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Part I

Attraction

Forming Attitudes toward Potential Partners: First Impressions of Physical Characteristics

1

First impressions

Imagine that you are ready to start dating (the process through which potential romantic partners get to know one another better) and/or mating (the process of choosing a “mate” or a partner, either for a long-term or short-term relationship). Where do you begin? When you meet a potential mate, you probably have an immediate reaction to that person, which we usually call a first impression. Much of social psychology is very intuitive and your intuition is probably correct on this topic; first impressions are very important.

Even though we can surmise that first impressions are important, a number of questions remain about the process. For example, how quickly do first impressions occur? Can you just look at a potential date and form an impression? Do you need to meet him in-person or will a photo suffice? Is physical attractiveness a necessity? Are first impressions accurate?

There are many ways to form first impressions, but there are a few commonalities across modalities. First, our impressions tend to form very quickly. Second, our impressions are often based on physical appearance, with some characteristics being more important than others. Third, our impressions tend to be fairly accurate, even when based upon very little information. In this chapter we discuss the research pertaining to first impressions of physical characteristics (for example, height, weight, and age). In Chapters 2 and 3, we discuss first impressions of non-physical characteristics (such as personality and behavior) as well as the importance of meeting in-person.

First impressions of physical appearance

A personal moment: A friend of mine, we'll call her Louise, is currently searching for a long-term mate. One day we talked about her experience with online dating. Louise recounts that on dating websites she can scroll through photographs of potential dates

as fast as her computer will display them. There is often very little information displayed in the initial profiles she encounters, just a photograph, possibly the age of her potential date, and an area in which he lives. As Finkel et al. (2012) review, more detailed information such as education, profession, and religion is accessible in the extended profile. Louise routinely scrolls through and quickly chooses or passes over potential dates based primarily on physical appearance, and sometimes only on facial appearance. Is choosing or foregoing a potential mate based on physical appearance a good strategy? Are we making good dating decisions? Or are we missing out on some wonderful people? It seems likely that we are doing a bit of both. But when making our mating decisions, we do not just aim to find *any* potential mate; we want to find the *best possible* mate. Physical appearance cues may be important when selecting the best possible mate. Below I review the research in this area which suggests that physical appearance may be a useful tool to use when looking for an ideal partner.

In this chapter we will consider various physical characteristics and how they impact our attraction to potential partners. If you were searching for a partner, which aspects of a potential partner's physical appearance would be most important to you? In evaluating a potential partner's physical characteristics, you can probably quickly and accurately ascertain information about that person's physical attractiveness, height, weight, age, and even voice and scent. These physical characteristics may serve as an important basis for our attraction to potential companions. Making mating decisions based upon these physical features may actually lead us to choose better partners. In this chapter, we explore the often-hidden benefits to mating with a physically attractive partner, from more pleasing personalities to more potent sperm.

Physical attractiveness

When you see a photograph of a potential mate, what kind of information do you glean from the physical appearance of the person in the photograph? One of the first things you might notice is whether you consider the target person to be physically attractive or not. When I sat down with my friend Louise to browse through photographs of potential dates, we were both strongly influenced by the physical attractiveness of the men pictured in the photographs. We would stop to view a profile in more detail if we considered the man to be "attractive" or "good looking."

Stereotypically, people assume that physical attractiveness is more important to men than women, and indeed, some research suggests that men more often state that physical attractiveness is important to them than do women (e.g., Buss, 1989; Buss et al., 2001; Feingold, 1990; Lippa, 2007; Smith et al., 1990). Evolutionarily, the physical appearance of a potential partner may be more important to men because attractiveness in a female partner may be more

strongly linked to reproductive ability than attractiveness in a male partner (Buss, 1989, see Chapter 4 for more information on evolutionary theory). Recent research investigating real-life and experimental preferences, however, suggests that physical attractiveness in a potential partner is equally important to both men and women (e.g., Eastwick et al., 2011; Eastwick & Finkel, 2008; Feingold, 1990; Luo & Zhang, 2009; Kurzban & Weeden, 2005; Sprecher, 1989; Thao et al., 2010; however, see also Li et al., 2013, as discussed in Chapter 4). Furthermore, research by Lenton and Francesconi (2010) suggests that when faced with a wide variety of potential partners (such as one might encounter on a dating website) both men and women are more likely to rely on physical attractiveness when making dating decisions.

The influence of physical attractiveness

Physical attractiveness is not perceived in isolation. When we perceive a potential partner as physically attractive, that might prompt other positive perceptions beyond perceptions of physical characteristics. In a classic study performed by Dion et al. (1972), the researchers manipulated the physical attractiveness of men and women presented in photographs. The researchers presented participants with photographs of attractive, average, and unattractive targets and asked the participants to rate the targets on a variety of traits. Consistent with the authors' expectations, they found that attractive targets were assumed to have more positive characteristics such as better personalities, better jobs, and more rewarding life experiences. Attractive targets were also expected to be happier. This tendency to expect positive qualities from attractive targets is equally evident in undergraduates from the United States and from Taiwan (Shaffer et al., 2000). Moreover, Zebrowitz et al. (2012) found these same expectations among Tsimané men living in an isolated area of Bolivia. This trend may be especially true for female perceivers: women who perceive male targets as physically attractive are more likely than their male counterparts to perceive other positive qualities in the target person (Levesque et al., 2006). So when we consider an attractive person as a potential date, we may be reacting favorably not only to his physical attractiveness, but also to the expectation that he may possess other positive qualities.

