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Attraction and Rejection

Human beings are social animals, and being social requires having relationships with others. We seek people to bond with, and we try to avoid rejection. But humans are more than just social—we are also cultural. Indeed, although other creatures, like ants and bees, are more social than humans, no other species is more cultural, nor even nearly as cultural, as we are (Baumeister, 2005).

How do we, as social animals, leverage the opportunities afforded by our culture to help us meet our needs? We evolve and fine-tune sophisticated psychological machinery, including mind-reading skills and self-awareness, to determine with whom we would like to pursue a relationship (attraction) and to reduce the odds of rejection from our primary social groups (rejection). This chapter considers both of these social-psychological phenomena, starting with attraction.

Attraction

Historical Perspective

Although theorizing on *interpersonal attraction*—the tendency to evaluate positively, and seek closeness with, a target person to whom we are not (yet) close—is millennia old, only a smattering of empirical investigations existed before the 1960s. Notable among them were studies on assortative mating (Harris, 1912), popularity (Moreno, 1934), power (Waller, 1938), mate preferences (Hill, 1945), sexuality (Kinsey, Pomeroy, & Martin, 1948), and physical proximity (Festinger, Schachter, & Back, 1950). Such studies set the stage for the development of an organized subdiscipline of interpersonal attraction within social psychology.

This subdiscipline coalesced in the 1960s and 1970s. Theodore Newcomb (1961) and Donn Byrne (1961) launched it with landmark publications investigating whether similarity predicts attraction. Shortly thereafter, scholars studied a broad range of attraction-relevant topics, including the effects of a target's physical attractiveness (Walster, Aronson, Abrahams, & Rottman, 1966;

Huston, 1973), the effects of a perceiver's physiological arousal (Berscheid & Walster, 1974; Dutton & Aron, 1974), whether a target reciprocates liking from a perceiver (Walster, Walster, Piliavin, & Schmidt, 1973), whether a target who is "too perfect" is less likeable than an otherwise-identical target who has benign imperfections (Aronson, Willerman, & Floyd, 1966), and whether perceivers tend to be more attracted to a target who grows to like them over time than to a target who has liked them from the beginning (Aronson & Linder, 1965). Indeed, the empirical yield of attraction research was substantial enough to warrant a book, *Interpersonal Attraction*, which Ellen Berscheid and Elaine Walster published in 1969 and revised in 1978.

Meanwhile, in the United States and other Western nations, the countercultural revolution was shattering long-held assumptions about gender roles and relationship dynamics, yielding skyrocketing divorce rates and widespread hand-wringing about the breakdown of traditional family life (Finkel, 2017). As a response, researchers across the social sciences redoubled their efforts to understand the contours of marriage and other long-term relationships, unearthing alarming findings regarding important topics like the rate of physical aggression within marriage (Straus, Gelles, & Steinmetz, 1980). Such developments altered social psychologists' research priorities, strengthening their desire to understand what makes established relationships satisfying versus dissatisfying, stable versus unstable (Gable, this volume). As a result, starting in the 1980s, "the field of interpersonal attraction, as an organized literature, largely faded into the background, supplanted but not replaced by a field called 'close relationships'" (Graziano & Bruce, 2008, p. 272; also see Berscheid, 1985; Reis, 2007).

In the late 1980s and 1990s, a new, more evolutionarily grounded, approach to understanding interpersonal attraction emerged and gained prominence (Buss, 1989), filling the void left when the field of attraction research largely abdicated its perch within social psychology to close relationships research. The evolutionary approach leverages Darwin's principles of natural and

sexual selection (Maner & Kenrick, this volume) to derive novel hypotheses regarding when and how individuals experience attraction to a given target.

In the twenty-first century, the broader field of interpersonal attraction has enjoyed a renaissance, surging alongside the still-robust field of evolutionary psychology. A major impetus behind this resurgence was the advent of technological and methodological developments in dating practices and social networking in the real world, including online dating, speed-dating, and social networking (Boyd & Ellison, 2008; Finkel & Eastwick, 2008; Finkel, Eastwick, Karney, Reis, & Sprecher, 2012). These technological developments have converged with the growth of evolutionary models to influence the types of attraction social psychologists study. In particular, although scholars have long investigated both romantic and nonromantic forms of attraction, the influence of online dating, speed-dating, and evolutionary perspectives have tilted the field increasingly toward romantic attraction in recent decades. The present chapter reflects that shift.

Attraction Research Methods

Social-psychological studies of close relationships typically involve the recruitment of research participants who are already involved in a close relationship—frequently a serious romantic relationship—and the studies address topics like how satisfying the relationship is and how likely it is to dissolve during a longitudinal follow-up period. Social-psychological studies of attraction, in contrast, typically involve the recruitment of research participants who report on a stranger, and the studies are about their attraction to him or her.

Most such studies assess participants' attraction to targets they have never met, or have just met for the first time. Some ask participants to report on a hypothetical partner, as when they report how important it is that a potential partner has a good sense of humor. Some ask participants to report on a specific target (or more than one), perhaps by showing them a photograph or profile of him or her. Although such studies enjoy high levels of experimental

control, the extent to which the attraction-related processes they identify generalize to situations in which we actually meet a potential partner is often unknown.

To address such concerns about generalizability while maintaining strong experimental control, scholars sometimes invest the resources required to introduce strangers to each other in a psychology laboratory or in another structured context. They might, for example, have participants interact with a research confederate. One influential method that seeks to maximize both external and internal validity is speed-dating (Finkel & Eastwick, 2008). In speed-dating studies, participants volunteer for an actual speed-dating event in which they meet around a dozen preferred-sex partners for interactions of, say, four minutes in duration. The value of speed-dating methods has come into especially sharp focus as concerns about replicability within social psychology have grown, because speed-dating events provide an efficient means of collecting high-impact data characterized by strong statistical power. For example, one study included eight heterosexual speed-dating events conducted over a three-day period, running 187 participants through a procedure that yielded more than 1,100 video-recorded speed-dates and 2,200 interaction-record questionnaires. Such data enable researchers to answer questions that are unanswerable with most methods, such as the extent to which David's attraction to Kyoko is due to something about David (he's attracted to all the women), something about Kyoko (all the men are attracted to her), or something about their unique chemistry (even after control for David's attraction to the women in general and the men's general attraction to Kyoko, he is uniquely attracted to her) (Joel, Eastwick, & Finkel, 2017; see Kenny and La Voie, 1984).

When evaluating research methods, the most important consideration is the extent to which the methods are aligned with the research question. If a researcher wants to know what qualities people think they want in a hypothetical partner, simply asking participants what they want is sufficient. But if the researcher wants to know whether people exhibit greater attraction to partners

who possess more of a given quality, the researcher is better served by observing how much attraction participants experience toward a real-life potential partner who possesses more versus less of that quality.

Theory and Research on Attraction

Recent methodological advances have emerged alongside notable, and desperately needed, theoretical advances. According to the original, 2010 version of this chapter, research on attraction is “a theoretical morass. Dozens of theories have guided research, and scholars have devoted little effort toward linking these far-flung theories into an integrated framework” (Finkel & Baumeister, 2010, pp. 421-422). This conclusion echoed that of Ellen Berscheid (1985, p. 417), who observed a quarter-century earlier that the field “‘just grew,’ proceeding without the advantage of a master plan”—and that of Theodore Newcomb (1956, p. 575), who observed a half-century earlier that “there exists no very adequate theory of interpersonal attraction.”

