail. The most popular explanation for why peahens are so fixated on this feature, when selecting mates, is in terms of the **handicap principle**. That is, large and gorgeously colored tails represent honest advertisements that indicate good health, a robust body, and high fertility (good genes). For humans, the same kind of explanation entails that beautiful people with great bodies were healthier, more fertile, and bore healthier children in the past than those who were less attractive (for both men and women). But is this true and, if so, what are the causal mechanisms involved?

Devandra Singh (1993) argued that a physical feature should only be perceived as beautiful in women when that feature is reliably linked to relative youth, health, and the ability to conceive and sustain a pregnancy. In women, **estrogen** levels are low before puberty and following menopause, but are relatively high between these two periods of life. Women will therefore have the curviest appearance during the most fertile period of their lives, meaning that a low waist–hip ratio is an indicator of fertility in women. A lower waist–hip ratio is also associated with greater overall health in women, with health problems being more prevalent in women with higher waist–hip ratios (Singh and Luis, 1995; Zaadstra *et al.*, 1993). A lower waist–hip ratio, near the .70 level, is also associated with increased fertility in women, whereas a higher waist–hip ratio well over the .70 level is an indicator of decreased fertility (Jasieńska *et al.*, 2004; Singh, 2002).

In a similar vein, women who have more feminine facial features also tend to be more fertile, partly because they have more estrogen (Law Smith *et al.*, 2006). Women who have more masculine facial features, such as a more prominent chin and larger eyebrow ridges, tend to have less estrogen and more testosterone, and are more likely to report experiencing health problems (Thornhill and Gangestad, 2006). More masculine facial features in women are also associated with having more sexual partners and having a less restricted attitude toward having sex in less committed relationships (Campbell *et al.*, 2009), characteristics that men tend to find less appealing in long-term romantic partners (Kenrick *et al.*, 2001).

Another marker of good genes, linked to physical attractiveness, is termed fluctuating asymmetry. Imagine the human body split vertically down the middle from head to toe – highly symmetrical individuals have faces and bodies that are similar across the left and right sides. Individuals who have lopsided faces, with different-sized ears, different looking eyes, and so forth, have high levels of fluctuating asymmetry, as do those with legs, feet, arms and hands that are different shapes and lengths. The word "fluctuating" refers to the way in which asymmetry varies across populations, rather than over short periods of time within individuals.

Fluctuating asymmetry should be a marker of good genes for at least three reasons. First, greater asymmetry is associated with lower survival rates, slower growth rates, and lower rates of reproduction in many different species (Leung and Forbes, 1996; Moller, 1997; Moller and Thornhill, 1998; Thornhill and Moller, 1997). Second, fluctuating asymmetry is partly heritable, meaning that the offspring of more symmetrical people are likely to also be more symmetrical (Moller and Thornhill, 1997). Third, the development of symmetry is more likely to be sustained when individuals have efficient immune systems capable of warding off pathogens, which can cause asymmetry (Moller and Swaddle, 1997). Thus, adults who are symmetrical should have fewer genetic abnormalities, and also possess a hardy and healthy constitution that enables them to remain relatively unaffected by serious disease or illness throughout the course of their development.

Overall, research with humans has shown that men (but not women) with more symmetrical bodies are rated as more physically attractive (Thornhill and Gangestad, 1994). More symmetrical men are also more physical (e.g. more muscular, robust, and vigorous), and less readily dominated by other men (Gangestad and Thornhill, 1997). More symmetrical men also report engaging in physical fights more often with other men (Furlow *et al.*, 1998). Finally, men who are more symmetrical tend to have more lifetime sexual partners (Thornhill and Gangestad, 1994), partly because they are more socially dominant. However, once again, tradeoffs are at work here. More symmetrical men may be better at attracting women, but in relationship contexts they provide fewer material benefits to their romantic partners, and they give them less time and attention than less symmetrical men (Gangestad and Thornhill, 1997).

Higher **testosterone** levels in men are linked to having greater interest in sex (Tuiten *et al.*, 2006) and the likelihood of having more sexual partners (van Anders *et al.*, 2007). However, high circulating levels of testosterone can be harmful to the body if the person is not genetically robust. For example, testosterone can suppress the immune system (Alonso-Alvarez *et al.*, 2007). These facts have led to the controversial proposal that testosterone plays a similar role to the peacock's tail, which handicaps the male peacock and thus is an honest advertisement for good genes. In the same vein it has been argued that only men who can afford these costs can maintain a high level of circulating testosterone; therefore, a high level of testosterone should be a marker of good genes. It is certainly the case that the development of a number of physical traits is partly guided by the sex hormone testosterone, such as facial masculinity, a deep voice, muscular bodies, and masculine behavioral displays (e.g. Penton-Voak and Chen, 2004; Roney and Maestripieri, 2004; Swaddle and Reierson, 2002). Thus, such physical features may indeed constitute honest advertisements of testosterone levels (and perhaps virility) in humans.

Within-gender Differences in Mating Strategies

Sociosexuality and mating strategies

A **mating strategy** is a coordinated set of tactics and behaviors that a person uses, often unconsciously, to attract and retain mates. There are two general types of mating

strategies: (i) short-term mating strategies, in which people develop an interest in sex and mating at a relatively young age, have sex earlier in life, and tend to have more sex partners in adulthood; and (ii) long-term mating strategies, in which people develop an interest in sex and mating when they are older, have sex later in development, and have fewer sex partners in adulthood. **Unrestricted** people usually adopt short-term mating strategies, and **restricted** people typically adopt long-term ones, especially in casual dating situations. As described in detail later in Chapter 10, the **sociosexuality scale** developed by Simpson and Gangestad (1991) is a good measure of this mating strategy dimension (see Table 10.1 in that chapter to gain an idea of what this scale measures).

Although there are gender differences in these mating strategies (which we canvas later), there are also large within-gender differences. Restricted and unrestricted individuals are attracted to different kinds of romantic partners. Simpson and Gangestad (1992) found that unrestricted individuals rate a potential mate's physical attractiveness and sex appeal as more important than restricted individuals (also see Wilbur and Campbell, 2010). Restricted people, on the other hand, place more weight on good personal and parenting qualities (e.g. being kind, responsible, and faithful) than unrestricted individuals. Moreover, unrestricted people end up with dating partners who are more extroverted and sexier, whereas restricted people have partners who are more committed to the relationship and are more affectionate, responsible, and faithful (Simpson and Gangestad, 1992). Similar mate preference patterns were found by Herold and Milhausen (1999), who focused on differences in women's perceptions of nice guys (those you take home to mom) versus bad boys (those you don't). Women who had more restricted tendencies preferred nice guys over bad boys. The bad boys, as might be expected, were more preferred by unrestricted women, who perceived the nice guys as dull and boring.