Dion et al. (1972) characterized their results as confirming the “what is beautiful is good” (p. 289) stereotype. A vast body of literature supports their findings (see Griffin & Langlois, 2006, for a review). Interestingly, Langlois et al. (2000) report that attractive individuals even rate *themselves* more favorably than unattractive individuals do. However, Griffin and Langlois question whether Dion et al.'s results actually indicate that those who are perceived as *attractive* are expected to have *positive* qualities or, rather, the results indicate that those who are perceived as *unattractive* are expected to have *negative* qualities. In Dion et al.'s research, unattractive targets were rated less favorably than their attractive and average counterparts in almost all categories. Indeed

both processes of choosing an attractive mate and avoiding an unattractive mate may help us to make better mating decisions.

What the research says

In Griffin and Langlois's (2006) research, the researchers manipulated the physical attractiveness of women presented in photographs (no photographs of men were presented in this study). Photographs of young adult Caucasian women were pre-tested and selected to represent highly attractive, moderately attractive, and unattractive women. These photographs were rated by both young adults (college students) and children (elementary school students, between the ages of seven and nine) from the United States. Although the adults performed their ratings via computer while the children performed theirs on paper, both the adults and children made negative ratings of the unattractive women on attributes such as sociable, helpful, and smart relative to the moderately attractive women. However, the moderately attractive and highly attractive women only differed on the attribute "sociable." Therefore, the physical attractiveness of women does seem to enhance perceptions of sociability, but not necessarily other positive attributes. These results suggest that rather than attractiveness being advantageous per se, it might be particularly *disadvantageous* to be unattractive. Because the targets featured in this research were limited to Caucasian women, the authors stress that future research assessing "perceptions of male and ethnically diverse faces is essential" (p. 202).

Think critically

Griffin and Langlois (2006) critically examined the notion that "what is beautiful is good." Instead the authors posited that unattractive stimulus persons might be expected to possess negative qualities. Their sample involved both college-aged students and young children as participants, suggesting that these effects occur in perceivers of different ages. Do you think the same results could be expected if the authors used older adults as participants? How do you think the results might differ if the authors tested their hypotheses with a sample of older adults? (Hint: look for research cited elsewhere in this manuscript to inform your opinion.)

Facial attractiveness

When Louise and I perused photographs of her potential dates, most photographs included facial appearance. Indeed it was extremely rare to encounter a photograph of a potential mate that did not include his face; however, it was common to encounter a photograph of a potential mate that did not include the rest of his body. Obviously, facial appearance is an important determinant of physical attractiveness, perhaps even more important than other physical characteristics. So what kind of information does facial appearance convey? And what types of facial features are considered attractive?

First, we will consider perceptions of women's faces. Perceptions of the youth and femininity of a female face are significantly positively correlated

with perceptions of women's attractiveness (Weeden & Sabini, 2005). In cross-cultural research assessing the preferences of participants from the United States, Brazil, Paraguay, Russia, and Venezuela, Jones and Hill (1993) found that across cultures men and women rated youthful, feminine women as more attractive. Similarly, in research assessing the preferences of respondents from the United Kingdom and Japan, Perrett et al. (1998) found that men and women from both cultures preferred more feminized female faces (both in Caucasian and Japanese target faces). Moreover, Cunningham et al., (1995) asked US and international students from both Western and Eastern societies to evaluate facial photographs of college-aged target women from the United States and other nations. These authors found that women's faces were rated as more attractive if they had "large eyes ... small noses ... smaller chins ... higher eyebrows ... larger smiles ... full hair" (p. 268).

Preferences for male faces are a little less straightforward. Cunningham et al. (1990) reported that men were perceived as more attractive when they had large eyes, a small nose, a large chin, prominent cheekbones, and a broad smile. However, some studies show a preference for femininity in a male face, whereas some studies show a preference for masculinity in a male face (see Weeden & Sabini, 2005). For example, the cross-cultural research performed by Perrett et al. (1998) referenced above revealed that men and women from both Eastern and Western cultures preferred more feminized male faces. According to the authors, the more masculinized faces were perceived as more dominant and older, but less warm, honest, and cooperative. (See Chapter 4 for a longer discussion of preferences for feminized male faces.)

Other studies show that women's preferences for male facial characteristics change based upon their menstrual cycle. For example, Johnston et al. (2001) asked women (at different times throughout their menstrual cycle) to scroll through a video segment which changed from a masculine-looking face to a feminine-looking face. These authors found that women tended to choose a more masculine-looking face as most attractive during the most fertile phase of their menstrual cycles. Little et al. (2008) corroborated this result with photographs of real men. Once again, women preferred images of more masculine men when their chances of conception were the greatest.

Despite the findings, discussed above, suggesting that perceptions of attractiveness are not always consistent, there is widespread agreement about physical attractiveness, both within cultures and across cultures. Cunningham et al. (1995) showed cross-cultural consistency regarding perceptions of the attractiveness of women. The researchers asked US and international students to evaluate facial photographs of target women, some of whom had been involved in an "international beauty contest and, as such, had been selected by members of their own culture as being attractive" (p. 265). The results showed that regardless of the ethnic background of the participants or the targets, the raters tended to agree about the attractiveness of the female faces. Jones and Hill (1993) also found significant

agreement across cultures in perceptions of attractiveness based upon facial photographs of men and women. Similarly, in a meta-analysis conducted by Langlois et al. (2000), these authors reported a great deal of agreement both within cultures, across ethnic backgrounds, and across cultures with regard to perceptions of physical attractiveness.

Preferences for attractive faces persist across the lifespan. In an intriguing study, Langlois et al. (1991) found that six-month-old infants from the United States preferred to look at photographs depicting attractive faces (versus unattractive faces) belonging both to other babies and to adults. Moreover, Zebrowitz et al. (2013) found that while older adults and undergraduates tended to agree with one another in their impressions based upon facial photographs, older adults generally rated the stimulus persons even more positively than did their younger counterparts.