Instrumentality: The Foundation of Attraction

In the 2010s, two research teams, working independently, took some initial steps to impose theoretical coherence on this unruly literature, offering compatible perspectives on how attraction works. Matthew Montoya and Robert Horton (2014) argued that we tend to be especially attracted to targets who are both willing and able to meet our needs or goals. Eli Finkel and Paul Eastwick (2015, p. 180) argued that the essence of interpersonal attraction is *instrumentality*: “people become attracted to others who help them achieve needs or goals that are currently high in motivational priority.” These ideas built on research on close relationships, where Gráinne Fitzsimons and James Shah (2008) had demonstrated that people tend to draw closer to significant others who are instrumental for such goals.

Two Metatheoretical Frameworks

In addition to being the essence of attraction, instrumentality also serves as the (frequently implicit) foundation for the major theoretical frameworks for understanding how attraction works (Finkel & Eastwick, 2015). The two most influential frameworks are domain-general reward models and domain-specific evolutionary models. *Domain-general reward models* conceptualize needs or goals as general motivations that can be fulfilled through diverse routes, as when a man looks to various relationship partners (e.g., romantic partner, sibling, friend, coworker), or even to himself, to meet his need to feel competent. *Domain-specific evolutionary models*, in contrast, conceptualize needs or goals as adaptations oriented toward solving specific problems in our evolutionary past, as when a woman finds a particular man attractive because her same-sex ancestors were able to procure good genes through sexual encounters with men who, like this man, were socially dominant. Such needs and goals can be fulfilled only by a particular type of relationship partner; in our example, neither a less dominant man nor the woman's sister could not substitute for the dominant man.¹

Domain-General Reward Models. In the 1950s, Newcomb (1956, p. 577) asserted that “we acquire favorable or unfavorable attitudes toward persons as we are rewarded or punished by them.” This observation, which forms the foundation of domain-general reward models and remains influential today, builds on classic reinforcement ideas initially developed by Edward Thorndike (1898) and B. F. Skinner (1938).

Physical Attractiveness. All else equal, we tend to be more attracted to a given target insofar as he or she is physically attractive, at least in part because it is pleasurable to look at, and perhaps touch, people who are hot. Indeed, neuroscience research suggests that merely looking at photos of attractive people activates reward circuitry in the brain (Aharon et al., 2001; Cloutier, Heatherton,

¹ These two metatheoretical frameworks do not encompass all research on attraction. Indeed, Finkel and Eastwick (2015) also discussed a third framework—attachment-based models—but we set such research aside for the present review because few attraction studies to date have drawn from it. Still, the two metatheoretical frameworks can speak to vast swaths of the literature and can facilitate the development of a common lexicon for attraction research.

Whalen, & Kelley, 2008; O'Doherty et al., 2003). In a seminal study, college students who attended an evening-long dance party experienced greater attraction to their randomly assigned partner (a stranger) to the extent that objective coders rated him or her higher in physical attractiveness (Walster et al., 1966). Decades of subsequent research have done little to temper the conclusion that we tend to be especially attracted to physically attractive targets (Eastwick et al., 2014). Indeed, the effect emerges even in platonic contexts (Feingold, 1990; Langlois et al., 2000) and even when the perceivers are young children (Langlois et al., 1987; Slater et al., 1998), findings that speak to the domain-generalizability of the effect.

What characteristics make a target physically attractive? We perceive targets as warm and friendly when they exhibit a large smile, dilated pupils, highly set eyebrows, full lips, and a confident posture (Cunningham & Barbee, 2008). Men tend to be attracted to women with sexually mature features like prominent cheekbones, whereas women tend to be attracted to men with sexually mature features like a broad jaw (Cunningham, Barbee, & Philhower, 2002; Rhodes, 2006). As depicted in Figure 1, a clever line of research employs computer morphing procedures to produce composite versions of human faces, demonstrating that composites become more attractive when they consist of a larger number of human faces, perhaps because such composites are easy to process because of their “average” features or because they are symmetrical (Langlois, Riggman, & Musselman, 1994; Rhodes, Harwood, Yoshikawa, Nishitani, & MacLean, 2002; Rubenstein, Langlois, & Riggman, 2002).

Self-Enhancement. We also tend to be attracted to others who make us feel good about ourselves. For example, we like people who ingratiate themselves to us, but not people who ingratiate themselves to somebody else (Gordon, 1996; Vonk, 2002). We like people who like us (Backman & Secord, 1959; Curtis & Miller, 1986), especially if they like us more than they like others (Eastwick, Finkel, Mochon, & Ariely, 2007; Walster et al., 1973). We experience greater

attraction to more competent people, especially if they also have some minor imperfection that makes them less threatening to our sense of self-worth (Aronson et al., 1966; Deaux, 1972; Herbst, Gaertner, & Insko, 2003). We like people whom we perceive to have attitudes and values that are similar to our own (Montoya et al., 2008; Tidwell, Eastwick, & Finkel, 2013), in part because we experience such similarity as validation for our own views (Thibaut & Kelley, 1959, p. 43).²

Belonging. In addition, we tend to be attracted to strangers whom we perceive as having the potential to help us fulfill our need to belong—our need for “for frequent, nonaversive interactions within an ongoing relational bond” (Baumeister & Leary, 1995, p. 497). The human psyche is built to bond with others (Hazan & Diamond, 2000; Hazan & Zeifman, 1994), and, indeed, we experience greater attraction to a stranger when we have gazed into his or her eyes for two minutes than if the two of us have gazed at each other’s hands or had asymmetric eye contact (Kellerman, Lewis, & Laird, 1989). We are especially attracted to people who disclose intimate information to us, or to whom we have disclosed intimate information, even if the impetus to disclose results from random assignment to a high-disclosure experimental condition rather than from some more endogenous motivation (Collins & Miller, 1994). Similarly, we are especially attracted to people who ask us lots of questions—especially follow-up questions—in part because such questions make us feel like they care about our needs (Huang, Yeomans, Brooks, Minson, & Gino, 2017). We tend to become more attracted to people if we have been randomly assigned to have many rather than few brief instant-messaging chats with them (say, eight instead of one), another effect that is mediated by the perception that he or she cares about our needs (Reis et al., 2011). If we are open to the possibility of forming a close relationship with a stranger, we experience greater attraction if he or she responds to our generosity with a simple thank-you rather than if he or she offers to pay us back, apparently because we perceive the thank-you response, relative to the

² Although the effect of *perceived* (psychological) similarity on attraction is robust, evidence that *actual* similarity predicts attraction has been oddly elusive (Finkel et al., 2012; Luo & Zhang, 2009; Tidwell et al., 2013).

payback response, as indicating greater potential interest in forming a relationship with us (Clark & Mills, 1979).

Domain-General Reward Models: Conclusion. These findings—regarding a target’s physical attractiveness or to how he or she influences our self-esteem or our sense of belonging—speak to a broader truth. We tend to be attracted to others who are, in a domain-general way, rewarding for us.