How do bad boys and nice guys present themselves when trying to attract romantic partners? To answer this question, Simpson *et al.* (1999) had single heterosexual men come to the lab and be interviewed for a potential lunch date by a very attractive woman (actually a trained experimental assistant who had been videotaped). Each man thought that she would choose either him or another man (a competitor) for the date. All of the interviews were videotaped and then rated by trained observers. In these spontaneous relationship initiation interviews, unrestricted men were more likely to use competitive tactics associated with short-term mating, such as bragging about past accomplishments, and putting down their male competitor. Restricted men took a different approach. They emphasized their positive personal qualities, suitable for long-term relationships, such as kindness and an easy-going nature.

During initial interactions, a great deal of information is conveyed by nonverbal expressions and gestures. How do men and women signal their interest in short-term versus long-term relationships nonverbally? Simpson, Gangestad, and Biek (1993) had single heterosexual women and men participate in a lab version of the "Dating Game" in which they were interviewed for a possible date by a very attractive opposite-gender person (a trained male or female experimental assistant who had been videotaped). Each interview was once again videotaped and rated by trained observers. During these

interviews, unrestricted men were more likely to smile, display flirtatious glances and tilt their heads (a sign of immediate romantic interest), and laugh. Unrestricted men also acted in a more socially engaging, dominant, and slightly arrogant manner nonverbally. Unrestricted women were more likely to lean forward and tilt their heads during the interview, both of which are also expressions of immediate romantic interest (Eibl-Eibesfeldt, 1989). Moreover, strangers viewing these kinds of nonverbal behaviors can accurately detect the degree to which women are sexually restricted to a remarkable degree (Stillman and Maner, 2009).

In summary, people who have a restricted sociosexual orientation prefer mates who, like themselves, value intimacy and commitment and are affectionate, trustworthy, and faithful. To attract these mates, restricted men accentuate their good personal qualities, especially those that will be valued by women who also want long-term relationships. These characteristics reflect long-term mating tactics. On the other hand, people who have an unrestricted sociosexual orientation prefer physically attractive and socially visible mates, and they are more likely to cheat (or at least think about cheating) on their partners (Seal *et al.*, 1994). When attracting mates, unrestricted men use direct competitive tactics and both unrestricted men and women display more openness to sexual contact (e.g. smiles, flirtatious glances, head tilts) when they first meet attractive opposite-gender people.

The menstrual cycle and mate preferences

Intriguingly, not only are some women more into short-term mating strategies than others, but female mating preferences vary within the same women across the menstrual cycle. Human females are fertile (capable of conceiving) for only a brief time during each **menstrual cycle**, from several days prior to the day of ovulation up until the day of ovulation itself (Wilcox *et al.*, 1995). This window of fertility is called the **follicular phase** of the menstrual cycle, and the remainder of the cycle when conception risk is low or non-existent is called the **luteal phase** (see Figure 6.3). A large body of research shows that women's mate preferences, particularly for short-term sexual liaisons, shift dramatically across these two phases of the menstrual cycle, but only for women not taking any form of hormonal birth control (Alvergne and Lummaa, 2009;

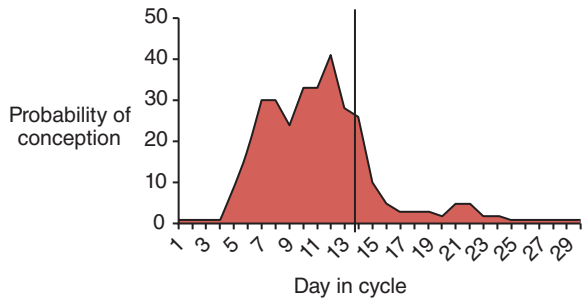

Figure 6.3 Conception and the reproductive cycle

Gangestad and Thornhill, 2008). The birth control pill regulates the flow of androgens, including testosterone, and thus probably evens out women's sex drive across the reproductive cycle.

For example, in one of the first studies of its kind, Steven Gangestad and Randy Thornhill (1998) provided men with a new white t-shirt, which they wore for two nights while sleeping. They were also provided non-scented soap to wash their sheets prior to sleeping in their shirt, and were instructed to shower using a non-scented soap, and not to eat spicy food, drink alcohol, consume other drugs, smoke, have sex with another person, or sleep with another person. After wearing the shirt for two nights, men were asked to place the shirt in a sealed plastic bag and return it to the researchers. The bodily symmetry of each man was measured across ten different body parts (e.g. foot width, finger length) using special calipers. Next, a large number of women arrived at the laboratory and were asked to open each bag and smell the t-shirt inside. After getting a good whiff of the shirt, the women were asked to rate the degree to which each shirt had a pleasant and sexy scent.

For women that were not currently ovulating, or were in the luteal phase of their cycle, their ratings did not correlate at all with the bodily symmetry of the men. However, women that were currently ovulating, or in the follicular phase, rated the scent of symmetrical men's shirts more favorably than the scent of asymmetrical men's shirts (Gangestad and Thornhill, 1998). Moreover, it was not merely that women who were ovulating found the smelly t-shirts less nauseating – they rated the t-shirts worn by the symmetrical men as smelling nicer than fresh t-shirts. The ratings of women taking hormonal birth control, however, did not correlate with the symmetry of the men regardless of the menstrual phase of the women, which suggests that normal hormonal fluctuations (which are suppressed by the pill) are causing this phenomenon. An identical pattern of results has emerged in three other studies (Rikowski and Grammer, 1999; Thornhill and Gangestad, 1999; Thornhill *et al.*, 2003). Women are only more attracted to more symmetrical men, therefore, when they are fertile and potentially able to conceive.

Research has also documented that when women are in the follicular phase of their cycle, compared to when they are in the luteal phase, they are more attracted to masculine facial features (Penton-Voak and Perrett, 2000; Penton-Voak *et al.*, 1999; Scarbrough and Johnston, 2005), more masculine, lower pitched voices (Puts, 2005), masculine body odor (Grammer, 1993), the scent of men who are socially dominant (Havlicek *et al.*, 2005), socially dominant interpersonal behavior (Gangestad *et al.*, 2004, 2007), and more muscular bodies (Gangestad *et al.*, 2007). Again, this pattern of effects is only found for women not taking hormonal birth control.