Symmetry

In addition to facial attractiveness, photographs can reveal information about facial symmetry. Although people tend to prefer facial symmetry (the left and right sides of the face match one another) to asymmetry, this preference is not usually a conscious one. (I have never heard Louise mention that she is looking for a partner whose left and right sides of the face are identical.) Yet, facial symmetry does influence our perceptions of physical attractiveness; participants prefer both male and female faces that are more symmetrical (see Weeden & Sabini, 2005 for a review). For example, Japanese participants preferred modified symmetrical faces to naturally unsymmetrical faces (Rhodes et al., 2001). Similarly, Cárdenas and Harris (2006) found that men and women both preferred symmetrically manipulated faces to asymmetrical natural faces. Remarkably, Cárdenas and Harris also found that faces painted with symmetrical designs were judged as more attractive than faces painted with asymmetrical designs. Why is symmetry so attractive?

Perilloux et al. (2010) discuss the reasons why symmetry strongly influences attraction. The authors state that “most organisms are genetically programmed to develop identically on the right and the left. Thus, deviation from perfect bilateral symmetry is believed to reflect the degree to which an individual’s genotype is unsuccessful at buffering it from the developmental assaults of parasites, pathogens, and other environmental stressors” (p. 34). The ability to withstand these environmental insults indicates better genetic quality. Not surprisingly, more symmetrical humans are also generally healthier, live longer, and are more intelligent (Perilloux et al.). In fact, Luxen and Buunk (2006) estimated that 20% of the variation in intelligence could be explained by symmetry (with the relationship between the two variables slightly stronger in men than women).

Likewise, Manning (1995) also suggests that facial symmetry may be attractive because it indicates that a target possesses “good genes.” Manning found that symmetry in men (assessed in a variety of ways including symmetry of ear height) was positively related to body weight and size, suggesting a link

between male symmetry and height. Manning states that “male body weight is condition-dependent in that it is only individuals with the best genes who are able to develop and maintain large size” (p. 145). Moreover, Manning also found that symmetry in women was negatively related to body weight. Therefore facial symmetry can signal not only that a partner is healthy but also that future offspring might be healthier as well if we choose symmetrical partners as mates.

Averageness

Another facial feature that can enhance perceptions of attractiveness is “averageness.” This possibility sounds counter-intuitive; when we think of attractive exemplars (such as celebrities), we rarely think that those exemplars are average. However, like facial symmetry, the preference for averageness is another unconscious preference which may steer us toward better partners. Average faces are preferred by members of both Western and Eastern cultures. For example, Rhodes et al. (2001) showed a preference for average faces in Chinese and Japanese participants. The researchers manipulated photographs via computer to make them look more or less like an averaged composite face. Making the photographs look more average increased their attractiveness to both Chinese and Japanese participants, while decreasing their averageness decreased their attractiveness. Photographs of real faces with closer to average proportions are rated as more physically attractive by members of different cultures as well (Jones & Hill, 1993). Less distinctive faces are consistently perceived as more attractive, whether they are computer-generated or naturally occurring (Rhodes, 2006).

As with symmetry, averageness may also be a cue to a healthy mate. Rhodes (2006) states that average or typical faces may be seen as more attractive because they may signal good genes or optimal functioning (e.g., the author states that an “average” nose may be optimally shaped for breathing). Similar to the benefit of symmetry discussed above, Rhodes posits that average features may reflect the “ability to withstand stress during development” (p. 203). Rhodes et al. (2005) suggest that average faces may also be perceived as more symmetrical, youthful, and pleasant, thus explaining our attraction to them. Surprisingly, Halberstadt and Rhodes (2000, 2003) showed that averaged dogs, wristwatches, birds, fish, and automobiles were also rated as more attractive than individual stimuli. (I am assuming that at least the wristwatches and automobiles were not rated more favorably because they make better mates.) Rhodes et al. (2005) suggest that averaged stimuli may be seen as more attractive because they are also perceived as more familiar. (As we will discuss in Chapter 5, increased familiarity is associated with liking.)

Health

Both the research regarding symmetry and the research regarding averageness reviewed above suggest that facial attractiveness may be linked to good health.

Weeden and Sabini (2005) state that individuals tend to assume that both men and women with attractive facial features are healthier. However, according to these authors, the actual relationship between facial attractiveness and health is very small for women and not reliable at all for men. Interestingly, although men's facial attractiveness may not be related to their overall health, Weeden and Sabini review research by Soler et al. (2003) which suggests that ratings of male facial attractiveness are correlated with semen quality; more attractive men had sperm which were more likely to be able to fertilize an egg. (It is a little unsettling to think that Louise could be sorting through photographs of potential mates based upon facial attractiveness and what is really underlying her judgments may be whether the men have good sperm quality. I have decided not to share this bit of research with Louise; I do not want to distract her while she is perusing photographs of attractive men.)

Height

Height may be an important influence on initial human attraction, especially for potential male partners. Height may serve to indicate that men possess good genes, and tall men may be perceived as more physically dominant (Buunk et al., 2008). Interestingly, in most birds and mammals, the male mates are larger than the female mates as well, possibly due to females choosing to mate with larger males or due to males competing for access to females, with the larger males more likely to triumph (Stulp et al., 2012).

What the research says

In their research, Stulp et al. (2012) investigated the relationship between men's height and reproductive success (as measured by their total number of children as well as the number of children living to reproductive age). Their sample consisted of men over the age of 64 from the United States. These authors found a curvilinear relationship between height and number of surviving children. Men of average height (in this study, 179.21 cm or roughly 5 feet, 10½ inches tall) tended to have the most surviving children relative to both shorter and taller men. Stulp et al. also found that taller men tended to earn more money and attain a higher educational level (although the authors do acknowledge that their sample was collected from a population of high school graduates, and therefore biased toward a more educated sample). Moreover, although for this sample the effect of height was not as strong as the effect of income or education, the authors emphasized that the effects of education and income were not strong enough to make up for being too short or too tall in terms of reproductive success. Another important finding was that men of average height tended to marry at a younger age, potentially explaining that they might have more children because they began their reproductive "careers" earlier.