Domain-Specific Evolutionary Models. In contrast to domain-general reward models, domain-specific evolutionary models suggest that we are attracted to people who can help us meet specific needs or goals that evolution bequeathed to us because the need or goal inspired actions that yielded successful solutions to particular adaptive challenges in our ancestral past. The intellectual foundation supporting the evolutionary psychology of interpersonal attraction, which gained widespread prominence in the work of David Buss (1989, Buss & Barnes, 1986), consists of three major developments. The first was Robert Trivers’ (1972) theory of differential parental investment, which argues that whichever sex invests more resources in gestating and rearing offspring should be more cautious about mating decisions. Among mammals, females tend to invest more than males, which has led them to be more selective and has led males to compete more vigorously for sexual access to them. The second development was E. O. Wilson’s (1975) analysis applying the concept of adaptation to the domain of human behavior. Just as long necks became prevalent among giraffes because long-necked giraffes were more likely to survive and reproduce than their short-necked counterparts, certain forms of human behavior—in domains like helping, aggression, and mating—have become increasingly prevalent among *Homo sapiens* because such behaviors, too, bolstered ancestral survival and reproduction. The third development was Leda Cosmides’ (1989; Tooby & Cosmides, 1992) theory of the modular mind, which argues that the brain consists of a large number of distinct computational systems that evolved to regulate

physiology and behavior in ways that, among our hunter-gatherer ancestors, promoted survival and reproduction in response to specific adaptive challenges.

The ideas emerging from evolutionary perspectives on attraction have proven to be innovative and generative. They also have the benefit of linking the attraction literature to the most influential theory in the life sciences. At the same time, many of these ideas are scientifically controversial. One issue is that some of the ideas paint an image of human sociality that is at odds with other major perspectives in the social sciences, including those attributing primary causality to socialization pressures. A second issue is that certain seminal ideas in evolutionary tradition fare poorly when confronted with relevant data, at least in the assessment of some scholars. Because so much of the recent research on attraction resides at the intersection of these various perspectives, the ensuing discussion focuses on both the central evolutionary ideas in this research space and the debates surrounding them.

Mate Preferences. In 1989, Buss published a study that examined people's mate preferences in a sample of over 10,000 participants from 37 cultures, which were spread across 33 countries located on 6 continents and 5 islands. Although scholars had asked people to report on the qualities they find appealing in a mate for decades (Hill, 1945), Buss' approach was new in its attempt to link such preferences to specific adaptive problems confronted by our hunter-gatherer ancestors. In particular, Buss built on Trivers' (1972) idea of differential parental investment to advance hypotheses surrounding sex differences in mate preferences. Because our female ancestors were likely to be dependent on others for resource acquisition when gestating and rearing their offspring, Buss hypothesized, women today should show stronger preferences for mates with qualities linked to resource acquisition, such as good earning prospects. In contrast, because our male ancestors' reproductive success depended on garnering sexual access to fertile women, men today should show stronger preferences for qualities in a mate that are linked to

fertility, such as physical attractiveness. Results from Buss' (1989) study yielded strong cross-cultural support for these hypotheses. These effects that have been replicated many times, including in a self-report study using a national representative sample of Americans (Sprecher, Sullivan, & Hatfield, 1994) and in a study investigating whom online daters contact after viewing profiles of potential partners (Hitsch, Hotaçsu, & Ariely, 2010).

Although the robustness of such sex differences has not been questioned, these findings have been the target of two major critiques. The first, from Alice Eagly and Wendy Wood (1999; Wood & Eagly, 2002), is that they are caused not by domain-specific mating adaptations, but rather by socialization pressures that sort men and women into particular roles—pressures that owe more to evolved differences in the body than to evolved differences in the brain. Women lactate and have a uterus, which has increased their likelihood of occupying caretaker roles. Men have greater upper-body strength, which has increased their likelihood of occupying resource-provider roles, like agricultural or construction laborer, that require bursts of strength—not to mention extended time away from home. Because an individual (of whatever sex or gender) in a caretaker role is likely to require some other means of procuring resources, whereas an individual (of whatever sex or gender) in a resource-provider role is likely to require some other means of procuring caretaking, men and women come to develop the sorts of sex differentiated preferences demonstrated in Buss' data. Consistent with this possibility, a reanalysis of those data revealed that the sex differences get much smaller as the nation's gender equality increases; that is, as the roles occupied by men and women become more similar, so do their mate preferences (Eagly & Wood, 1999).

The second critique, from Paul Eastwick and his collaborators (Eastwick, Luchies, Finkel, & Hunt, 2014), focuses less on explanations for the sex differences than on their relevance to actual mating encounters. The sex differences are robust in research paradigms in which participants have never met the target—for example, those in which people report on a hypothetical ideal

partner or on a target presented in static content on a piece of paper or a computer monitor. But they are remarkably elusive in studies in which participants have actually met the target. In one study (Eastwick & Finkel, 2008), which was successfully replicated (Seltermann, Chagnon, & Mackinnon, 2015) as part of the famous 100-study replication effort undertaken by the Open Science Collaboration (2015), heterosexual participants reported their mate preferences 10 days before attending a speed-dating event where they met 12 potential partners. Immediately following each speed-date, they evaluated that partner in terms of mate-preference dimensions like physical attractiveness and earning prospects. Although these participants exhibited the standard sex differences on the pre-event questionnaire—men expressed a stronger preference than women for physical attractiveness, women expressed a stronger preference than men for earning prospects—these effects essentially disappeared when participants reported on the flesh-and-blood partners they met at the speed-dating event. The extent to which participants evaluated a particular partner as physically attractive or as having strong earning prospects predicted their level of romantic desire for him or her, but the magnitude of these effects was virtually identical for men and women.

This conclusion is not limited to speed-dating methods. Indeed, a meta-analysis of all existing studies in which participants had, at minimum, met the target face-to-face—including paradigms ranging from speed-dating and confederate studies to studies of dating or married couples—revealed no evidence for sex differences in the association of either physical attractiveness ($N = 29,414$) or earning prospects ($N = 50,113$) with romantic outcomes like attraction or relationship satisfaction (Eastwick et al., 2014). Debate surrounding the circumstances under which sex-differentiated mate preferences emerge is ongoing, as is a broader discussion about the extent to which, regardless of gender, people's self-reported mate preferences matter in predicting how

much attraction they experience when meeting real people (for a comprehensive list of studies relevant to this latter issue, see Tables 3 and 4 in Eastwick, Finkel, & Simpson, in press).

Short-Term vs. Long-Term Mating Strategies. Shortly after publishing his 37-cultures study, Buss joined forces with David Schmitt to develop sexual strategies theory, the first full-fledged evolutionary theory of human mating (Buss & Schmitt, 1993). A central element of this theory is the distinction between short-term and long-term mating strategies, with *strategies* defined as “evolved solutions to adaptive problems, with no consciousness or awareness on the part of the strategist implied” (p. 206). Short-term mating strategies are characterized by the pursuit of casual and time-limited liaisons such as a brief fling or a one-night stand. Long-term mating strategies, in contrast, are characterized by the pursuit of serious and extended liaisons such as a steady dating relationship or a marriage. Buss and Schmitt observe that, throughout evolutionary history, both our male and our female ancestors have pursued both short-term and long-term matings, with the adoption of a particular strategy determined by contextual conditions that made its reproductive benefits outweigh the costs. That said, because the minimum parental investment has been so much larger for our female than our male ancestors, evolution bequeathed greater interest in short-term mating to men than to women. Consistent with this hypothesis, although men in one set of studies (Clark, 1990; Clark & Hatfield, 1989) were slightly more likely than women to accept a date from an opposite-sex research confederate who approached them on campus (58% vs. 48%), they were much more likely to accept an offer to go home with (63% vs. 7%) or to “go to bed with” (71% vs. 0%) the confederate. These studies have been critiqued, including on domain-general grounds by Terri Conley (2011), who presents evidence that the large sex difference in the latter two conditions disappears once researchers control for (a) how physically safe it is to accept the invitation and (b) how enjoyable participants believe the casual sex is likely to be.