Tellingly, women's preferences for men as sexual short-term partners shift across the menstrual cycle, whereas their preferences for men as long-term highly investing partners remain stable (e.g. Gangestad *et al.*, 2004, 2007; Penton-Voak *et al.*, 1999). The compelling results of the Gangestad *et al.* 2004 study are depicted in Figure 6.4. Notice how preferences for more socially dominant and competitive men spike in the follicular phase when women consider men as a short-term sexual partner, but evaluations of the man as a long-term relationship partner do not change across the menstrual

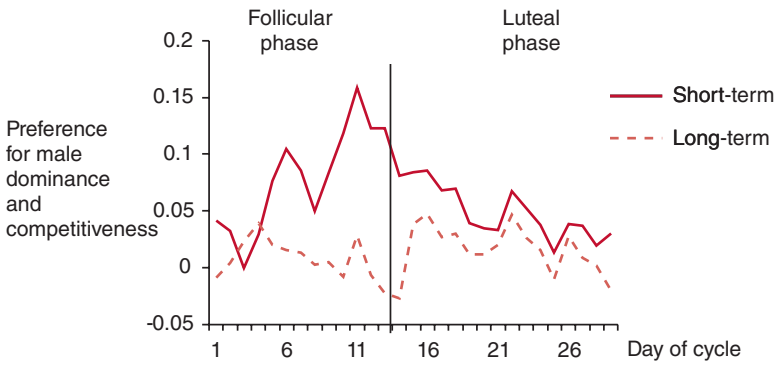

Figure 6.4 Female preferences for male behavioral displays of dominance as a function of day of cycle and mating goal
Source: From Gangestad *et al.*, 2004; © 2004 American Psychological Society

cycle. Since good genes are the only certain benefits that can arise from short-term sexual relationships, and men with good genes tend to invest less time and resources in relationship partners, it is not surprising that women are more attracted to men displaying such cues to good genes (e.g. symmetry, testosterone, social dominance) when they are ovulating.

In addition to women's preferences for short-term sexual partners changing across the menstrual cycle, there are noticeable changes in their actual physical attractiveness and interpersonal behaviors. In the follicular (compared to luteal) phase of the menstrual cycle, women's scent is more attractive to men (e.g. Havlicek *et al.*, 2006; Singh and Bronstad, 2001). The pitch of women's voices also becomes somewhat higher in the follicular phase, a shift that is attractive to men (Bryant and Haselton, 2009; Pipitone and Gallup, 2008). Women also report feeling more attractive during the follicular phase (Haselton and Gangestad, 2006), and are more likely to dress in particularly attractive and revealing clothing (Durante *et al.*, 2008; Haselton *et al.*, 2007). In one clever field study, Miller *et al.* (2007) tracked the tips made by 18 professional lap dancers over a 60-day period, seven of whom reported using hormonal birth control. The results were striking. Dancers on hormonal birth control received a similar amount of tips per day from club patrons regardless of whether they were in the follicular or luteal phase of their cycle. Normally ovulating dancers, on the other hand, earned over $100 more per day in tips when they were in the follicular compared to luteal phase of their cycle (see Figure 6.5).

Gender Differences, Mating Strategies, and Short-Term versus Long-term Liaisons

Not only are there individual differences within men and women in terms of mating strategies but there are, on average, characteristic gender differences; namely, men are

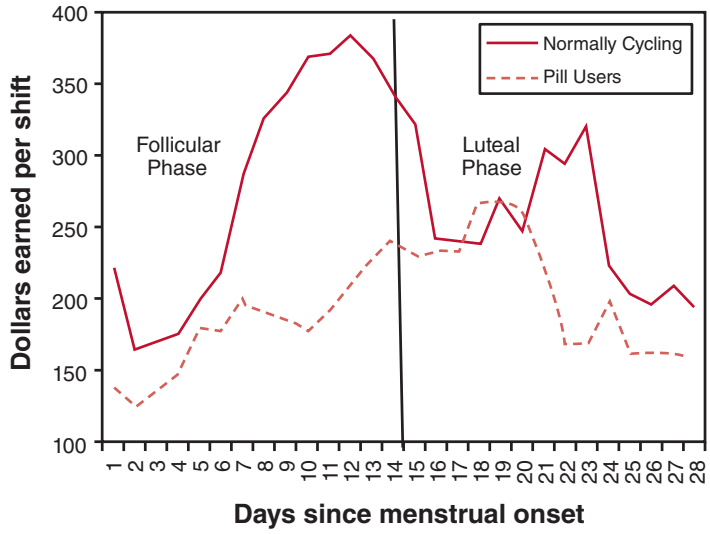

Figure 6.5 Tips earned per shift by lap dancers across the menstrual cycle
Source: From Miller *et al.*, 2007; © 2007 Elsevier

Well-replicated Gender Differences in Mate Selection

Men
- Give more importance to attractiveness (in partners)
- Give less importance to status and resources (in partners)
- Are more interested in sexual variety
- Are more interested in younger women
- Are more interested in casual sex
- Stress their own levels of status and resources in mate selection contexts

Women
- Give less importance to attractiveness (in partners)
- Give more importance to status and resources (in partners)
- Are less interested in sexual variety
- Are more interested in older men
- Are less interested in casual sex
- Stress their own levels of attractiveness in mate selection contexts

Figure 6.6 Gender and mate selection

more likely to adopt short-term strategies whereas women focus more on long-term mating strategies. This generalization can be cashed out in several ways, which we describe next (see a summary in Figure 6.6).

Physical attractiveness, age, status, resources, and personality traits

The classic gender difference replicated repeatedly across cultures and studies is that men give more importance to physical attractiveness and relative youthfulness than

women, whereas women give more importance to status and resources (or the ability to acquire them) (for reviews, see Feingold, 1992; Fletcher, 2002; Geary, 2010). These differences have been reported across many cultures (Buss, 1989; Kenrick and Keefe, 1992), in large national samples from the US (Sprecher *et al.*, 1994), and in analyses of what people are looking for in studies of personal advertisements (Wiederman, 1993). In studies of on-line dating, women also tend to give more weight to income and physical characteristics than men when deciding who to contact via email (Hitsch *et al.*, 2010).