Think critically

Stulp et al. (2012) examined the relationship between height and reproductive success, as measured by the men's total number of children. Do you think that this is the best way to operationally define "reproductive success?" What are some problems with using the number of children as a measure of reproductive success? In what other ways could reproductive success be measured (for example: number of sexual partners)? Are there problems with the alternative measures as well?

Consistent with the research presented above, Kurzban and Weeden (2005) found that men who were taller were chosen more often as a potential future dating partner at a speed-dating event. (In accordance with previous research, another important predictor of men's dating desirability in Kurzban and Weeden's research was facial attractiveness.) Similarly, Pawlowski and Koziel (2002) found that men who were taller received more responses to their personal ads placed in a newspaper relative to men who were shorter. (Interestingly, the factor leading to the highest increase in responses to men's ads was education, with more highly educated men receiving more responses to their ads.) Likewise, Salska et al. (2008) analyzed height information as well as height preferences provided by individuals using an online dating site. These authors found that women preferred men who were taller than average.

Another potential advantage to height for men might be decreased jealousy. Buunk et al. (2008) found that taller men were less jealous. These authors suggested that because taller men are often perceived as more physically attractive, their partners might be less likely to cheat, thus reducing tall men's feelings of jealousy. Alternatively, the authors suggested that because taller men are also perceived as more physically dominant, these men may be more intimidating to potential male rivals, thus also reducing tall men's feelings of jealousy. Jealousy has been linked to partner violence (e.g., Kaighobadi et al., 2009, see Chapter 4) and thus avoiding a jealous partner may be particularly beneficial to women.

Relative partner height

Think about a few heterosexual couples you know. In each couple, who is the taller partner, the man or the woman? Do you know any couples in which the woman is the taller partner? Relative partner height can be another important influence on our mate preferences. Most research shows that men and women prefer romantic partnerships in which the man is taller and the woman is shorter (e.g., Re & Perrett, 2012; Salska et al., 2008). According to Re and Perrett, the preference for a taller male partner is clear (although women do not necessarily prefer an *extremely* tall partner), but the association between height and attraction for a female partner is less clear. Some men prefer shorter

partners, some men prefer women of average height, and some men prefer taller partners (relative to other women, not relative to themselves). One exception to this tenet involves shorter men, who may be willing to consider women taller than themselves as partners in order to increase their overall pool of potential partners (Salska et al., 2008).

As one might expect, preference for a partner's height is related to one's own height (Fink et al., 2007; Mautz et al., 2013; Pawlowski and Jasienska, 2005) with shorter women preferring a relatively larger difference between her own height and her male mate's height, and taller women preferring only a slightly taller male mate. Evidence for this effect was found in four different Western countries (Poland, Germany, Austria, and the United Kingdom). Interestingly, according to Pawlowski and Jasienska, a woman's preference for height also varies along with her menstrual cycle. These authors found that taller men were preferred when women were more fertile. Women's preferences also varied by the type of relationship they were asked to consider. Women were more likely to prefer taller mates for a short-term relationship than for a long-term relationship (Pawlowski & Jasienska, 2005).

Weight

Weight may be another important determinant of the physical attractiveness of a potential partner. Most of the research in this area focuses on women's weight, and more specifically, women's Body Mass Index (BMI) and waist-to-hip ratio (WHR), although a few studies have investigated perceptions of men's bodies (e.g., Swami et al., 2007; Swami & Tovée, 2008). Body Mass Index refers to a measure of body fat and can be calculated in different ways, but a simple method for calculating BMI is to divide weight in kilograms by height in meters squared (Carmalt et al., 2008). To measure waist-to-hip ratio, measure the circumference of the waist and divide by the circumference of the hips (Furnham et al., 2005). Body weight may impact our perceptions of women's physical attractiveness because both BMI and WHR are related to women's health and fertility (Perilloux et al., 2010; Singh et al., 2010).

Much of the research on body weight reveals that individuals prefer mates with average weight. For example, Yanover and Thompson (2010) asked undergraduates from North America to rate the perceived health and attractiveness of drawings of both male and female body figures. This research revealed that for both male and female figures, individuals of average weight (compared with underweight and overweight) were perceived as the most attractive and healthy. Interestingly, these authors found that heavier, more muscular individuals were rated as more attractive and healthy as well. Paying attention to physical cues such as weight and muscularity may help us to identify a strong and healthy mate.

Perceptions of women's body size and shape

In their research investigating men's ratings of women's bodies, Furnham et al. (2005) manipulated drawings of female figures which varied in BMI and WHR simultaneously. These authors discovered that the female figure of average weight (rather than underweight or overweight) with a waist-to-hip ratio of 0.7 was considered most attractive and healthy by a sample of undergraduate men and women from the United Kingdom. (Other research also suggests that a WHR of 0.7 is rated as the most attractive, both by men, Dixon et al., 2011, and women, Cohen & Tannenbaum, 2001). Furnham et al. also reported that BMI was perceived as a stronger indicator of health and fertility than WHR.

Consistent with these findings based on drawings of hypothetical female figures, Kurzban and Weeden (2005) found that thin women with a lower BMI were rated as more desirable by their male counterparts at a speed-dating event. Correspondingly, women with a higher BMI as well as overweight and underweight women were less discriminating (more willing to say yes to potential dates) than their counterparts at a speed-dating event (Kurzban & Weeden). Moreover, Smith et al. (1990) found that men were more likely to request that thin or slim women respond to their personal ads. Body weight may therefore be a more important determinant of men's interest in women than women's interest in men.