Nonetheless, the short-term/long-term distinction remains influential in evolutionary models. In developing strategic pluralism theory, for example, Steven Gangestad and Jeffry Simpson (2000) adopt the short-term/long-term distinction while also emphasizing how people allocate their mating-relevant resources through strategic tradeoffs. Although a select few of our male ancestors probably achieved reproductive success through short-term matings with many partners, most of them would have been unable to pull off such a strategy. Not only were most of them insufficiently appealing to entice lots of partners to have uncommitted sex with them, but such a loose strategy involved other perils, including the risk of being killed by a female's kin following a one-time sexual encounter. As a result, our male ancestors were probably more likely to achieve reproductive success through long-term matings with few partners, perhaps just one. Similarly, although some of our female ancestors achieved reproductive success through short-term matings oriented toward procuring good genes for their offspring, such a strategy involved a great deal of risk, including the risk of being deserted with insufficient resources to gestate and rear the child. As a result, our female ancestors, too, were probably more likely to achieve reproductive success through long-term matings with few partners, perhaps just one.

One critique of this line of research, also from Eastwick and his collaborators (Eastwick, Keneski, Morgan, McDonald, & Huang, 2018), surrounds the extent to which real-life short-term and long-term romantic relationships are distinguishable as people initially pursue them. Consider a set of studies that plot the trajectories of participants' real-life short-term and long-term relationships using particular relationship milestones, such as first meeting, first flirtation, first kiss, first saying "I love you," first sexual intercourse, and first meeting each other's parents. Adopting standard language from the literature investigating short-term and long-term relationships, participants reported their level of romantic interest at the time each event occurred—if it occurred—within both a "short-term romantic relationship (e.g., a fling, one-night-

stand, or brief affair)” and a “long-term, committed romantic relationship.” If they were currently involved in a short-term and/or a long-term relationship, they responded regarding that relationship; if not, they responded regarding a previous relationship of the relevant type.

As illustrated in Figure 2, the level of romantic interest participants experienced at the time of a given relationship event was, early on, identical for short-term and long-term relationships (and among men and women). Indeed, the tendency for long-term relationships to be characterized by greater romantic interest did not emerge until the advent of sexuality-linked behaviors like kissing and oral sex; there had been no detectable differences when the nascent relationship was at the level of flirting or initially spending time together. As a result, although there is no doubt that the “short-term” and “long-term” relationships end up being quite different—especially in that long-term relationships last longer and are characterized by higher peak levels of romantic interest—there is little evidence that people tend to approach a potential relationship with either a long-term or a short-term *strategy*. Instead, although there are surely some individual differences and fluctuations over time, it seems that the dominant mentality when approaching a new relationship is closer to “let’s see how it goes,” an orientation toward exploring how strong the compatibility is.

Ovulatory Cycle Effects. Evolutionary psychologists have also generated an array of intriguing hypotheses about how hormonal shifts linked to women’s ovulatory cycle influence attraction-related outcomes. Such research, which was launched by Steven Gangestad and his collaborators (Gangestad & Thornhill, 1998), begins with the observation that heterosexual intercourse is especially likely to result in a pregnancy when it occurs shortly before the woman ovulates. Consequently, women’s sexual preferences and decisions during that interval should be especially influenced by the genetic material offered by the man, particularly if they are considering him for a short-term sexual relationship. They should prioritize indicators of “good

genes” in the man, such as symmetrical features, masculine facial and vocal qualities, creativity, and socially dominant behavior (Gangestad, Thornhill, & Garver-Apgar, 2005). Analogously, women who are already involved in a serious romantic relationship should report greater attraction to, and flirt more with, other men during the fertile phase of their ovulatory cycle, particularly if their current partner is not physically attractive (Haselton & Gangestad, 2006).

Two meta-analyses of this research space were published in 2014, yielding starkly different conclusions. The first, from Kelly Gildersleeve, Martie Haselton, and Melissa Fales (2014), concluded that ovulatory cycle shifts are robust—and that, consistent with longstanding evolutionary theorizing, the effects are limited to qualities linked to (ancestral) genetic quality and to contexts in which women are considering men for a short-term relationship. The second, from Wendy Wood, Laura Kressel, Priyanka Joshi, and Brian Louie (2014), concluded that ovulatory cycle shift effects are not robust. The two research teams have published back-and-forth critiques defending their positions, but there has been little progress toward an integration or a resolution. It is likely that the next major salvos in this debate will involve large-sample preregistered studies using direct hormonal tests of ovulatory status.

Domain-Specific Evolutionary Models: Conclusion. Domain-specific evolutionary perspectives breathed new life into attraction research at a time when the field was waning. In developing a novel approach to hypothesis-generation, it introduced an array of important new research questions. Given the prominence and influence of this work, it is not surprising that it has also been the target of major critiques. But even some of these critiques are, at root, evolutionary in ways that would have been difficult to imagine before Buss and others began developing this approach to understanding how attraction works.

Attraction Research Today

Recognition of the fundamental role that instrumentality plays in interpersonal attraction can help to generate a new research agenda for this literature (Finkel & Eastwick, 2015). In particular, attraction research can benefit from closer ties to the self-regulation literature, especially in terms of the conceptualization of goal-related dynamics. Researchers could fruitfully investigate goal properties like importance (how essential a given goal currently is for us), chronicity (how frequently a goal is activated for us), and multifinality (the extent to which a given target can help us meet many versus few of our goals) in determining how attracted we are to a target. Researchers could also explore, for example, how we evaluate the likelihood that a given target will help us fulfill a given goal, or the circumstances under which attraction manifests itself as a warm feeling of liking versus a hot feeling of passion.

Perhaps the most radical implication of the emphasis on instrumentality is its suggestion that our experience of attraction can fluctuate markedly throughout the day, often in surprisingly ways, as our goals shift in motivational priority. Consider an example from Finkel and Eastwick (2015), who argue that instrumentality perspective “implies that Jason should be more attracted to Scott, the telephone-based tech-support representative who is currently helping him fix a problem with his computer, than to Rachel, his wife of 20 years.” Such a result would be unlikely to emerge on research surveys, of course, which rely more on cognitive abstraction than on immediate experience, but surveys are not the only means of assessing attraction. Consider a scenario in which (a) Jason’s computer issue is urgent (he has to give a major presentation in an hour); and (b) Rachel, unaware of this urgency, starts to seduce him. Jason may well rebuff her advances in favor of focusing all of his attention on Scott, behavior that could certainly count as an operationalization of attraction.

This scenario points to a broader truth: The lack of an overarching theoretical framework has stunted research on attraction, but we appear to be arriving to a stage when such a framework is gaining currency. On first blush, it looks like the low-hanging fruit is plentiful.