However, as we indicated previously, in the real world where there are few if any perfect tens, individuals need to trade off mating characteristics against one another, and gender differences may come and go depending on the context and the goals. In the earliest attempt to test the impact of tradeoffs, Norman Li and colleagues (Li *et al.*, 2002) had men and women create their ideal romantic partner using either a limited budget ($20) or a more generous budget ($60), assigning the available money to a list of 10 specific traits. The findings for four of these traits are shown in Figure 6.7 and Figure 6.8. When the budget was limited, this accentuated the classic sex differences. For example, men spent more than twice as much on physical attractiveness than women, whereas women spent far more on yearly income. However, when the budget was generous, the gender differences were attenuated, with both men and women going for a more rounded profile.

Fletcher *et al.* (2004) found a similar pattern of results when participants were forced to choose between pairs of potential partners who were presented as having a good side and a bad side (e.g. wealthy and cold versus warm but poor). In this study the classic gender differences were strongest when the goal was presented as having a short-term sexual fling, with women emphasizing status and resources and men physical attractiveness when making their choices between the two flawed candidates. However,

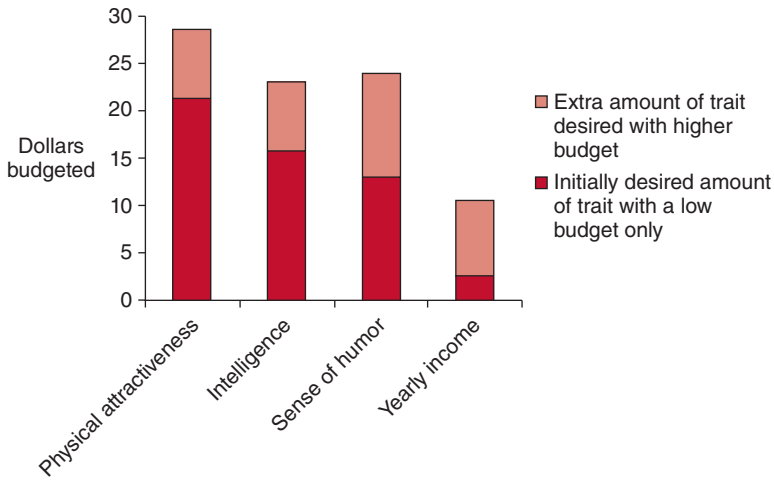

Figure 6.7 Designing a mate by men with a limited or generous budget
Source: Adapted from Li *et al.*, 2002

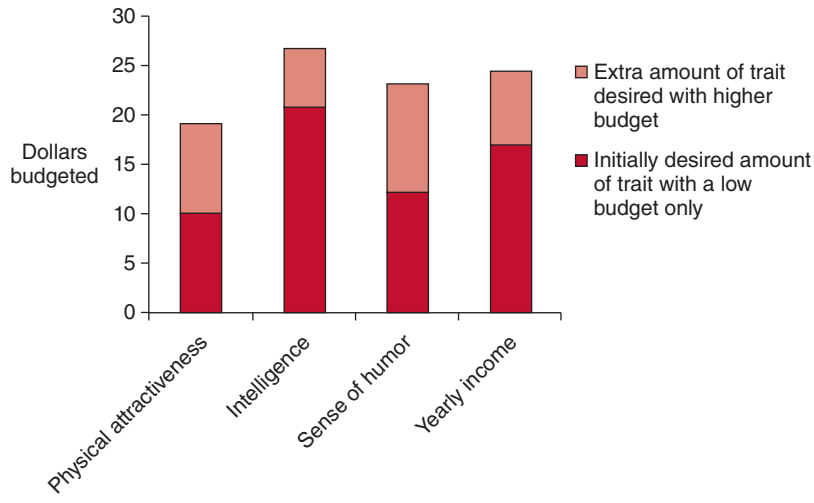

Figure 6.8 Designing a mate by women with a limited or generous budget
Source: Adapted from Li *et al.*, 2002

when considering a long-term relationship, possessing a warm, trustworthy personality more or less trumped being gorgeous or wealthy, although residual gender differences remained. Of course, the choices in the real world will not often be as stark as in this study – participants in the Fletcher *et al.* research could not opt out of making a mate choice (nor in the Li studies could participants save all their money for a relationship rainy day). However, this research does show that contexts count.

Sexual variety

Men are more interested in sexual variety than women. An amusing (possibly apocryphal) story about President and Mrs Coolidge in the 1920s illustrates this hypothesis. While visiting a poultry farm the President and his wife were taken on separate tours. During the tour Mrs Coolidge noticed that the farm had very few roosters but a lot of hens, and she asked the farmer how it was that so many eggs could be fertilized by so few roosters. The farmer replied that the roosters could perform their duty dozens of times per day. Impressed, Mrs Coolidge suggested this fact be pointed out to the President. Upon hearing about this exchange, President Coolidge asked if each rooster performed his duty with the same hen each time. On hearing the answer – the rooster fertilizes the eggs of many different hens each day – the President suggested this fact be pointed out to Mrs Coolidge! To this day, the **Coolidge effect** refers to the tendency for males to be particularly sexually responsive when a new potential sexual partner is introduced. Documenting this effect in rats, for example, Beach and Jordan (1956) found that male rats would mate with female rats in estrus repeatedly

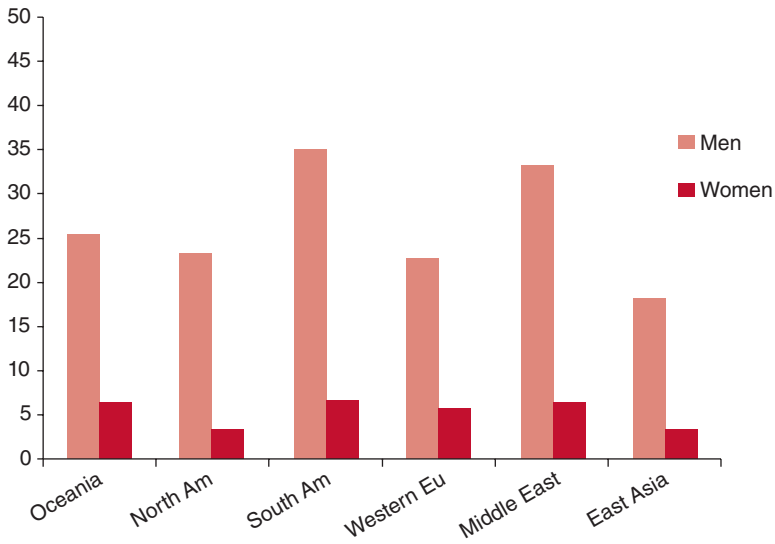

Figure 6.9 Percentages of people who desired more than one sexual partner in the next month from six world regions
Source: From Schmitt *et al.*, 2003; © 2003 American Psychological Association, Inc.

until eventually becoming exhausted, but would begin mating again immediately if new female rats in estrus were placed in their enclosure.