Swami and more than 50 colleagues (2010) collected data regarding men's and women's perceptions of the ideal female body weight from individuals living in 26 different countries and 10 different global regions. The participants included more than 7,000 college students as well as non-student community members. In this research, although both men and women participated, men were asked to choose the drawing of the female figure that they found most attractive, and women were asked to choose the drawing they thought would be most attractive to men. The authors suggested that the current "ideal" body size for women is thin and possibly even underweight, especially in more socioeconomically developed nations. However, across cultures, men preferred a figure displaying a heavier body weight than women *thought* men would prefer.

Interestingly, Swami et al. (2010) also found the largest effects of body weight on perceptions of physical attractiveness within countries with both high and low socioeconomic status locations. The authors noted that in the more impoverished areas, both men and women seemed to prefer heavier body sizes, "possibly because of the association between body fat and resource security" (p. 319). Consistent with these results, Swami et al. (2011) found that men from a poorer socioeconomic environment in Indonesia (Lombok) preferred a heavier female figure than did men from a more affluent area in Indonesia (Bali) and men from the United Kingdom. Residents of Lombok also considered a larger range of body figures as attractive versus their more affluent counterparts. Perceptions of the ideal female body weight or shape may change not only with culture, but with socioeconomic status, with women of larger body sizes preferred in less affluent areas.

Perceptions of men's body size and shape

Although men's weight and body shape may not be as important a determinant of physical attractiveness as women's (see Kurzban & Weeden, 2005), Swami et al. (2007) investigated women's ratings of men's physical attractiveness in a cross-cultural study involving participants from Greece and the United Kingdom. The women were asked to rate a series of photographs depicting real men wearing form-fitting clothing and varying in waist-to-chest ratio (WCR) as well as BMI and WHR. In this research the faces of the men were obscured in order to isolate the effects of body size and proportion and to eliminate the potential confound of facial attractiveness. The authors stated that WCR was the strongest determinant of physical attractiveness ratings for both the Greek and the British samples. BMI was also significantly related to ratings of physical attractiveness, but less so than WCR, indicating that "men's upper-body shapes are more important for male attractiveness to women than overall body masses" (p. 23). Waist-to-hip ratio was not a significant predictor of women's ratings of men's physical attractiveness. The authors also specified that the Greek women seemed to find a more V-shaped torso (lower WCR) as more attractive than did their British counterparts while simultaneously preferring a slightly lower BMI than did their British counterparts. (The authors note the limitation that the men pictured in the stimulus images came from the United Kingdom and thus may not represent the body sizes of Greek men as well as they represented British men.)

Waist-to-chest ratio may be an important factor in men's physical attractiveness because it may signal increased physical strength, dominance, masculinity, or even heightened testosterone levels (Swami et al., 2007). Although waist-to-chest ratio may be one influence on women's perceptions of men's physical attractiveness, it does not appear to be as strong an influence as women's waist-to-hip ratio or BMI is for men's perceptions of the physical attractiveness of women.

Gay men's and lesbians' preferences for body size and shape

A personal moment: When I was in college one of my friend's boyfriends, Kyle, began seriously body-building. He became very muscular and he occasionally participated in body-building competitions. As a result of one of these competitions, he was invited to model for the magazine *Muscle Fitness*. While in the airport waiting for an international flight, I found the magazine with Kyle's layout. I purchased the magazine and talked with Kyle about it after I returned to the United States. Kyle told me that the magazine was targeted toward gay men, who tended to prefer more muscular men. Years later I found out that Kyle's assertion was supported by research (see below).

Swami and Tovée (2008) investigated the weight and waist-to-chest ratio preferences among gay and heterosexual men (in this study, the preferences of men indicating a bisexual orientation were not analyzed). Most of the men

involved in this project were Caucasian university students from the United Kingdom. The men evaluated photographs of real men varying in WCR as well as BMI. Although BMI was significantly related to men's ratings of the physical attractiveness of male targets, the data revealed that WCR was the most important predictor of the physical attractiveness ratings. Furthermore, the data also suggested that gay men prefer a lower WCR than their heterosexual counterparts, indicating that gay men's perceptions of physical attractiveness are more strongly influenced by a muscular upper-body.

Cohen and Tannenbaum (2001) explored perceptions of attractiveness for female figures varying in weight and waist-to-hip ratio among both lesbian and bisexual women. Respondents to this online survey were asked to rate drawings of the female figure for their physical attractiveness as well as other factors. These authors found that although lesbian and bisexual women tended to prefer the WHR of 0.7 as most attractive (similar to the findings discussed above for men and women whose sexual orientation was not specified; see Furnham et al., 2005), these women tended to rate the heavier figure (rather than the slender figure) as more attractive. Cohen and Tannenbaum posit that lesbians may prefer a heavier body weight because they themselves tend to be heavier than their heterosexual counterparts, thus preferring a partner resembling their own body weight. Alternatively, the authors suggest that lesbians may be more comfortable (or less dissatisfied) with a heavier body weight than heterosexual women.

Similarity of weight

Similar to the results with regard to height discussed above, preference for weight in a partner may be related to one's own weight; however, the results in this literature are mixed. For example, Swami et al. (2010) found a positive correlation between men's BMI and the body size they chose as most attractive; men with a higher BMI also preferred figures portraying a heavier female body weight. However, Kurzban and Weeden (2005) found that men preferred women with a dissimilar BMI to their own at a speed-dating event. Future research will be necessary to determine the strength and relationship of one's own body weight to an ideal partner's body weight. Future research should also examine whether this relationship changes across cultures or with variations in socioeconomic status.