Rejection

We turn now to other side of the coin, from attraction to rejection. The shift in content is accompanied by a shift in the design variable. Attraction is typically studied as a dependent variable, whereas rejection is most commonly studied an independent variable—that is, researchers mostly explore the *causes* of attraction but the *consequences* of rejection. We discuss rejection research methods and theoretical perspectives on rejection before reviewing the consequences of being rejected. We then discuss loneliness and explore why people get rejected.

Rejection research emerged in a rather brief time, as several different strands converged to stimulate research. Roy Baumeister and Mark Leary's (1995) paper on the need to belong led them to begin to explore the consequences of having that need thwarted (which is what rejection does). Around the same time, Kipling Williams had begun to reflect on ostracism and to conduct some initial studies, later summarized in his 2002 book. Loneliness research had been going on for some time, but it also received a new boost around this time, especially in connection with work by John Cacioppo and colleagues, later summarized in his 2008 book.

Rejection Research Methods

As with almost any research topic, progress depends on having good methods. Multiple procedures have assisted researchers in exploring the effects of rejection, although most of them use stranger interactions and rejections (so one should be cautious in generalizing to cases of rejection by important, long-term relationship partners). In one method, a group of strangers engages in a get-acquainted conversation and then is told that they will pair off for the next part (e.g., Leary, Tambor, Terdal, & Downs, 1995; Nezlek, Kowalski, Leary, Blevins, & Holgate,

1997; Twenge, Baumeister, Tice, & Stucke, 2001). Each is asked to list two desired partners, and then everyone goes to a separate room. The experimenter visits each room and gives bogus feedback that everyone, or no one, has selected you as a desirable partner. Thus, rejection means being chosen by no one as a desirable partner. In another procedure, people take a personality test by questionnaire and are given feedback that includes the ostensible prediction that you will end up alone in life (e.g., Twenge et al., 2001). In a third procedure, two participants exchange get-acquainted videos, and then the experimenter tells the participant that after seeing your video, the other person does not want to meet with you—as opposed to saying the other person had to leave because of a dentist appointment (e.g., DeWall, Baumeister, & Vohs, 2008). A fourth procedure asks people to recall or imagine experiences of rejection (e.g., DeWall & Baumeister, 2006).

The first study on ostracism sent the participant into a room with two confederates posing as participants (Williams & Sommer, 1997). All were instructed to remain silent. One confederate pretended to discover a ball and started tossing it to the others. In the control condition, all three threw the ball back and forth for several minutes. In the ostracism condition, the confederates briefly included the participant in the game and then gradually stopped throwing the ball to him or her. Later, a computerized version of this game called “Cyberball” was developed, and it has proven very popular as a convenient and inexpensive substitute for using live confederates (e.g., Eisenberger, Lieberman, & Williams, 2003; see also Van Beest & Williams, 2006).

Ostracism procedures may manipulate more than rejection. Williams (2002) argues that ostracism thwarts not just the need to belong but also other needs, including desires for control and understanding (meaning). If so, ostracism procedures cannot be considered pure manipulations of social rejection, and their effects may or may not stem from the interpersonal rejection aspect. However, a meta-analysis found that at least some effects of ostracism were indistinguishable from those of other rejection manipulations (Blackhart, Knowles, Nelson, & Baumeister, 2009).

Loneliness is mostly studied as an individual difference measure, assessed by questionnaire. Several scales are available for measuring loneliness per se, including the UCLA Loneliness Scale (Russell, Peplau, & Cutrona, 1980). There are also scales to measure degree of perceived social support.

General Theory

Approaches to rejection have generally been based on the assumption that people have a strong, basic drive to form and maintain social bonds. Most theories of personality and human nature have recognized this to some degree (e.g., Freud, 1930; Maslow, 1968). Recent assertions of the need to belong, such as Baumeister and Leary's (1995), have not really discovered or posited a new motivation but rather given it more prominence and primacy among motivations. Regardless, given that rejection thwarts this pervasive and powerful drive, it should be upsetting and disturbing to people, and it should set in motion other behaviors aimed at forming other bonds or strengthening the remaining ones.

A link to self-esteem has been proposed by Leary and colleagues (e.g., Leary et al., 1995; also Leary & Baumeister, 2000). Self-esteem presents a puzzle because people seem highly motivated to maintain and enhance it, yet high self-esteem has relatively few palpable advantages. It is puzzling why people would care so much about something that has so little apparent benefit. Leary's solution is to say that self-esteem, albeit perhaps not important in and of itself, is closely tied to something that is important, namely belongingness. In his term, self-esteem functions as a sociometer—an inner gauge of one's likelihood of having sufficient social ties. High self-esteem is generally associated with believing oneself to have traits that bring social acceptance, including likability, competence, attractiveness, and moral goodness. Hence rejection tends to reduce self-esteem, whereas acceptance increases it.

Thus, people seem designed by nature, in a rather general way, to want to connect with others. Some people may seem to like to be alone, but usually still desire to have at least a few friends and close relationships. Even religious hermits typically maintain a close bond with at least one person who visits regularly and provides some companionship. In prison, solitary confinement may seem a more attractive alternative than being with the other prisoners and suffering the associated risks of assault and rape, but in fact solitary confinement is highly stressful and damaging (Rebman, 1999), and most prisoners seek to avoid it if they can.

People who are rejected or otherwise alone suffer more mental and physical health problems than other people (Baumeister & Leary, 1995). In some cases, one could argue that the problems led to the rejection, but other cases (e.g., heart attacks, decreased immune function) make that seem implausible. Being alone is bad for the person. Indeed, mortality from all causes of death is significantly higher among people who are relatively alone in the world than among people with strong social ties (House, Landis, & Umberson, 1988). A meta-analysis of 148 studies and over 300,000 people found that risk of dying increased substantially as a function of having fewer social relationships, and this was true regardless of age, gender, cause of death, and initial health status (Holt-Lunstad, Smith, & Layton, 2010). Lonely people take longer than others to recover from stress, illness, and injuries (Cacioppo & Hawkley, 2005). Even a cut on the finger, administered in a carefully controlled manner in a laboratory study, heals more slowly than normal in a lonely person.

Consequences of Rejection

What happens to people who are rejected? We divide this exploration into sections on (a) behavioral consequences; (b) cognitive, motivational, and self-regulatory consequences; and (c) emotional consequences.

Behavioral Consequences. Rejection produces robust effects on behavior. The potential link between feeling rejected and turning violent gained national prominence from widely publicized episodes in which high school students in the United States brought guns to school and fired upon classmates and teachers. A compilation and analysis of the first 15 of these school shootings indicated that most of the shooters had felt rejected by their peers, and the feelings of rejection had fueled their violent tendencies (Leary, Kowalski, Smith, & Phillips, 2003). Laboratory experiments confirmed that participants who were randomly assigned to experience rejection by other participants became highly aggressive toward other participants, even toward innocent third parties who had not provoked them in any other way (Twenge et al., 2001). Only new persons who praised the rejected person were exempted from the aggressive treatment.

Parallel to the increase in aggression, rejected people show a broad decrease in prosocial behavior. In multiple studies, rejected people were less generous in donating money to worthy causes, less willing to do a favor that was asked of them, less likely to bend over and pick up spilled pencils, and less likely to cooperate with others on a laboratory game (the Prisoner's Dilemma) (Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007).