Testing the Coolidge hypothesis in humans, David Schmitt and colleagues (Schmitt *et al.*, 2003) collected a sample of over 16 000 participants across 10 major world regions, including North America, South America, Western Europe, Eastern Europe, Southern Europe, Middle East, Africa, Oceania, South/Southeast Asia, and East Asia. Among other questions, participants were asked how many sexual partners they would ideally like to have in the near and distant future, and the likelihood they would consent to have sex after knowing someone for one month, In every major world region assessed, men reported a greater desire for sexual variety compared to women, as illustrated in Figure 6.9, and a higher chance of consenting to sex after knowing someone briefly (see Figure 6.10). These results make an important point; namely, that overall attitudes to short-term sexual liaisons are strongly influenced by cultural contexts, but that, nevertheless, the direction of the gender differences is the same across cultures.

The stereotype (men are open to casual sex) is no mere fiction. In a famous study Russell Clark and Elaine Hatfield had (brave) male and female confederates approach members of the opposite gender on a US university campus (repeated in 1978 and 1982) and asked if they would go to bed with them. The two studies (published in 1989) found that 72% of the men agreed, whereas none of the women did. This difference was not a function of the attractiveness of the person making the request. When

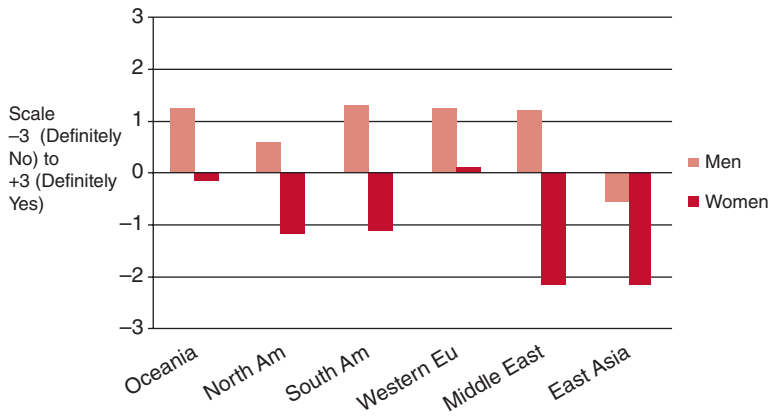

Figure 6.10 Consenting to sex after one month from six world regions
Source: From Schmitt *et al.*, 2003; © 2003 American Psychological Association, Inc.

the same individuals softened the request to going out on a date, 50% of the women and 53% of the men agreed. Oddly, therefore, men were more likely to agree to have sex than to go on a date! Even men who declined the offer of sex apologized, and explained themselves by saying they were married or already involved, whereas women responded with outrage or complaints (e.g. "You've got to be kidding"). One can see the powerful role played by cultural norms here. Overall, however, men are keener on taking advantage of short-term sexual opportunities than women.

Explaining Gender Differences in Mate Selection Strategies

Parental investment theory

Explaining why women and men differ in terms of their preferred mating strategies remains a controversial and hotly debated topic. The standard evolutionary account was initially provided by Robert Trivers in 1972 – parental investment theory. As we outlined in Chapter 2, this theory is couched in terms of differences across sex in the investments made in offspring. In species where the female makes all the investment in raising the offspring, and the male contributes his sperm and nothing else, the females are (sensibly) choosy whereas the males (also sensibly) promiscuously try and mate with as many females as possible regardless of their apparent quality. In bonding species, like *Homo sapiens*, both males and females invest in raising offspring, so both sexes should be choosy. Indeed, as we have seen, men and women are interested in the same qualities in potential mates, and both are picky, especially when seeking long-term relationships. Nevertheless, the gender differences in mating strategies are consistent with gender differences in investment.

When a woman becomes pregnant, she must carry the child for approximately nine months, and may experience serious medical problems during this time. She must endure childbirth, and then lactate for weeks, months, or sometimes years after the baby is born. Men do not experience any of these events. Women are also born with a limited number of ova, which can be fertilized only during a circumscribed period of time, with fertility peaking in the mid-20s and decreasing significantly over time to essentially zero in the late 40s. For men, the minimal amount they need to invest in offspring can involve a single sexual encounter, and men are capable of producing viable sperm from puberty well into old age. Given this stark difference in the minimal amount of parental investment required of men and women, it is perhaps not surprising (so goes the argument) that women should be choosier in different ways than men (as outlined previously), when selecting long-term mates and also generally pickier for short-term sexual liaisons.

Sexual strategies theory

In 1993, David Buss and David Schmitt developed **sexual strategies theory** to explain gender differences in mate selection. The basic idea behind sexual strategies theory is simple; to the extent that women and men faced different adaptive problems associated with mating and reproduction during evolutionary history, they should have enacted different mating strategies, along the lines previously described. However, this theory also identifies certain conditions in which ancestral women might have benefited from engaging in selective short-term mating (Greiling and Buss, 2000). For example, short-term mating strategies could have been successfully used by some women in order to get valuable resources from men, to help women judge a man's prospects as a good long-term mate, or to attract a good long-term mate. Short-term strategies might also have been used by some women to assess a mate's true intentions or actual personal characteristics, including his mate value. In certain situations, short-term mating may also have offered women greater protection, especially if they did not have a stable long-term partner. According to sexual strategy theory, however, women's short-term mating was based on long-term mating motivations and goals. Most women in evolutionary history should have pursued a long-term mating strategy whereas most men should have enacted a short-term mating strategy, and these differences would have shaped how women and men perceive and make decisions about mating and sexual behavior today.

Social structural model

A rival major theory, developed by Alice Eagly and Wendy Wood (1999; Wood and Eagly, 2002), focuses on how culture (social roles and gender role socialization practices) produced the gender differences in sex and mating that are observed. According to the **social structural model**, women and men occupy different social roles in most, if not all, societies. Part of the reason for this is how men and women reproduce. Because women bear, deliver, and nurse young children, women have historically assumed childcare and food-gathering roles in virtually all past and all current cultures.