Breast size and penis size

Breast size may be a relatively observable feature, whether conveyed through photographs or through an in-person meeting. In fact, in research recording men's eye movements, Dixson et al. (2011) found that men were more likely to look at a woman's breasts or waist first and spent more time looking at

the breasts than any other body regions, including the face. (Of course, this research involved a photograph of the front of a naked woman as a stimulus, not a clothed woman, as would usually occur in *most* in-person first meetings or photograph sharing.) Interestingly, recent research conducted by Furnham et al. (2006) suggests that women preferred larger breast sizes (as presented via drawings of the female figure) than men did. Likewise, Cohen and Tannenbaum (2001) found that lesbian and bisexual women preferred drawings of the female figure with larger breasts (vs. smaller breasts). Furnham et al. also found that the presence of larger breasts heightened perceptions of physical attractiveness for heavier figures with higher waist-to-hip ratios. In contrast, Dixon et al. found in their research that waist-to-hip ratio was a more important determinant of sexual attraction than breast size.

Although penis size is not usually presented via photographs or upon meeting someone for the first time, we address the research on penis size in conjunction with the research on breast size. Current research conducted by Mautz et al. (2013) suggests that women rated male figures as more sexually attractive when the figures displayed larger penis sizes (as well as a larger shoulder-to-hip ratios and a taller height). Interestingly, the effect of penis size was more pronounced for taller men. Furthermore, for shorter men, having a larger penis did not enhance their perceived sexual attractiveness.

A media moment: In an episode from the HBO series *Sex and the City*, a character named Samantha is talking with her friend Carrie about a man she is currently dating whose penis is so large, she cannot have sex with him. She refers to him as “Mr. Too Big.” In a previous episode, Samantha had dated a man named James whose penis she described as too small. In response to Samantha’s current complaint, Carrie quips “You broke up with James because he was too small. This guy’s too big. Who are you, Goldi-cocks?” Samantha answers, “Yep! I’m looking for one, that’s just right.”

Age

Imagine you were looking for a romantic partner, would you want your partner to be older or younger than you? Or would you prefer a partner of the same age? Would you consider dating a partner who was much older or much younger? Although the age of a potential partner may not always be objectively evident based upon a photograph or through an in-person meeting, we can estimate age based upon the physical appearance of a potential partner.

As reviewed by Buss (1989), men and women seem to prefer partners of different ages, but in a complementary fashion. Buss found that across cultures, men prefer women as mates when they are slightly younger, while (conveniently for heterosexual partnerships) women prefer men as mates when they

are slightly older. In the same research, Buss reviews marriage records which indicate that across cultures, men tend to marry women who are between two to five years younger than themselves. Buss concludes that “preferred age differences between spouses are indeed reflected in actual age differences at marriage” (p. 9). This relative age preference persists across the lifespan. As men age, they tend to prefer even younger female partners, while as women age, they continue to prefer older male partners (until they reach their 70’s, when they become willing to consider younger partners, see Alterovitz & Mendelsohn, 2009).

Age preferences may also be related to the search for an ideal mate. Buss (1989) states that men tend to prefer and marry younger women because younger women are more likely to be fertile. Buss also posits that women may prefer older men because of the relationship between men’s age and income; older men might be better able to provide for a partner or a family. Buss further speculates that older men might be more dominant or mature and suggests that future research explore women’s motivations for preferring older partners.

A personal moment: My friend Louise reports in her online profile that she is willing to consider a mate who is a few years younger or a few years older, though she has told me privately that her ideal mate would be close to her own age. You may notice that her preferences seem inconsistent with the results of the research reported above suggesting that women prefer mates who are slightly older than themselves (e.g., Buss, 1989). Personal anecdotes that contradict research findings should not necessarily be construed as evidence against the research findings. The research summarized in this book is usually based on group results, not individual results. Therefore, within each group there may be variation in individual preferences. For example, some women may prefer younger mates, some may prefer mates of their own age, and some may prefer older mates, but across individuals, women as a group tend to prefer slightly older mates. Individual anecdotes which seem to contradict research results may actually be consistent with individual variation in the group results.

First impressions of voices

Hearing the voice of a potential mate may enhance or diminish perceptions of attractiveness. What types of vocal characteristics sound attractive to you? A high or low pitch? Monotone or lots of pitch variation? Vocal attractiveness is often associated with physical attractiveness.

Perceptions of men’s voices

Women seem to find lower-pitched voices as more masculine as well as more vocally attractive (Saxton et al., 2006; Simmons et al., 2011). Interestingly,

Simmons et al. also found that men with lower-pitched voices had lower sperm concentrations. (The authors speculated that this negative relationship might be driven by increased testosterone, and stated that this effect was small and was unlikely to impact the men's ability to have children.) Curiously, Saxton et al. also explored girls' perceptions of the vocal attractiveness of men, finding that young girls' preferences did not match the preferences of adult or even adolescent women.

What the research says

Saxton et al. (2006) asked young girls (aged 7–10), female adolescents (aged 12–15), and adult women (aged 20–34) to evaluate male voices and photographs of faces. The researchers recruited 12 male native English speakers from the United Kingdom between the ages of 23 and 28 to record vocal samples. The participants' vocal samples were recorded while the men counted from one to five. Photographs of the men were taken showing neutral facial expressions. The photographs were also cropped so that hairstyle and clothing could not be seen. All female participants were unaware that the photographs of the faces and the recordings of the voices belonged to the same men. The authors found that the adult female participants tended to agree about which faces and voices they preferred. Furthermore, perceptions of vocal attractiveness were positively correlated with perceptions of facial attractiveness for the adult sample (that is, vocal samples rated as attractive were produced by targets whose faces were also perceived as attractive). Finally, the authors also showed that adult women preferred men with lower-pitched voices. Interestingly, the judgments of the adolescent girls mimicked those of the adult women. However, although the young girls agreed with one another about which faces were attractive, in contrast to the older samples, they did not choose the same voices as the most attractive, and they did not prefer the lower-pitched voices. The authors highlight these differences in preferences based upon age and suggest that “a period of maturation and learning may be required...in order to fully develop optimal judgments for mate choice” (p. 1184). The authors do acknowledge the potential confound of age difference between the female raters and the male speakers, and they posit that younger girls may be more adept at rating vocal stimuli produced by boys of their own age rather than by older men.