Ostracized people, too, seem quite positively responsive to friendly gestures and overtures by others (e.g., Williams & Zadro, 2005). For example, on a Solomon Asch-style conformity task, ostracized people conformed more than other participants—they were more likely to give the obviously wrong answer endorsed by other group members (Williams, Cheung, & Choi, 2000). Such behavior could indicate that they hope to win friends by going along with the group.

Cognitive, Motivational, and Self-Regulatory Consequences. The behavioral effects of rejection were puzzling in some ways. The underlying theory, after all, was that people are driven by a need to belong, and rejection thwarts that need, so rejected people should be trying extra hard

to find new ways of connecting with others. Instead, they seemed to become unfriendly, aggressive, and uncooperative. Why?

Alongside the antisocial behaviors noted in the preceding section, some researchers have found signs that rejected people may become interested in forming new social bonds. They show heightened interest in other people's interpersonal activities. For example, Wendi Gardner, Cynthia Pickett, and Marilynn Brewer (2000) administered a laboratory rejection intervention and then let participants read other people's diaries. The rejected persons showed relatively high interest in the diary writers' social lives, such as going on a date or playing tennis with someone. Another investigation found that rejected persons were especially likely to search for and notice smiling faces (DeWall, Maner, & Rouby, 2009). For example, they were quicker than others to spot a smiling face in a crowd of faces, and they tended to look longer at smiling faces than neutral faces, relative to other participants.

Some actual signs of trying to form a new social connection were found by Jon Maner, Nathan DeWall, Roy Baumeister, and Mark Schaller (2007). In these studies, rejected persons were more interested than others in joining a campus service to facilitate meeting people. They also bestowed more rewards on future interaction partners than other people did, possibly to get the person in a good mood.

None of these findings indicates that rejected persons rush off to make new friends. Rather, the findings suggest that they are cautiously interested in finding people who seem likely to accept them. Perhaps the best integration is to suggest that rejected people want to be accepted but also want to avoid being rejected again. They may want the other person to make the first move, and then they may respond positively. If social overtures may not bring acceptance, the rejected persons may be especially antisocial. Consistent with this view, some evidence indicates that rejected people adopt a broad motivational orientation toward minimizing dangers and risks —

what Tory Higgins (1997) calls a prevention focus, as opposed to a promotion focus that seeks to cultivate positive outcomes (Park & Baumeister, 2015).

Rejection appears to affect cognitive processes other than attention to the likelihood of others' acceptance. Rejection seems to have a strong, though presumably temporary, effect on one's intelligence. One series of studies found substantial drops in IQ scores among rejected persons (Baumeister, Twenge, & Nuss, 2002). Perhaps surprisingly, rejected people were quite capable when performing simple intellectual tasks, even able to concentrate well enough to read a passage and answer questions about it correctly. But performance on more complicated mental tasks, such as logical reasoning and extrapolation, was seriously impaired. The implication is that rejection undermines controlled but not automatic processes.

However, an alternative explanation for a number of these findings is that rejected and ostracized people simply do not want to exert themselves. They may become passive, exhibiting a lack of desire to put forth the effort to think for themselves. Consistent with this possibility is research linking rejection to impaired self-regulation. This line of work was stimulated in part by Cacioppo's observation that lonely people often have poor attention control (see Cacioppo & Patrick, 2008), as indicated by poor performance on dichotic listening. In a dichotic listening task, participants wear headphones, and different voices are piped into each ear, so that the person must screen out one voice and focus attention on what the other one is saying. Rejected persons show similar deficits, and they also self-regulate poorly on other tests of self-control (Baumeister, DeWall, Ciarocco, & Twenge, 2005). However, they remain capable of performing perfectly well when external incentives are present, such as if a cash incentive is available for good performance.

One way of integrating these findings is to suggest that humans desire to be accepted but recognize that they have to pay a price for belongingness, such as by exerting themselves to self-regulate and behave properly. If they perceive themselves to be rejected, they lose their

willingness to pay that price and make those efforts. Hence they become passive, lazy, and uncooperative. But if they see a chance to be accepted again, or if another motivation comes to the fore, they are quite capable of pulling themselves together and making the right efforts.

Emotional Consequences. It is hardly controversial to suggest that rejection makes people feel bad. A literature review on anxiety concluded that the most common and widespread cause is fear of being rejected or otherwise excluded from groups or relationships (Baumeister & Tice, 1990). Baumeister and Leary (1995) went so far as to suggest that a basic function of emotions is to promote interpersonal connection, insofar as most negative emotions have some link to threat or damage to relationships (think of grief, jealousy, anger, sadness, anxiety, and more), whereas any event that conveys social acceptance, such as forming or solidifying social bonds, typically brings positive emotion.

The link between rejection and emotion seemed like one of the easier tasks for psychological theory to handle. As sometimes happens, however, the data did not cooperate. Some early studies of interpersonal rejection found no sign of changes in mood or emotion (e.g., Twenge et al., 2001). Even when emotional differences were found, they often failed to mediate the behavioral effects (e.g., Buckley, Winkel, & Leary, 2004; Williams et al., 2000). At first it was assumed that researchers had used the wrong scale or that participants simply refused to acknowledge their distress, but evidence with multiple measures continued to produce the same pattern.

At the same time, links to physical pain were emerging. An investigation to what people mean when they say their “feelings were hurt” found that hurt feelings essentially signify the feeling of being rejected or excluded, or at least a step in that direction (Leary, Springer, Negel, Ansell, & Evans, 1998). In this case, it may not even matter whether the person intended to hurt you. Rather, your hurt feelings depend on how much you value the relationship and how strongly you got the impression that the other person did not value it as much as you do (Leary, 2005). Brain scans

indicated that similar brain sites were activated when people were rejected during the Cyberball game as were activated when people suffered physical pain (Eisenberger et al., 2003).

Perhaps most remarkably, a review by Geoff MacDonald and Mark Leary (2005) showed that being rejected often causes a feeling of numbness. The review mainly emphasized research with animals. For example, when rat pups are excluded from the litter, they develop some loss of sensitivity to physical pain (Kehoe & Blass, 1986; Naranjo & Fuentes, 1985; Spear, Enters, Aswad, & Louzan, 1985). This research pointed to something Jaak Panksepp had theorized decades earlier (Herman & Panksepp, 1978; Panksepp, Herman, Conner, Bishop, & Scott, 1978; Panksepp, Vilberg, Bean, Coy, & Kastin, 1978). When animals evolved to become social, they needed biological systems to respond to social events, and rather than developing entirely new systems in the body to deal with the social world, evolution piggybacked the social responses onto the already existing systems. Hence social rejection activated some of the same physiological responses as physical injury, just as Eisenberger et al. (2003) later showed.

Physical injury does not always cause maximum pain right away. A shock reaction often numbs the pain for a brief period. Possibly this was something that developed to enable an injured animal to make its way to safety without being distracted by intense pain. Regardless, the shock or numbness reaction offered a possible explanation for the lack of immediate emotion reported by many studies of rejection.

The links between rejection, emotion, and physical pain were explored most directly in a series of experiments by DeWall and Baumeister (2006). Consistent with the ideas of MacDonald and Leary (2005) and Panksepp (1978), rejected participants in those studies showed low sensitivity to pain: Rejected participants were slower than others to report that something hurt and slower to complain that it became intolerable. Moreover, the lack of pain sensitivity correlated closely with a lack of report of emotional reaction to pain. This generalized even to other emotional

phenomena, such as feeling sympathy with someone else's misfortune, or predicting how one would feel depending on the outcome of the university's much-anticipated football game next month.