These social roles have limited the ability of most women to achieve higher levels of status and power within all societies. Men, on the other hand, have historically pursued hunting and other non-childcare roles in all cultures, which have allowed most men to achieve relatively greater status and power in all societies, on average. The origins of gender differences in sex and mating can certainly be traced to differences in the reproductive biology for men and women (Wood and Eagly, 2002), which ultimately has an evolutionary basis. However, from the end of last ice age (11 000 years ago) when populations expanded, people started living in cities, and cultures became politically and economically complex. Thus, it is (plausibly) argued that as men grabbed the levers of power, such gender differences in mating orientations became channeled and magnified by culture.

Resolution

Unlike sexual strategies theory, the social structural model posits that evolutionary forces did not produce psychological adaptations in the mind or brain that direct the way in which women and men make decisions about sex and mating. Thus, sexual selection mainly occurred below the neck. In contrast, sexual strategies theory posits that evolution shaped both the bodies and the minds of women and men when it comes to sex and mating. Differences between these theories have led to some lively exchanges in the literature. Both theories have their limitations, but, given the evidence we have canvassed in this chapter and throughout the book, and the plausibility of the evolutionary account, we believe that sexual selection processes over the long course of evolution was likely to have molded both the body and the mind (or brain) in humans. Although culture certainly plays a major role in influencing sexual strategies (see Chapter 2), biological evolution has left its footprints all over both the intimate relationship body and mind.

Mate Preferences, Self-Presentation, and the Self-Concept

We turn now to a social psychological approach, which stresses the interdependence of partners, and is primarily focused on proximal-level processes. Recent research has examined the way in which men and women shape their mating strategies to cater to the perceived preferences of the opposite gender. Buss (1988b) found that men were more likely to report competing with rivals by displaying tangible resources, showing a high earning potential, flashing a lot of money to impress women, and driving an expensive car. On the other hand, women were more likely to report using tactics that served to display, and improve, physical and behavioral cues that signal youth and physical attractiveness. Other research has focused on how people portray themselves to potential mates by analyzing personal advertisements. In this body of research, men are more likely than women to present their professional status and financial standing, and to mention that they are seeking a physically attractive woman. Women, on the other hand, are more likely than men to highlight their physical appeal, and to mention

that they are seeking a man who possesses relatively high levels of social and professional status (e.g. Campos *et al.*, 2002; Cicerello and Sheehan, 1995; Deaux and Hanna, 1984).

These gender-linked strategies of self-presentation seem to be effective; men who offer more resources in their personal ads receive more responses from interested women, whereas women who offer their positive physical features (e.g. slim figure and youthful age) get more responses from interested suitors (Pawlowski and Koziel, 2002).

The way in which men seek to impress women may be mediated by testosterone levels. In a clever field experiment, Ronay and von Hippel (2010) had a male experimenter approach young men at a skateboard park and asked them to try an "easy" trick 10 times, and then try a very difficult trick 10 times (a trick that a good skateboarder lands about 50% of the time). After a short break, the skateboarder did the same easy and difficult tricks 10 times, either in front of the male experimenter or in front of a highly attractive female experimenter. While being watched by an attractive female, the skateboarders took many more risks when attempting the difficult tricks. Even when they could not land the trick without falling, men being viewed by an attractive woman attempted it anyway. Attempting more tricks resulted in more failures (i.e. falling down or totally wiping out), but also more successful tricks! These results are shown in Figure 6.11. Moreover, the risk-taking behavior of these men was matched by their testosterone levels, having higher levels in their saliva than did skateboarders who were being watched by a man.

People can also enhance their chances in the mating game by making derogatory remarks about their competitors. Buss and Dedden (1990) asked a large number of participants to rate how likely they would be to make specific derogatory comments

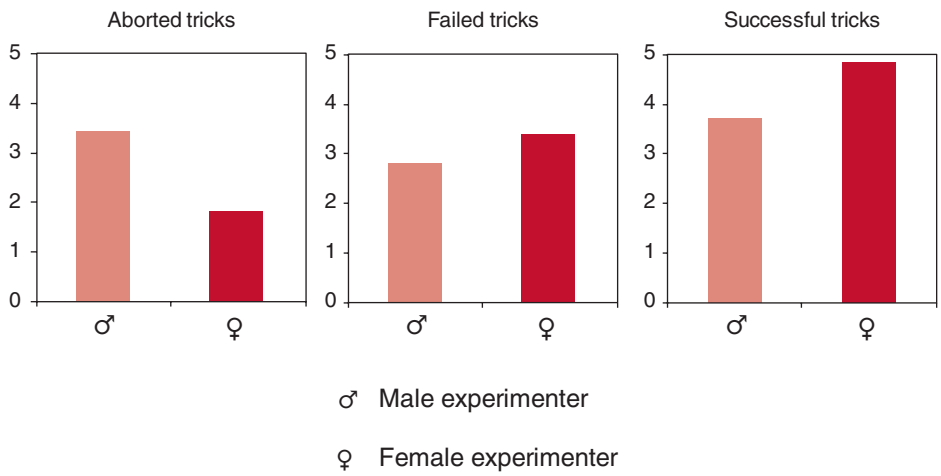

Figure 6.11 Showing off by young men
Source: From Ronay and von Hippel, 2010; © 2010 Ronay and von Hippel. SAGE Publications, Inc.

about rivals when attempting to win the affections of a desirable potential mate. Men reported being more likely to derogate rivals on their resource potential, specifically telling women that their rivals are poor, have no money, lack ambition, and drive cheap cars. Women, on the other hand, were more likely to report saying their rivals were fat, ugly, physically unattractive, and that their bodies have no shape. When faced with rivals for a potential mate, men and women focus their attacks where it really hurts; namely, aspects that are valued highly by the opposite gender.

How the mating game (and the media) shape the self-concept

When people are seeking potential mates, they not only evaluate others, they are also the targets of evaluation. For example, at a nightclub men may be paying attention to the more physically attractive women, but the women are also paying attention to men who appear to have more resources and status. Success in the mating market not only rests on finding people who match one's own criteria, but also on satisfying the criteria of others. Indeed, there is mounting evidence that the self-concepts of men and women correspond to the preferences of the opposite gender (Campbell and Wilbur, 2009). For instance, women are more concerned with their own physical attractiveness than men (Daly *et al.*, 1983), and base their self-worth on their appearance more than men (Crocker *et al.*, 2003). Men, however, are more socially dominant than women, often interrupting and drowning out others in conversations (Frieze and Ramsey, 1976) and thrusting their chin out (Dovidio *et al.*, 1988). The self-esteem of men is also more strongly linked to being independent (Josephs *et al.*, 1992).