Think critically

Saxton et al. (2006) showed that the age of the female perceiver was an important determinant of perceptions of the attractiveness of men's voices. However, their adult sample included only women between the ages of 20 and 34. Do you think that postmenopausal women would show the same preferences as women of reproductive age? The authors speculate that younger women may need to mature and learn before they can make optimal mating decisions. Once women have matured, will they retain their vocal preferences? Or will those vocal preferences disappear when they cease to impact reproductive possibilities?

Perceptions of women's voices

Consistent with the research reviewed above regarding men's voices, women's voices may also influence perceptions of their attractiveness. Collins and Missing (2003) found that men preferred women with higher-pitched voices (and also expected women with higher-pitched voices to be younger). Interestingly, the authors also showed that women with lower-pitched voices also tended to be heavier. Furthermore, consistent with the research on women's preferences, the men also agreed about which female faces and voices they preferred. These authors showed that women with more attractive voices were also perceived as having more attractive faces.

Fraccaro et al. (2011) performed an interesting research project suggesting that women speak in a higher pitch when speaking to someone they consider attractive. These authors "asked women to read a scripted message as if they were leaving a voicemail message to arrange a date with each of two pictured men" (p. 59). The men's faces were manipulated to represent a more masculine-looking face as well as a more feminine-looking face. The authors then analyzed the pitch of women's voices on the two voicemail messages. The researchers found that women tended to speak in a higher-pitched voice to the man whom they found more attractive. Specifically, women who preferred masculine faces (and rated them as more attractive) spoke in a higher-pitched voice when leaving the voicemail message for the more masculine-looking man and vice-versa for the more feminine-looking man. The authors posited that because men seem to prefer higher-pitched voices in a female partner, "speaking with higher voice pitch to men that they find particularly attractive may function to increase women's attractiveness to preferred potential mates" (p. 64).

Conversely, Farley et al. (2013) found that women spoke in a lower-pitched voice to a current opposite-sex romantic partner than they used with a same-sex friend. These authors asked female and male undergraduate students from the United States who were in heterosexual romantic relationships for less than one year to call both their romantic partners and a same-sex friend (in a random order). Independent raters rated the women's and men's voices for sexiness, pleasantness, and the perceived degree of romantic interest. The raters also guessed whether each participant was talking to a friend or a romantic partner. The researchers found that the independent raters were able to identify whether men and women were speaking with a friend or romantic partner at better than chance levels, even when only coding the two-second phrase "how are you?". They also rated men's and women's voices as more pleasant, sexier, and exhibiting more romantic interest when individuals were speaking with their romantic partners rather than their same-sex friends. Interestingly, women spoke in a lower-pitched voice and men spoke in a higher-pitched voice when talking to their romantic partners. The authors speculate that men and women might be trying to match their partner's vocal pitch when talking to one another.

Correlates of vocal attractiveness

In addition to being associated with physical attractiveness, attractive voices are associated with bodily symmetry. Both men and women judged as having attractive voices are also more symmetrical (Hughes et al., 2002). Recall from our earlier discussion of symmetry that symmetry may indicate that a potential partner possesses good genes or the ability to withstand pathogens during development (Manning, 1995; Perilloux et al., 2010). Interestingly, men and women with attractive voices tend to have sex earlier, have more sex partners, and are more likely to be sexually unfaithful (Gallup & Frederick, 2010). Likewise, Hodges-Simeon et al. (2011) found that men who spoke with less frequency variation (more monotone) and used more dominant language also reported having more sexual partners within the past year. Taken together, this research suggests that partners with attractive voices may make better short-term partners than long-term partners. Future research should investigate this possibility.

Vocal personality information

Similar to the research reviewed above regarding physical attractiveness (Dion et al., 1972), vocal attractiveness may also be related to positive personality perceptions. As reviewed by Zuckerman et al. (1991), targets rated as having more attractive voices were likewise perceived to have more pleasing personalities. Interestingly, these results occurred when raters judged both voices alone as well as voices and photographs of faces rated together. Moreover, the authors reported that the effect of vocal attractiveness was sometimes stronger than the effect of visual physical attractiveness.

Vocal information may be particularly useful for discerning certain personality traits. For example, Zuckerman et al. (1990) found that vocal information was more informative when judging traits such as neuroticism, while visual information was more informative when evaluating traits such as extroversion. Also, Zuckerman et al. found that the effects of vocal information and visual information are stronger alone than when presented together. So if you meet someone over the telephone and do not have a photo, or if you see a photo of someone but never hear her voice, the effects of the vocal or visual attractiveness will be more pronounced than if you meet her in-person and experience both types of information simultaneously.

Further, Zuckerman et al. (1990) found that visual and vocal information are particularly important when forming first impressions. These authors collected ratings of physical and vocal attractiveness from strangers and from targets' same-sex roommates. They found that although ratings of physical and vocal attractiveness were related to personality perceptions among strangers, neither ratings of physical nor vocal attractiveness were related to personality perceptions among roommates. Interestingly, in support of mere exposure theory (which we discuss in Chapter 5, see Zajonc, 1968), the authors found that

targets were rated more favorably by those perceivers who were more familiar with them.