A comprehensive review of the effects of rejection was provided in a meta-analysis by Ginette Blackhart and colleagues (2009). Their results showed that rejection does indeed produce significant changes in emotion. The reason many researchers had failed to report significant results was that the effect was rather weak, and so the small to medium samples used in most studies lacked the statistical power to detect them. But when results from many studies were combined, it was clear that rejected people did feel worse than accepted ones—and even, though just barely, worse than neutral controls. Accepted people felt better than controls, though this effect, too, was weak.

Yet feeling worse does not necessarily mean feeling bad. When Blackhart and colleagues (2009) compiled the data about just how bad people felt, it emerged that rejected people typically reported emotional states that were near the neutral point on the scale and, if anything, slightly on the positive side.

Does that mean rejection is not upsetting? Hardly. The lab studies study one-time, immediate reactions to rejection experiences that mainly involve strangers. Being rejected repeatedly and by people you love may be more immediately upsetting.

All of this has made for an intriguing mixture. It appears that being rejected produces an immediate reaction that is not quite what anyone expected. There is a shift away from positive mood and happy emotions toward a neutral state, but it is not entirely the same as the numbness of shock, either. Impaired emotional responsiveness appears to be one way of characterizing it. Most researchers assume that genuine distress does come along at some point, but it has been surprisingly hard to get rejected people to say that they feel bad right now. Meanwhile, the

impairment of emotional responsiveness may prove a useful tool for researchers who wish to study the effects of emotion on other factors, such as judgment and cognition.

Loneliness

The laboratory studies of immediate reactions to carefully controlled rejection experiences can be augmented by studying people who feel rejected and socially excluded over a long period of time. The largest body of work on such effects concerns loneliness. Being left out of social relationships makes people lonely.

Research has largely discredited the stereotype of lonely persons as social misfits or unattractive, socially inept losers. Lonely and non-lonely people are quite similar in most respects, including attractiveness, intelligence, and social skills. In fact, lonely people even spend about the same amount of time as other people in social interaction (Cacioppo & Patrick, 2008). In general, then, loneliness is not a lack of contact with other people (Wheeler, Reis, & Nezlek, 1983). Rather, it seems to reflect a dissatisfaction with the quality of interaction. Lonely people come away social interactions feeling that something important was lacking (Cacioppo & Hawkley, 2005).

If there is one core problem that seems to produce loneliness, it is that lonely people are worse than normal at emotional empathy—at understanding other people's emotional states (Pickett & Gardner, 2005). Even with this finding, however, it is not yet fully clear what is cause and what is effect. Conceivably the difficulty of empathic connection with another person's emotions is a result of loneliness rather than its cause.

Once we understand loneliness as a lack of certain kinds of satisfying relationships, we can begin to ask what those are. Marriage and family are obviously important bonds to many people. Although simply being married is no guarantee against loneliness, married people are somewhat less likely than single people to be lonely (Peplau & Perlman, 1982; Russell et al., 1980). The new mobility of modern life also takes its toll in terms of loneliness, because people will move far from

home for college or work, and the farther someone lives from home, the more likely he or she is to be lonely.

If one does not have close ties to romantic partners or best friends, what other sorts of bonds can reduce loneliness? For men but not women, feeling connected to a large organization reduces loneliness (Gardner, Pickett, & Knowles, 2005). For example, men can feel a bond with their university, their employer, or even a sports team, and this helps prevent loneliness, but it does not work for women. The reason, very likely, is that the social inclinations of women tend to focus very heavily on close, intimate social connections. Men like those intimate relationships also, but men are also oriented toward large groups and organizations (Baumeister & Sommer, 1997).

Some people even form pseudo-relationships with celebrities or fictional characters such as people on television shows. Women who watch many situation comedies feel less lonely than other women, even when both have the same quantity of real friends and lovers (Kanazawa, 2002). Other people are able to reduce loneliness by feeling connected to nonhuman living things, such as a dog or even a plant. These diverse strands have been pulled together into a provocative theory of “social surrogates” by Shira Gabriel, Jennifer Valenti, and Ariana Young (2015). These scholars noted three main classes of things people do to keep loneliness at bay when they do not have enough actual relationships with close others. First, they immerse themselves in alternative social worlds, such as books and television shows. These often simulate social interaction, and one can feel one is learning about how to get along with people. Second, they collect nonhuman reminders of real social relationships, such as pictures or keepsakes from loved ones who are far away. Some people develop eating habits associated with so-called comfort foods, which might be what their mother or another loving person fed them. Third, they form one-sided “parasocial” relationships with media figures, such as favorite celebrities or even fictional characters.

If the causes of loneliness are only slowly becoming clear, its consequences seem better known, and they are not good (see Cacioppo & Patrick, 2008). By middle age, lonely people drink more alcohol than other people, exercise less, and eat less healthy food. They sleep as much as others but not as well. Their lives are no more stressful than other people's lives in any objective sense, but subjectively they feel more stress. They enjoy the good things in life less than other people do, and they suffer more from the bad things.

Why Rejection Occurs

Why do people reject each other? There are many answers. Studies of rejection among children focus on three main things that lead to rejection (e.g., Juvonen & Gross, 2005). The first is being aggressive. Probably because children do not want to risk getting hurt, they avoid other children who are aggressive. This seems ironic in the context of what we noted above, namely that being rejected causes people to become more aggressive. One way to put this together is that aggression is seen as incompatible with human social life, and so aggressive people are rejected, just as rejection fosters aggression.

A second reason is that isolation seems to breed more isolation. That is, some children tend to withdraw from others and keep to themselves, and other children respond to this by avoiding them all the more. This can create an unfortunate spiral leading to loneliness and many of the problems that go with it. Possibly children view the loner as someone who is rejecting them, and so they respond by rejecting the person in return.

The third reason is deviance. Children who are different in any respect are prone to be rejected by others. Regardless of whether they look different, talk differently, have an unusual family, or act in unusual ways, differentness invites rejection. Children at both extremes of intellectual ability are rejected, which again suggests that merely being different from the average or typical is enough to cause rejection.

What about romantic rejection? An early study on romantic rejection by Folkes (1982) explored women's reasons for refusing a date with a man. The reasons the women told the researchers were not, however, the reasons they reported telling the men. They differed along all three of the major dimensions of attribution theory (Kelley, 1967). The reasons they gave to the man who asked them out tended to be unstable, external (to the man), and specific, whereas their actual reasons tended to be stable, internal, and global. For example, she might say she was busy that particular night. Such an excuse is unstable (it applies to only that night; tomorrow might be different), external (it has nothing to do with him), and specific (it's one narrow issue). In reality, she might be declining the invitation because she finds him unattractive (which is a permanent, general aspect of him).

Romantic rejection sometimes is more than declining a date. Sometimes one person has developed strong romantic feelings toward the other, who does not feel the same way. This is called *unrequited love*. Studies indicate that the two roles have very different experiences (e.g., Baumeister, Wotman, & Stillwell, 1993; Hill, Blakemore, & Drumm, 1996). Rejecters often have a difficult time refusing love even if they do not really want it. They feel guilty, which is one reason they may make excuses or avoid the other person rather than clearly stating the reasons for refusing the other's advances. They do not want to hurt the other person's feelings—and as we saw earlier, hurt feelings are precisely a response to discovering that the other person does not desire or value a connection with you, to the extent that you want that connection. Sure enough, unrequited love often precipitates feelings of low self-esteem and other self-doubts among the rejected persons.