Men and women also differ in how they feel about themselves when they compare themselves to same-gender others who are superior on different dimensions. For example, Gutierres *et al.* (1999) had men and women view a number of profiles of same-sex individuals who varied on attractiveness and ambition. After being exposed to many exceptionally attractive women, the women felt that men would evaluate them more negatively. The ambition level of the women in the profile, however, did not influence how women felt men would perceive them. Men, on the other hand, rated themselves as less desirable mates after being exposed to ambitious, but not physically attractive, profiles of men (also see Buss *et al.*, 2000). Adopting an experimental approach, Roney (2003) had men complete some questions about their personality while in a group setting. This setting, however, was rigged by the experimenter so that the group contained only other men or contained both men and attractive women. Only in the groups where men were exposed to attractive women did they report highly valuing future financial success and material wealth. The presence of potential mates, therefore, led men to personify women's desires to a greater extent.

In Chapter 3, we made the observation that one major way in which modern cultures differ from the ancestral environment is in terms of our current exposure to swarms of images of impossibly attractive and sexy individuals. The cost for people (especially women) of setting the bar rather high can be measured in terms of the surge of eating disorders and the increasing prevalence of cosmetic surgery and breast implants (see Chapter 3). As an aside, if you thought that pictures of fashion models and film stars that regularly adorn fashion and fitness magazines and advertisements are impossibly

attractive, you are right. They are impossibly attractive, being routinely digitally altered to remove any imperfections and produce a flawless appearance. Even pictures of ordinary people in magazines are often digitally enhanced. Eric Kee and Hany Farid (2011) recently developed a method of measuring digital enhancement by precisely measuring geometric changes to a person's face and body in photos, such as larger breasts, smaller hips, slimmer necks, as well as color and texture changes, like blurring and sharpening. Comparisons between before and after pictures of 468 people in their study showed just how effective these digital enhancements can be (see Figure 6.12).

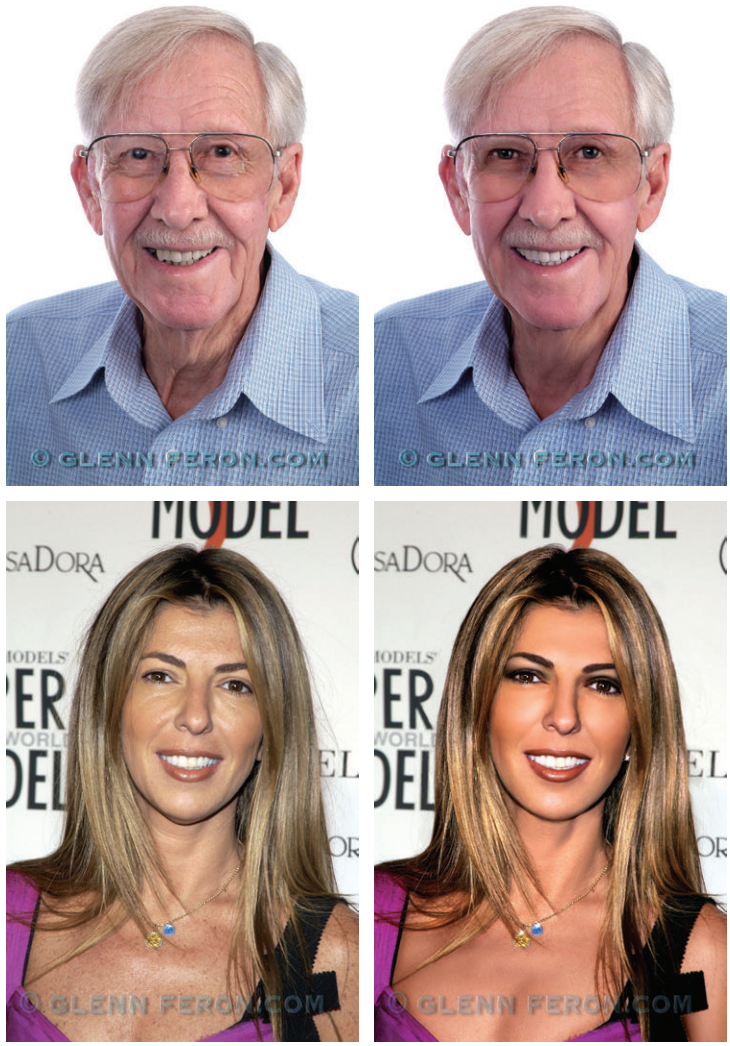

Figure 6.12 Examples of published digitally enhanced images and the original versions
Source: Printed with kind permission from Glenn C. Feron. For more images visit: www.glennferon.com

Taken together, this work suggests that men and women evaluate themselves on characteristics that mirror the mating preferences of the opposite sex, with some costs attached, as we have seen. People are only too aware of gender differences in mating strategies and criteria, and model their own behavior accordingly.

Explaining Within-gender Differences in Mating Strategies and Preferences

As we have noted, there exist strong within-gender differences in mating strategies and preferences. What causes people to attach different amounts of importance to different ideal standards within gender? One major factor is self-perceived mate value. If people feel that they have more to offer potential mates, they can then demand more from potential mates (Campbell *et al.*, 2001; Kenrick *et al.*, 1993). For example, individuals who rate themselves as superior in terms of warmth attach more importance to the same ideal standards, those who perceive themselves as more attractive give more weight to the equivalent ideal category, and, finally, those who believe they have more status and resources rate this ideal category as more important (Campbell *et al.*, 2001).

Additionally, when people possess more positive self-evaluations on each ideal mate dimension, they report being less likely to relax their standards, whereas those individuals with less positive self-evaluations report more flexible standards that can more comfortably accommodate sub-optimal potential mates. Regan (1998) has also shown that self-evaluations are linked to expectations for potential mates in both men and women. Accurately assessing one's own mate value, and being able to assess the self relative to the standards of potential mates, allows people to accomplish two important aims. First, it avoids wasting time and energy, and the pain and humiliation of being rejected by people of higher mate value who are not likely to be interested in forming a sexual relationship. Second, it prevents the second kind of mistake by avoiding forming relationships with people of much lower mate value, who may constrain reproductive success (cf. Regan, 1998). In short, people are relatively realistic when choosing mates, and are thus, well aware of some of the nuances (some gender-linked) that we have discussed.