Body scent

You were probably expecting to read about a potential mate's physical attractiveness, height, or weight influencing attraction, but were you expecting to read about a potential mate's scent? The preference for a partner who smells good may be another unconscious preference, similar to that of the preference for symmetry and averageness. And, yet, scent may convey more information about whether you have chosen a "good" potential mate than do other physical characteristics. Have you ever encountered a person whose scent disgusted you? Would you consider dating that person under any circumstances?

Research on body scent shows that it is an important indicator of attraction, perhaps even more important for women searching for a male partner. Herz and Inzlicht (2002) asked men and women to rate the importance of different factors in a mate. The authors found that the scent of a potential partner was rated as more important by women than men. Furthermore, women rated a male partner's scent as more important than men's physical attractiveness or vocal attractiveness. In a study linking body scent to nonverbal behavior, Roberts et al. (2011) asked women to evaluate the body scent (from pads worn beneath men's arms while sleeping) and the attractiveness of men's nonverbal behavior presented in videos. These authors found that women who liked a man's body scent also rated his nonverbal behavior as more attractive (based on short silent videos). In experimental research, Saxton et al. (2008) exposed some women to the scent of androstadienone, a compound which humans naturally secrete in the underarm area. The authors found that women exposed to androstadienone rated men as more attractive at a speed-dating event.

A companion who possesses a pleasing natural odor may also be a "good" partner in other ways. In an intriguing study performed by Thornhill et al. (2003), the researchers asked primarily Caucasian and Hispanic men and women from the United States to sleep in a t-shirt for two nights. (The participants were also required to wash their sheets with unscented detergent, refrain from using scented soaps or perfumes, avoiding eating particularly pungent foods, refrain from smoking or drinking alcohol, and refrain from sleeping next to or having sex with a partner during those two days and nights.) The participants contributed a blood sample and were measured to assess symmetry. Men and women then smelled the t-shirts worn by members of the other sex and rated the "pleasantness" and "sexiness" (p. 671) of the smell of the t-shirts. Independent raters judged the facial attractiveness of the participants.

The results revealed many fascinating results. First, women who were in the fertile phase of their menstrual cycle preferred the scent of men who were more symmetrical. Men, however, did not find the smell of symmetrical women as

more pleasing or sexy. Second, men rated the scent of women as more attractive when the women did not share the same immune genes as the men (as the authors posit, potentially providing future offspring with enhanced immunity). Women, however, did not show this same preference in the present study. Third, men preferred the scent of women who were independently rated as more facially attractive. Women, however, did not prefer the scent of more facially attractive men. Fourth, men preferred the scent of women who were at the most fertile point of their menstrual cycle. These findings all suggest that a pleasing scent may be indicative of a good potential mate. Although women may be more likely than men to express the sentiment that scent is more important (Herz & Inzlicht, 2002), scent is an important indicator of the quality of a mate for both male and female partners. However, you may need to ask all of your dates to wash their sheets, shower with unscented soap, avoid pungent foods, etc. in order to detect these mating advantages.

Chapter summary

In this chapter we have reviewed research suggesting that first impressions of potential romantic partners can be based upon characteristics such as physical and facial attractiveness, height, weight, age, vocal characteristics, and body scent. These features may be attractive to us because of the other benefits associated with pleasing physical features. Physical attractiveness is often associated with a pleasant personality and a happier disposition. Facial attractiveness as well as facial cues such as symmetry and averageness may indicate that a potential partner is healthy and has “good genes.” Preferences for the height and weight of a potential partner may also be related to health or potential reproductive fitness. Vocal attractiveness seems to be related to perceptions of physical attractiveness as well as perceptions of positive personality characteristics. Finally, an attractive body scent may signal that a partner possesses good genes or different immune genes than our own. First impressions of physical characteristics may help us to find the best possible mating partners.

Suggested reading

Alterovitz, S. S., & Mendelsohn, G. A. (2009). Partner preferences across the life span: Online dating by older adults. *Psychology and Aging, 24*(2), 513–517. doi:10.1037/2160-4134.1.S.89

This article is interesting and easy to read. Students might enjoy critically evaluating the way the authors measured the desired age of potential partners relative to participants' own ages.

Griffin, A. M., & Langlois, J. H. (2006). Stereotype directionality and attractiveness stereotyping: Is beauty good or is ugly bad? *Social Cognition, 24*(2), 187–206. doi:10.1521/soco.2006.24.2.187

- I recommend this article because the authors critically evaluate the previously accepted finding that beauty is associated with other positive characteristics.
- Saxton, T., Caryl, P., & Roberts, S. (2006). Vocal and facial attractiveness judgments of children, adolescents and adults: The ontogeny of mate choice. *Ethology*, *112*(12), 1179–1185. doi:10.1111/j.1439-0310.2006.01278.x.
- This article is interesting both due to the intriguing findings as well as the inclusion of women and girls of different ages as participants.
- Stulp, G., Pollet, T. V., Verhulst, S., & Buunk, A. P. (2012). A curvilinear effect of height on reproductive success in human males. *Behavioral Ecology and Sociobiology*, *66*(3), 375–384. doi:10.1007/s00265-011-1283-2
- Although the statistics presented in the result section of this article may be challenging to comprehend, this article is interesting and explores a number of potential variables related to height.
- Weeden, J., & Sabini, J. (2005). Physical attractiveness and health in Western societies: A review. *Psychological Bulletin*, *131*(5), 635–653. doi:10.1037/0033-2909.131.5.635.
- This article presents a thorough review of the literature outlining the potential benefits to mating with a physically attractive partner.

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