Returning to why rejection occurs, the fact is that it can serve important social goals. Like children, adults reject people who are different from them (Wright, Giammarino, & Parad, 1986). They have a more negative reaction to deviance among members of their group than among

outsiders (Hogg, 2005). Indeed, given exactly the same amount of deviance, groups reject insiders more than outsiders (Marques & Yzerbyt, 1988). Even just performing badly at a task is more troubling, and hence more likely to cause rejection, when it is by a member of the group than by someone outside the group (Marques & Paez, 1994; Marques, Abrams, Paez, & Hogg, 2001). To be sure, it works both ways: Good performance by ingroup members is appreciated and rewarded more than equally good performance by someone outside the group.

Thus, rejection can serve a valuable function for solidifying the group in two ways. It gets rid of people who do not fit in or who otherwise detract from the group. And it motivates the people in the group to behave properly, cooperate with others, and contribute to the group, so that they will not be rejected.

Rejection Research Today

Research on rejection boomed from about 2000 until recently, and some researchers are still doing excellent work on the topic. Loneliness remains a major social problem and is likely to increase as people become more fragmented, partly because more and more people live alone. The rise of the internet and social media has seemed to promise new forms of belonging, but recent data suggest that online interactions by social media do not really satisfy the need to belong. If anything, high use of social media seems to intensify loneliness rather than solve it. At best, online interactions can strengthen weak offline social relationships into more satisfying ones, rather than substituting for offline live human interaction (for reviews, see Liu, Ainsworth, & Baumeister, 2016; Liu & Baumeister, 2016).

Social psychology's new emphasis on large samples has made it difficult to conduct the sorts of labor-intensive rejection studies that many researchers were running a decade ago, in which people endured a rejection experience during live interaction in the laboratory. Online rejection manipulations sacrifice some scientific precision but may be the main way ahead. The Cyberball

and its variants are convenient because they are readily scalable for online data collection, but they are limited insofar as they deprive the person both of social participation and control (consistent with Williams's, 2002, theory that ostracism involves both control and belongingness). Having people recall a personal experience of rejection and briefly describe it can evoke the memories, but distant memories tend to have been already understood and interpreted, unlike the often baffling and disorienting effects of immediate rejection.

Conclusion

Because functioning within cultural systems is complex, so are interpersonal attraction and rejection. Although this chapter has reviewed many of the most exciting social-psychological ideas and findings on these topics, a primary conclusion is that there is so much left to learn. Given how central the experiences of attraction and rejection are to achieving a high-quality life, developing a more complete understanding of how these processes work—along with a strategy for conducting studies characterized by both high statistical power and high psychological realism—represents an essential goal for social psychology in the 2020s.

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Figure 1. Composite male and female faces (on left of figure), along with photographs of the 16 individual faces incorporated into each composite. We thank faceresearch.org for supplying the composites and the photographs.

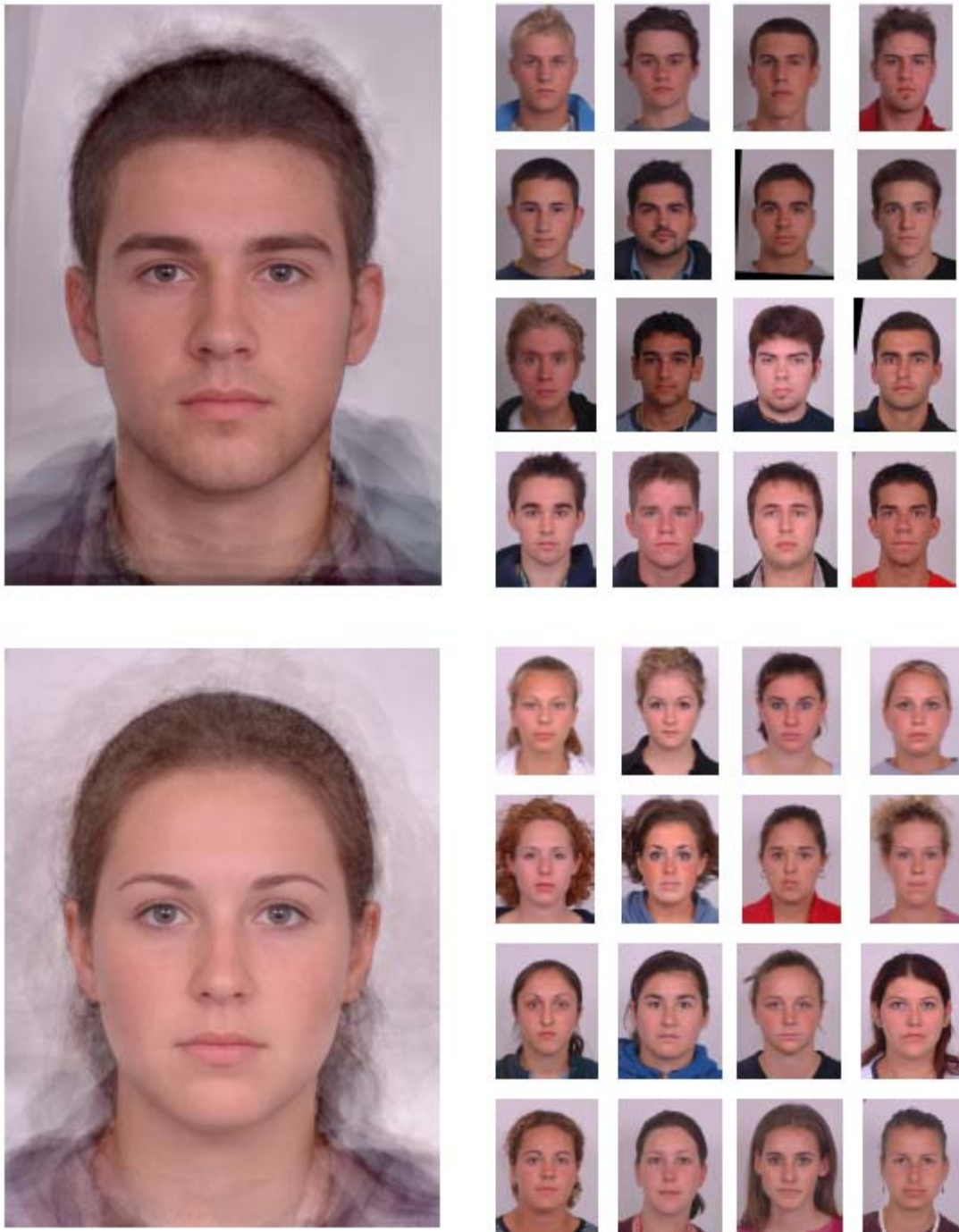


Figure 2. Means of romantic interest (± 1 standard error) at the time of each relationship event for long-term relationships (solid lines) and short-term relationships (dotted lines), plotted separately for women (gray lines) and men (black lines). For example, Event 5 is “First went on a long date (e.g., dinner, dancing, movie),” Event 10 is “First make-out,” and Event 20 is “I first said ‘I love you.’” For ease of presentation, this graph includes the most recent relationship of each type, although the conclusions are identical for current relationships. Figure reproduced from Eastwick et al., 2018.