There may also be genetic differences associated with the adoption of long-term versus short-term mating orientations. In two recent studies Hasse Walum and his colleagues have explored the genetic variation on a specific gene (generally termed a **genetic polymorphism**) associated with the expression of oxytocin or vasopressin in the brain. Recall in Chapter 4 we described a body of research showing that these neurotransmitters are involved in the development of long-term bonding and attachment in both voles and humans. Remarkably, in two studies, variability in these genes in humans (**vasopressin** in men and **oxytocin** in women) was associated with the tendency to form successful long-term sexual relationships (Walum *et al.*, 2008; Walum *et al.*, 2012). And, these links were not insignificant. For example, the chances of getting married for men with two copies of an **allele** on this **oxytocin receptor**

gene (in a sample of 552 male twins) were close to double compared to those men not carrying any of these alleles on the same gene (32% versus 17%), and of those who were married the probability of reporting a marital crisis or threat of divorce in the last year was less than half of those with no alleles on the same gene (15% versus 34%). Wow!

Do Mate Preferences Predict Actual Mate Choices?

Most of the research discussed to this point has asked people about their romantic partner preferences, but do preferences map on to the choices people make in the real world? Some recent research has reported that in speed dating contexts mate preferences do not predict actual choices. Eastwick and Finkel (2008) assessed the mate preferences of a number of men and women, and then had them engage in a speed-dating session. Each person had a four-minute "date" with an opposite sex participant, and at the end of the session participants indicated whether they would be interested in meeting each of their "dates" again for a more formal date. Interestingly, the choices people made regarding who they would like to date again were not driven by their stated mate preferences. Kurzban and Weeden (2007) and Todd *et al.* (2007), using a similar speed dating methodology, also reported little evidence for a link between stated mate preferences and the qualities of the people who were selected for future dates.

We cannot conclude from such findings, however, that the gender differences and findings we have previously canvassed based on evolutionary psychology are questionable. Rather, such findings reveal the torturous links that prevail among cognition, affect, and behavior. To understand such linkages, an evolutionary approach (which operates at the distal level) needs to be combined with a social psychological approach (which operates at the proximal level) (see Chapter 2).

In speed dating contexts, based on the prior research we have discussed, both men and women should focus mainly on physical attractiveness. Indeed, in the speed dating research already cited, that is exactly what was found. Based on parental investment theory, women should also be choosier than men. Again, all three speed dating studies cited report that men chose many more individuals they wanted to meet up with again than women. Consistent with this gender difference, Todd *et al.* (2007) found that in speed dating more attractive women demanded males of higher quality across the board to a greater extent than was the case for men – the same gender difference reported by Buss and Shackelford (2008) using a standard self-report methodology.

Consider the task in front of individuals in a speed dating context. From the viewpoint of interdependence theory (Chapter 1), individuals need to assess two things – how interested they are romantically in the other person, and how romantically interested each partner seems to be in them. There is little point in pursuing a relationship if the potential partner appears bored and uninterested, or more blatantly says things like "you are not my type". A study by Place *et al.* (2009) had naïve raters observe videotaped interactions of speed daters. The observers were quite accurate in

ascertaining the self-reported levels of romantic interest of the men, but could not tell what the women's romantic inclinations were. This finding is consistent with evolutionary theorizing that women are more selective and coy in expressing romantic interest in mate selection contexts. It also perhaps helps explain why men are less selective than women in such contexts (given the male bias toward not missing out on a mating opportunity).

Finally, it is plausible that the kind of mate standards people (especially men) will use in speed dating contexts are minimal standards rather than ideal standards. However, the research on speed dating has measured ideal standards but not minimal standards, which may partly account for the null findings obtained. On the other hand, Eastwick and Finkel's (2008) argument that ideal standards may be used more strongly as relationships progress past preliminary mate selection stages is also plausible (see Eastwick *et al.*, 2011). Further research is needed to illuminate the links between the mind and behavior in this domain. So stay tuned.

Summary and Conclusions

In this chapter we analyzed how the attributes that men and women look for in a mate are similar in every culture around the world, boiling down to a few general categories: trustworthy, warm, intelligent, attractive, healthy, ambitious, and the possession of status and resources. However, there are also characteristic gender differences in what men and women want in a mate, and these gender differences are also strikingly similar around the world. As summarized in Figure 6.6, men value physical appeal more than women, but are less interested in status and resources. Men are also more into sexual variety than women, and are more likely to accept opportunities coming their way for casual sex.

The universal nature of these mate selection patterns points to an evolutionary explanation. Most evolutionary models start with Triver's parental investment theory; namely, investment in offspring determines how choosy females and males are in the mating game. In bonding species (such as *Homo sapiens*) in which both the males and the females invest a tremendous amount in raising subsequent offspring, both men and women should be on the picky side, as indeed, they are. Thus both men and women are interested in mates who can provide good investment (being kind, intelligent, and wealthy or at least have ambition and drive) and good genes (attractive face and body). However, because women invest more than men in raising offspring, and can have many fewer children than men, women should generally favor long-term mating strategies, and men should be biased toward short-term strategies – which is exactly the pattern seen around the world.

The mating market place is thus different for men and women, and men and women understand this only too well, leading to differences in the way men and women interact and present themselves in mate selection contexts. Women are typically more cautious (than men) in indicating romantic interest, and they pay a lot of attention to their own attractiveness in the mating game. Very attractive women know they have a

strong hand and can demand a well-rounded, high-value mate. Men, on the other hand, are more interested in flaunting their status, wealth, and ambitiousness, and are more likely to go for short-term sex if it is on offer.

However, as we have stressed throughout, there also exist strong within-gender differences in mating strategies and standards that are considerably greater in magnitude than between-gender differences. One major cause of such individual differences is simply self-perceptions of mate value. Reflecting the logic of the mating marketplace, those who view themselves as a great catch can afford to be exceptionally picky. As we discussed in Chapter 5, family backgrounds and the social/cultural environment also play a major role in producing short-term versus long-term mating strategies, and provisional evidence suggests genetic factors may also play a role. And, finally, women tend to be more attracted to masculine, assertive men (overflowing with testosterone) when they are ovulating and the chance of pregnancy is greatest, but, tellingly, only when they are considering a short-term sexual fling.

The final take-home message of the research in this area is that human mating strategies are flexible, and both men and women can and do alter their strategies according to their goals, cultural constraints, environmental conditions, and availability of mates. The human mating world would be straightforward if humans displayed their mating values on a 1–10 scale on their foreheads, as is done in the classroom exercise we described at the beginning of the chapter. The real psychological processes, as we have documented, are considerably more convoluted and intriguing.